LIST OF SCHEDULES AND EXHIBITS

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EXHIBIT "A"

Description of Premises

(LEGAL DESCRIPTION TO BE ATTACHED AT CLOSING)

SCHEDULE "1"

Category I and Category II Exotic/Invasive Pest Plants

[TO BE MUTUALLY AGREED UPON DURING THE INSPECTION PERIOD]

SCHEDULE "2"

Class I and Class II Prohibited Aquatic Plants

[TO BE MUTUALLY AGREED UPON DURING THE INSPECTION PERIOD]

SCHEDULE "3"

Permitted Herbicides, Pesticides and Agricultural Chemicals

[SEE SECTION 6 (FOR CITRUS) AND SECTION 2.6 (FOR SUGAR CANE) IN BEST MANAGEMENT PRACTICES ATTACHED HERETO AS **SCHEDULE "4"**]

SCHEDULE "4"

Best Management Practices

[THE ATTACHMENTS IN THIS SCHEDULE ARE TO BE MUTUALLY AGREED UPON DURING THE INSPECTION PERIOD]

D R A F T

BEST MANAGEMENT PRACTICES PLAN - DRAFT CITRUS

UNITED STATES SUGAR CORPORATION
HENDRY AND GILCHRIST COUNTIES, FLORIDA

Prepared for

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

November 2008

Prepared by

URS Corporation
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URS

November 14, 2008

Mr. Robert Taylor
Land Support Acquisition Division
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Subject: **DRAFT**
Environmental Best Management Practices Plan-Citrus
United States Sugar Corporation
Hendry and Gilchrist Counties
State of Florida
Job # 38617-027

Dear Mr. Taylor,

URS Corporation (URS) is pleased to present this Environmental Best Management Practices (BMP) Plan - DRAFT for the United States Sugar Corporation (USSC) citrus properties in Hendry and Gilchrist 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 BMPs for the citrus 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

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1.0 OVERVIEW

A. 1.1 INTRODUCTION

The South Florida Water Management District (District) has acquired approximately 187,000 acres of the United States Sugar Corporation (USSC) properties in Palm Beach, Hendry, Glades and Gilchrist Counties, Florida for future restoration purposes such as water storage reservoirs and wetlands. **Figure 1** illustrates USSC properties. **Of the 187,000 acres, an estimated 32,000 gross acres is used for citrus. Currently 21,500 acres are being cultivated for citrus. Figure 2** illustrates the tracts that are utilized for the cultivation of citrus. This Environmental Best Management Practices (BMP) Plan has been prepared for the citrus production portions of the acquired properties. **Portions of the citrus acreage are subleased each year for the cultivation of vegetables. These acres that are used for the growing vegetables should follow the BMP for vegetable farming** which is included as part of the U.S. Sugar BMP Plan for Sugar Cane Production.

During the interim period (from acquisition to construction/land conversion), the District intends to utilize the property for continued agricultural operations. This BMP plan is not regulatory or enforcement based. BMPs are production systems and management strategies scientifically shown to minimize adverse water quality and other environmental impacts of citrus 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.

There are several sources of research that have been used to develop BMPs for citrus 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.

1.1.1 USSC Citrus Nursery

[redacted]

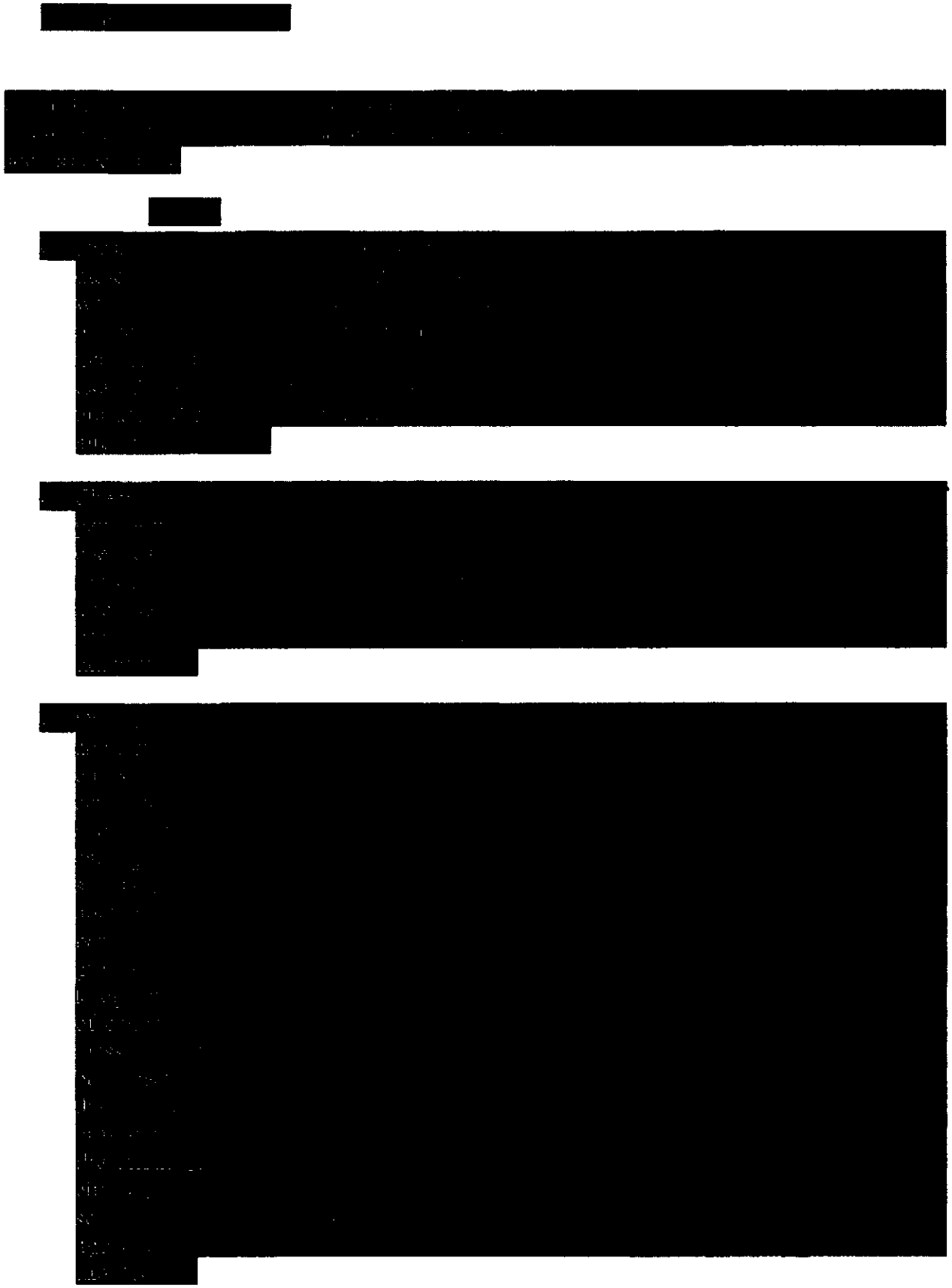
B. [redacted]

Phase I and Phase II Environmental Site Assessment (ESA) activities were conducted on the property in August and September 2008 by Professional Services Incorporated (PSI). Identified areas of potential point source concerns associated with the citrus operations are:

- Chemical Storage and/or Maintenance Areas
- Equipment Staging Areas
- Mix and Load Areas
- Fuel Storage / Re-fueling Areas
- Diesel Powered Pump Stations
- Canker Wash Stations
- Airplane Landing Strips

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

[redacted]



D. 1.3 Objective

Given below are sets of guidelines proposed for the day-to-day citrus farming operations:

- Continued economically-viable citrus grove 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 and maintain the soil conditions with respect to the State's "Soil Cleanup Target Levels" (SCTLs),
- Comply with State regulations that are applicable to the citrus grove 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.

A list of agrochemicals currently used was provided to the District. The chemical usage list is included in *Section 6.0 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.**

E. 1.4 BMP Checklist

A BMP Checklist has been developed for the citrus grove farming on the property represented by the District. The BMP Checklist is provided as a guide for site inspections, observations and verifications as part of the BMP. This checklist identifies areas, issues, and items requiring inspection and verification. The purpose of the BMP Checklist is to insure consistency for each site visit and for other sites with similar agricultural operations. A copy of the checklist is included in **Appendix A**..

F.

2.0 WATER RESOURCE MANAGEMENT

The drainage systems that have been developed in the USSC property to make productive agricultural and urban land have increased drainage frequency, discharge volumes, and the velocity of water discharged from structures within the watershed compared with the natural condition. Excess rainfall from high intensity thunderstorms, tropical storms, and hurricanes must be drained to protect agricultural and urban areas from flooding. Under natural conditions, water from these areas would be cleaned by traveling downstream via tributaries before reaching coastal water bodies. Implementation of the practices and policies in this Section will improve water quality and maintain natural variability and the aquatic ecosystems in the USSC citrus production property.

Wherever feasible, citrus growers should consider implementing surface water management strategies that can provide additional storage and reduce the impacts associated with excessive freshwater discharges. These surface water management strategies can range from improved ditch maintenance and water table management to additional on-site canal storage or the construction of detention reservoirs for holding excess rainfall and tailwater recovery systems. It is important to conduct site-specific evaluations to determine if additional storage can be provided on-site and to plan long-term water management strategies that will minimize off-site discharges during periods of intense rainfall.

G. 2. 1 Water TABLE Management

Water table can be managed more efficiently by having sufficient hydraulic capacity in the ditch/canal system, using water control structures on culverts, laser land leveling where appropriate, constructing and maintaining a properly designed drainage system, and actively monitoring the water table. Based on the Phase II ESA, the existing system is satisfactory and is consistent with the District's goals and objectives.

Effective water management of flatwoods soils requires monitoring the water table depth with enough precision to minimize pumping for irrigation and drainage. Knowledge of the water table depth is essential to ensure that adequate drainage can be provided. Since a significant portion of the tree water requirements can come from upward flux from the water table, water table monitoring should be an essential tool in irrigation management. Water table manipulation, and associated supplemental irrigation reductions, can also assist in salinity management by reducing the use of low quality groundwater.

H. 2. 2 scheduling irrigation and drainage

The main management objective is to minimize the overdrainage of the property by the active control of the site water table. Irrigation mostly affects the movement of water-soluble chemicals while drainage mostly affects the movement of chemicals absorbed to soil particles. Irrigation at the properties principally consists of microjet irrigation. The microjet system on the property is effectively operating and is acceptable by the District. Site verification will include discussion with operation managers to understand property water management approach and visual observation of structures and tools used to assist with water management decisions.

Operation managers should use real-time weather monitoring to proactively manage or limit drainage and/or irrigation events. Effective water management is achieved through water control structures such as

designed culvert sizes and openings or culverts with flashboard risers. Control elevations should be established to initiate and stop draining or pumping. The operation manager should partition the property into hydrologic blocks to allow for internal water management as opposed to one location at a downstream point.

Water level indicators, such as floats, can provide a visual indicator of actual water table levels.

Soil moisture measurements should be recorded to determine optimum times for irrigation and irrigation limits. The properties are currently utilizing the Agrolink system that uses soil monitoring probes to measure the soil moisture at various depths down to 36-inches below land surface.

I. 2. 3 MODERATE DISCHARGE RATE

Adjust the rate of discharge proportionate to the rate of lateral movement of water through soils. Slowing the discharge rate will lessen the turbulence, reduce sediment movement, reduce erosion, and moderate the impacts on the receiving water body.

J. 2. 4 water furrow maintenance

Maintain a consistent bottom slope on water furrows between beds to achieve uniform drainage. Avoid rutting and sloughing of water furrow areas. Laser or RTK-GPS guided systems on water furrow maintenance equipment can be very effective in producing uniform slopes in water furrows. Where possible, maintain vegetation management programs that minimize soil movement in the event of heavy rains by keeping a grass or vegetation cover on the soil surface in between tree rows. For additional information refer to the Erosion Control and Sediment Management Section in this document.

K. 2. 5 MONITOR SOIL MOISTURE

The Agrolink system for soil moisture measurements is used in conjunction with water table observation wells and staff gauged in the canals for irrigation and drainage management to avoid excess soil moisture depletion and minimize water volume requirements during irrigation cycles. This system of soil monitoring is appropriate and acceptable by the District.

L. 2. 6 drainage management plan

Implement and maintain a written drainage management plan that provides specific responses to various types and levels of rainfall. The goal of the plan should be a reduction in volume of off-site discharge while maintaining a healthy rooting environment for citrus trees thus maximizing fruit production. The plan should include target water table levels and pump or drainage structure operating procedures that will be used for typical and extreme rainfall events. Consideration should be given to the use of existing canals and ditches for temporary water storage.

M. 2. 7 drainage RATE AND VOLUME

Drainage rates and the volume of water released or discharged following intense rainfall events should provide an adequately drained root zone while minimizing off-site impacts. The system operating the drainage rates and volumes should be in compliance with existing drainage permits.

When the water table approaches the target level, off-site discharges should be moderated. Depending on the grove design, irrigation method (e. g. microirrigation and seepage irrigation), and soil characteristics

this may require adjusting pump speed and the discharge structure or pulse drain-age. Pulse drainage involves discharging for short periods of time and then allowing for recharge in the ditches. If adequate drainage in one portion of a grove results in water tables that are below target levels in another area, ditch cleaning, drain-age system redesign, or auxiliary pumps may be needed to achieve more uniform drainage.

N. 2. 8 discharge structures

Structures and/or pumps that regulate off-site water discharge should be adequately designed, constructed, and maintained so that target water table levels within the grove can be achieved.

If safety or operational concerns prevent structures from being adjusted to regulate discharges during storm drainage events, they should be rehabilitated or replaced. (e.g. modifying riser-board structures to allow easier water level control). For additional information see your local NRCS and District representative.

O. 2. 9 DETENTION, TAILWATER RECOVERY, AND SURFACE WATER USES

Where possible, on-site detention should be considered to reduce both the rate and volume of off-site discharges following heavy rains.

Detention areas allow all or a portion of the drainage water to be temporarily stored on-site. The excess water can be stored for tailwater recovery or released later at low flow rates. The size, type, and location of proposed tailwater recovery ponds are variables considered when determining the need for an Environmental Resource Permit. Growers should contact their local District office and land manager for guidance on the issue. Most of the citrus groves in the USSC properties have stormwater retention areas. With some structural modifications, some of the existing stormwater detention areas can be modified to provide on-site water storage for irrigation water supply for the grove for several weeks. If these modifications were to be cost shared by the local, state, and federal agencies, the modified system can provide water quality benefits and supply irrigation water.

This is an optional program and if elected, the planning, construction, evaluation of costs, and permitting will need to be discussed and reviewed by the District.

The properties are all in compliance with Section 2.1 through 2.9 with the exception of Section 2.6 – Drainage Management Plan. It is URS' understanding that USSC is in the process of developing a written Drainage Management Plan for the citrus properties.

3.0 EROSION CONTROL AND SEDIMENT MANAGEMENT

Sediments or suspended solids are recognized forms of water pollution and often result in the loss of ditch or canal capacity. Unlike many chemical pollutants, sediment is a natural component of water bodies and the resources they support. Excessive amounts of suspended solids or sediments are often a product of erosion from unstabilized or disturbed land areas. These solids originate from four primary sources:

- Soil-particles eroded into ditches
- Soil-particles eroded from ditches
- Plant material washed into the ditches
- Plant and biological material growing within the ditches and canals.

Excessive sediments deposited on stream bottoms and suspended in the water column can harm fish spawning and impair fish food sources, reduce habitat complexity, potentially harm public water supply sources, and reduce water clarity.

In addition to potential downstream water quality impacts, the build-up of silts and sediments in the grove/farm-level, secondary, and primary drainage canals reduces ditch and canal cross-section. This reduction in cross-sectional area results in higher water velocities, as compared to an unfilled ditch or canal. This higher water velocity (compared to unfilled ditches/canals) may induce greater amounts of erosion of fine and coarse particles from ditch and canal banks. The presence of shoals and sandbars are good indicators of soil losses. Field erosion also results in site degradation resulting in increased costs for ditch-cleaning and reshaping of beds and furrows. In order to minimize effects of sediment transport in surface water, efforts should focus on keeping soils in the fields and along canal and ditch banks.

Minimizing downstream transport of sediments from groves and canal/ditch banks requires an integrated approach of managing erosion at the grove-level, the secondary canal system level and primary canal system level. It should be noted that maximum sediment losses from groves are expected during construction of new groves or renovation of older ones. Losses from mature, well managed groves will be much lower. The following Sections describe BMPs that are applicable for water conveyances within citrus groves. The selection and implementation of particular BMPs must be based upon site-specific circumstances and management styles.

P. 3.1 RISER-BOARD WATER CONTROL STRUCTURES

Place and maintain culverts with riser-board control structures at locations where runoff is discharged off-site. Water discharge structures are used to control water table levels and surface water levels in drainage ditches within flatwoods citrus groves. The type of structure selected can significantly influence the quality of water discharges. With riser-board control structures, water is forced to flow over the top of the boards. This flow path creates a low current area towards the bottom of the structure, which facilitates the deposition of sediments and their accompanying nutrients or pesticides, essentially removing them from the discharges. Conversely, screw-gates structures do not create this dead-current zone. Since they open from the bottom, sediments and their accompanying load are swept out along with the discharge water.

Q. 3.2 sediment settling basins

Create and maintain localized settling basins (sumps) throughout the groves to trap sediments prior to water discharge points from the grove. Successful sediment traps require site-specific designs, with the following points to consider:

- Determine runoff volume and intensity.
- Determine transport and settling rates for sediments of concern.
- Size traps to allow adequate residence time for natural settling to occur - include considerations for allowable storage (fill-up) of trapped sediments.
- Make provisions for materials removed from the ditches.
- Maintenance access to settling basin area should be provided.
- When sediments are removed, materials need to be placed in a manner that prevents material from sloughing back into the waterway.
- Sediment excavation and removal should be conducted during low stage conditions or during the dry season. This will reduce the likelihood of increasing turbidity and suspended solid loads.

Settling basins or settling ponds are a quick and simple way to remove sediments out of runoff water. Settling basins simply slow down the water, allowing sediments to settle out of the water before the water returns to the receiving water body.

NOTE: Existing detention impoundments may function as sediment settling basins.

Currently, the Devils Garden, Southern Gardens, and Dunwoody citrus groves each have a series of sediment settling basins. At these properties, each block in the groves contains a ditch that flows to lateral canals and then to a specific retention pond, depending upon the location on the property. The retention ponds then operate as a series of sumps that allow for the sediment to settle to the bottom of the retention ponds. After adequate residence time occurs, the water from the retention ponds flows to a discharge pond where it is discharged off the property. The Southern Gardens and Dunwoody groves each have one discharge pond while the Devils Garden grove contains three discharge ponds. The Alcoma Citrus does not contain retention ponds but rather a canal system that allows for adequate residence time for natural settling prior to being discharged from the property. These sediment settling systems at a minimum need to continue and must be in compliance with offsite discharge and water quality specifications as given in the exiting permits.

R. 3.3 DITCH CONSTRUCTION

Construct ditches and canals with side-slopes consistent with soil types.

S. 3.4 stabilize bare soils

Stabilize bare soils and canal or ditch banks by encouraging coverage by noninvasive vegetation. Vegetation types selected should be adapted to grove conditions and should provide maximum stabilization by roots and foliage. Vegetative buffer strips can also serve to reduce the erosion of soil particles. Whenever practical, plant or encourage establishment of native species.

T. 3.5 DITCH BANK CONTOURS

Contour ditch bank top edges or berms to divert water away from the drainage ditch.

This practice will minimize overland flow of storm-water directly down the banks.

U. 3.6 DITCH BANK VEGETATION MAINTENANCE

Broadleaf weed control using herbicides or maintenance mowing of slopes and ditch banks increases grass cover and decreases the proliferation of shade-producing shrubs and weeds, thus reducing erosion from wind and rainfall.

Points to Consider:

- Mechanical mowing does not uproot vegetation and expose soil.
- The use of herbicides should be conducted with caution and precision to avoid excessively large areas of bare soil.
- Selective herbicides should be used in order to maintain desired vegetation (e.g. remove broad-leaf vegetation while maintaining grasses).

V. 3.7 PROTECT DITCH BANKS

Protect canal and ditch banks from erosion in areas subject to high water velocities.

In areas where water is constricted (usually at discharge points) or at ditch intersections where velocities are high, rip-rap, concrete, headwalls, or other materials that buffer turbulence should be used to protect ditch banks and reduce sediment transport.

W. 3.8 vEGETATIVE STABILIZATION (WATER FURROWS)

Plant noninvasive vegetation and/or maintain desirable vegetation within all water furrows to prevent/minimize erosion and trap sediments that may result from stormwater runoff or irrigation drainage.

X. 3.9 AQUATIC PLANT MANAGEMENT

When removing vegetation from ditch bottoms, avoid disrupting side slopes.

If a backhoe without a vented bucket is used to remove aquatic plants from grove ditches, special precautions should be taken to prevent washouts. Once a bucketful of vegetation is picked up, the bucket should be raised to allow most of the water to drain out over the deeper part of the ditch. The boom should be swung far enough over the ditch bank so that when the vegetation is dumped, remaining water will flow away from the ditch.

Y. 3.10 ditch maintenance cleaning and dredging

Develop and implement a systematic management plan for removing sediments from canals and farm ditches on a regular basis.

Maintenance dredging of existing ditches, canals, and intake and discharge structures should include the following:

- Spoil material should be removed and deposited on an area that will prevent the movement of the water and excavated spoil material into wetlands or other surface waters.
- Do not remove any more material than is necessary to restore the original design specifications or configurations.
- No significant impacts should occur to previously undisturbed natural areas.
- Erosion and sedimentation control devices (e.g., turbidity screens) should be used to prevent bank erosion, scouring, and to prevent turbidity from discharging into adjacent waters during maintenance dredging.

Removal of excess sediment to the originally designed and constructed cross-sectional area generally increases the canal cross-sectional area and reduces water velocities (compared to same water volume in filled-in systems), thus reducing the potential for bank scouring. Caution should be considered as ditch maintenance, cleaning and dredging beyond the originally designed and constructed cross-sectional area may result in upstream and/or downstream adverse water resource impacts. Routine maintenance of the canals are, in general, conducted on a yearly basis.

If not part of standard ditch/canal maintenance, prior to conducting non-routine maintenance, in order to reduce the potential for misunderstandings with regulatory agencies and adjacent property owners, growers are highly encouraged to initially schedule a site visit with a local District representative to discuss and review the non-routine ditch maintenance activities.

Z. 3.11 HERICIDE APPLICATIONS (WATER FURROWS)

Restrict the area of tree-row applied herbicides to within the canopy dripline of the citrus trees.

The restricted herbicide band width will maximize the width of grassed water furrow slopes. Grassed water furrows serve as filters, preventing sediment movement from the fields into the drainage systems.

For young plantings, minimize the width of tree-row applied herbicides and establish vegetation in the water furrows. Smaller band widths will reduce the quantity of herbicides applied, thereby reducing material costs while minimizing potential of soil erosion into the drainage systems. As the trees increase in canopy width, the herbicide band width can be increased to match canopy size.

AA. 3.12 MIDDLES MANAGEMENT (HERBICIDE)

Suppress undesirable vegetation on bed tops and in water furrows.

BB. 3.13 GROVE DEVELOPMENT/RENOVATION

Upon completion of the soil bedding process within citrus groves, all bare soil areas (except tree rows) should be planted with grass or other vegetation species to minimize soil movement from rain and/or wind.

Bare soil surface, during windy conditions, can provide sufficient soil to blast the bark of young trees and allow movement of soil into water furrows and other drainage systems.

CC. 3.14 WATER FURROW DRAIN PIPES

Use PVC drain pipe or flexible pipe to connect all water furrows or field ditches to lateral ditches. Extend the pipe on the downstream side away from the ditch bank to prevent bank scouring.

DD. 3.15 WATER FURROW MAINTENANCE

Use water furrow drain pipes with managed vegetation in furrows to reduce surface water transfer velocity from the furrows to the drainage ditches and canals.

EE. 3.16 CONSTRUCTION AND TEMPORARY EROSION CONTROL MEASURES

In the event that large-scale, non-routine construction is required, then special measures and/or temporary erosion control measures should be taken during construction and renovation of groves, when culverts and control structures are replaced or repaired, and when there is a major disruption of established vegetation such as during irrigation system installation or when buried water lines are repaired.

Erosion control measures are used to minimize sediment transport and protect the quality of water bodies that receive runoff from disturbed areas. The most common temporary erosion control tools include straw or hay bale barriers, silt screens, and silt fences; however, more permanent control can be obtained through the use of specialized blankets and mats, gabions, and other systems used for soil stabilization.

The cost of erosion control options are highly variable and agricultural producers are encouraged to consider economics and site-specific conditions when selecting the most appropriate erosion control system for a particular action. When selecting an erosion and sediment control method, it is recommended that a NRCS representative, engineer, and/or a District Ag-Team member be consulted. This current erosion control on the property is appropriate and acceptable by the District.

4.0 PEST MANAGEMENT

Over the last 20 years, great strides have been made in the development of crop protection (CP) products that are more target specific, less harmful to the environment and safer to those who handle and apply these products. The development and implementation of responsible farm management practices that promote the proper handling of these products also has contributed significantly to reducing the risk of environmental problems and protecting water resources, pesticide handlers and agricultural workers.

FF. 4.1 INTEGRATED PEST MANAGEMENT (IPM)

Adopt an Integrated Pest Management (IPM) program. IPM is an integrated system using a combination of mechanical, cultural, biological, and chemical approaches to best meet the goals of the program. This approach provides better and more economical management of most pests.

IPM is a philosophy of managing 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 manage pests which adversely affect people and agriculture. IPM does not, as many believe, mean that no CP products are used. Rather, it means that CP products are only one weapon against pests and they should be used judiciously, and only when necessary.

The goals of an IPM program are:

1. Improved control of pests, through a broad spectrum of practices that work together to keep pest populations below economically significant thresholds.
2. More efficient CP product management through less frequent and more selective use of CP products.
3. More economical crop protection from reduced chemical costs and more efficient protection.
4. Reduction of potential hazards to farmers, workers, consumers, and the environment through reduced CP product exposure.

IPM accomplishes these goals using resistant plant varieties, cultural practices, parasites and predators, other biological controls such as Bacillus thuringiensis (BT), and other methods including chemical CP products as appropriate.

The basic steps for an IPM program are:

1. Identify key pests and beneficial organisms and the factors affecting their populations.
2. Select preventative cultural practices to minimize pests and enhance biological controls. These practices may include soil preparation, resistant rootstocks/scions, modified irrigation methods, cover crops, augmenting beneficials, etc.
3. Use trained "scouts" to monitor pest populations to determine if or when a 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 corrective actions.

6. Continue to monitor pest populations to evaluate results and the effectiveness of corrective 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.

GG. 4.2 LABEL IS THE LAW

Read and understand the CP product label. The label is the law. Pay special attention to the "Environmental Hazards" section of the label. This applies to all sections following.

HH. 4.3 PRODUCT SELECTION

Select target-specific active ingredients that consider natural systems in epidemiological cycles and modes of action (i.e. insect growth regulators, botanicals, and biologicals).

Agricultural use of CP products should be part of an overall pest management strategy, which includes biological controls, cultural controls, pest monitoring and other applicable practices, referred to altogether as Integrated Pest Management or IPM. When a CP product is needed, its selection should be based on effectiveness, toxicity to non-target species, cost, and site characteristics, as well as its solubility and persistence.

While the focus of the IPM program is for field populations of mites, insects, nematodes disease pathogens and weeds, CP products also are prescribed for post-harvest maintenance of fruit quality. Some of these situations require pre-harvest applications as part of the overall management strategy. Due consideration needs to be given to these treatments in the overall crop BMPs.

II. 4.4 minimize spray drift

Reduce the potential for drift through appropriate selection of nozzles, spray pressure, and application methods or techniques for the formulation applied and equipment used. Always follow the label.

- Use nozzles that produce as large of a droplet size as possible while yielding adequate plant coverage and pest control.
- Leave a buffer zone according to the crop protection label between the treated field and any sensitive areas.
- Drift control agents can be tank mixed with herbicides to reduce spray drift.

JJ. 4.5 APPLICATION TIMING

Time CP product applications in relation to current soil moisture, anticipated weather conditions, and irrigation schedule to achieve greatest efficiency.

For weather information:

Florida Automated Weather Network: **http://fawn.ifas.ufl.edu/**

National Oceanic and Atmospheric Administration: **www.NOAA.gov**

National Oceanic and Atmospheric Administration: **http://weather.noaa.gov/**

The Weather Channel: **www.weather.com**

KK. 4.6 PRECISION APPLICATION OF CP PRODUCTS

Use precision applications of reduced amounts of material to smaller trees in order to minimize application of CP products to non-target areas and result in more efficient utilization of applied materials. The method of CP product application, such as ground or aerial spraying, wicking, granules, etc., is important since the degree of drift and volatilization can vary considerably.

Some "intelligent" spraying systems are equipped with three-dimensional range sensors that can map the image of a tree up to 100 ft away on either side of the sprayer. These sensors feed the size, height, and location of the tree into an on-board computer that then turns on spray nozzles inches before the sprayer reaches the tree and turns them off inches past the tree. The nozzles are controlled by electric solenoid valves which are set up in zones so that only the foliage detected by the scanner is sprayed.

It is important that "intelligent" systems be properly maintained and operated and that equipment operators are trained in their use. Proper operation of "intelligent" systems is essential for efficient use of CP products.

Equipment without intelligent systems should have nozzle arrangement to avoid overspray based on tree height. This is sometimes referred to as "nozzling-down" to conserve spray materials and ensure application to target areas.

Other systems have been developed that utilize sonar for detecting foliage. These systems utilize ultrasonic impulses to detect the presence or absence of trees and plants. Sensors are installed on each side of the sprayer that may be aimed in any desired direction to cover optimal zones. The number of sensors can vary depending on the diversity of tree sizes within the grove.

Regardless of application system, proper training of applicators and maintenance of spray systems is essential to good management.

LL. 4.7 maintenance and calibration

Proper calibration and maintenance of CP product application equipment is essential for the proper application of agricultural chemicals. Equipment without "intelligent" systems should be manually nozzled down or otherwise adjusted when necessary to ensure proper application rates.

Calibration is the process of measuring and adjusting equipment performance. Application equipment that must be calibrated includes granule-applying devices; hand, backpack, boom, air-blast and other sprayers; soil fumigation devices; and injection equipment used for chemigation work. Calibration is not difficult. Calibration requires some arithmetic. Consult IFAS publication SM-53 or other publications for details and examples of calibration calculations.

CP product application equipment can deliver the correct amount of CP product to the target site only if it is working correctly. Before you start to calibrate any equipment, first make sure that all components are clean and in good working order.

To accurately calibrate any device, you must be familiar with the machinery. Follow the manufacturer's directions carefully – they usually explain how to adjust the equipment. Pay particular attention to the parts (such as nozzles and hopper openings) that regulate how much CP product is released. If these parts are clogged, not enough product will be released. If they are worn, too much product will be released.

Keep application equipment properly calibrated and in good repair. Correct measurement will keep you in compliance with the label, reduce risks to applicators, farm workers, and the environment, and save you money. Calibrate using clean water and do not calibrate equipment near wells, sinkholes, or surface water bodies. Measure CP products and diluents accurately to avoid improper dosing, preparation of excess or insufficient mixture, or preparing a tank-load of mixture at the wrong strength.

Proper application of CP products will help reduce farm costs. Improper application can result in wasted chemicals, marginal pest control, excessive carry-over, or crop damage. As a result, inaccurate application is usually very expensive.

MM. 4.8 RECORD KEEPING

The Florida pesticide law requires certified applicators to keep records of all restricted use pesticide (RUP). The federal Worker Protection Standard (WPS) requires employers to post information for employees of all pesticides applied. Maintain accurate CP product records to meet legal responsibilities and to document production methods.

CP product record keeping requires you to have current knowledge concerning the application of CP product materials within your area of influence. In addition, Florida law requires that you record the following items to comply with the restricted use pesticide record-keeping requirement:

- Brand or product name
- EPA registration number
- Total amount applied
- Location of application site
- Size of area treated
- Crop / variety / target site
- Month / day / year of application
- Name and license number of applicator (If applicator is not licensed, record his/her name and the supervisor's name and license number.)
- Method of application
- Name of person authorizing the application, if the licensed applicator does not own or lease the property

Florida regulations require that information on RUPs be recorded within two working days of the application and be maintained for two years from the application date (Chapter 487.2051 Florida Statutes). The Worker Protection Standard (WPS) requires information on all CP products to be recorded and posted when a CP product is about to be applied or has recently been applied. WPS requires that records be made available for 30 days after an expired Restricted Entry Interval (REI).Required records must be made available upon request to FDACS representatives, USDA authorized representatives, and licensed health care professionals.

NN. 4.9 protect water sources during mixing

Protect your water source by keeping the water pipe or hose well above the level of the CP product mixture. This prevents contamination of the hose and keeps CP products from back-siphoning into the water source. If you are pumping water directly from the source into a tank, use a check valve, anti-siphoning device or backflow preventer to prevent back-siphoning if the pump fails.

OO. 4.10 SPILL MANAGEMENT

Potential for movement of spilled CP products in water is reduced if the spill is controlled, contained, and cleaned-up quickly. Establish a plan-for-action.

Clean up spills as soon as possible. The sooner you can contain, absorb, and dispose of a spill, the less chance there is that it will cause harm. Always use the appropriate PPE as indicated on the MSDS and the label. In addition, consider the following four steps:

- CONTROL actively spilling or leaking materials by setting the container upright, plugging leak(s), or shutting the valve.
- CONTAIN the spilled material using barriers and absorbent material.
- COLLECT spilled material, absorbents, and leaking containers and place them in a secure and properly labeled container.
- Store the CONTAINERS of spilled material until they can be applied as a CP product or appropriately disposed.

Small liquid spills may be cleaned up by using an absorbent such as cat litter, diluting with soil, and then applying the absorbent to the crop as a CP product in accordance with the label instructions.

Farmers, farm managers, and landowners must comply with all applicable federal, state, and local regulations regarding spill response training for employees, spill -reporting requirements, spill containment, and cleanup. Keep spill cleanup equipment readily available when handling CP products or their containers.

If a spill involves a CP product covered by certain state (Chapter 376.30702 Florida Statutes and Chapter 62-150 Florida Administrative Code) and federal laws (Public Law 965 10 and Public Law 925000 - CERCLA) you may need to report any accidental release if the spill quantity exceeds the "reportable quantity" of active ingredient specified

PP. 4.11 PERMANENT MIX-LOAD SITES

USSC currently uses one permanent mix-load station at the Dunwood grove to reduce CP product spillage. A well designed permanent mix/load facility is convenient and provides a place where spill-prone activities can be performed over an impermeable surface that can be easily cleaned. This permanent mix-load station meets IFAS guidelines.

To minimize the risk of CP products accumulating in the environment from repetitive spills, you may wish to construct a permanent mix/load facility with an impermeable surface (such as sealed concrete) so that spills can be collected and managed.

A permanently located mixing and loading facility, or chemical mixing center (CMC), is designed to provide a place where spill-prone activities can be performed over an impermeable surface that can be easily cleaned and permits the recovery of spilled materials.

Locate CP product loading stations away from groundwater wells and areas where runoff may carry spilled CP products into surface water bodies. If such areas cannot be avoided, protect wells by properly casing and capping them and use berms to keep spills out of surface waters.

It is crucial that a CMC facility be properly designed and constructed. Several publications are available to explain design, construction and operational guidelines for permanent mix/load facilities. These publications are listed in the reference section.

Do not build new facilities on potentially contaminated sites, since subsequent cleanup efforts may require the operation to be relocated.

QQ. 4.12 PORTABLE MIX-LOAD SITES

USSC currently uses portable mix-load stations to reduce CP product spillage over a prolonged period of time. CP product loading areas should be conducted at random locations in the field with the aid of nurse tanks.

Another option for preventing contamination of mixing and loading sites is to use a portable mixing pad. Some are little more than a pad of very durable material, while others are made of interlocking steel sections with a custom fitted liner and built-in sump.

Portable mixing centers usually have no roof, but should be protected from rain. Since the pad may contain CP product residues, the accumulated rain-water may need to be applied as a CP product or disposed of as hazardous waste. A heavy rain can cause the pad to overflow, washing CP products into the environment. A sudden thunderstorm can result in a considerable amount of contaminated runoff, or even a spill. Clean portable mixing centers thoroughly immediately after a spill, because the liner material could be damaged by the CP product formulation. Where practical, portable pads for mixing and loading should be used away from wells or surface water. Never leave a tank unattended while filling.

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

RR. 4.13 UTILIZE NURSE TANKS FOR RANDOM FIELD MIXING

CP product loading areas should be conducted at random locations in the field with the aid of nurse tanks.

Nurse tanks are tanks of clean water transported to the field to fill the sprayer. Nurse tanks make it possible to move the mixing and loading operation away from permanent sites to random locations in the field. Mixing chemicals at random sites in the field lessens the chance of a buildup of spilled materials in one place.

One variation is a self-contained mix/load trailer with a nurse tank at one end and a mix/load area at the other, where the mixture is pumped directly into the sprayer. Another use is portable containment facilities with nurse tanks to set up a temporary mixing/loading site in a remote field, or on leased land where no permanent structure is practical.

SS. 4.14 EXCESS MIXTURE

Mix only the amount of CP products needed during an application period.

It is not always possible to avoid generating excess spray material. The appropriate practices to be followed depend on the type of CP product waste. If there is excess CP product material, use it in accordance with the label instructions.

TT. 4.15 container management

Develop and implement procedures to appropriately rinse and dispose of, or recycle agricultural chemical containers.

If permitted by the label and local ordinances, bags, boxes and group I pesticide containers may be burned in an open field by the owner of the crops. Group I containers are containers of organic or metallo-organic CP products, except for organic mercury, lead, cadmium, or arsenic compounds. Plastic jugs and containers are not to be burned on site and must be transported offsite for proper disposal.

Try to avoid the need to dispose of CP product containers as wastes by:

- Using containers that are designed to be refilled by the CP product dealer or the chemical company
- Arranging to have the empty containers recycled or reconditioned
- Using soluble packaging when available

When disposal is needed, rinse CP product containers as soon as they are empty. Pressure rinse or triple rinse containers and add the rinse water to the sprayer. Shake or tap non-rinseable containers such as bags or boxes so that all dust and material falls into the application equipment. Always wear the proper personal protective equipment (PPE) when conducting these rinse operations.

After cleaning, puncture the CP product containers to prevent re-use (except glass and refillable mini-bulk containers). Keep the rinsed containers in a clean area, out of the weather, for disposal or recycling. Storing the containers in large plastic bags is one option to protect the containers from collecting rainwater.

Recycle rinsed containers in counties where an applicable program is available, or take them to a landfill for disposal. Check with your local landfill before taking containers for disposal, as not all landfills will accept them.

For information about CP product container recycling programs in your area, contact:

University of Florida Pesticide Information Office 352-392-4721

UU. 4.16 EQUIPMENT SANITATION AND WASH WATER HANDLING

Wash-water from CP product application equipment must be managed properly since it may contain CP product residues. If permanent wash stations are not used, excess mixture needs to be properly disposed of or re-used.

- Wash the outside of equipment at random places in the field to avoid chemical build up at a site.

- Avoid washing contaminated equipment in the vicinity of wells or surface water bodies. Dispose of rinse water according to label instructions.
- If permanent wash stations are used, wash water should be reused or properly disposed.

VV. 4.17 STORAGE

Design and build CP product storage structures to keep CP products secure and isolated from the surrounding environment. Store CP products in a roofed concrete or metal structure with a lock-able door. Locate this building at least 50 feet from other structures (to allow fire department access) and 100 feet from surface water and from direct links to ground water. Keep CP products in a separate facility, or at least in a locked area separate from areas used to store other materials, especially fertilizers, feed, and seed.

Do not store CP products near burning materials, hot work (welding, grinding), or in shop areas. Avoid storage of CP products in spaces occupied by people or animals. Do not allow smoking in CP product storage areas.

Store personal protective equipment (PPE) where it is easily accessible in the event of an emergency, but not in the CP product storage area to avoid contamination and since that may make PPE unavailable in time of emergency. Check the label and the Material Safety Data Sheets (MSDS) for the safety equipment requirements. Keep a written CP product inventory and the MSDS file for the chemicals used in the operation on site. Do not store this information in the CP product storage room.

Depending on the products stored and the quantity, you may need to register the facility with the Department of Community Affairs and your local emergency response agency. Check with your CP supplier about Community Right-to-Know laws for the materials that you purchase. An emergency response plan should be in place. All farm personnel should be familiar with the plan before an emergency occurs. Individuals conducting emergency CP product cleanups should be properly trained under the requirements of the Occupational Safety and Health Administration (OSHA).

Do not store large quantities of CP products 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.

Store CP products in their original containers. Do not put CP products in containers that might cause children and others to mistake them for food or drink. Keep the containers securely closed and inspect them regularly for splits, tears, breaks, or leaks. Arrange CP product containers so that labels are clearly visible and legible.

All CP product containers should be labeled. Refasten all loose labeling. Use non-water-soluble glue or sturdy transparent packaging tape to refasten loose labels. Do not refasten labels with rubber bands (these quickly rot and break) or non-transparent tapes such as duct tape or masking tape (these may obscure important product caution statements or label directions for product usage). If a label is damaged, immediately request a replacement from the CP product dealer or formulator. As a temporary supplement to disfigured or badly dam-aged labels, fasten a baggage tag to the container handle. On the tag write the product name, formulation, concentration of active ingredient(s) and the date of purchase.

Dry bags should be stored on pallets and covered with plastic to ensure they do not get wet. Do not store

liquid materials above dry materials. Store flammable CP products separately from non-flammable CP products.

Segregate herbicides, insecticides and fungicides to prevent cross-contamination and minimize the potential for misapplication. Cross-contaminated CP products often cannot be applied in accordance with the labels of each of the products. This may make it necessary to dispose of the cross-contaminated materials as wastes and could require the services of a consultant and hazardous waste contractor.

Use shelving made of plastic or reinforced metal. Keep metal shelving painted (unless stainless steel) to avoid corrosion. Never use wood shelving because it may absorb spilled CP product materials.

CP product storage structures should be identified such that the nature of the contents is made known to those approaching the building.

The BMPs discussed often address the ideal situation of newly constructed permanent facilities. However, the user is encouraged to apply the principles and ideas put forth to existing facilities, and to portable or temporary facilities that may be used on leased land where permanent structures are not practical.

Plans and specifications for CP product storage buildings are available from several sources, including the NRCS of the United States Department of Agriculture, the Midwest Plan Service, and the UF-IFAS Publications Office.

The current CP storage buildings are in compliance with IFAS guidelines.

WW. 4.18 EXCESS FORMULATION

When possible, return excess formulated materials to the CP supplier. In most cases, the excess material must be in an unopened, original container. Contact local dealers for their requirements.

The single best practice to handle excess CP product material is to use it as a cp product in accordance with the label instructions.

XX. 4.19 PURCHASE AND TRANSPORT

Appropriately planned and timed purchase of CP products can avoid risks associated with protracted storage.

Adherence to instructions provided by product manufacturers relating to transport of CP products can minimize risks of spillage and contamination in the event of accident or other container failure.

Follow directions for transport provided on product label, taking into consideration exposure to temperature, moisture, UV light and other variables.

Ensure packages and containers are properly closed and secured prior to transport, and are retained in original containers and with original product label attached.

Consider restrictions imposed by manufacturers or transportation agencies on transport within enclosed spaces and/or by personal vehicle.

Appropriate spill response materials should always be transported along with CP products to ensure that immediate spill response can be accommodated.

YY. 4.20 PRODUCT USE TRAINING

Training of field operators responsible for handling, loading, and operating spray machinery is essential for effective application of agricultural chemicals.

It is essential that information learned at continuing education classes be transferred to application personnel. Special efforts should be taken to ensure that non-English-speaking field personnel understand proper handling, loading, and operating techniques.

5.0 NUTRIENT MANAGEMENT

Good nutrient management is an integral part of a system of agricultural practices that help conserve and protect natural resources. In fact, water and nutrients are oftentimes linked, and the Florida citrus industry has made great strides in converting many existing groves to low volume irrigation systems. These conversions allow more precise nutrient management via the use of fertigation. As such, implementing appropriate nutrient management practices helps maintain or improve agricultural productivity while minimizing environmental risk.

Management of nitrogen and phosphorus levels, in particular, is essential in maintaining healthy surface water bodies and natural systems in the USSC crop production area. These nutrients originate from a variety of land uses, including: agricultural, urban, suburban, and natural areas. Excess nutrients stimulate algal blooms and growth of noxious plants in receiving water bodies and wetlands. This stimulation of growth may eventually result in reduced dissolved oxygen concentrations due to excessive decomposition of plant material. Moreover, lower dissolved oxygen concentrations may stress desirable game fish, and promote less desirable fish species.

Nitrogen and phosphorus are two of the essential elements for plant and animal growth and are necessary to maintain profitable crop and livestock production. They can also increase the biological productivity of surface waters by accelerating eutrophication, the natural aging of lakes or streams brought on by nutrient enrichment. Although eutrophication is a natural process, it can be accelerated by changes in the land use of a watershed that increase the amount of nutrients added to an aquatic system. Nitrogen and phosphorus both affect eutrophication, but phosphorus is the critical element in most fresh water systems.

Where water salinity increases, as in estuaries, nitrogen generally controls aquatic plant growth. Complicating the problem is the fact that eutrophication sometimes occurs many miles from where high-nutrient runoff originally enters the surface water system. By the time the water quality effects are noticeable (sometimes years to decades after the runoff occurs), remedial strategies can be difficult and expensive to implement. This is why source control of nutrients used in fertilization programs is so important.

ZZ. 5.1 EDUCATION

Proper training of the field operators responsible for handling, loading, and operating fertilizer spreading equipment, and for correct maintenance of field equipment can help achieve desired placement of fertilizers, avoid waste, and prevent contamination of open waters.

Re-enforce training with checklists of critical operating points before application of materials. Confirm that each assigned employee is adequately informed about machine operation, rates of discharge, and intended zone of nutrient placement that focuses on "feeding the tree."

AAA. 5.2 NUTRIENT MANAGEMENT

Develop a nutrient management plan based upon soil, water, plant and organic material sample analyses and expected crop yields. USDA-NRCS routinely develops nutrient management plans, and requires them for practices that receive cost-share benefits. Nutrient management is: management of the amount, source, placement, form, and timing of the application of nutrients and soil amendments to ensure

adequate soil fertility for plant production and to minimize the potential for environmental degradation, particularly water quality impairment.

5.2.1 General Criteria

1. Nutrient Management Plans should include the following components, as applicable:
    - Aerial site photographs or maps and a soil map.
    - Current and/or planned production sequence.
    - Soil test results and recommended nutrient application rates.
    - Plant tissue test results, when used for nutrient management.
    - A complete nutrient budget for nitrogen, phosphorus, and potassium for the production system.
    - Realistic yield goals and a description of how they were determined.
    - Quantification of all important nutrient sources (this could include but not be limited to commercial fertilizer, animal manure and other organic byproducts, irrigation water, etc.).
    - Planned rates, methods, and timing (month & year) of nutrient application.
    - Location of designated sensitive areas or resources (if present on the conservation management unit).
    - Guidance for implementation, operation, maintenance, and record keeping.
2. Maximum single application rates of nutrients will be determined based on optimum level of production, producer's goals, soil limitations, site factors, and off-site transport potential.
3. Additional conservation practices that keep nutrients in the soil and root zone area should be planned in environmentally sensitive areas.

Environmentally sensitive areas include, but are not limited to: wetlands, sink holes, wells, mixing sites, karst areas, soils with excessive permeability, and areas that drain into state or federal nutrient restricted areas.

5.2.2 Considerations

1. A nutrient budget worksheet (FL 590-JS) including an estimate of residual amounts present in the soil and in residues of previous crops, along with any organic waste additions, can determine crop nutrient requirements. (The nutrient budget worksheet is available at: ftp://ftp-fc.sc.egov.usda.gov/NHQ/practice-standards/jobsheets/590js.pdf) Additional information is needed following further evaluation by the District and USSC.
2. Realistic yield goals should be set based on soil type, crop variety, tree age and condition, tree density, historical yield data, climatic conditions, and fertilizer costs versus returns.

3. The form of fertilizer and its timing, placement, and method of application can be planned to conform to seasonal variations in nutrient uptake throughout crop development.
4. Consider effects of the seasonal water budget on nutrient balance and on the potential loss by surface runoff or leaching into ground water.
5. Evaluate water quality standards and designated use limitations that exist locally or statewide.
6. Avoid excessive or luxury levels of N, P, and K in the soil to reduce the potential for induced deficiencies of micronutrients.
7. Maintain proper soil pH to provide optimum availability of applied nutrients.
8. Use appropriate application methods and fertilizer formulations that minimize nutrient losses.
9. In high water table soils, water table management will affect the availability and movement of nutrients.
10. Proper calibration and use of equipment will improve nutrient material application efficiency and will reduce undesirable over-applications.
11. Avoid same-place loading/transfer sites to preclude excess contamination of soils in working areas.

BBB. 5.3 NUTRIENT MANAGEMENT AND UTILIZATION OF WASTE RESOURCES

Use of animal waste and other waste products on land in an environmentally acceptable manner can be helpful in maintaining or improving soil, air, plant, and water resources. Wastes include those from farm, feedlot, and dairy operations, municipal waste treatment plants, and agricultural processing plants.

5.3.1 General Criteria

1. Compliance with Federal, state and local laws is required for all utilization of wastes including liquid, slurry, and solid waste. For example, FDEP Rule 62-709 specifies the criteria for use of compost made from solid waste.
2. Waste application should be accomplished in a manner (timing and rate) such that runoff from the application area will not occur due to the application method used.
3. When making applications of waste products to citrus groves, growers should consider factors affecting rate, timing, and application methods as outlined in Florida NRCS Conservation Practice Standard, Nutrient Management (Code 590), available at: ftp://ftp-fc.sc.egov.usda.gov/NHQ/practice-standards/standards/590.pdf.
4. Waste should be applied based on the most limiting nutrient or metal.
5. Specific conditions for land application of domestic wastewater residuals are contained in the FDEP Rule, Chapter 62-640 Florida Administrative Code (F.A.C.).
6. The soil-limiting nutrient (either N or P) for waste application should be based on the Phosphorus Index calculation (see references for publications showing how the Phosphorus Index is calculated).

7. Crop nutrient removal rates should be based on realistic yields. Crop nutrient removal rates can be obtained from Agricultural Waste Management Field Handbook (AWMFH) or the NRCS has an excellent on-line calculator at: http://npk.nrcs.usda.gov/
8. Waste application setbacks shall be increased from surface water bodies, wells, sink holes, or fractures. Setbacks should be based on criteria for effective filter strips as contained in Florida NRCS Conservation Practice Standard, Filter Strip (Code 393) which can be accessed at: ftp://ftp-fc.sc.egov.usda.gov/NHQ/practice-standards/standards/393.pdf.
9. Content of waste should be analyzed for nutrient and metal content.

5.3.2 Considerations

- Supplemental fertilizer may be needed to meet the needs of the crop at various stages of plant growth.
- USSC currently has a FDEP permit of the application of wastewater on the USSC property. Please note that use of wastewater with high conductance could accumulate salts and nutrients into drainage systems, and possibly affect downstream receiving water bodies. These same water bodies may have specific water quality standards or Total Maximum Daily Loads (TMDL) that could be violated through the introduction of high TDS concentrations. The application of wastewater onto the property should remain in compliance with the FDEP permit.

CCC. 5.4 employ tissue and soil analyses

Fertilizer applications based on leaf tissue and soil tests will help avoid over-fertilization and subsequent losses of nutrients in runoff water.

Application of mobile elements such as N (nitrogen) and K (potassium) should be made on the basis of leaf tissue analysis and production levels. Elements such as Ca (calcium), Mg (magnesium), and P (phosphorus) should be based on soil testing and leaf analysis, instead of regular applications of specific amounts. The comparison of both types of testing will give production standards for applications which are based on plant need and response, rather than routine applications of standard amounts. Proper fertilization results in high yields and minimal environmental effects.

DDD. 5.5 USE APPROPRIATE APPLICATION EQUIPMENT

Operate machinery as designed so as to achieve precise and desired placement of nutrient materials at specified rates consistent with the form and source of nutrient materials.

Efficient application practices are critical for insuring fertilizer delivery only to target areas, and for reducing losses to leaching and runoff. The following is a list of application techniques for different formulations of fertilizers. Growers may adopt a combination of placement methods exploiting their respective advantages in efficiency and cost. The ultimate goal is to focus on "feeding the tree" by placing nutrients within the root zone of individual trees or drip-line bands along hedgerows of trees. Avoid placement in areas prone to off-site transport of nutrients.

- Precision Agriculture

- Dry Material Spreaders
- Fertigation
- Boom Applications
- Aerial Application

EEE. 5.6 EQUIPMENT CALIBRATION AND MAINTENANCE

Proper calibration and maintenance of fertilizer application equipment is essential to avoid misapplication of nutrients.

FFF. 5.7 apply materials to target sites

Place nutrients within the root zone of individual trees or drip-line bands along hedgerows of trees. Avoid placement in areas prone to off-site transport of nutrients, especially water furrows.

GGG. 5.8 AVOID HIGH RISK APPLICATIONS

Do not apply materials under "high risk" situations, such as before forecasted rainfall. Avoid applications of nutrients during intense rainfall, on bare soils with extreme erosion potential, or when water tables are near the soil surface.

For weather information on the Internet, go to:

FAWN: http://fawn.ifas.ufl.edu/

NOAA: http://www.nws.noaa.govhttp://weather.noaa.gov/

The Weather Channel: www.weather.com

CNN Weather: http://www.cnn.com/WEATHER/

AccuWeather: http://www.accuweather.com

HHH. 5.9 fertilizer storage

Use caution when storing fertilizer to prevent contamination of nearby ground and surface water.

Fertilizer should be stored in an area that is protected from rainfall. Always store fertilizers separately from pesticides, solvents, gasoline, diesel, motor oil, or other petroleum products. 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. Secondary containment of stationary liquid fertilizer tanks larger than 550 gallons is addressed in DEP rule 62-762, F.A.C. Even where not required, the use of secondary containment is a sound practice.

III. 5.10 SPILLED FERTILIZERS

Immediately remove any fertilizer materials spilled on ground surfaces and apply at recommended rates to crops.

When possible, place a tarp over ground surfaces where fertilizer transfer operations are conducted.

Spilled materials should be transferred to the spreader for application to target sites. Spillage can contaminate open waters and thereby cause proliferation of aquatic weeds. Operators of fertilizer spreaders should be trained how to recover spilled materials for spreader application. Removal of some soil with the spilled materials is usually necessary and adequate for proper maintenance of this BMP. By its design, the spreader equipment will apply the fertilizer and soil to the target site.

At fixed loading sites, the area can be cleaned by sweeping or vacuuming (or with a shovel or loader, if a large spill), or by washing down the loading area to a containment basin that is specifically designed to permit recovery and reuse of the wash water. Wash water generated should be collected and applied to the target site.

Discharge of this wash water to water bodies, wetlands, storm drains or septic systems is illegal.

JJJ. 5.11 USE CAUTION WHEN LOADING NEAR DITCHES, CANALS AND WELLS

Minimize the potential for spilled materials to pollute surface waters. When possible, locate mixing and loading activities away (according to local setback requirements) from ground water wells, ditches, canals, and other areas where runoff may carry spilled fertilizer into surface water bodies. If such areas cannot be avoided, protect wells by properly casing and capping them and use berms to keep spills out of surface waters. Recover and apply spilled materials to intended zone of application.

A concrete or asphalt pad with rainfall protection permits easy recovery of spilled material. If this is not feasible, loading at random locations in the field can prevent a buildup of nutrients in one location. In this case, place a tarp on the ground underneath the fertilizer hopper while loading. Do not load fertilizers on a pesticide Chemical Mixing Center (CMC) because of the potential for cross-contamination. Fertilizers contaminated with pesticides may cause crop damage or generate hazardous wastes.

KKK. 5.12 ALTERNATE LOADING OPERATION SITES

Use multiple fertilizer loading and transfer sites to prevent concentration of nutrients in a single area. If this is not feasible, loading at random locations in the field can prevent a buildup of nutrients in one location.

LLL. 5.13 USE BACKFLOW PREVENTION DEVICES

Use backflow prevention devices on irrigation and spray tank filling systems to preclude entry of nutrients into surface waters. Never leave a filling-tank unattended.

5.13.1 Filling Tanks in the Field

Special precautions should be taken when filling tanks using a hose. Maintain an air-gap between the filling-hose and the liquid tank-mixture. Never leave a tank unattended when it is being filled.

5.13.2 Fertigation and Backflow Prevention Equipment

An anti-siphon device is a safety device used to pre-vent backflow of a mixture of water and chemicals into the water source, or vice versa. In the case of fertigation, the chemicals are fertilizers. Currently, Florida state law (Florida Statutes Section 487.064 for pesticides and Section 576.087 for fertilizers) requires that backflow prevention equipment be installed and maintained on irrigation systems in which

chemicals are injected for agricultural purposes. The possible dangers in fertigation include backflow of fertilizers to the water source causing contamination, and water backflow into the fertilizer storage tank. Backflow prevention is an extremely important practice in the prevention of both ground and surface water contamination. Backflow to the storage tank can rupture the tank or cause overflow, contaminating the area around the tank and perhaps indirectly contaminating the water source. Safety equipment is available which, when properly used, will protect both the water supply and the purity of the fertilizer in the storage tank.

MMM.5.14 split applications throughout season

Dividing the annual fertilizer requirement into two or more applications can minimize leaching during the summer rainy season and help maintain the supply of nutrients over the long growing season of Florida.

Frequent fertigations can be an efficient method of application for N and K while minimizing the potential for leaching of nutrients during excessive rainfall events. The trade-off between costs vs. fertilizer use efficiency and resource protection must be considered.

NNN. 5.15 EROSION CONTROL

Erosion-control practices should be considered to minimize soil loss and runoff that can carry dissolved and attached nutrients on soil particles to surface waters.

Vegetative filter strips are effective in reducing the levels of suspended solids and nutrients.

OOO. 5.16 IRRIGATION MANAGEMENT

Irrigation should be limited to wetting only the root zone where possible. Excessive irrigation can transport nutrients below the root zone through leaching. Proper scheduling and uniform water distribution are necessary to assure control.

PPP. 5.17 USE OF ORGANIC MATERIALS

In the event of a surface application (mulching), use of organic materials like horticultural waste and urban plant debris (yard trimmings) should occur when possible to help increase soil organic matter, retain nutrients and moisture, improve biological eco-systems, and supply slowly-released nutrition.

The surface application of slowly-degraded organic waste materials like horticultural waste and urban plant debris can increase soil moisture retention and nutrient-holding capacity. The nutrient additive properties of organic matter support:

- Economical ways to safely use non-hazardous wastes.
- Maintenance or increases in soil organic matter content.
- Protection of water quality.
- Protection of air quality.
- Reduction of energy used in manufacturing chemical fertilizer.

Both microbial mineralization and immobilization can occur during decomposition of high carbon-low nitrogen organic materials like horticultural waste. Mineralization occurs when organic forms of a

nutrient are converted to inorganic forms. Immobilization is the reverse of this process where microorganisms convert inorganic forms of nutrients to organic forms. The organic forms of the nutrients are not available to plants as they are bound in some part of the soil organic matter. Plants take up nutrients in inorganic forms. Thus, immobilization reduces nutrient (particularly nitrogen) availability, while mineralization increases nutrient availability.

Nitrogen-poor organic materials like straw, fresh sawdust and most fresh horticultural waste cause microorganisms to remove large amounts of inorganic nitrogen from the soil during decomposition, since that nitrogen is required to build new microbial cells. This process decreases nitrogen availability to citrus trees. However, the nitrogen consumed by the microorganisms will be slowly released when microbial cells decompose.

QQQ. 5.18 well protection

Prevent ground water contamination by back plugging improperly constructed and/or deteriorated irrigation wells.

This practice involves the protection of existing wells and prevention of problems in wells that are being planned. For existing wells, management activities are aimed at reducing the potential for contamination. This includes evaluating and, if necessary, moving or modifying potential sources of pollution. Such sources of pollution may include fueling areas and/or areas where pesticides and fertilizer are handled or mixed.

The permanent plugging and elimination of such wells may be eligible for cost-share assistance through the District. Please contact your local District Service Office for information.

Points to Consider:

- Anti-siphon devices should be attached to all system discharge points so that backflow siphoning does not contaminate the aquifer.
- Check with local health departments or state water management districts for setback guidelines regarding wells.
- When no longer in use, proper decommissioning or plugging of a well prevents the re-entry of surface water and transport of contaminants to the ground water. Check with your local water management district or USDA-NRCS office for well decommissioning and plugging guidelines.
- Wells should be capped or fitted with valves that close tightly when not in use to reduce the potential for contamination. Artesian wells should be fitted with control valves so that water flow can be regulated or stopped when water is not needed.

RRR. 5.19 USE APPROPRIATE SOURCES AND FORMULATIONS

Reduce the potential for nutrient leaching and off-site movement by choosing appropriate sources and formulations of fertilizer based on nutritional needs, season (rainy vs. dry), and anticipated weather conditions to achieve greatest efficiency and reduce potential for offsite transport. Utilize controlled-release and slow-release formulations when feasible.

Nitrogen source materials are grouped into three categories: inorganic, synthetic organic, or natural

organic. The inorganics and synthetic organics are usually high-analysis materials that are most economical to use in citrus groves. These nutrient source materials are readily available to plants unless they have been formulated in a controlled-release form. Natural organic materials are less readily available and are usually lower in nutrient analysis.

SSS. 5.20 salinity

Fertilizer sources should be monitored closely in groves with high salinity levels. Fertilizers with high salt index levels can compound existing salinity problems.

Additional discussion on salinity management is found in the Water Resource Management Section.

The frequency of injecting nutrients or of applying granular fertilizer has a direct effect on the concentration of total dissolved solids (TDS) in the soil solution. A fertilization program that uses frequent applications with relatively low concentrations of salts will normally result in less salinity stress than programs using only two or three applications per year. Controlled-release fertilizers and frequent fertigations are ways to economically minimize salt stress when using high salinity irrigation water.

Selecting nutrient sources that have a relatively low osmotic effect in the soil solution can help reduce salt stress. The osmotic effect that a material adds to a soil solution is defined as its salt index relative to sodium nitrate, taken to be equal to 100. Since sources of phosphorus (P) generally have a low salt index, they usually present little problem. However, the salt index per unit (lb) of N and potassium (K) should be considered.

The salt index of natural organic fertilizers and slow-release products are low compared to the commonly used soluble fertilizers. High-analysis fertilizers may have a lower salt index per unit of plant nutrient than lower-analysis fertilizers since they may be formulated with a lower salt index material. Therefore, at a given fertilization rate the high-analysis formulation may have less of a tendency to produce salt injury. For instance, the salt index of a fertilizer blend formulated made from ammonium nitrate and potassium nitrate will be about 30% less than that with the same N-P-K analysis blend formulated from ammonium nitrate and muriate of potash (KCl). In addition, the Cl in KCl or Na in NaNO3 materials add more toxic salts to the soil solution.

Choose fertilizer formulations that have the lowest salt index per unit of plant nutrients. Increase the frequency of fertilizations, thereby making it possible to reduce the salt content of each application and aid in preventing excess salt accumulation in the root zone. Maintain optimum but not excessive nutrient levels in soil and leaves with rates based on the long-term production from the grove. Fertilizer rates can usually be lower for trees with high salinity since production levels will probably be lower. Leaf tissue analysis should be used to detect excessive Na or Cl levels or deficient levels of other elements caused by nutrient imbalances induced by salt stress. Leaf Na levels greater than 0.2% and Cl levels over 0.5% indicate imminent problems.

High rates of salt application can alter soil pH and thus cause soil nutrient imbalances. Some ions can also add to potential nutrient imbalances in trees. For example, Na can displace K, and to a lesser extent Ca, in soil solutions. This can lead to K deficiency and, in some cases, to Ca deficiency. Such nutrient imbalances can compound the effects of salinity stress. Problems can be minimized if adequate nutritional levels are maintained, especially those of K and Ca.

TTT. 5.21 CONSERVATION BUFFERS AND SETBACKS

Strategically incorporating vegetative buffers – either naturally occurring ones or planted forbs and grasses – into the citrus grove design can help to protect water quality by providing biological filtration, increasing residence time and/or residual nutrient uptake.

Managed properly, these vegetative areas or conservation buffers may provide pretreatment, formal treatment and other treatment train opportunities. A treatment train effect is simply a combination of nonstructural and structural BMPs, which are generally effective for reducing or preventing non-point source pollution. Generally speaking, there are certain non-cropped areas that could qualify as conservation buffers within a typical agro-eco-system. Vegetated field borders, tree row middles, water furrows, ditch and ditch banks, wetlands/set-back areas and associated reservoir systems are examples.

Depending on the grove's surface water management system design, buffer areas can contribute significantly and help to manage offsite nutrient impacts. This whole farm management approach ultimately reduces a grower's risk of incurring negative environmental consequences. The BMPs discussed below are intended to give the reader information for the practical application of conservation buffers.

5.21.1 Pre-Treatment Options

Manage tree row middles by keeping them well grassed and by maintaining a minimum blade height of two inches. Growers should not rotary mow when standing water is present. Growers may also want to investigate the feasibility of incorporating leguminous plant(s) within the middles, as these plants may be used as an additional source of nitrogen.

Water furrows and lateral ditches should also be managed to encourage grass cover in order to help reduce flow velocities, thus providing an opportunity for particulate matter to settle out. See BMPS in the Erosion Control and Sediment Management Section for more information on water furrow and ditch bank maintenance.

5.21.2 Formal Treatment Options

- Riparian Buffers – A riparian buffer is an area of trees and/or shrubs located adjacent to and up-gradient from associated watercourses. Existing groves that border perennial watercourses and were constructed before SFWMD surface water regulations should, when economically feasible, explore the use of a riparian buffer. Water sheet flowing across this type of buffer will be treated before discharging to the watercourse. Air drain-age is an important aspect of crop and tree dam-age during cold periods. Prior to implementing a riparian buffer, consideration should be given to its effects on air drainage.

- Dedicated Conservation Buffers – Grassed waterways and/or filter strips are both excellent conservation buffer choices, and can be used to convey and treat smaller volumes of discharge water with a moderate degree of success. In general, these passive treatment areas are more effective in removing phosphorus that is attached to soil particles rather than dissolved nitrogen. Groves that have some topographic relief should consider using grassed waterways or filter strips to treat and discharge surface water runoff.

- Treatment Train Effects - Consider using a combination of structural and non-structural controls to mitigate the potential for offsite nutrient impacts, especially when discharging to sensitive downstream water bodies. See B17 in the Erosion Control and Sediment Management Section for more information.

5.21.3 Other Required Setbacks

Wetland setback areas, also referred to as wetland buffer zones, provide water quality treatment opportunities. If you have an active Environmental Resource Permit for your grove, you are generally required to abide by an average 25 foot setback. Likewise, NRCS generally requires 50 feet along the path of water flow for a filter strip that is being used to address soluble nutrient problems. NRCS buffer practices are listed below and each practice has slightly different uses that should be matched with the specific site. Each NRCS buffer practice may have different minimum widths and other specifications based on the specific resource problem(s) to be addressed.

6.0 ACCEPTABLE AGROCHEMICALS AND NO APPLICATION PERIODS

Because of the intended future land use, care needs to be taken to ensure that at the time of the property's conversion to a reservoir, that the presence of agrochemicals is minimal and will not cause adverse impacts to the anticipated ecosystem. During the interim use of the property, the intent is to phase out the application of identified pesticides on a specified time table to allow for natural degradation.

In addition, as current landowner, the District must ensure that all application of agrochemicals on the grove is conducted in accordance with all applicable laws and regulations.

The attached **Chemical Application Restrictions** matrix should be followed. 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. The experimental use of pesticides and herbicides is prohibited during the interim period. All agrochemicals must be applied in strict accordance to label instructions and restrictions.

CHEMICAL APPLICATION RESTRICTIONS

The following is an example list of chemicals, and at the completion of the Phase I and II ESA activities, this list may change. The following chemicals 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. 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.

Citrus Grove

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

2,4-D (*Landmaster*)	Isopropylamine salt (*Arsenal*)	Simazine (*Sim-Trol*)
435 Spray Oil (*Sun Pure)*	Mineral oil (*Saf-t-side*)	Triclopyr (*Remedy Ultra*)
Diuron (*Karmex, Direx*)	Paraffin oil (*Citrufilm*)	Dimethyl ammonium chloride (*C-soap)*
Glyphosate (*Roundup*)	Phosphoric Acid (*Nutriphite Magnum*)	

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

Abamectin (*Agri-Mek*)	Oxamyl (*Vydate*)	Alkyl dimethyl benzyl ammonium chloride (*Bell Quat*)
Dimethoate (*Dimethoate)*	Phosmet (*Imidan*)	Carbaryl (*Sevin*)
Fenpropathrin (*Danitol*)	Trifloxystrobin (*Gem Fungicide*)	

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

Aldicarb (*Temik*)	Chloropyrifos (*Nufos*)	Dicofol (*Kelthane*)
	Imidacloprid (*Provado*)	

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

Bromacil (*Krovar)*

E. Period of discontinuation will be based on the rates of application and copper concentrations in the groves:

Copper Hydroxide (*Champ*)	Zinc, Manganese, Iron, Magnesium, Nitrogen (*Citrite, Dyna Gro)*

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

Mefenoxam (*Ridomil*)

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

S-Cyano (*Mustang*)

Citrus Nursery

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

Etridazole (*Banrot*)	Organophosphate 75% (*Acephate*)	Glyphosate (*Round Up*)
Citrus Oil	Azadirachtin (*Neemix*)	Diflubenzuron (*Micromite*)
Bacillus thuringiensis (*Dipel*)	2% Ammoniacal Nitrogen (*Nutriphite Magnum*)	Dimethyl ammonium chloride (*C-soap*)
Fosetyl aluminum (*Aliette WDG*)	Bacillus subtilis (*Serenade*)	Saftex Oil
Yeast extract hydrolysate (*Keyplex*)	[redacted]	

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

Fenpropathrin (*Danitol*)	Malathion (*Malathion*)	Trifloxystrobin (*Gem Fungicide*)
Dimethoate (*Dimethoate*)	Quaternary aluminum compound (*C-Quat*)	[redacted]

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

Imidacloprid (*Admire and Provado*)	Chloropyrifos (*Chloropyrifos*)	Carbary (*Sevin*)
Fenoxycarb (*Award*)	[redacted]	

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

Methoxyacetylamino (*Ultra Flourish*)	4-chloropyridazin-3(2H)-1 (*Nexter*)

E. Period of discontinuation will be based on the rates of application and copper concentrations in the groves:

Copper Hydroxide (*Kocide and Mankocide*)

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

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

Poly-1-P menthene (Nu Film P)	Peroxyacetic acid (*Oxidate*)
Spiromesifen (*Judo Miticide*)	

* Any pesticide, regardless of the above categories, that is shown to be present in the soil, at or above the SCTLs, 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.

6.1 Copper Compounds

Copper is an essential element required for the successful and economical growing of citrus. It is

necessary for chlorophyll formulation in the leaves and acts as a catalyst for other plant reactions. It also has beneficial uses as a fungicide, herbicide, and bactericide. It is applied to the soil surface as a granular additive to fertilizer, and directly to the foliage as a spray mix. The Phase II ESA did not identify elevated copper levels in the citrus groves above the Service provisional Snail Kite threshold level of 85 mg/kg. Based on the information provided by USSC, at the current application rates of copper-based agrochemical, the soils within the citrus groves will not be impacted with copper above the 85 mg/kg threshold.

During this interim use period, soil samples should be collected for select areas within the groves to confirm that residual copper concentrations are not accumulating in the soil.

7.0 Petroleum and Hazardous Waste Management

UUU. 7.1 Gasoline and Diesel Fuel Storage and Containment

The goal of AST management is to minimize the possibility of inadvertent petroleum product discharges and properly manage any spills and cleanups. Stationary fuel storage tanks should be in compliance with the FDEP storage tank regulations (Chapter 62-761, FAC (Petroleum Storage Systems)) for both underground and aboveground storage tanks.

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:

7.1.1 On-Site Equipment

Permanent fuel pumps should be stationed on concrete or asphalt surfaces away from groundwater wells and ditches, laterals and canals where water runoff may carry or transport inadvertently spilled product. Pumps should be equipped with automatic shut off mechanisms. Aboveground petroleum storage tanks with volumes of 550-gallons or greater must be registered and located within secondary containment systems unless of double-wall construction. Visual inspections should be conducted on at least a monthly basis of the storage tanks and hoses to ensure that the system is free from leakage from tank seams, connections, and fittings.

7.1.2 Fuel Delivery

The fuel delivery driver should report to facility manager upon arrival prior to unloading. An agricultural operation employee should verify available tank capacity prior to product transfer and should remain onsite during delivery to monitor the product transfer. Spill and overfill clean-up equipment, such as absorbent booms or absorbent materials, should be stored nearby for immediate spill containment and clean up.

VVV. 7.2 Equipment Cleaning and Maintenance

The same level of preventive measures should be taken to minimize any adverse water quality impacts from the cleaning of equipment as with agrochemical handling and application. Preventive maintenance and emergency repair of machinery and equipment performed on site should be conducted in a centralized area over an impermeable surface, and be situated at least 100 feet from the closest groundwater well or surface water, grove ditch, lateral, or canal. It is recommended that equipment maintenance be limited to minor or emergency repairs. Onsite maintenance activities, such as engine or mechanical repair, which generate a waste or waste by-product, must be containerized and properly disposed of. Where contamination is already documented in the area, every effort should be made not to increase the existing contamination levels.

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:

7.2.1 Equipment Maintenance

It is recommended to use compressed air to remove clippings and dust from machinery. This will cause less wear to the equipment's hydraulic seals, eliminates wash water, and produces dry material that is easy to handle. For regular field equipment washdown other than pesticide application equipment, and degreaser or solvents, allow wash water to flow to a grassed retention area, swale, or fields. Do not allow wash water to flow directly to surface water, grove ditches, laterals, or canals. Minimize the use of detergents and use only biodegradable, non-phosphate type. Use spray nozzles that generate high-pressure streams and low volumes that can minimize the amount of water used to clean equipment. If equipment is to be intensively washed, conduct over a concrete or asphalt pad that allows the water to be collected. 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.

7.2.2 Solvents and Degreasers

The current facility does not conduct major repairs of equipment on-site. Only routine maintenance is conducted on-site. The introduction of an equipment maintenance area as well as the use of solvents or degreasers onsite must be reviewed and approved by the District prior to the use or construction of the maintenance facility.

Should such approval be granted by the District, general best management practices, recommends the replacement of solvent baths with recirculating aqueous washing units. Soap and water or other aqueous cleaners are often as effective as solvent-based cleaners.

7.2.3 Paint

The USSC properties do not maintain an on-site painting facility. All painting is done manually. The introduction of an equipment painting facility (i.e., paint booth, spray hood, etc.) onsite is not allowed. The painting of equipment by power sprayers is prohibited. Such painting must be conducted off-site.

7.2.4 Used Oil, Coolant, and Lead-Acid Batteries

Each of the main properties currently store new oil, used oil, coolants and/or lead acid batteries on-site. These items are properly marked and stored and are in compliance with local and State regulations. The storage of more than what would be used for daily use of these chemicals and products is prohibited. The construction of a storage area onsite to store these chemicals must be reviewed and approved by the District prior to the storage or construction of the facility.

Used oil, coolant and lead-acid battery activities are not currently stored onsite, and are not approved activities by the District. However, if this type activity should be approved by the District, the following BMP guidelines must be implemented.

Used oil and oil filters should be stored in separate marked containers and recycled. Oil filters should be drained and taken to the same place as the used oil, or to a hazardous waste collection site. Coolants and 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. Batteries should be stored on an impervious surface and preferably under cover until delivery to an authorized recycling facility.

All used oil, coolants, and spent lead-acid batteries on the properties are stored in certified containment units until removed for offsite disposal or recycling by a certified contractor.

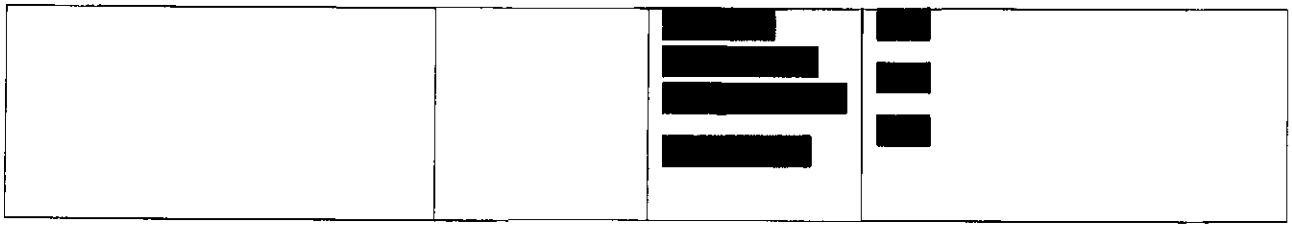
8.0 SAMPLING AND COMPLIANCE PLAN

WWW. 8.1 verification sampling

Based upon the historical operations and utilization of agrochemicals on the USSC properties and the potential for petroleum and chemical impacts in surficial soils at the properties, the District shall retain the option to conduct periodic soil sampling in representative areas for a variety of parameters described below. The purpose of this sampling will be to promote environmental stewardship among the site operator and personnel and serve as a means of monitoring the environmental character of the site during the interim period prior to conversion to a regional reservoir or storm water treatment area. Sampling locations will be determined based upon site-specific information.

Cultivated area sampling should be conducted 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 target those grids identified in the Phase I/II ESA. The selected grids sampled during the first annual sampling event will not be re-sampled in subsequent annual sampling events.

Baseline samples collected during the Phase I/II ESA conducted on the USSC property by PSI in August and September 2008 shall be used as a comparison to future sampling results. The results of the periodic future sampling may result in applicable modifications of this BMP Plan to address elevated parameters of concern.



In the event that obvious and excessive impacts are visibly detected during periodical site visits conducted by the District, a more comprehensive site specific sampling plan, which would depend on the magnitude of the impact, should be developed under the direction of the District and any applicable regulatory agencies. A list of potential parameters to be analyzed for are 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)

9.0 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 Points to Consider' 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 attached.

APPENDIX A
Best Management Practice Checklist

United States Sugar Corporation
Hendry County
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 B
EMERGENCY RESPONSE 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).

FDEP 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 West Palm Beach, FL 33415	(561) 233-1700
Hendry County	1085 Pratt Boulevard Dallas B Townsend Agricultural Center Labelle, FL 33935	(863) 674-4092
Glades County	900 US Highway 27 SW Moore Haven, FL 33471	(863) 946-0244
Gilchrist County	125 East Wade Street Trenton, FL 32693	(352) 463-3174

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 (352) 392-4721
Agricultural Law Policy Office (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.

DRAFT

BEST MANAGEMENT PRACTICES PLAN - DRAFT 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

October 2008

Prepared by

URS Corporation
4168 Southpoint Parkway, Ste 205

Jacksonville, Florida 32216
T904.281.9251 F904.281.9892

URS

UNITED STATES SUGAR CORPORATION

October 28, 2008

Mr. Robert Taylor
Land Support Acquisition Division
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Subject: **DRAFT**
Environmental Best Management Practices Plan-Sugar Cane Production and Vegetable Farming
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 - DRAFT for the United States Sugar Corporation (USSC) sugar cane production and vegetable farming 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
4168 Southpoint Pkwy Ste 205
Jacksonville, Florida 32216
T 904.281.9251
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FTL 350796.10
12/4/08

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1.0 OVERVIEW

XXX. 1.1 BACKGROUND

The South Florida Water Management District (District) has acquired approximately 187,000 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 187,000 acres, an estimated 161,000 acres is used for the cultivation of sugar cane. **Figure 2** illustrates the tracts that are utilized for the cultivation of sugar cane. Additionally, portions of the 161,000 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 has been prepared for the sugar cane and vegetable production 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. This BMP plan is not regulatory or enforcement based. 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.

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 in 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.

YYY. 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
- Rail Sidings
- 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
- Rail Sidings
- 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 to 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 monthly site inspections to verify the pump stations are being properly maintained and in compliance.**

- Rail siding locations were observed along the rail lines throughout the cultivated areas. The rail sidings are used to load the harvested sugar cane onto railroad cars for transportation to the sugar refinery mills. These rail sidings are hydraulically operated and powered by diesel engines. Significant petroleum and hydraulic oil staining was observed at most of the rail siding locations. At several of the locations, hydraulic oil was observed leaking from the motors and hydraulic systems. **URS recommends**

improving housekeeping at the rail sidings. This should include repairing any leaks and use of absorbent material when leaks occur. URS also recommends monthly site inspections to verify the rail sidings are being properly maintained.

- 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 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 2014, 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 concenrations exceeding 85 mg/kg and/or are co-located with historically applied agrochemicals (organochlorine pesticides) that are targeted for abatement. **With a minimal amount of acres being affected by elevated levels of copper, the current nutrient application regiment is acceptable. URS recommends sampling select areas within the cultivated fields every other year in order to monitor the copper concentrations in the soil. 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.**

ZZZ. 1.3 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.

The following *Standardized BMP Checklist* is provided 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 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**. **Section 3** provides a standardized form to be used to summarize the findings of future BMP site verifications.

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* • *Overall Operations 'Housekeeping'*	✓	✓	✓
WATER MANAGEMENT			
Minimize over drainage and maximize irrigation efficiency	✓		✓
NUTRIENT MANAGEMENT FERTILIZING			
Nutrient Application Optimization • *Nutrient Management Plan* • *Nutrient Record Keeping* • *Use appropriate nutrient sources & formulations* • *Split fertilizer applications*	✓	✓	✓
Nutrient Handling and Placement • *Fertilizer application equipment* • *Fertilizer storage* • *Equipment calibration and maintenance* • *Fertilizer loading sites* • *Apply materials to target areas* • *Avoid high leaching-potential situations* • *Promptly recover spilled fertilizer* • *Use backflow prevention devices* • *Alternate loading operation site*	✓		✓
EXOTIC VEGETATION CONTROL			
Upland Exotic Vegetation Control • *Control and eradicate to the extent practicable Category I and II exotic/invasive pest plants*	✓		✓
Aquatic Exotic Vegetation Control • *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.	✓	✓	✓
EROSION/SEDIMENT CONTROL			
• *Use of cover crops* • *Use of vegetation to stabilize water channel banks* • *Ditch bank berms* • *Culvert located above all ditch bottoms* • *Systematic ditch cleaning program* • *Other proposed erosion/sediment control BMP*	✓		✓
PESTICIDE & HERBICIDE MANAGEMENT			
Allowable agrochemical list and *No Application Period*		✓	✓
Pesticide & Herbicide Management • *Pesticide record keeping*		✓	✓

BMP Group/BMP Name	Site Verification		Training & Communications
	Observations	Records	
• *Read and understand label* • *Pesticide storage*			
Pesticide & Herbicide Application Optimization • *Integrated pest management* • *Application timing* • *Customized applications* • *Maintain soil pH in optimum range* • *Pesticide selection*	✓		✓
Pesticide & Herbicide Handling and Placement • *Reduce spray drift* • *Equipment calibration and 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)*	✓		✓
COPPER			
Minimize Use of Copper	✓	✓	✓
PETROLEUM & HAZARDOUS WASTE MANEGEMENT			
Gasoline and Diesel Fuel Storage & Containment • *Site equipment* • *Fuel delivery*	✓		✓
Farm Equipment Cleaning and Maintenance • *General equipment cleaning* • *Solvents and degreasers* • *Paint* • *Used oil, coolant and lead-acid batteries*	✓		✓

2.0 BMP PLAN ELEMENTS AnD SITE VERIFICATION GUIDELINES

AAAA. 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 points-to-consider 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 points-to-consider include:

- BMP implementation is verified by visual observations.

BBBB.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 points-to-consider include:

- Site verification will include discussion 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 should 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).
  - 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.
  - Site verification will include discussions with Tenant/Lessee to understand property water management approach and visual observation of structures and tools used to assist with water management decisions.

CCCC.2.3 NUTRIENT MANAGEMENT (FERTILIZING)

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 potential nutrient application optimization BMPs

indentified in the site-specific BMP plan:

- Nutrient management plan
- Soil analysis
- Maintain soil pH in optimum range
- Organic material soil amendments
- Slow release commercial fertilizer
- Use appropriate nutrient sources (i.e. non-commercially produced sludge, chicken manure, etc) and formulations
- Split fertilizer applications

Implementation points-to-consider include:

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

USSC utilizes a nutrient management plan to optimize nutrient applications. In cases where inconsistencies occur between the BMP nutrient management plan and the Everglades Agricultural Area (EAA) nutrient management plan, the EAA plan will take precedence.

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 in advertent 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 various potential nutrient handling and placement BMPs identified in the site-specific BMP Plan.

- Fertilizer application equipment
- Fertilizer storage
- Equipment calibration and maintenance
- Fertilizer loading sites
- Apply materials to target areas
- Avoid high leaching-potential situations
- Promptly recover spilled fertilizer
- Use backflow prevention devices
- Alternate loading operation sites

Implementation points-to-consider 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.

DDDD. 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 practicable, and prevent the infestation of Category I and Category II exotic/invasive pest plants. Multiple control methods may employed to implement this BMP including:

- Physical control
- Biological control
- Chemical control

Implementation points-to-consider include:

- Site verification will include discussion with operation managers to understand the agricultural operation upland exotic vegetation management approach.
- Site manager should 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 no exotic/invasive vegetation.

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 points-to-consider include:

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

EEEE. 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 points-to-consider include:

- Records should 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 matrix below) are recommended to implemented and maintained at all times on-site.

PRACTICE	DESCRIPTION
Use of Cover Crops	Systematic program of utilizing cover plants between rows and blocks
Use of Vegetation to Stabilize Water Channel Banks	Plant vegetation or maintain existing vegetation in a minimum of 2 foot wide strip of along ditch and canal banks to stabilize soil
Ditch Bank Berms	Place excavated rock and material along top of ditch bank and cover with organic soil and promote vegetation
Culvert Located above All Ditch Bottoms	Place and maintain culverts above bottom of field ditch connections to lateral canals
Systematic Ditch Cleaning Program	Clean all canals and ditches regularly through a systematic management plan to remove sediments preventing off-site discharge
Level Blocks	Systematic maintenance program to level fields which promotes uniform drainage thus, in part, reducing erosion
Grassed Field Ditch Connections to Laterals	Use vegetation as a soil stabilizer at the point of field ditch connections to lateral canal
Pipe in All Field Ditch Connections to Laterals	Use pipe to connect field ditches to laterals and canals to reduce erosion at intersection
Sediment Sump in All Field Ditches	Create and maintain sump to trap sediment at field ditch connections to lateral canals
Sediment Sump in Main Canal Near Discharge Pumps	Construct and maintain sediment sump in canal bottom near discharge pumps to trap bottom sediments
Other Proposed Erosion/Sediment Control BMP	Proposed by owner/operator and accepted by the District

FFFF. 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 and 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 attached **Chemical Application Restrictions** matrix should be followed. 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. 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.

CHEMICAL APPLICATION RESTRICTIONS

The following are examples of the lists of chemicals used for sugar cane cultivation and vegetable farming, and at the completion of the Phase I and II ESA activities, this list may change. 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

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

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

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

2-Butoxyethanol (*Dynamic*) [redacted]	Methanol (*Asulox*)	Mepiquat (*Reign*)

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

Ethoprop (*Mocap*)	Naphthalene (*Prowl, Headline*)	Propylene Glycol (*Furadan, Quadris*) [redacted]
Halosulfuron-methyl (*Sempra, Yukon*) [redacted]	Phorate (*Thimet*) [redacted]	

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

Atrazine (*Atrazine*) [redacted]	Ethylene dichloride (*Prowl*) [redacted]	Esfenvalerate (*Asana*)

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

Ametryn (*Evik*)	Trifloxysulfuron-sodium (*Envoke*)	[redacted]

M. Not allowed:
USSC does not apply any chemicals to the sugar can that are not allowed.

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

Diphacinone (*Ramikk Brown*) Fluquinconazole (*Jockey*) Hydroxy carboxylic acid (*Quest*)

****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***)

[redacted]

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***)

[redacted]

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

Bentazon (*Basagran*)

Carbaryl (*Sevin 80S*)

Cyfluthrin (*Baythroid 2*)
Cyhalothrin (*Proaxis*

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*)

[redacted]

Insecticide)
Diazinon (*Diazinon 4E*) Methomyl (*Lannate LV and Lannate SP*) [redacted]

[redacted]

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*)
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):

Boscalid (*Pristine 38WG*)	Fludioxonil (*Maxim 4FS*)	Potassium phosphite (*Fosphite, Prophyt, and Topaz*)
Hydrogen dioxide (*Oxidate*)	Pelargonic Acid (*Scythe*)	S-Methoprene (*Extinguish*)
Thiophanate-methyl (*Topsin M WSB and Thiophanate-methyl*)		

* 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 identify elevated copper levels in the cultivated fields above the Service provisional Snail Kite threshold level of 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 2014, 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. During this interim use period, soil samples should be collected for select areas within the cultivated fields to confirm that residual copper concentrations are not accumulating in the soil.

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 points-to-consider 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.

2.6.3 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 points-to-consider 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.

2.6.4 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 is the various potential pesticide handling and placement BMPs identified in the site specific BMP Plan.

- 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 points-to-consider 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.
- U.S. Sugar currently does not have a permanent mixing and loading facility. Should they 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

- If permitted by the label and local ordinances, bags, boxes and group I pesticide containers may

be burned in an open field by the owner of the crops. Group I containers are containers of organic or metallo-organic CP products, except for organic mercury, lead, cadmium, or arsenic compounds.

- 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.

GGGG. 2.6 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 points-to-consider 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

HHHH. 2.7 PETROLEUM AND HAZARDOUS WASTE MANAGEMENT

2.7.1 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)).

Implementation points-to-consider 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.).

2.7.2 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 points-to-consider 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 a certified containers until being transported offsite for disposal by a certified contractor.

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 Points to Consider' 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 attached.

APPENDIX A
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:			
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 B
EMERGENCY RESPONSE 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, Division of Emergency Management) or (850) 413-9911

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 West Palm Beach, FL 33415	(561) 233-1700
Hendry County	1085 Pratt Boulevard Dallas B Townsend Agricultural Center Labelle, FL 33935	(863) 674-4092
Glades County	900 US Highway 27 SW Moore Haven, FL 33471	(863) 946-0244
Gilchrist County	125 East Wade Street Trenton, FL 32693	(352) 463-3174

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 (850) 488-4066 or

Tallahassee, FL 32301 (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 (352) 392-4721
Agricultural Law Policy Office (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.

SCHEDULE "5"

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.

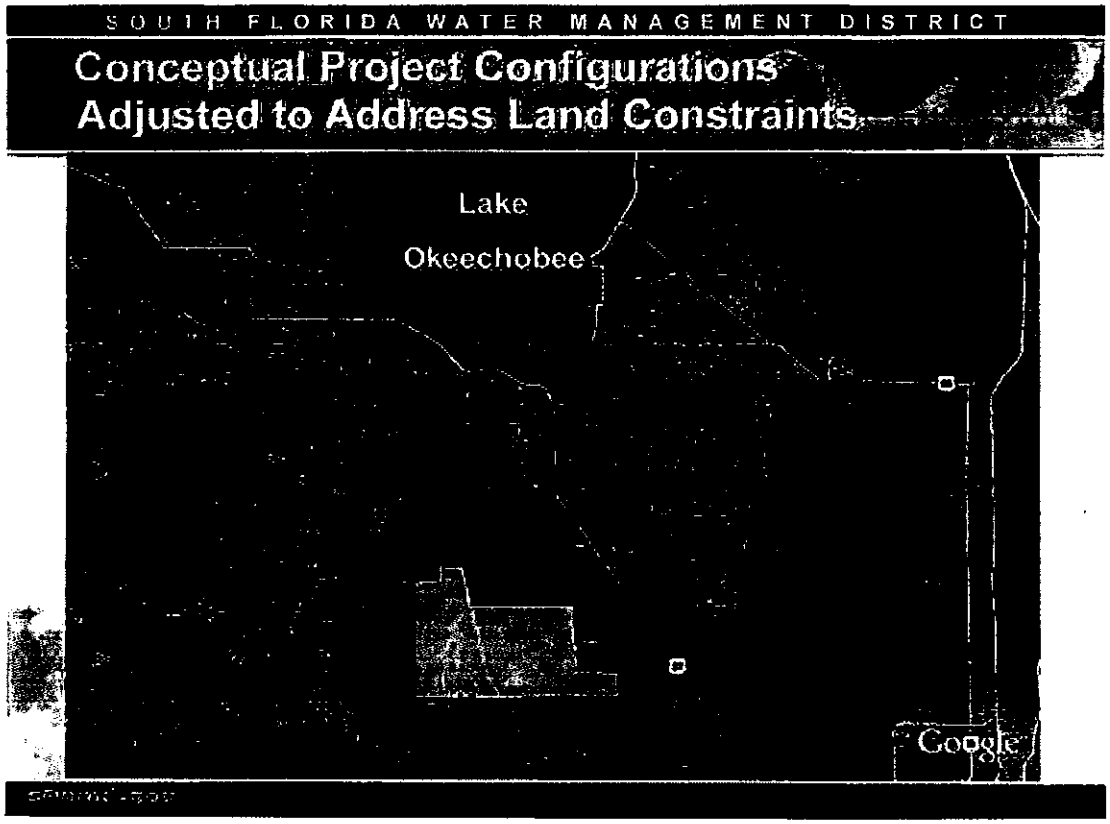
(2) In the event that **LESSEE** elects to restore such loss or damage as provided above, then: (i) if the cost of such restoration is determined to be less than or equal to $500,000, then **LESSOR** shall instruct the insurance company that the insurance proceeds for restoration shall be paid directly 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.

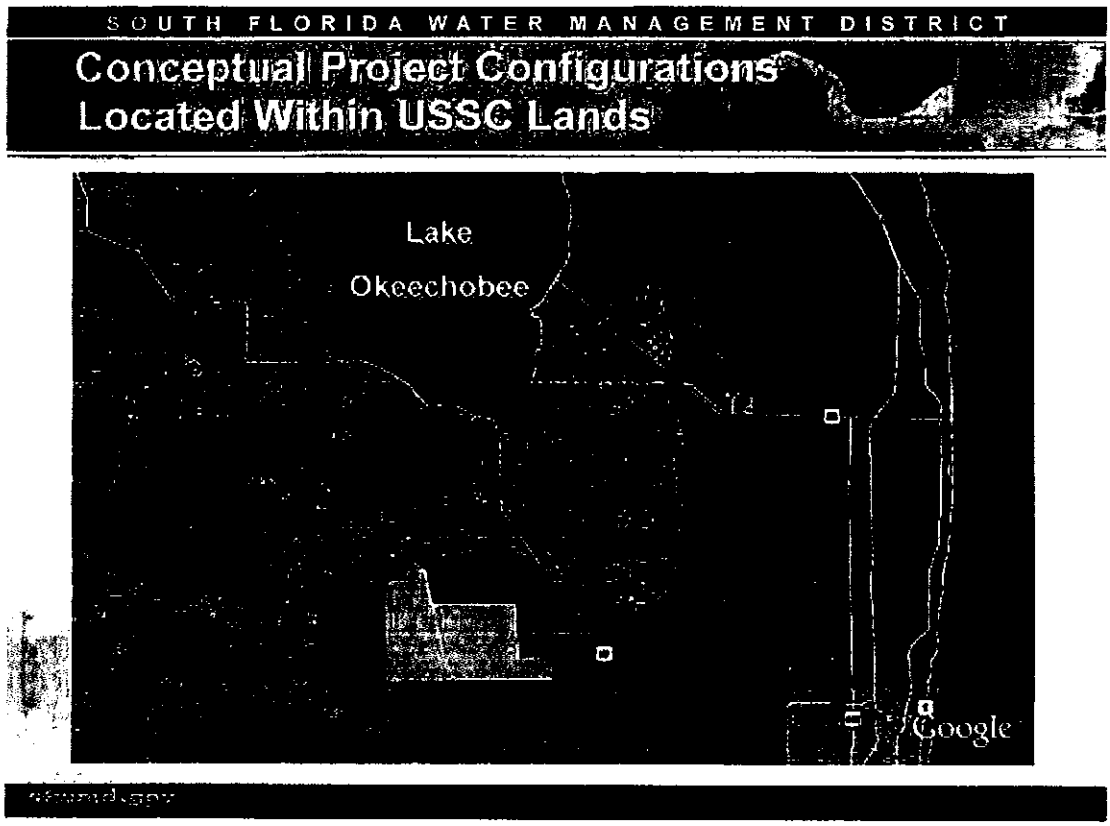
(3) In the event that **LESSEE** does not elect to restore such loss or damage as provided above, then insurance proceeds for the property damage shall be paid to **LESSOR** with all other recoveries being paid to the **LESSEE.** In such event, **LESSEE** shall also pay to **LESSOR** the amount of any 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 "6"

Portions of Premises to be used as Everglades Restoration Project




SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Conceptual Project Configurations
Located Within USSC Lands
Lake
Okeechobee
Google

SCHEDULE "7"

Escrow Agreement

[EXHIBIT 7.A.X TO PURCHASE AGREEMENT TO BE ATTACHED]]

SCHEDULE "8"

Form of Letter of Credit

[*FROM ISSUING BANK*]

[*TO BENEIFICIARY*]

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 bank charges and commissions incurred in this transaction are for the applicant's account.

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. The obligation of [insert name of bank or financial institution] under this Letter of Credit is the individual obligation of [insert name of bank or financial institution], 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 this Credit is drawn against within 30 days after the resumption of business.

Signing Officer Authorized Signing Officer

SCHEDULE "9"

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.f.ii

TENANT ESTOPPEL CERTIFICATE

TO: SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. Box 24680
West Palm Beach, FL 33416-4680

RE: Tenant:_____, as Tenant of those certain properties described as _____ _____(the Premises) pursuant to a Lease (the "Lease") dated _____, with _____, Landlord

This is to advise the South Florida Water Management District ("SFWMD") that the undersigned Tenant(s), (whether one or more, hereinafter referred to as the "undersigned") is the Tenant of the above-described Premises pursuant to the Lease. The undersigned understands that the SFWMD has agreed to purchase the real property containing the Premises. It is the undersigned's further understanding that the SFWMD will receive an assignment of the Landlord's interest in and to the Lease at Closing.

The SFWMD has requested that the undersigned confirm certain facts relative to the undersigned's occupancy and possession of the Premises and any rights or interest the undersigned may have in and to the Premises. Accordingly, the undersigned hereby confirms and certifies to the SFWMD the following facts with full knowledge that the SFWMD will rely thereon in purchasing the Premises:

1. The undersigned is the Tenant of the Premises under the Lease.

2. The Lease is current and in good standing and not in default as to either the obligation of the undersigned and/or the Landlord as of this date.

3. The Lease is in full force and effect and as of this date the undersigned is not entitled to any credit, offset or deduction in rent and has no claim against the Landlord for damages or other form of relief.

4. The Lease term expires on _____.

5. The undersigned has not been granted any option to purchase the Premises or any portion thereof and has not been granted concessions of free rent.

6. The undersigned's rental payment is currently in the monthly amount of $_____ plus $_____ for sales tax and is payable in advance on the _____ day of each month. The undersigned last made a rental payment on _____, which payment was in the

amount of $_____ and constituted payment of rent for the month of _____.

7. The undersigned has not prepaid any rent.

8. The current balance of the undersigned's security deposit is: $_____.

9. The Premises are in good condition and repair and the Landlord is not currently obligated to make any repairs.

10. The undersigned has an option to extend this Lease for an additional _____, _____-year period(s) which option(s) **[please circle one:]** (have)(have not) been exercised.

Dated this _____ day of _____, 199____.

Witnesses:	Tenant:
_____	By:_____
Print:_____	Print:_____
_____	By:_____
Print_____	Print:_____

EXHIBIT 21.c.iv

REMEDIATION ACCESS AGREEMENT

United States Sugar Corporation, a Delaware corporation, SBG Farms, Inc., a Florida corporation and Southern Gardens Groves Corporation, a Florida corporation (collectively, "Seller") and South Florida Water Management District, a State agency created under Chapter 373, Florida Statutes ("Buyer") have entered into that certain Agreement for Sale and Purchase dated _____ ("Agreement") (unless otherwise defined herein, all capitalized terms used in this Remediation Access Agreement (the "Access Agreement") shall have the meanings ascribed to them in the Agreement) for the sale of the Premises, as more particularly described therein. The Closing has occurred under the Agreement and Seller has requested access to the Premises from and after the Lease Termination Date in order to perform any Additional Remediation under **Section 21** of the Agreement, if any ("Seller's Obligations"), and Buyer has consented to providing such access, in accordance with the terms of the Agreement. In connection therewith, Seller and Buyer agree as follows:

1. **Insurance**. Before being granted access to the Premises, Seller shall deliver to Buyer a certificate of insurance demonstrating that Seller, and its agents and/or contractors carry commercial general liability insurance in an amount not less than $1,000,000.00 combined single limit per occurrence for bodily injury, personal injury and property damage liability, which certificate shall name Buyer as an additional insured thereunder, and a confidentiality agreement in a form and substance satisfactory to Buyer.

2. **Access and Inspections**. Buyer hereby agrees to allow Seller and its agents, employees, and contractors to enter the Premises as limited by the terms of this Access Agreement. Seller, its agents, employees, or contractors shall have access to the Premises on the terms set forth in the Agreement (subject to compliance with **Section 1 above**, if applicable) for the purposes of performing Seller's Obligations, which shall include, without limitation: any investigation, study, sampling, testing, abatement,

construction, cleanup, removal, remediation, or other action reasonably required in order for Seller to complete the Seller's Obligations pursuant to the terms of the Agreement. Seller shall provide at least forty-eight (48) hours prior written notice to Buyer requesting such access, which written request shall specify the time and manner of such activities which are scheduled to occur during such access. Buyer shall have the right to have a representative accompany Seller, its agents, employees, or contractors during all such access or activities. All activities by the undersigned 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 the Premises and the business of Buyer and its tenants and occupants; and (iii) at all times to comply with all of Buyer's or its tenant's safety standards and requirements. The rights granted to Seller in this **Section 2** shall expire on the completion of the Seller's Obligations. In the event of any default by Seller, Buyer may, by notice to Seller, immediately terminate the license granted hereunder.

3. **Indemnity**. Seller shall indemnify, defend and hold Seller harmless from and against any personal injury, loss, damage, cost or expense (including reasonable attorneys fees and costs) incurred by Buyer as a result of or arising out of Seller's access to the Premises and to restore the Premises to its condition, to the extent reasonably practicable, prior to such access (it being understood that the foregoing indemnity and obligation to restore and repair the Premises shall specifically survive any termination of this Access Agreement). Such indemnity does not include conditions caused solely by Buyer's own use or operation of the Premises or Buyer's own negligence.

4. **No Assignment**. The grant of access provided herein to the undersigned shall be non-assignable and shall not confer any estate, title or possessory rights in the Premises to undersigned.

5. **Due Authorization and Execution**. Buyer represents and warrants to Seller and Seller represents and warrants to Buyer that each has the right, power, legal capacity and authority to enter into and perform its obligations under this Access Agreement, and

that this Access Agreement constitutes the valid and legally binding obligation of Buyer and Seller enforceable in accordance with its terms.

6. **Modification**. This Access Agreement shall not be modified (and no purported modification thereof shall be effective) unless in writing and signed by Buyer and Seller.

7. **Governing Law**. The parties hereto do hereby agree that this Access Agreement and the rights and obligations of the parties hereto shall be governed by the laws and jurisdiction of the State of Florida.

8. **Miscellaneous**. Except as otherwise stated herein, this Access Agreement is governed by all the terms and conditions of **Section 21** of the Agreement.

IN WITNESS HEREOF, the parties have duly executed this Agreement as of the date first set forth below.

Witnessed by:

SELLER:

UNITED STATES SUGAR CORPORATION, a Delaware corporation

Witness: _____

By: _____
Name: _____
As its: _____

Witness _____

Date of Execution _____

SBG FARMS, INC., a Florida corporation

Witness: _____

By: _____
Name: _____
As its: _____

Witness _____

Date of Execution

SOUTHERN GARDENS GROVES CORPORATION, a Delaware corporation

Witness: _____

By: _____
Name: _____
As its: _____

Witness _____

Date of Execution

ASSIGNEE:

SOUTH FLORIDA WATER
MANAGEMENT DISTRICT,
a public corporation created under Chapter
373, Florida Statutes

Witness: _____

By: _____

Name: _____

As Its: _____

Witness _____

Date of Execution _____