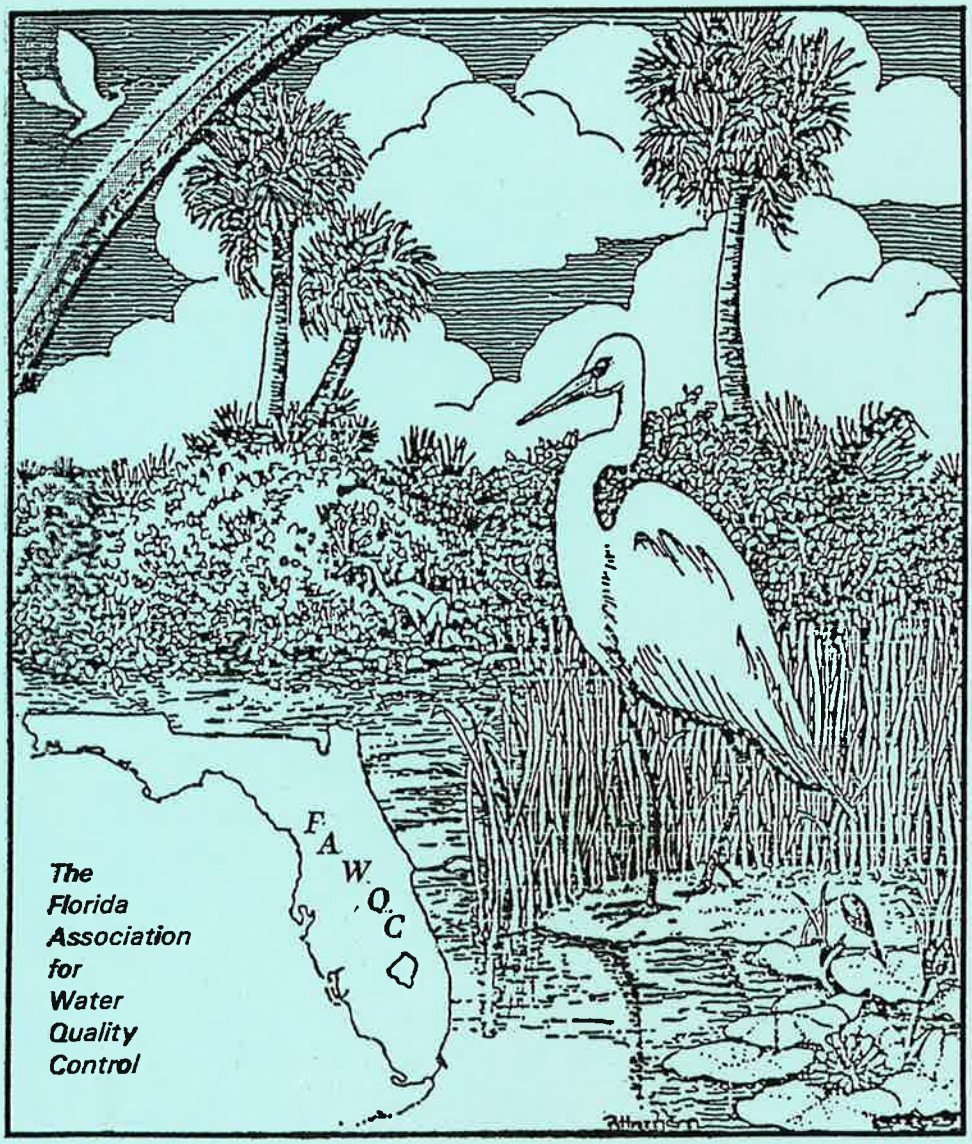
Dale Caldwell

Florida Association for Water Quality Control 19th Annual Meeting



Naples, Florida

June 19, 20, 21, 1996

FLORIDA ASSOCIATION FOR WATER QUALITY CONTROL

Proceedings of the 19th Annual Conference
June 19 -22, 1996
Naples, Florida

FLORIDA
ASSOCIATION
for
WATER
QUALITY
CONTROL

June 19, 1996

Dear Attendees:

On behalf on the Officers, Board of Directors and the Committee Chairs, I welcome you to the 19th Annual Conference of the Florida Association for Water Quality Control. This years program offers something for everyone. We have a diversity of water issues from wetlands to management systems; from regulation to compliance. We have been able to assemble a special group of individuals with expertise in their respective fields to provide you with the most up-to-date technical information available.

Several other activities have been arranged for your enjoyment. You will be able to continue pertinent program discussions in the relaxed atmosphere of the Wednesday evening social. This year we have also scheduled a Thursday evening dinner cruise on Naples Bay and the Gulf of Mexico.

Again this year, the quality of this conference would not have been possible without the dedication and hard work of the FAWQC Committee Chairs. These individuals, who are listed in Section VII, have donated countless hours of their time to make this conference run smoothly and successfully.

FAWQC is able to put this conference together every year only through the support of our sponsors and exhibitors. The sponsors are listed in Section I and deserve our thanks for their continued support. The exhibitors are found in Section V. Please find an opportunity to visit them at the breaks during the conference.

I thank you for your participation in this conference and know that you will leave with a greater understanding of the water issues which currently confront all of Florida. Have a great time!

Sincerely,

Fred

R. Fred Crabill
Chairman

SECTION I

Special Thanks to Our Corporate Sponsors of FAWQC

FLORIDA ASSOCIATION FOR WATER QUALITY CONTROL

19th Annual Conference
Corporate Sponsors

The arrangement of a good technical conference requires a tremendous amount of time and effort. The Florida Association for Water Quality Control Annual Conference is unique from many other conferences in that, in addition to providing an excellent forum for the exchange of technical information, they are always enjoyable to attend. We can afford to hold attractive and exciting conferences because of the generosity and support of our Corporate Sponsors. Their donations allow the FAWQC Board to meet routinely to plan the conference, fund the hospitality hours, and more importantly in recent years, allow the FAWQC to support young people pursuing research in water quality related fields. The FAWQC Board wishes to express its sincere thanks to our Corporate Sponsors.

Atlanta Testing & Engineering
P.O. Box 5527
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IMC-Agrico Company
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(941)428-2500

PCS Phosphate
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White Springs, Florida 32096
(904)397-8269

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Tampa, Florida 33601
(813)227-6456

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Bradenton, Florida 34206-0338
(941)742-2748

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123 South Calhoun Street
Tallahassee, Florida 32314
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Orlando, Florida 32859-3003
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CF Industries
P.O. Box 1549
Wauchula, Florida 33873
(813)375-4321

Florida Phosphate Council
215 S. Monroe Street, Suite 830
Tallahassee, Florida 32301
(904)224-8238

US Agri-Chemicals
3225 S.R. 630
Ft. Meade, Florida 33841-9799
(941)285-8121

FLORIDA ASSOCIATION for WATER QUALITY CONTROL

wishes to thank

MONSANTO COMPANY

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CF INDUSTRIES

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HOLLAND & KNIGHT, P.A.

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PCS PHOSPHATE

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the 1996 FAWQC Conference

SECTION II

FAWQC Conference Speakers

Florida Association for Water Quality Control Conference Speakers

Jim Ashby, *Environmental Project Manager,* Engineering Resources

John M. Barkett, *Esquire,* Coll Davidson Carter Smith Salter & Barkett

Ernie Barnett, *Director of Ecosystems Planning,* Florida Department of Environmental Protection

Thomas M. DeRose, , *Shareholder,* Hopping, Green, Sams, & Smith, P.A.

Tom Dyer, *Vice President,* Two Rivers Ranch

T.P. Fowler, *Senior Vice President Operations,* IMC-Agrico Co.

Terry Griffin, HSW Environmental Consultants, Inc.

Wade L. Hopping, *Shareholder,* Hopping, Green, Sams & Smith, P.A.

James G. Horne, *Special Assistant to the Director in the Office of Wastewater Management,* U.S. EPA

Peter G. Hubbell, *Executive Director,* Southwest Florida Water Management District

Jon Hull, *Principal Consultant,* Atlanta Testing & Engineering

Douglas A. Jones, *Bureau Chief, Bureau of Waste Cleanup,* Florida Department of Environmental Protection

Satish Kastury, *Environmental Administrator of the RCRA Section,* Florida Department of Environmental Protection

David R. Mica, *Associate Director,* Florida Petroleum Council

Frank E. Matthews, *Shareholder,* Hopping, Green, Sams, & Smith, P.A.

Gene McNeill, *Director of Safety and Environmental,* PCS Phosphate

A. Stanley Meiburg, *Deputy Regional Administrator,* Region IV EPA

Mamie R. Miller, *Chief of Manufacturing Branch, Office of Compliance,* US EPA

W. Jeffrey Pardue, *Director of Environmental Services,* Florida Power Corporation

Thomas J. Patka, *Partner,* Holland & Knight

Karen Peterson, *Associate,* Hopping Boyd Green & Sams, P.A.

Michael P. Petrovich, *Senior Associate,* Hopping, Green, Sams & Smith, P.A.

Florida Association of Water Quality Control Conference Speakers *(continued)*

Mary Lou Rajchel, *Vice President of Regulatory Affairs,* Florida Phosphate Council

Jim Raley, *Senior Consultant,* AT&E

Stephen Roberts, *Chairman, Florida Risk-Based Priority Council, Director of the Center for Environmental and Human Toxicology,* University of Florida

Armando Rodriguez, *Manager, Environmental Control Department,* Walt Disney World Company

James G. Sampson, *Environmental Director,* CF Industries

Mark R. Stephens, *Principal Consultant,* Atlanta Testing & Engineering

Christopher Teaf, *Associate Director, Center for Bio-Medical and Toxicological Research,* Florida State University

Chuck Walter, *Operations Environmental Manager,* Florida Department of Transportation District 7

Jeffrey J. Ward, *Vice President of Legal Affairs,* Sugar Cane Growers Cooperative of Florida

John G. Wiley, *Environmental Superintendent,* Monsanto Chemical Company

SECTION III

Meeting Agenda and Technical Program

19TH ANNUAL CONFERENCE
FLORIDA ASSOCIATION FOR WATER QUALITY CONTROL
THE REGISTRY RESORT, NAPLES, FLORIDA
JUNE 19-22, 1996
CONFERENCE AGENDA

WEDNESDAY, JUNE 19, 1996

1:00 p.m.- 5:00 p.m. — ***On-Site Conference Registration and Materials Pickup***

1:30 p.m. - 5:00 p.m. — ***Exhibit Hall Open***

1:30 p.m. - 1:45 p.m. — ***Welcome Remarks***
Fred Crabill, Chairman, Florida Association of Water Quality Control
Lisa Sutton, Vice Chair, Technical Program Chairperson

ANNUAL FAWQC WORKSHOP

"Developing Environmental Management Systems: Tools for Environmental Management and The Future of Cooperative Environmental Initiatives"

1:45 p.m.- 5:00 p.m.

Developing Environmental Management Systems
New ISO 14000 Standards
EPA's Environmental Leadership Program (ELP)
EPA's Project XL
Common Sense Initiative

Environmental Management Systems:
Integration of environmental management into the business decision making process will be key to survival for small or large businesses in the 90's and beyond. Learn what you need to do to be a survivor.

(Continued ...)

ISO 14000 Environmental Management Standards:
Close relative to the 9000 series of management standards that can benefit any size organization, ISO 14000 extends 9000 series concepts and practices to facilitate total quality environmental management. Learn about the far-reaching affects of ISO 14000 on your company's ability to compete in the both the domestic and/or the international marketplace.

Voluntary Initiatives:
EPA representatives will discuss the benefits of several proactive environmental initiatives like the Environmental Leadership Program, Project XL, and the Common Sense Initiative. This is an excellent opportunity to develop a better understanding of these programs and their linkages to sound environmental management.

MODERATOR:
Jon E. Hull, Vice Chairman of the Technical Program, FAWQC

SPEAKERS:
James G. Horne, Special Assistant to the Director in the Office of Wastewater Management, EPA
Karen Peterson, Associate, Hopping Green Sams & Smith, P.A.
Mamie R. Miller, Chief of Manufacturing Branch, Office of Compliance, US EPA
Jim Raley, Senior Consultant, AT&E

3:15 p.m. - 3:35 p.m. ***WORKSHOP REFRESHMENT BREAK IN THE EXHIBIT HALL***

6:00 p.m. - 7:30 p.m. ***Social Reception in the Exhibit Hall***

(Continued ...)

THURSDAY, JUNE 20, 1996

6:00 a.m. - 7:00 a.m.	**Fun Run/Walk To the Beach** (Meet at The Registry Pool)
7:00 a.m. - 8:15 a.m.	***Continental Breakfast***
7:30 a.m. - 5:00 p.m.	***On-Site Conference Registration***
8:00 a.m. - 5:00 p.m.	***Exhibit Hall Open***
8:00 a.m. - 8:15 a.m.	***Announcements and Overview of Scheduled Activities***
8:15 a.m. - 9:00 a.m.	***Opening General Session*** ***1996 Legislative/ Regulatory Update*** SPEAKER: Wade L. Hopping, Shareholder, Hopping Green Sams & Smith, P.A.
9:00 a.m. - 10:15 a.m.	***Wetlands Permitting/Ecosystems Management*** MODERATOR: Gene McNeill, Director of Safety and Environmental, PCS Phosphate, White Springs SPEAKERS: Earnie Barnett-Director of Ecosystems Planning, FDEP Tom Dyer, Vice President, Two Rivers Ranch
10:15 a.m. - 10:30 a.m.	***REFRESHMENT BREAK IN THE EXHIBIT HALL***
10:30 a.m. - 11:00 a.m.	**Implementation of Ecosystems Management - A FDOT Perspective** SPEAKER: Chuck Walter, P.G., Operations Environmental Manager, FDOT, District 7

(Continued ...)

THURSDAY, JUNE 20, 1996 (continued)

11:00 a.m. - 11:30 a.m.

Water Conservation in the Citrus Processing Industry

SPEAKER:
Jim Ashby, Environmental Project Manager, Engineering Resources

11:30 a.m. - 1:00 p.m.

LUNCHEON AND FAWQC ANNUAL BUSINESS MEETING

LUNCHEON SPEAKER:

"New Partnerships and Initiatives at EPA"
A. Stanley Meiburg, Deputy Regional Administrator, Region IV EPA

1:00 a.m. - 1:45 p.m.

Risk Assessment in Florida: Practices and Recent Developments

SPEAKERS:
Dr. Christopher M. Teaf, Associate Director, Center for Bio-Medical and Toxicological Research, Florida State University
Dr. Stephen Roberts, Chairman, Florida Risk-Based Priority Council Director of The Center for Environmental and Human Toxicology, University of Florida, Gainesville

1:45 p.m. - 2:25 p.m.

Return From the Asylum: A Plea for Sanity in Environmental Compliance, Investigations, and Remediations

SPEAKER:
John M. Barkett, Esquire
Coll Davidson Carter Smith Salter & Barkett, P.A.

2:25 p.m. - 2:40 p.m.

REFRESHMENT BREAK IN THE EXHIBIT HALL

(Continued ...)

2:40 p.m. - 3:45 p.m.

Phosphate Partnerships and Prospects

MODERATOR:
Mary Lou Rajchel, Vice President of Regulatory Affairs,
Florida Phosphate Council

SPEAKERS:
T.P. Fowler, Senior Vice President Operations, IMC-Agrico Co.
James G. Sampson, Environmental Director, CF Industries

3:45 p.m. - 5:15 p.m.

Environmental Compliance Auditing Strategies

MODERATOR:
Thomas M. DeRose, Shareholder,
Hopping Green Sams & Smith, P.A.

SPEAKERS:
John G. Wiley, Environmental Superintendent,
Monsanto Chemical Company
W. Jeffrey Pardue, Director of Environmental Services,
Florida Power Corporation
Mark R. Stephens, Principal Consultant, AT&E

6:15 p.m.- 9:30 p.m.

Sunset Dinner Cruise Aboard The Naples Princess on Naples Bay

Co-sponsored by: Hopping Green Sams & Smith, P.A.
Monsanto Chemical Company
Atlanta Testing & Engineering

Trolley Transportation to Depart Outside Front Lobby.
Boarding begins 6:15 and trolleys depart promptly at 6:30.

Attire: Evening Resort Wear

(Continued ...)

FRIDAY, JUNE 21, 1996

7:00 a.m. - 8:15 a.m. ***Continental Breakfast***

8:00 a.m. - 12:00 a.m. ***Exhibit Hall Open***

8:00 a.m. - 8:05 a.m. ***Announcements and Overview of Scheduled Activities***

8:05 a.m. - 9:30 a.m. ***Water Wars Panel***

MODERATOR:
Frank E. Matthews, Shareholder, Hopping, Green, Sams & Smith, P.A.

PANELISTS:
Peter Hubbell, Executive Director,
Southwest Florida Water Management District
Jeffrey J. Ward, Vice President of Legal Affairs,
Sugar Cane Growers Cooperative of Florida

9:30 a.m. - 9:45 a.m. ***REFRESHMENT BREAK IN THE EXHIBIT HALL***

9:45 a.m. - 10:05 a.m. ***Permitting of Groundwater Discharges - A Case Study***

SPEAKER:
Armando Rodriguez, Manager, Environmental Control Dept.
Walt Disney World Co.

10:00 a.m. - 11:10 a.m. ***RCRA/HSWA Update***

MODERATOR:
Thomas J. Patka, Partner, Holland & Knight

SPEAKERS:
Satish Kastury, Environmental Administrator of the RCRA Section, DEP
Terry Griffin, P.G. , HSW Environmental Consultants, Inc.

(Continued ...)

FRIDAY, JUNE 21, 1996 *(continued)*

11:10 a.m. - 12:30 p.m. — ***Florida Storage Tank Program Update***

MODERATOR:
Michael P. Petrovich, Senior Associate, Hopping Green Sams & Smith, P.A.

SPEAKERS:
Douglas A. Jones, Bureau Chief, Bureau of Waste Cleanup, Florida Department of Environmental Protection
David R. Mica, Associate Director, Florida Petroleum Council

12:30 p.m. - 12:35 p.m. — ***Conclusion and Conference Wrap - Up***

SATURDAY, JUNE 22, 1996
FAWQC ANNUAL SPORTING EVENTS

9:00 a.m. — ***Golf - Quail West***
(Deadline for Sign Up: June 18)

9:00 a.m. — ***Tennis - Registry Tennis Courts***
(Sign Up at the Conference Registration Desk)

. . . . . FUTURE CONFERENCE DATES . . . . . .

MARK YOUR CALENDAR FOR THE 20TH ANNUAL

FLORIDA ASSOCIATION FOR WATER QUALITY CONTROL

JUNE 18-20, 1997

THE REGISTRY RESORT

NAPLES, FLORIDA

SECTION IV

Speaker's Biographical Information and Printed Materials

ANNUAL FAWQC WORKSHOP

Developing Environmental Management Systems: Tools for Environmental Management and The Future of Cooperative Environmental Initiatives

Moderator: **Jon Hull**

Speakers: **James Horne**
Karen Peterson
Mamie Miller
Jim Raley

Ms. Miller is Chief of the Manufacturing Branch in the newly established Office of Enforcement and Compliance Assurance where she is responsible for developing compliance assistance programs for the manufacturing sectors. She has been with the EPA for approximately 19 years. Ms. Miller holds both a B.A. and M.A. in political science from George Washington University, and a J.D. from the Washington College of Law at American University. Ms. Miller is a member of the Virginia State Bar.

Environmental Leadership Program

Six Month Progress Report

WMX Technologies, Inc.

The Facilities

WMX Technologies, Inc., has agreed to demonstrate its environmental management systems (EMSs) at two facilities: 1) the Columbia Ridge Landfill and Recycling Center (CRLRC); and 2) the Chemical Waste Management of the Northwest (CWMNW) facility both in Oregon. The CRLRC facility is a modern regional solid waste landfill. The site covers a total of 15,000 acres, 640 of them permitted for landfill construction. The facility receives 4,000-5,000 tons of solid waste per day. The CWMNW facility accepts solid, semi-solid and liquid hazardous waste. It also is permitted to accept extremely hazardous, restricted (excluding Class A explosives), radioactive, and biological wastes. The site covers 1,320 acres, 320 of them approved for hazardous waste activities.

The primary objective of the WMX Technologies, Inc./Oregon Department of Environmental Quality's Environmental Leadership Program (ELP) pilot project is to demonstrate and evaluate the WMX EMS, with a particular focus on compliance systems. The WMX environmental compliance program is designed to achieve 100% compliance. Known by the acronym "PACT", it includes components to:

P - Prevent compliance issues from arising
A - Assess environmental compliance systems and performance
C - Correct any identified non-compliance issues and prevent their recurrence
T - Train facility employees on environmental requirements and management systems.

The components of this pilot project include the following:

- Prevention
  - WMX Compliance Assurance Program
  - Communication and understanding of requirements
- Assessment
  - Inspections
  - Facility Self Audits
  - Corporate Audits
- Corrective Action
  - WMX Corrective Action Program
  - Use of Compliance Action Reporting System (CARS) for tracking enforcement actions
- Training
  - WMX Compliance Curriculum
  - Compliance Management System (CMS) as a training tool
- Compliance Performance Measures
- Environmental Excellence.

WMX

U.S. Environmental Protection Agency's Environmental Leadership Program

deq

Accomplishments and Status of ELP Components

WMX Compliance Assurance Program

WMX (1) trained the ELP Team on the WMX compliance assurance program and the use of CMS software, and (2) enhanced the CMS Information Mapped® regulatory requirements databases at the pilot facilities. In addition, the CMS Central Service is monitoring regulations applicable to the pilot facilities for changes and updating compliance assurance task information as necessary.

Through review of the WMX "PACT" system, the ELP Team identified several necessary components of an environmental CMS. To date, the ELP Team believes that to adequately prevent non-compliance, a facility should assign prevention responsibilities, compile a comprehensive and accurate database of environmental requirements applicable to a specific facility, integrate compliance into operational activities, and continuously evaluate the use and effectiveness of the prevention system.

Communication and Understanding Of Requirements

WMX identified a methodology called Information Mapping®, which is a performance-based writing technique that is designed to break down complex technical information, such as regulations, into concise and understandable information, guidance, actions, and/or procedures. Information Mapping® training was provided to ELP Team members and select facility and Oregon Department of Environmental Quality (ODEQ) staff.

To explore the feasibility of writing regulations, permits, and/or guidance documents in the Information Mapping® format, ELP Team members "mapped" one Oregon regulation (Division 95) and shared "before" and "after" versions with ELP participants at the September 1995 conference, select U.S. EPA representatives and WMX customers. The ELP Team solicited feedback from agency and other industries on the concept of Information Mapping® regulations and permits. Regulation mapping feedback received, to date, has been limited but very positive.

WMX Assessment Program

ELP Team members participated in inspections of both pilot facilities; an evaluation of the inspections was also completed.

Compliance verification training was provided to the ELP Team, other members of the self-audit teams, and ODEQ personnel. Self-audits were completed for both facilities using the CMS tasks as a checklist of compliance requirements. Evaluations of the self-audits were conducted immediately following these activities and in subsequent ELP Team conference calls.

Based on pilot activities completed to date, the ELP Team believes that to adequately assess compliance performance, a facility should assign assessment responsibilities, establish a defined scope and frequency for assessments, use a systematic method to review the compliance status of the facility and its operations, implement controls, and establish a reporting/follow-up process. For WMX, one means of heightening the objectivity of self assessments is to periodically enlist assistance from outside the facility. Costs and facility acceptance of this concept have to be considered. Another option is to rotate inspection and self-auditing responsibilities at a given facility to ensure a "fresh set of eyes."

WMX

U.S. Environmental Protection Agency ENVIRONMENTAL LEADERSHIP PROGRAM

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WMX Corrective Action Program

WMX demonstrated the use of the Compliance Action Reporting System (CARS) at the Oregon pilot facilities and provided training on its use to ODEQ and U.S. EPA. CARS data for the pilot facilities are shared among the members of the ELP Team, and use of the system for ensuring the timely and effective resolution of issues is being evaluated. The ELP Team periodically reviews issues being tracked in CARS to ensure that the corrective actions identified will resolve the issue, the preventive actions will eliminate the root cause of the issue, and the schedule for resolving the issues is timely. The ELP Team is exploring ways to provide information about CARS to other companies, to further understand the usefulness of the system to other types of businesses.

Through evaluation of WMX's corrective action program, the ELP Team has begun to identify the necessary components of a system for corrective action of environmental compliance issues. The ELP team believes a facility should assign responsibilities, completely describe and record each compliance issue, plan a corrective action, plan a preventive action, establish resolution due dates, track resolution, report to management, implement controls, and identify recurring issues.

Use of CARS for Tracking Enforcement Actions

To evaluate the use of CARS as a State inspection and enforcement tracking tool, WMX provided CARS training to agency representatives and programmed a version of CARS for use by ODEQ. ODEQ is piloting use of the system for inspection and enforcement tracking.

WMX Compliance Curriculum

The WMX *Compliance* and *Regulatory Awareness* environmental training courses were conducted for facility staff and ELP Team members. Measures for evaluating training effectiveness were developed and data are being compiled for these measures. Two of the WMX environmental compliance courses will be presented to other companies in Oregon to help evaluate their effectiveness.

Through evaluation of the WMX training program, the ELP Team has begun to identify the necessary components of a system for providing environmental training to employees. The ELP Team believes that a facility should identify environmental training needs, establish a process to set training objectives and design training curricula, develop training materials, and measure training effectiveness.

Compliance Performance Measures

To identify measures for companies to use to track the implementation of their environmental CMS, and to gauge its performance, WMX extensively discussed and refined performance measures that had been in use. Data for the performance measures are being collected for the pilot facilities.

Environmental Excellence

ELP activities include evaluating the WMX Environmental Policy and Principles as a framework for environmental protection and enhancement at the facility level. In addition, WMX is implementing new initiatives to meet three of the principles; biodiversity, energy conservation, and recycling.

WMX

U.S. Environmental Protection Agency's Environmental Leadership Program

deq

Baseline data for specific activities under the Policy and Principles were established. Data have been collected through 1995 and will continue for the duration of the pilot project. A research and demonstration project is underway to evaluate options for restoring biodiversity during site closure activities, review the status of a rare plant species on site, and review wildlife and wetland enhancements. Construction of a facility to provide basic processing of recyclables is underway to enhance recycling services. Options for energy conservation are being evaluated. Use of a geographic information system to integrate site environmental data is being evaluated.

Community Involvement and Awareness

Community members attend bi-monthly facility environmental excellence meetings. Facility staff members briefed the citizens advisory committee on the progress of the ELP and solicited input on environmental excellence projects. Development of the farmers' waste management outreach materials has begun, working with a not-for-profit organization devoted to education and proper management of solid and hazardous wastes. There are a number of communication opportunities which the ELP Team has identified and will participate in before the end of the pilot. These include a presentation on the ELP pilot at the Global Environmental Management Initiative annual conference in March 1996, and presentation of a paper at the Air and Waste Management Association annual conference in June 1996.

For More Information

For more information on the Environmental Leadership Program and its pilot facilities, contact EPA's Pollution Prevention Information Clearinghouse at (202) 260-1023 or by fax at (202) 260-0178. Additional information can be obtained by accessing EPA's Environmental Leadership Program website at http://es.inel.gov/elp.

For additional information on the WMX pilot project, please contact one of the following persons:

Facility Contact:	Chuck Sutfin - (708) 218-1834; Fax (708) 218-1555
EPA Headquarters Contact:	John Dombrowski - (202) 564-7036; Fax (202) 564-0037
EPA Regional Contact:	Dave Tetta - (206) 553-1327; Fax (206) 553-7176
State Contact:	Chuck Donaldson - (503) 378-8240 x266; Fax (503) 378-4196

WMX

U.S. Environmental Protection Agency's Environmental Leadership Program

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ATLANTA TESTING & ENGINEERING
19321 U.S. 19 North, Suite 101
Clearwater, FL 34626

Telephone: (813) 532-4447
Facsimile: (813) 535-3817

JIM RALEY recently joined AT&E as a Senior Consultant, Environmental Management Systems Division, after 15 years with AT&T. During his tenure with AT&T, Mr. Raley spent 5 years manufacturing and testing high-speed data communications equipment and 10 years as the EH&S Manager for the Paradyne facility in Largo, Florida. His efforts in implementing "green" manufacturing technologies drove the Largo facility to eliminate industrial wastewater discharges, CFC use in manufacturing, and USEPA Reportable Toxic Air Emissions. As a core member of AT&T's Green Accounting Team, Mr. Raley was a key player in the development of USEPA documents on Green (environmental) Accounting. As part of the EH&S team, Jim helped AT&T Paradyne receive the following awards: the President of the United States' "Environmental Conservation Challenge Award," Florida's 1995 "Governor's Sterling Award," Florida's 1996 "Governor's Environmental Education Award for Sustainable Florida" (one-of-three finalists), as well as several national, state and local awards for environmental excellence. Jim has an extensive background in Quality and Environmental Management and will be using his experience and knowledge to help customers integrate business and EH&S management issues. Mr. Raley holds two degrees from Nova Southeastern University: a Bachelor of Science degree in Professional Management (1994) and a Masters of Business Administration (1996).

ATLANTA TESTING & ENGINEERING
19321 U.S. 19 North, Suite 101
Clearwater, FL 34626

Telephone: (813) 532-4447
Facsimile: (813) 535-3817

JON HULL is a professional geologist and a Principal Consultant for Atlanta Testing & Engineering (AT&E). Mr. Hull manages AT&E's office in Clearwater, Florida and has practiced environmental consulting for over 15 years. His professional experience includes investigations for RCRA, CERCLA and LUST sites, feasibility studies, and design, installation and management of in-situ and ex-situ remediation systems, and auditing. Mr. Hull has assisted clients by conducting audits of their environmental management systems.

AGENDA

- Overview of ISO 14000
- Fundamental Components of Environmental Management Systems
- Analysis of Environmental Aspects in Manufacturing

ISO 14000
ENVIRONMENTAL MANAGEMENT STANDARDS

presented by:

Mr. Jonathan E. Hull, P.G.
Principal Consultant

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Environmental Policy

- Define organization's environmental policy and goals

Notes:

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& engineering

Planning

- Environmental aspects
- Legal & other requirements
- Objectives & targets
- Environmental management program(s)

Notes:

Implementation & Operation

- Structure and responsibility
- Training, awareness, and competence
- Communication
- EMS documentation
- Document control
- Operational control
- Emergency preparedness and response

Notes:

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Checking & Corrective Action

- Monitoring & measurement
- Non-conformance and corrective and preventative action
- Records
- EMS audit

Notes:

Management Review

- Review EMS to ensure suitability and effectiveness

Notes:

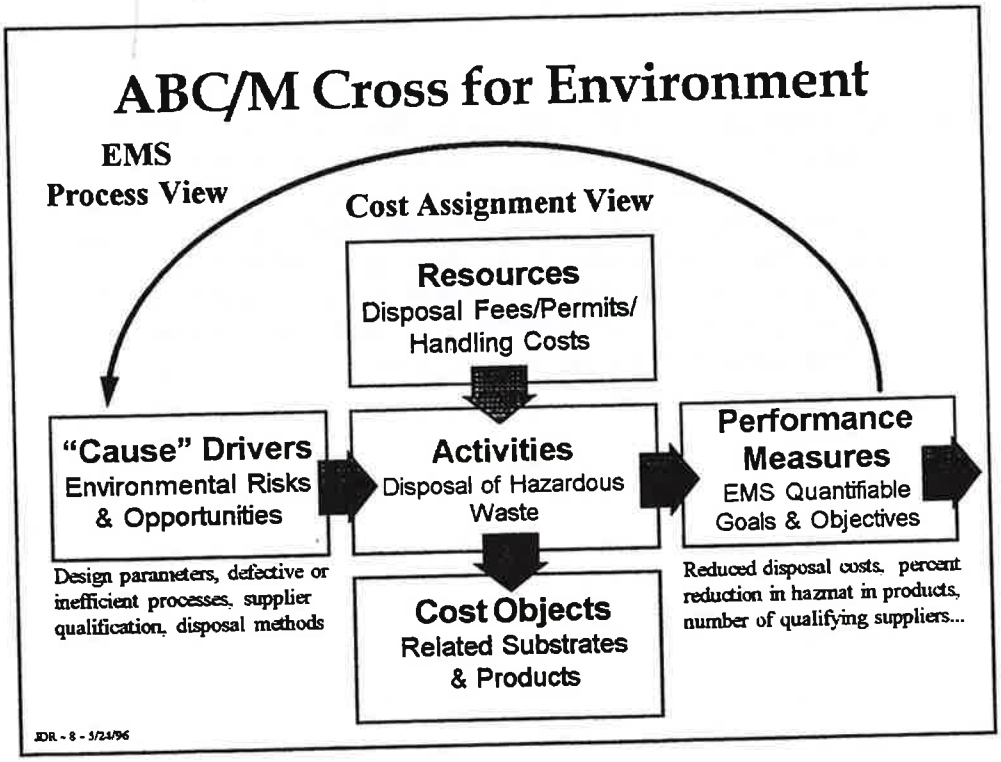
atlanta testing & engineering

GREEN ACCOUNTING:
UNCOVERING THE *TRUE* COST OF DOING BUSINESS

presented by:

Mr. Jim Raley, M.B.A.
Senior Consultant, EMS

atlanta testing & engineering



NOTES:

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KAREN M. PETERSON received her B.S. from Duke University and her J.D., with honors, from the University of Florida in 1993. Ms. Peterson is an associate with Hopping Green Sams & Smith, P.A. where she practices wetlands regulation and serves as a member of the firm's legislative team. Before attending law school, Ms. Peterson served as a legislative assistant and committee staff in the Florida House of Representatives, and as a legislative liaison for the Department of Transportation and other industry groups.

BIOGRAPHICAL INFORMATION
JAMES G. HORNE

Mr. Horne has been employed with the U.S. Environmental Protection Agency since 1980, serving in both the Office of Administration and Resources Management (OARM) and the Office of Water.

From 1980-1986 he was with the Office of the Comptroller, serving first as the lead analyst for the Superfund program and later as the lead analyst for the Water program.

In 1987, Mr.Horne served on detail as a legislative analyst in the U.S. Senate, focusing on issues under the jurisdiction of the Senate Enrvironment and Public Works Committee, most notably the Superfund, Chesapeake Bay, and Radon programs.

From 1988-1990, Mr. Horne served in the Water Policy Office, a staff office to the Assistant Administrator, first as a Team Leader and later as the Director of the staff.

Since April of 1991, Mr. Horne has served as a Special Assistant to the Director, Office of Wastewater Management, focusing primarily on such issues as reauthorization of the Clean Water Act and the development of a five year Strategic Plan for the Office.

Recently, Mr. Horne has also had a significant role within EPA in developing voluntary environmental management standards, along with representatives of U.S. industry. Mr. Horne serves as the EPA representative on the U.S. SubTag charged with developing U.S. positions on international environmental management system standards (ISO 14001).

He also serves on the Chairman's Advisory Group (CAG) for the U.S. Technical Advisory Group (TAG) on ISO 14000. He is working closely in the U.S. to support pilot projects to test the implementation of environmental management systems with a variety of organizations, including several small and medium sized companies and to develop a guidance for EMS implementation geared specifically to the needs of small and medium-sized organizations. He is also working closely with the Microelectronics Division within AT&T to test the use of ISO 14001 and link its implementation to regulatory flexibility.

Mr. Horne has also taken a leadership role within the Office of Water for identifying national environmental goals and performance indicators for water programs and for managing a project to implement pilot programs to test the use of environmental performance indicators in several States.

Mr.Horne received a Bachelor of Arts Degree from the University of Texas in 1973 and a Masters Degree in Public Administration from the University of Washington in 1978.

Opening General Session
1996 Legislative/Regulatory Update

Speaker: **Wade Hopping**

WADE L. HOPPING

Wade L. Hopping is the senior partner of the Tallahassee law firm of Hopping Green Sams & Smith. He specializes in environmental law; administrative law; and lobbying. His administrative law practice focuses on assisting clients with the planning and licensing of complex projects including Developments of Regional Impact, the creation and operation of Community Development Districts, and the siting of major facilities under Florida's various growth management and siting acts. Mr. Hopping lobbies before the Florida Legislature on a variety of issues, including those related to the land use, property rights, environment, energy, land development, boating, and automobile manufacturing issues.

He was previously legislative Counsel to Florida Governor Claude Kirk, and a Justice of the Supreme Court of Florida.

His public service includes service as Chairman and member of the Florida Law Revision Commission, and as a member of Partners for a Better Florida. Mr. Hopping is a past president of the Florida Chamber of Commerce and a former Chairman of the Board of Directors of Commerce Mutual Insurance Company. He is currently Chairman of the Florida Chamber of Commerce Legislative Council and a member of its Board of Directors.

During the 1995 legislative session he was the Property Rights Coalition's lead lobbyist in its successful effort to enact the land mark "Bert J. Harris Property Rights Act".

Mr. Hopping received his B.A. in political science from Ohio State University in 1953, and his J.D. from Ohio State University in 1955. He was admitted to the Ohio Bar in 1955 and The Florida Bar in 1958.

Mr. Hopping and his wife, Mary, have lived in Tallahassee since 1973.

1996 LEGISLATIVE UPDATE

FLORIDA ASSOCIATION FOR WATER QUALITY CONTROL
June 19-21, 1996

Wade L. Hopping
Hopping Green Sams & Smith, P.A.
Post Office Box 6526
123 South Calhoun Street
Tallahassee, Florida 32314
904/222-7500

1996 LEGISLATIVE OVERVIEW

AN "UNBELIEVABLE" SESSION

Would you believe that an election year Legislature where the Senate is Republican and the House is Democrat:

- Could finish on time (2:01 a.m. Saturday morning)?
- Could redraw Congressional district lines with a minimum of fuss?
- Could adopt a no new tax budget without a war between the House and the Senate?

Would you believe that in the tobacco liability law veto fight, one of the key pro-Chiles votes would be cast by a Republican Senator?

Would you believe that the House, which is almost evenly split between Republicans and Democrats, could go through the entire Session without a major partisan fight?

Would you believe that the Senate would prohibit its members from accepting free meals from lobbyists but the House would not?

It was truly an unbelievable session.

THE BIG BELIEVABLE ISSUES THAT PASSED

- Administrative Procedure Act reform (effective October 1, 1996).
- Underground storage tanks legislation.
- Splitting up HRS into the Department of Health and the Department of Children and Family Services.
- Dismantling of the Department of Commerce and creation of a public-private partnership for tourism.
- A significant economic development package with tax incentives included.
- HMO reform.
- Increased funding for schools.

- Authorization of charter schools.
- Lobbyist reporting and gift reform.
- Welfare reform.
- Abandoned property law revisions.
- Bicycle helmet law for minors.

UNBELIEVABLE BILLS THAT PASSED

- A prohibition on smoking within 1,000 feet of schools.
- Voluntary school prayer.
- Tax breaks for the Miami Heat, Orlando Magic, and a host of others (on the Governor's veto list?).
- Increased HIV reporting requirements.
- Title branding for automobiles defined as lemons.
- The Zebra Longwing was designated the official state butterfly.
- Some half-dozen new specialty license plates were created, among them one celebrating Florida's official freshwater fish, the largemouth bass.

OTHER BELIEVABLE BILLS WHICH PASSED

- Repeal of the Intergovernmental Coordination Element (ICE) requirement.
- The Environmental Resource Permit cleanup and grandfathering legislation.
- Limitations on DEP entering into Interstate Ozone Agreements.
- Transferring biomedical waste regulation to HRS.
- Boater education required for minors.
- Cattle dip vat liability relief.

- Continuation and amendments to the DRI law (including a marina reform provision).
- Limitations on the use of GIS map information.
- Mitigation banking and mangrove trimming revisions.
- Favorable treatment of taxpayer's burden of proof in ad valorem tax challenge cases (veto bait?).
- Beach renourishment funding.
- Coastal construction control line clarification.
- Construction and demolition debris landfill permitting reform.
- Establishing priorities for the fixing of minimum flows and levels for water bodies in Pinellas, Pasco, and Hillsborough counties.
- Lake Apopka purchase and restoration funding.
- Authorization of privatization of wastewater treatment facilities.
- Tax exemptions from sales taxes for electricity used in manufacturing and mining.

UNFINISHED BUSINESS FOR 1997

Notwithstanding the fact that the Legislature finished on time and addressed a great number of subjects in a very effective way, there was still considerable unfinished business. Included in that category are the following key items:

- **Water supply issues.** The Legislature failed to address the recommendations of the Water Management District Review Commission and also failed to address the implementation of a common sense water supply program for Florida.
- **Environmental self audit.** With the Attorney General's office against the bill, the Legislature failed to pass the "Find It-Fix It" law which would have encouraged companies to enter into voluntary environmental self audits. The critical issue was privilege for self audit documents.

- **Air emission trading.** The Legislature did not address the issue of air emission trading largely because EPA has yet to decide how it should be implemented.

- **Siting Act revisions.** This item was put on the shelf early. It will likely be back on everyone's agenda.

- **Lemon Law reform.** The Attorney General and the Department of Agriculture are participating in a working group along with the automobile industry and other affected interests to create a package of reforms which would make the Automobile Lemon Law work more efficiently.

- **Primary enforcement.** Currently the auto seat belt law can only be enforced in conjunction with other violations. An effort will be made to push through primary enforcement next year.

- **Property rights reform.** There is a likelihood that property rights issues will be on the table next year.

- **Defining the role of local environmental pollution control agencies.** In the last few days of the Session, the local program people proposed a study to determine which programs should be delegated to them and how they should be funded. Look for the Governor and others to work on this issue in the interim.

- **DRI reform.** An issue which is sure to be up on the table now that the program has been reinstituted is how can we make the Development of Regional Impact program more user friendly.

- **Sustainable development.** The Legislature authorized the Department of Community Affairs to do five pilot programs for "Sustainable Communities," whatever that term may be defined to be.

- **Ecosystem management.** The DEP is planning to push forward its efforts to expand its ecosystem management program even though legislation dealing with the issue failed.

- **Tobacco liability.** Now that the Governor has prevailed and no bill has passed, look for litigation or other legislative activities related to this hot issue. There is great fear among many businesses that they could be subject to this vague and overly-broad law.

- **Internet tax exemption.** Governor Chiles vetoed a bill which would have prevented the Department of Revenue from imposing taxes on E-mail,

bulletin boards, and internet services until July 1, 1997. However, the Governor has issued an executive order creating the Florida Telecommunications Taxation Task Force to study the whole telecommunications tax issue.

BELIEVE IT OR NOT

The Senate did not confirm the current Chairman of the ERC, Dick Batchelor, but rather left his appointment vacant. The Governor may reappoint Mr. Batchelor or appoint someone else to fill this unexpired term. If the Senate should fail to confirm Mr. Batchelor next year, he would not be allowed to continue to serve.

Because this is an election year most legislators will return home and begin to prepare for their election campaigns. While they are gone, their staffs and a new organization known as Office of Program Policy Analysis and Government Accountability (OPPAGA) will be working on a full list of interim projects in preparation for the 1997 Legislative Session. As these projects develop, we will inform our clients of them. It is recommended that those interested in Florida's governmental activities keep a close eye on these emerging projects. Many of them have been listed above in the unfinished business section.

FLORIDA ASSOCIATION FOR
WATER QUALITY CONTROL LEGISLATIVE CHECKLIST

Senate Bills

- SB 210 -- Constitution Revision Commission
- SB 330 -- Taxation/fuels/transportation
- SB 508 -- Mangrove Trimming and Preservation Act
- SB 624 -- Telecommunications Service and Tax Relief Act (may be vetoed)
- SB 770 -- Public Lands Acquisition Act
- SB 956 -- Cattle dip vat immunity
- SB 958 -- Economic development
- SB 1148 -- Solvent mixture pollutant tax exemption
- SB 1268 -- Privatization of wastewater facilities
- SB 1274 -- Geographic Information Board and Council
- SB 1986 -- DOT mitigation
- SB 2002 -- Local government small scale amendment
- SB 2290 and SB 2288 -- Administrative Procedure Act
- SB 2636 -- Constitution Revision Commission
- SB 2774 -- Lobbying reporting reform
- SB 2954 -- Lake Apopka acquisition and restoration

House Bills

- HB 153 -- Regulation of biomedical waste
- HB 557 -- Ad valorem tax assessment presumption of correctness
- HB 905 -- On-site sewage treatment and disposal systems

- HB 1119 -- Underground excavation
- HB 1127 -- Petroleum underground storage tanks
- HB 1149 -- Pollutant discharge
- HB 1887 -- ERP glitch bill, including the OTAG language
- HB 1905 -- Resource recovery and management (construction and demolition debris)
- HB 1921 -- Creates the Commission on Local Government II
- HB 2241 -- Coastal construction control lines and agreements/mitigation banking
- HB 2385 -- Independent scientific peer review/west coast regional water supply bill
- HB 2705 -- Growth management reform including GIS map language

CATTLE DIP VAT IMMUNITY
SB 956
Effective Date: Upon Becoming Law

Potential Impact

After several unsuccessful years of trying, the Legislature finally reached consensus on legislation to provide immunity to owners of property upon which a cattle dip vat ("CDV") is located. SB 956 finds that the cattle fever tick eradication program, which was in effect in Florida from 1906-1961, and the estimated 3,200 CDVs constructed to implement the program should not result in the imposition of liability upon private property owners. This finding is largely based on the recognition that participation in the program was mandated by the State. Accordingly, the legislation immunizes private property owners from liability to the State or any other person for any costs, damages or penalties associated with the discharge, assessment or remediation of contaminants emanating from CDVs.

Highlights

- Unlike prior attempts at CDV immunity legislation, this bill does not require the property owner to provide notice of the presence of the CDV to enjoy the benefits of the immunity.

- The legislation suggests that the immunity should be broadly construed; thus, it arguably encompasses personal injury type actions associated with contamination from CDVs. However, the immunity is limited to private property owners, and government is not protected by the terms of the act.

- The legislation does not provide a funding source for assessment or remediation of CDV sites; rather it is limited in scope to creation of the immunity.

- Since the tick eradication efforts were initially implemented in the early 1900's, the legislation is retroactive to 1909, the effective date of legislation initially authorizing the eradication program.

PRIVATIZATION OF WASTEWATER FACILITIES
CS/SB 1268
Effective Date: Upon becoming a law

Potential Impact

CS/SB 1268 codifies the authority for public wastewater treatment service providers to enter into contracts to privatize wastewater treatment services. This, in turn, enables these public entities to realize the substantial financial benefit of Executive Orders signed by President Bush in 1992 and President Clinton in 1994 which will forgive all or a portion of federal grants awarded to

these entities to construct their wastewater treatment plants. As much as $1.8 billion in federal grants awarded in Florida could be recaptured.

Highlights

- The bill clarifies the authority of public entities authorized to provide wastewater service, including counties, cities, consolidated governments, special districts and community development districts, to enter into a wastewater facility privatization contract, alone or with one or more public entities pursuant to an interlocal agreement.

- A "wastewater facility privatization contract" is a written agreement between the public entity and a private firm for the operation, maintenance, repair, management or administration of a wastewater facility. Contracts must be for terms of at least 5 and not more than 40 years.

- Public entities remain responsible for setting and collecting fees for wastewater treatment services and for enforcing fee obligations, regulations and other requirements applicable to the users of the service.

- Wastewater facility privatization contracts entered into pursuant to this new law are subject to the public hearing requirement and public interest determination set forth in Chapters 125, 180, 189 and 190 which are applicable to purchases and sales of utilities.

- To the extent not required to qualify for relief from repayment of a federal grant, revenues from a privatization contract must be used for purposes of reducing or offsetting property taxes or wastewater service rates, reducing debt or making infrastructure improvements or capital asset expenditures.

- Language is added to Section 367.022, Florida Statutes, which clarifies that wastewater facilities operated under a wastewater facility privatization contract are controlled by a governmental authority and, therefore, exempt from Public Service Commission regulation.

NON-COMPETE AGREEMENTS

CS/HBs 611 & 375
Effective date: July 1, 1996

Potential Impacts

This bill substantially revises and clarifies the statutory provisions relating to non-compete agreements, i.e., contracts in restraint of trade. Essentially, the bill codifies the existing case law governing the enforceability of these agreements. The bill may make it easier for businesses

to draft and enforce these agreements because the necessary elements of the agreement, and the permissible scope of the agreement is more clearly defined in statute. The provisions of the bill are prospective and apply only to contracts entered into after July 1, 1996. Section 542.33, F.S., which is repealed by the bill, continues to govern the enforcement of contracts entered into prior to that date.

Highlights

- The bill provides examples of "legitimate business interests" which will support a non-compete agreement, including relationships with existing or specific prospective customers. The list is not inclusive, however, if the agreement is not supported by a legitimate business interest, it is unenforceable.

- The bill provides certain "safe harbors" in drafting time restraints in an agreement by specifying time restraints which will be presumed reasonable or unreasonable. For example, Section 542.335(1)(e), F.S., provides that an agreement predicated upon the protection of trade secrets shall be presumed reasonable if the time restraint is 5 years or less, and shall be presumed unreasonable if it is more than 10 years.

- The bill provides that in determining the enforceability of an agreement, the court shall not consider any individualized economic or other hardship that might be caused to the person against whom enforcement is sought.

- If a court refuses to enforce the agreement based upon a finding that the agreement violates public policy, the court is required to "specifically articulate" the public policy violated by the agreement.

- The court is authorized to use any appropriate and effective remedy to enforce the agreement, including temporary or permanent injunctions.

- The bill provides that a court may not issue a temporary injunction against the enforcement of the agreement unless the person against whom enforcement is sought posts a bond. The court may not waive or limit the amount of the bond.

- The bill is only applicable to agreements entered into after July 1, 1996. Agreements entered into prior to that date are governed by Section 542.33, F.S., which is repealed by the bill.

- This bill amends Section 189.4035, F.S., to eliminate independent special districts from the persons and entities statutorily entitled to receive the Official List of Special Districts from the Department of Community Affairs. Provision is made for requesting copies.

- SB 524 amends Section 189.4085, F.S., to remove the requirement that special districts provide the Special District Information Program with proof of compliance with certain statutory criteria at bond issuance.

- The duties of the Special District Information Program are modified.

- This bill amends Section 189.418, F.S., to require each new special district to submit specified documentation to the Department of Community Affairs within 30 days after establishment and provides for mandatory determination by the DCA as to the independent or dependent status of that district. The bill modifies the information on outstanding bonds which is required to be supplied to the local general purpose government in whose boundaries a special district is located. Failure on the part of a special district to file mandated reports is required to be reported to the DCA. Fines may be imposed by the DCA.

- SB 524 clarifies the local government entities entitled to accept payments by credit cards.

- The bill also clarifies the entities considered to be local government entities under Section 218.31, F.S.

- SB 524 revises Section 218.32, F.S., to require specified information be included in required financial reports and to require such reports from additional entities such as regional planning councils and municipal power corporations. The Department of Banking and Finance reporting requirements regarding local government entity revenues and expenditures are clarified and the reporting date is moved to December 1 of each year.

- The bill creates section 218.321, F.S., which requires local government entities to submit financial reports even when audits are not required and authorizes the Department of Banking and Finance to send to the local government entity such personnel as are needed to complete a financial report at the expense of the delinquent entity.

- This bill revises Section 218.34, F.S., to require that all special district budgets be adopted by resolution. The amendments require that the total amount available from revenue sources together with any carry forward from a previous year's budget must equal the total appropriations for expenditures and reserves in the budget. No expenditures or contracts for expenditures in any fiscal year may be made except pursuant to budgeted appropriations.

- This bill amends the powers granted to the Division of Bond Finance of the State Board of Administration. The Division is directed to collect, maintain, and make available information from units of local government on lease purchase agreements, certificates of participation or other debt instruments which have principal payments of $2 million or more. Additionally, the Division is to collect information on new bond issues from local governments rather than all outstanding bond issues.

- SB 524 amends Section 218.503, F.S., to provide an additional criterion by which a local government entity may be declared to be in a state of financial emergency: where unresolved or total fund balances or retained earning deficits exist for which sufficient resources of the local government entity are not available for two successive years.

- This bill creates Section 170.201, F.S., which statutorily provides authority to levy and collect special assessments to fund capital improvements and services including but not limited to fire protection, emergency medical services, garbage disposal, sewer improvement, street improvement, and parking facilities. This statute also provides a method to apportion the cost of the special assessments.

- SB 524 amends Section 286.0115, F.S., to provide that notwithstanding the ex parte prohibition contained in this statute, a county or municipality may adopt an ordinance or resolution which establishes a procedure to govern quasi-judicial proceedings on local government land use matters. Any procedures adopted must be identical to those contained in the revised Section 286.0115(2), F.S. These procedures are that: 1) A person appearing before a local government decision making body who is not a party or intervenor is allowed to testify before the decision making body but does not need to be sworn as a witness, is not subject to cross examination, and does not have to be qualified as an expert witness (the decision making body is allowed to assign the weight and credibility to the testimony that is deemed appropriate); 2) A party or intervenor in a quasi-judicial proceeding on local government land use matters may be sworn as a witness, be subject to cross-examination, and be required to be qualified as an expert witness when requested by another party; 3) A person is not precluded from communicating directly with a member of the decision making body hearing a quasi-judicial local government land use matter, disclosure of any such communication is not required and non-disclosure will not prejudice the decision of the decision making body.

COMMISSION ON LOCAL GOVERNMENT II

HB 1921

Effective Date: Upon Becoming Law

Potential Impact

Citing concerns about unprecedented growth, overlapping jurisdictions, and ongoing federal efforts to restructure intergovernmental programs, this legislation establishes the "Commission on Local Government II" to comprehensively study various issues relating to local governments and special districts. The Commission's recommendations could serve as the basis for future legislation or constitutional reforms relating to the structure and functions of local governments.

Highlights

- The Commission is charged with studying and recommending reforms to laws and constitutional provisions relating to the organization, structure, powers, creation, duties, financing, and service delivery capacity of county, municipal, and special district governments. Specifically, the Commission will recommend measures for the elimination of overlapping jurisdictions and duplication of costs in the delivery of governmental services.

- The Commission will be comprised of 2 members appointed by the Speaker of the House, 2 members appointed by the President of the Senate, and 13 members appointed by the Governor, including representatives of 5 counties, 5 municipalities, 2 special districts, and the public schools.

- The Commission will conduct public meetings and has the authority to compel attendance of witnesses and production of records.

Future Actions

The Commission must submit official reports containing its recommendations to the Speaker of the House, the President of the Senate, and the Governor no later than January 15 prior to the start of the 1997 and 1998 legislative sessions. The Commission's recommendations could lead to additional legislation or constitional reforms in the future.

COMMISSIONS, REPORTS, RULEMAKING:

1. Creates the "Commission on Local Government II"
2. Requires submittal of official reports with recommendations no later than January 15 prior to the start of the 1997 and 1996 sessions.
3. No rulemaking required.

GROWTH MANAGEMENT
CS/HB 2705
Effective Date: Upon Becoming Law

Potential Impact

The bill continues the development of regional impact (DRI) program for the foreseeable future with several amendments, repeals most of the controversial comprehensive planning Intergovernmental Coordination Element (ICE) program that was to replace DRI regulation, and gives the Florida Department of Community Affairs (DCA) more flexible authority to experiment with future growth management tools. The bill also increases local government authority to adopt certain "small scale" comprehensive plan amendments.
The legislation will affect all governments, developers of DRI-sized projects, and owners of small parcels that may qualify for small-scale comprehensive plan amendments.

Highlights

Repeal of Intergovernmental Coordination Element (ICE) Program

- The bill repeals the elaborate comprehensive planning intergovernmental program known as ICE that would have required all local governments to identify the impacts of development within and without their borders and potentially impose mitigation for them.

- Left in place are requirements that local governments amend their comprehensive plans by December 31, 1999, to provide joint planning processes for collaborative planning and decision-making on: (1) population projections and public school siting; (2) location and extension of public facilities subject to concurrency; and (3) siting of facilities with countywide significance, including locally unwanted land uses identified by agreement.

- Actual interlocal agreements to implement these requirements must be adopted within one year of the related comprehensive plan amendments.

- The bill gives DCA and local governments authority to enter into joint agreements with each other, and to add as additional parties developers, landowners and other government agencies, concerning intergovernmental coordination and innovative land use planning techniques in urban and rural areas.

- An optional comprehensive planning program for county use of "municipal overlays" to plan for potential new municipalities also is authorized.

Continuation and Amendment of DRI Program

- The bill continues the existing DRI program for the foreseeable future, with some amendments. Under prior law, the DRI program was set to expire in 1999 after replacement with the now-repealed ICE requirements.

- The bill provides for faster review of new DRIs. It establishes that there should be no more than two "sufficiency" information requests for new DRI applications and that once the application is "sufficient," local government hearings on new DRIs must be held within 90 days. The developer may waive these limits. The deadlines previously applied only to DRIs that did not require corresponding comprehensive plan amendments.

- Concerning processing of DRI amendments, the bill requires the DCA and applicable regional planning council to identify any concerns that may be grounds for appeal of the proposed DRI amendment within 45 days after the amendment application is filed. There had been a 30-day action deadline for many years, but it was repealed in 1995. The bill also imposes a deadline, for the first time, requiring local governments to hold a hearing within 90 days of the filing of the proposed DRI changes. This should speed up action on DRI amendments. The developer can waive either of these deadlines.

- The bill includes a minor technical amendment making it clear that a comprehensive plan amendment related to a DRI can be delayed beyond its normal adoption deadline so that it can be considered and adopted at the same time as the DRI-related development order or development order amendment.

- The bill establishes new formal statewide policies for when development may continue within a DRI that has terminated or whose development order has expired. Development within DRIs may continue after expiration in three circumstances:

  1) The proposed development has been evaluated cumulatively with existing DRI development through a DRI amendment after the expiration date. (DCA policy for a number of years has allowed extension of DRI expiration dates by development order amendments even after the expiration date. That policy was formally approved recently by the Florida Land and Water Adjudicatory Commission (Governor and Cabinet).); or

  2) The proposed development is consistent with DRI abandonment order formally adopted under the DRI statutes; or

  3) The proposed development is within an "essentially built out DRI" subject to a Section 380.032, Fla. Stat., agreement between the DCA, the developer and the local government that allows the development to be subject only to local land use requirements or modified DRI review. These agreements would be available if the DRI has complied with all applicable terms of the development order except

the buildout date; and a) the amount of development left to be built in any land use category type is less than the related DRI substantial deviation threshold or b) the DCA and local government agree in writing that the amount of development left to be built is unlikely to pose additional regional impacts not previously reviewed.

- The bill recognizes that co-owners or co-developers within a single DRI may use the standard regional planning council dispute resolution process to allocate rights and responsibilities under a DRI development order.

- The bill revises the DRI marina threshold and eliminates special review by the Department of Environmental Protection (DEP) to determine whether proposed marina projects may be subject to DRI review regardless of size, except for proposed marina projects of more than 10 slips or dry storage spaces that would not otherwise require DEP or Water Management District (WMD) approval for environmental resource permits or sovereignty submerged land leases.

  The DEP review requirement would remain in place for marinas of more than 10 slips or dry storage spaces that do not need the other permits, but the DEP would be deemed to waive its review authority if it did not act within 45 days of a review request. DEP could require DRI review if the proposed marina would cause adverse impact to certain protected waters or manatee habitat.

  The bill eliminates a special "superthreshold" of 400 slips for certain marinas that had all their permits and were located outside protected waters. The general DRI marina thresholds of 150 wet slips and 200 dry storage spaces are unchanged.

- The bill provides that the filing of a notice of appeal to Florida Land and Water Adjudicatory Commission of a DRI development order will no longer automatically stay all other judicial proceedings related to that development order. Subject to general judicial discretion to issue a stay pending the Florida Land and Water Adjudicatory Commission appeal, the bill allows judicial proceedings, such as comprehensive plan consistency challenges, to proceed simultaneously with the DRI development order appeal.

Comprehensive Plan Amendments during Evaluation and Appraisal Report Update Process

- The bill provides that two types of comprehensive plan amendments may continue to be adopted during the period beginning at the deadline for submission of a local government's Evaluation and Appraisal Report (EAR) comprehensive plan update and ending when the DCA finds the EAR sufficient under DCA rules; (1) plan amendments related to DRIs or Florida Quality Developments; or (2) remedial plan amendments to implement "compliance" or comprehensive plan litigation settlement agreements that were

entered into before the EAR due date. Existing law provided for a complete moratorium on plan amendment adoption until the DCA found the EAR sufficient.

"Small Scale" Comprehensive Plan Amendments

- HB 2705 increases local government authority to adopt "small scale" comprehensive plan amendments that generally may be adopted without DCA review. The bill increases the cumulative annual limit on the total acreage covered by such amendments from 60 acres to: (1) a maximum of 120 acres a year if a local government has designated certain urban infill, redevelopment or revitalization areas, transportation concurrency exception areas, or approved DRI regional activity centers or urban central business districts. However, only a maximum of 60 acres of this amount could be used for small scale amendments for property located outside these special areas; and (2) a maximum of 80 acres per year if the local government has none of these special areas.

- The limits on any individual small scale amendment would remain a maximum of 10 acres and a maximum density of 10 units per acre, except density could be higher in the special areas. Other restrictions on use of small scale amendments also would apply.

- These provisions also were included in CS/HB 2002 as approved by the Legislature.

"Sustainable Communities" Demonstration Project

- The bill authorizes DCA to conduct a "sustainable community" demonstration project in up to five local government jurisdictions. Three of the local government jurisdictions must be located within the South Florida Water Management District area. The requirements for the project would be set by agreements between DCA and selected local governments, which could propose to designate all or part of their jurisdictions for the project. The project is designed to promote restoration of key ecosystems, limitation of urban sprawl, protection of wildlife and wetland areas, creation of quality communities and jobs, and other goals.

- The bill sets numerous criteria for selection of the pilot communities, including the existing establishment of an urban development boundary within the jurisdiction or its functional equivalent. The position of the affected regional planning council on the proposed community designation must be considered. The agreements would establish conditions for designation, including potential "mini-ICE" requirements if the government proposed to do away with or modify DRI review. The bill provides for enforcement by the DCA that could result in removal of the designation, as well as citizen enforcement.

- Once designated, a community would be allowed to adopt comprehensive plan amendments generally without state and regional review for amendments within the urban growth boundary, subject to potential citizen challenge of adopted amendments. Amendments changing the urban development boundary or impacting lands outside that

boundary or within a coastal high-hazard area would undergo normal review. It may also exempt development within the urban growth boundary and outside the coastal high-hazard area from DRI review, to the extent provided for in the designation agreement.

- The designation would be for 5 years, unless revoked by DCA, and may be renewed by the DCA if the local government meets certain criteria.

Use of Geographic Information System (GIS) Map Information

- The bill provides a directive to government agencies that when they use GIS maps or other graphic information for planning or other purposes, they must take into account limitations on the accuracy and reliability of such maps and data. Limitations may include map scale, the age and accuracy of underlying data, the availability of better site-specific data, and the lack of "ground-truthing" or peer review of underlying information. This requirement would not apply to maps that are actually adopted as part of a comprehensive plan, which could be legally challenged under other procedures.

Future Actions

The DCA must report to the Legislature on the new Sustainable Communities demonstration project annually beginning December 1, 1997. The demonstration program expires June 30, 2001, unless renewed by the Legislature.

ADMINISTRATIVE PROCEDURES ACT REFORM

CS/SBs 2290 & 2288
Effective Date: October 1, 1996

Potential Impact

On May 1, 1996, Governor Chiles signed into law the most comprehensive revision of the Florida Administrative Procedures Act (APA) since its enactment in 1974. This bill accomplishes three main goals: First, the bill reorganizes and "simplifies" the APA. Second, the bill provides for increased flexibility in the application of administrative rules and procedures. Third, the bill provides for increased agency accountability to the Legislature and the general public.

Highlights

1. Variances and Waivers: Agencies are specifically authorized to grant variances and waivers to their rules where the strict application of a rule would create a substantial hardship or violate principles of fairness. Before an individual is entitled to a variance or waiver, he must demonstrate that the goals of the underlying statute have been or can be

achieved by some other means. The Administrative Commission will adopt uniform rules of procedure for agencies to follow in considering requests for waivers or variances.

2. Notice of Rule Development: The bill requires agencies to provide notice of the development of proposed rules. Currently, agencies are authorized, but not required, to provide such notice. The notice must include the subject area to be addressed by the proposed rules, an explanation of the purpose and effect of the proposed rule, and the preliminary text of the proposed rule, if available.

3. Negotiated Rulemaking: The bill authorizes agencies to use negotiated rulemaking in developing and adopting rules. Agencies are encouraged to utilize negotiated rulemaking when complex rules are being drafted or strong opposition to the rules is anticipated. Negotiated rulemaking uses a balanced committee of interested persons to draft a mutually acceptable proposed rule. The negotiating committee is chaired by an impartial facilitator or mediator.

An agency which intends to utilize negotiated rulemaking must publish notice of the representative groups that will be invited to participate in the process. Any person who believes that his interests are not adequately represented may apply to participate in the negotiated rulemaking process. All meetings of the negotiating committee shall be noticed and open to the public.

4. Challenge to agency "statements": The bill provides two distinct procedures for challenging agency statements which meet the definition of a "rule" but which have not been promulgated through the rulemaking process:

First, the procedures which were formally codified in Section 120.535, F.S., are retained. In this type of challenge, the agency must show that it is not feasible or practicable to adopt the agency statement through the rulemaking process. The administrative law judge's determination as to the validity of the agency statement is contained in a final order.

Second, an agency statement may be challenged during the course of a formal hearing resulting from the agency's application of the agency statement in a particular situation. In this type of challenge, the agency statement is not presumed valid or invalid, and the agency must demonstrate that the agency statement:

- is within the agency's delegated powers;
- does not enlarge, modify or contravene the enabling statute;
- is not vague and does not vest unbridled discretion in the agency;
- is not being applied retroactively to the substantially affected party without due notice;

- is supported by substantial competent evidence; and
- does not impose excessive regulated costs on the affected party.

The administrative law judge's determination as to the validity of the agency statement is contained in his recommended order, and may not be rejected in the agency's final order unless that determination is clearly erroneous or does not comply with the essential requirements of law.

5. Statement of Estimated Regulatory Costs (SERC): The bill requires that in adopting rules, agencies are to choose the regulatory alternative that does not impose excessive regulatory costs on affected parties, when less costly alternatives substantially accomplish the statutory objectives. The bill requires agencies to prepare a SERC when an affected party submits a bone fide written proposal for a lower cost regulatory alternative. The agency must adopt the lower cost alternative or explain its reasons for rejecting the alternative in favor of the proposed rule.

The SERC is similar to the economic impact statements currently prepared by agencies, but includes more meaningful cost information. A SERC must include good faith estimates of:

- the number and types of entities which will likely be required to comply with the rule;
- the cost to the agency for implementing and enforcing the proposed rule;
- the transactional costs which will be incurred by entities in complying with the proposed rule ("transactional costs" include the cost of equipment required to be employed in complying with the rule, additional operating costs incurred, and the cost of monitoring and reporting).

A proposed rule may not be declared invalid based upon the SERC unless the agency failed to prepare the SERC when required, or the agency invalidly rejected a lower cost regulatory alternative proposed by an affected party.

6. Agency Accountability in Rulemaking: The bill contains several provisions intended to increase the legislative oversight of the agencies' exercise of their delegated authority.

The bill specifically provides that agencies may only adopt rules which implement, interpret or make specific particular powers and duties granted by the enabling statute. An agency may not adopt a rule based upon statutory provisions setting forth general legislative intent, and may not adopt a rule merely because it is reasonably related to the purpose of the enabling legislation.

The bill expands the power of the Joint Administrative Procedures Committee (JAPC) to suspend rules which exceed the agency's delegated authority. The bill also requires each agency to review its existing rules by October 1, 1997, to determine whether any of its rules exceed the agency's delegated authority. Unless the Legislature enacts a bill to authorize the particular rules identified by an agency, the agency must initiate procedures to repeal the rules by January 1, 1999.

7. Other Issues: In addition to the "major" issues discussed above, the bill includes a number of other beneficial changes to the APA:

- Proposed rules are not presumed to be valid or invalid. If challenged, the agency has the burden to demonstrate that the rule is not an invalid exercise of delegated legislative authority.

- An agency may not delay the implementation of a statutory provision pending the agency's adoption of implementing rules unless there is an express statutory provision prohibiting its application until the adoption of implementing rules.

- An agency may not include as a condition of any permit or license, any condition that is based upon a statement, policy or guideline of another agency unless the statement, policy or guideline is within the jurisdiction of the other agency. The permitting or licensing agency must give the affected party an opportunity to challenge the validity of the condition, or the validity of the statement, policy or guideline.

- The Game and Fresh Water Fish Commission and the Commission on Ethics are included within the definition of agencies subject to the APA when they are exercising authority derived from the Legislature.

- The standard of review in bid protest proceedings is clarified: In cases where the agency rejected all bids, the standard of review by the administrative law judge is limited to determining whether the agency's intended action is illegal, arbitrary, dishonest or fraudulent. In all other bid protest proceedings, the administrative law judge must conduct a de novo review to determine whether the agency's intended action is contrary to the agency's governing statutes, the agency's rules or policies, or the bid proposals or specifications.

- A voluntary summary hearing procedure is created for the expedited disposition of less complex administrative disputes. All parties to the proceeding must agree to submit the dispute to the summary hearing procedure.

- The use of binding mediation in administrative disputes is authorized.

- The hearing officers at the Division of Administrative Hearings (DOAH) are redesignated as administrative law judges.

Future Actions

Each agency must review its existing rules and present a list of those rules which exceed authority to the Joint Administrative Procedures Committee (JAPC) by October 1, 1997. JAPC will then present a combined list of these rules to the Legislature prior to the 1998 Session which must determine whether specific legislative authorization for these rules should be enacted. Where enabling legislation is not enacted for a particular rule, the appropriate agency must initiate proceedings to repeal the rule by January 1, 1999.

In conjunction with the reorganization of the APA in this bill, the Legislature enacted HB 751, to revise the references to Chapter 120, F.S., found in other statutory provisions. Another "reviser's bill" may be necessary to update those references missed by HB 751 or included in other 1996 legislation.

MANGROVE TRIMMING

CS/CS/SB 508
Effective Date: July 1, 1996

Potential Impact

In 1995, legislation was enacted to significantly change the mangrove trimming regulatory permitting scheme. In 1995, the law was modified with the intent that regulations be lessened for individual property owners wishing to trim mangroves on their property so as not to require complicated and expensive permits. Since passage of those changes, several abuses occurred where individuals trimmed mangroves far beyond what was intended by the 1995 law. This bill extensively revises Florida's mangrove protection statutes by expanding and clarifying various provisions of the earlier 1995 "Mangrove Trimming and Preservation Act".

Highlights

- Sections 403.9322 and 403.9323, F.S., containing legislative findings and intent are modified to now include language reflecting mangroves' role in shoreline stabilization and storm protection, natural protection of water quality and as a vital component in the natural food web. Legislative intent is added recognizing that no trimming be permitted on uninhabited islands or lands set aside for conservation, that there be provided an equitable distribution of rights to riparian views for those residing in multifamily residential units, and that certain historically established mangrove maintenance activities be grandfathered.

- Significant changes to relevant definitions in the act are made, including but not limited to, the existing terms "alter", "riparian mangrove fringe", and "trim". The definition of "extended mangrove fringe" is eliminated and two new terms "mangroves on lands that have been set aside as mitigation" and "public lands set aside for conservation or preservation" are added.

- Existing exemptions from mangrove permitting are significantly modified with many exemptions subjected to additional restrictions, including a prohibition on the use of herbicide or other chemicals for the purposes of removing mangrove foliage.

- General permit requirements for riparian property owners and for mangrove trimming within navigational channels are expanded. New requirements include a prohibition on the use of herbicide or other chemicals, submittal of written notification to use a general permit, limitation on the use of a general permit to once on any parcel of property to achieve a mangrove height of no less than 6 feet, and limitations on the percentage of mangroves along a shoreline that may be trimmed by riparian property owners. Furthermore, under a general permit, mangrove trimming must be conducted in stages so that no more than 25% of the mangrove is removed annually.

- Local governments receiving delegation for regulation of mangroves may impose stricter standards but may not directly or indirectly limit the use of the mangrove trimming permit exemptions provided for by law or eliminate mangrove trimming altogether.

- Section 403.93271, F.S., is created, relative to mangrove trimming under a general permit on property developed for multifamily residential use, providing that the general permit percentage trimming limitation for riparian property owners be equitably distributed to provide similar riparian water views to all unit owners. The Department of Environmental Protection may grant case-by-case exceptions to the percentage trimming limitations in realizing equitable distribution of water views. This new section only applies to multi-family residential property which exists on June 1, 1996.

- Existing requirements for individual permits for the alteration and trimming of mangroves beyond that allowed under a general permit are clarified to include the prohibition on the use of herbicides and other chemicals.

- A separate permit is not required for an activity resulting in the trimming or alteration of mangroves if the activity is exempt in Section 403.813, F.S., or the activity requires a permit under the Environmental Resource Permit program. The procedures for ERP permitting will control in those situations.

- The list of those who qualify as a professional mangrove trimmer is expanded to include certified arborists, professional wetland scientists, certified environmental professionals, and certified ecologists. Requirements for a professional mangrove trimmer are increased and certain persons not affiliated with the listed professional groups, but who

have trimmed mangroves properly in the past, may be granted professional mangrove trimmer status.

- Mitigation and enforcement requirements are substantially amended.

- The bill provides a "savings" clause for permits or orders related to mangrove activities approved by the Department or any other governmental entity prior to the effective date of this act.

Future Actions

The Department will initiate rulemaking to implement the new requirements set forth in this legislation.

PUBLIC LANDS ACQUISITION/LAND SALES ACT EXEMPTIONS

CS/CS/SB 770

Effective Date: Upon Becoming Law

Potential Impact

Preservation-2000 (P-2000) Funding for land acquisition agencies is reauthorized to the year 2000. Unencumbered P-2000 funds will be reallocated if not used within two years. State land acquisition practices have been selectively amended. There is new emphasis on public acquisition of less-than-fee-simple interests in land and on acquiring conservation lands in urban areas. Under certain circumstances, a property owner may now elect to be removed from the Conservation and Recreation Lands (CARL) and water management district acquisition lists.

Highlights

- Funding of land acquisition under P-2000, which was scheduled to expire on October 1, 1996, is reauthorized with some changes for all agencies currently receiving such funds.

- Unencumbered P-2000 funds on deposit in an acquisition agency's account for more than 2 years will be redistributed to the CARL and water management district acquisition funds. Some relief is given to local governments in extraordinary circumstances.

- The $30 million (10% of P-2000 funds) which is allocated to the Department of Community Affairs is reallocated: $3 million for land protection agreements in the Green Swamp Area of Critical State Concern, $3 million to special lands in Monroe County and the rest for matching grants with local governments.

- A minimum of $40,000 from the State Land Acquisition Trust Fund can be matched with $60,000 from private funds for capital improvements projects at state parks. No more than $6 million will be available for these "Partnerships in Parks" matches in any fiscal year.

- A provision requiring that a permanent source of funding for P-2000 conservation lands, *other than the current bond program*, must be found, was eliminated.

- Alternatives-to-fee-simple acquisition of public lands are encouraged. Such alternatives include: development rights, conservation easements, flowage easements, timber rights, mineral rights, hunting rights, or agricultural or silvicultural interests. However, lands protected with less-than-fee-simple interest will not be accessible to the public unless specifically agreed to by the landowner.

- Appraisals of less-than-fee-simple shall be based on the difference between the full value of the land and its value to the seller after acquisition.

- Confidential appraisals for conservation lands under consideration for State purchase may be disclosed to the property owner if an alternative to fee-simple acquisition is proposed.

- A property must be removed from the CARL List upon the property owner's request if it is not listed for purchase in the current State acquisition workplan. A property must be removed from a water management district acquisition plan if requested by the property owner.

- The purposes for which lands can be acquired under the CARL program are expanded to include *urban* open spaces and areas (even within larger tracts) for outdoor recreation *in addition to natural resource based recreation*. The Florida Communities Trust program is expanded to include purchase of such lands.

- The Rails-to-Trails acquisition program has been expanded from recreational trails (primarily on abandoned railroad corridors) to include "greenways" for uses such as conservation, connectors for parks, and ecosystem management. The program has been renamed "Greenways and Trails".

- Outright transfer of "greenways and trails" property to local governments was deleted in favor of sublease or management agreements.

- Parcels which provide a corridor between public lands shall be given greater consideration for priority on the CARL List.

- Cities, school boards, mosquito control districts and other local government entities may be eligible for payments from the State to offset lost ad valorem taxes on State-purchased conservation lands.

- Exemptions are expanded to avoid subdivision registration under the Florida Uniform Land Sales Practices Law (Chapter 498, F.S.). New exemptions cover a single sale or offer to a person of a parcel containing at least 20 acres, and certain subdivisions with improvements completed and developed in accordance with or vested under a local government comprehensive plan.

Future Actions

The Department of Environmental Protection (DEP) may adopt rules for the program to match private funds for capital projects for state parks. In their 1997 acquisition plans, the Land Acquisition Advisory Council and the Water Management Districts must identify which properties must be purchased by fee-simple. Beginning in 1996 DEP and each water management district must acquire at least two properties per year through an alternative-to-fee-simple.

PETROLEUM CONTAMINATION CLEANUP

CS/HB 1127

Effective Date: July 1, 1996

Potential Impact

After two years of contentious legislative debate, the 1996 Florida Legislature passed CS/HB 1127, which substantially restructures the Department of Environmental Protection's (FDEP) petroleum contamination cleanup and reimbursement program. Passage of this comprehensive legislation brings down the final curtain on FDEP's voluntary cleanup and reimbursement program. That program will now be replaced with one which prioritizes all petroleum contamination sites based on factors currently contained in FDEP's priority ranking rule found in Chapter 62-771, Florida Administrative Code. Sites will be cleaned in order from highest priority to lowest priority with FDEP responsible for directly contracting with remediation consultants and contractors to undertake remediation activities at sites. Remediation work at sites must be preapproved and the contractor will be obtained through either competitive negotiation or competitive bidding processes. The bill represents a consensus package agreed to by petroleum marketers, major oil companies, electric utilities, state and local governments, and remediation contractors and consultants.

Highlights

- The bill defines new terms such as "additive effects", "backlog", "engineering controls", "institutional controls", "natural attenuation", "petroleum products", "chemicals of concern", and "synergistic effects".

- It establishes a new petroleum contamination amnesty program (the Petroleum Cleanup Participation Program) with co-payment requirements, which makes sites having discharges that occurred before January 1, 1995 eligible for state conducted cleanup.

- FDEP is directed to incorporate risk-based corrective action principles in cleanup rules.

- A waiver and variance procedure is created; however, the reimbursement applications of entities that use the procedure are subject to FDEP financial and technical audits.

- FDEP is given authority for "no further action" determinations at sites with priority ranking scores of 10 or less which meet certain specified conditions.

- FDEP is authorized to establish a preapproved advanced cleanup program allowing a site owner to conduct cleanup before that site's turn under the priority ranking system. A minimum co-payment of 25% or more of the cleanup costs at a site is required with no more than $500,000 allotted per site, per fiscal year. The preapproved advance cleanup program is limited to a total of $10 million of preapproved advanced cleanup. Approval for early cleanup will be awarded to those applicants proposing the highest percentage of cost sharing. FDEP is also required to submit a report no later than December 31, 1998, to the Governor, President of the Senate and Speaker of the House on the progress and level of activity under this program.

- The legislation contains a clearly stated abatement and immunity from enforcement and other administrative or judicial actions by state government, local governments or private parties while sites are on the "waiting list" to be cleaned up.

- A newly created Inland Protection Financing Corporation, a non-profit public benefit corporation, is authorized to issue debt instruments to finance and pay off the existing backlog of reimbursement claims.

- FDEP is directed to establish a payment schedule for existing reimbursement obligations based on a $100 million annual appropriation. FDEP is authorized to direct the Inland Protection Financing Corporation to pay applicants the present value of their applications subject to the availability of funds. The present value of an application is to be based on the date on which FDEP anticipates that the application would be paid with use of an annual discount rate not to exceed 3.5%.

- Several provisions direct FDEP to adopt rules and policies to eliminate and reduce duplication of site rehabilitation efforts, paperwork, and documentation. FDEP is also directed to implement forms, electronic filing and computer programs and uniform scope of work with templated labor and equipment costs guidance for the new cleanup program. FDEP also must establish guidelines for consideration and acceptance of new and innovative technologies for site rehabilitation work.

- The bill establishes August 1, 1996 as the cutoff date for any site work that might be eligible for reimbursement under the former FDEP reimbursement program and requires submission of all reimbursement applications to FDEP by December 31, 1996.

- FDEP is authorized to use competitive bid procedures or negotiated contracts for preapproving costs and may hold up to 25% retainage or utilize performance bonds to ensure contractor performance.

- Contractor qualifications are established for participation in the new cleanup program.

- FDEP must conduct a pilot project to determine the effectiveness and feasibility of utilizing competitive bid procedures for procuring contractor services, and submit a report on this matter to the Governor, the President of the Senate and the Speaker of the House by March 1, 1997.

- The bill waives the tank closure requirements and application deadline for indigents applying under the Abandoned Tank Restoration Program.

- It establishes a redetermination period for discharges denied eligibility in the past under the Petroleum Liability and Restoration Insurance Program.

- Section 376.3074, F.S., which directed FDEP to implement and administer a noncompliance fee program, is repealed.

Future Actions

While FDEP and affected parties gave a collective sigh of relief upon passage of this legislation, extensive work remains to be completed in implementation of the new program through FDEP rulemaking and other activities.

POLLUTANT TAX
SB 1148
Effective Date: July 1, 1996

Potential Impact

All solvent mixtures are exempted from application of the pollutants excise tax, which is a funding source for the Water Quality Assurance Trust Fund.

Highlights

- Section. 206.9925 (7), F.S., which provides for the definition of "solvent mixtures", is repealed.

- The terms "pollutants", "consume", and "storage facility" are redefined to exclude the term "solvent mixtures".

- Section 206.9942 (4), F.S., pertaining to refunds or credits of the pollutant excise tax imposed on solvents or solvent mixtures, is repealed..

- The term "solvent mixtures" is eliminated from ss. 206.9935, 206.9941, and 206.9942, F.S., which set out the pollutants excise tax for water quality, as well as exemptions, refunds, and credits pertaining to such tax.

POLLUTANT DISCHARGE PREVENTION AND RESPONSE

CS/HB 1149

Effective Date: Upon Becoming Law Except as Otherwise Provided

Potential Impact

This bill amends the existing Pollutant Discharge Prevention and Control Act contained in Chapter 376, Florida Statutes, by making many of those existing statutory provisions more enforceable and more consistent with the federal Oil Pollution Act of 1990. The bill also makes necessary changes due to the 1993 merger of the Department of Natural Resources and Department of Environmental Regulation into the Department of Environmental Protection (DEP). This legislation primarily impacts persons owning or operating bulk product facilities, vessels, and terminal facilities engaged in the transport, transfer, and storage of pollutants.

Highlights

- New definitions are added for the terms "bulk product facility", "operator", "remove or removal", "removal costs", "responsible party" and amends the existing definitions of "damage", "owner", "terminal facility" and "transfer or transferred". The definition for "registrant" has been deleted.

- Section 376.065, F.S., amendments clarify discharge prevention and response requirements relative to terminal facilities, and authorize vessels, motor vehicles, rolling stock, pipelines, equipment, and other appurtenances in specific instances to be covered under the discharge prevention and response certificate of the terminal facility where they

are located. DEP is also authorized to impose less stringent requirements for "marine fueling facilities" and obsolete language is deleted concerning "special fuels".

- The bill revises existing language and associated processes relative to imposition of noncriminal infractions for violation of terminal facility discharge prevention and response requirements. Persons cited for noncompliance may pay either a civil penalty, post a bond, or appear in court. The bill also increases civil penalties which the court may assess and specifies that persons who fail to post a bond, or fail to pay a fine, or appear in court are guilty of a second degree misdemeanor.

- Amendment of Section 376.07, F.S., clarifies language related to vessels and terminal facilities and transfers to a separate subsection provisions related to the maintenance of discharge prevention gear and booming for vessels.

- The bill revises language related to noncriminal infractions for inadequate booming by a transfer facility requiring payment of a civil penalty, or posting of a bond, or appearance in court.

- The bill clarifies Section 376.071, F.S. relative to vessels which do not maintain adequate discharge and control contingency plans. Persons cited for such noncompliance are required to pay either a civil penalty, or appear in court, or post a bond.

- Conditions under which a person, other than a responsible party, may assert a claim against the Coastal Protection Trust Fund are clarified, and conditions under which a responsible party may assert a claim against the Coastal Protection Trust Fund are specified.

- The bill authorizes discharges in connection with activities related to removal of pollutants which have entered waters of the State, under limited conditions.

- The bill substantially revises Section 376.12, F.S., relating to liabilities and offenses of responsible parties, third parties, cargo owners, and to include financial security requirements for vessels.

- Procedures for making claims against the Coastal Protection Trust Fund are specified.

- Existing statutory language relative to noncriminal penalties applied to repeat offenders is clarified, including that discharges must occur more than once in a 12-month period at the same facility.

- The bill amends Section 376.205, F.S., governing individual causes of action against responsible parties, allowing courts to award the cost of litigation to any party if the court determines that such an award is in the public interest. A provision that the injured party is entitled to recovery of costs of the action and reasonable attorney fees is deleted.

- Relating to lobster traps and other saltwater products traps, persons are prohibited within the State from impregnating any trap with a pollutant. This provision is transferred from previous Section 376.07(3), F.S.

- Definitions for "marine fueling facility", "terminal facility", and "transfer or transferred" are provided in Section 376.301, F.S.

- The bill amends Section 376.303, F.S., relating to the powers and duties of the DEP to exempt storage tanks containing sodium hydrochlorite from the tank registration requirements; to clarify that terminal facilities are required to have discharge prevention and response certificates; and providing direction to the Department to establish discharge prevention and response requirements for bulk product facilities.

- DEP and its emergency response vehicles may use flashing red lights under certain specified circumstances.

- The Pollutant Discharge Technical Advisory Council is eliminated.

Future Impacts

The DEP will engage in rulemaking to fulfill the legislative direction contained in the bill. Owners and operators of terminal facilities and vessels transporting pollutants should pay close attention to the implementation of this legislation.

HAZARDOUS MATERIALS FACILITIES FEE

HB 1271

Effective Date: Upon becoming Law or on June 29, 1996, whichever is earlier

Potential Impact

This legislation reauthorizes the hazardous materials management program. Most fees are reauthorized at the same level. However, certain fees applicable to agricultural facilities having a Standard Industrial Classification Code of 01, 02, or 07 are not to exceed $1,000.

Highlights

- The facility fee cap in Section 252.85, F.S., pertains to any group of facilities under common ownership and control. In this regard, the Department of Community Affairs is authorized to require owners or operators of multiple facilities to demonstrate common ownership or control.

- The one-time filing fee (which remains at $50) is not applicable to certain agricultural facilities storing chemicals for not more than 48 hours.

- The Form R reporting fee remains at $150 but the list of s.313 EPCRA substances is limited to those on that list as of January 1, 1996.

- A three month amnesty period is established for first time reporters which will allow past due annual fees to be waived.

- The Department of Environmental Protection and the Department of Community Affairs, by no later than July 1, 1998, must develop a consolidated reporting form and establish a single annual fee payment and payment due date for reporting required from petroleum distributors and retail outlets under Chapters 252, 376 and 403, F.S.

- Section 9 of Chapter 92-150, Laws of Florida, which had established the 1996 sunset review for the hazardous materials management program, is repealed.

Future Actions

The Department of Environmental Protection and Department of Community Affairs will be developing consolidated reporting forms and a single annual fee payment and payment schedules.

WATER & AIR RESOURCES GLITCH BILL

CS/HB 1887

Effective Date: Upon Becoming Law

Potential Impact

Grandfathered permittees and environmental resource permit applicants will receive various benefits from this legislation amending the environmental resource permitting program originally enacted in 1993. That permitting program became effective in October 1995. Many provisions of this act were passed by the 1995 Legislature, but were vetoed as part of 1995's SB 1016 due to Governor Chiles' objection to provisions relating to the rebuilding of Panhandle structures destroyed by the "No Name" storm. In addition to the environmental resource permitting provisions, there are two sections of the bill which provide industry relief from certain air pollution issues.

Highlights

- The state water policy definitions in chapters 373 and 403, F.S., are revised to delete references to a task force, which has already completed its work.

- Statutory authority is provided to the water management districts and the department to issue exemptions for certain activities which they determine will only have minimal or insignificant adverse impacts on water resources. DEP has for years, exercised this authority pursuant to rules they adopted.

- Persons who have been grandfathered from the environmental resource permitting (ERP) rules because of a pre-existing permit or exemption, are allowed to request an extension of time for up to 2 years for their construction activities, without losing the benefits of their grandfathered status. Previously, any time extension of a pre-ERP would have divested the permittee of his grandfathering benefits and subjected the remaining construction activities to the new permitting criteria.

- Over 400 applicants availed themselves of the grandfathering provisions relating to the filing of a request for a jurisdictional declaratory statement, prior to June 1, 1994. This legislation clarifies that those applicants should receive the benefit of their grandfathered wetland jurisdictional request through May 1, 1998, even if the requested jurisdictional declaratory statement is not issued prior to the agency's consideration of their construction permit application.

- The same section is modified to clarify that petitions requesting a jurisdictional declaratory statement are valid regardless of whether the request was filed with the relevant water management district or the department.

- Section 373.4141, F.S., is created to grant all chapter 373, part IV applicants the ability to declare their applications complete and to demand the processing of those submittals. This right to be relieved from complying with further additional informational requests has always existed in chapter 403, but it was not transferred into chapter 373, part IV when the remainder of the wetlands statute was transferred in 1993.

- Language has been added to Section 373.4145, F.S., clarifying that the old wetland delineation methodology applies to applicants in the Northwest Florida Water Management District who had applications pending on June 15, 1994. Because the 1993 act provided additional benefits to the Northwest Florida Water Management District area an interpretation existed which denied applicants in that region the benefits of this June 15, 1994 grandfathering provision. This language eliminates any ambiguity and treats the Northwest Florida Water Management District applicants the same as the rest of the state.

- The 1993 legislation also failed to clarify that water management districts who issue environmental resource permits are acting as the coastal zone consistency agency on behalf of the state of Florida for purposes of the Federal Coastal Zone Management Act.

- In various states, the recommendations of various national air pollution organizations have been adopted by interstate agreement. The language in this act prohibits the

Secretary of the Department of Environmental Protection (DEP) from entering into any such interstate agreements based on the recommendations of such organizations, unless specifically authorized by legislative action.

- Section 9 of the bill corrects a scriveners error relating to the repeal of certain provisions in the 1995 legislation which created the Risk-Based Priority Council.

- Local pollution control programs would have been allowed to permit major sources of air emissions from certain major industrial operations beginning July 1, 1997. However, this act insures that this permitting activity will be done by the DEP in order to insure statewide consistency.

CONSTRUCTION AND DEMOLITION DEBRIS DISPOSAL

CS/HB 1905

Effective Date: Upon becoming Law

Potential Impact

After two years of work by all affected interests, Florida has significantly increased its regulation of construction and demolition (C&D) debris sites and landfills through enactment of this legislation. This bill attempts to check the proliferation of C&D debris disposal facilities in Florida by requiring more stringent environmental and operational safeguards. C&D legislation passed the 1995 Legislature but was vetoed due to unrelated issues contained in the same bill.

Highlights

- The definition of C&D debris is expanded to include clean cardboard, paper, plastic, wood and metal scraps from a construction project; unpainted, non-treated clean wood scraps from facilities manufacturing materials used for construction of structures or their components; and unpainted, non-treated clean wood pallets, provided the clean wood scraps and pallets are separated from other solid waste. The C&D debris definition is also clarified to provide that de minimis amounts of other nonhazardous waste generated at construction or destruction projects may be included in C&D debris, provided such amounts are consistent with best management practices of the industry. C&D debris facilities that want to accept the clean wood materials now included in the expanded C&D definition must first implement groundwater monitoring.

- The Department of Environmental Protection (FDEP) must establish a separate permit category for solid waste management facilities which accept only C&D debris for disposal or recycling. In establishing such a category, FDEP is to establish a reasonable

schedule for existing facilities to come into compliance with any new permitting requirements.

- The bill authorizes FDEP to establish reasonable construction, operation, monitoring, recordkeeping, financial assurance, and closure requirements for C&D debris disposal facilities. Such requirements may even include the implementation of liner and leachate collection systems at individual facilities where that facility may reasonably be expected to result in violations of groundwater standards and other criteria. FDEP is also authorized to impose less stringent requirements for facilities accepting only a segregated waste stream which is expected to pose a minimal risk to the environment and public health.

- FDEP may establish training requirements for C&D debris facility operators.

- Issuance of a permit for a C&D debris disposal facility does not obviate the need to comply with all applicable zoning and land use regulations.

- A permit is not required for disposal of C&D debris on the property where it is generated, but such property must be covered, grated and vegetated as necessary upon completion of disposal.

- FDEP must ensure that the requirements applicable to C&D debris facilities are applied and interpreted consistently throughout the State, particularly by agency bureaus and district offices, regarding the interpretation and application of the requirements of this new law.

- FDEP must provide notice of receipt of a permit application for the initial construction of a C&D debris disposal facility to the local governments having jurisdiction where the facility is to be located.

- The bill provides legislative recognition that recycling, waste reduction, and resource recovery are important aspects of an integrated solid waste management program, and are necessary to protect the public health and the environment. If necessary to provide an integrated solid waste management program, the bill authorizes a county to find, after notice and a public hearing, that clean wood scraps and clean wood pallets should be excluded from the definition of C&D debris in that jurisdiction.

Future Actions

FDEP will engage in substantial rulemaking to implement the new C&D debris disposal facility permitting program.

FLORIDA DEPARTMENT OF TRANSPORTATION MITIGATION
CS/SB 1986
Effective Date: Upon Becoming Law

Potential Impact

This legislation puts forth a mechanism for the Florida Department of Transportation (DOT) to mitigate for all its wetland and surface water construction impacts by writing a check to the Florida Department of Environmental Protection (DEP) and Water Management Districts (WMD). It is estimated that by paying $75,000 per wetland acre of impact the DOT will generate between $30-$40 million annually to be spent for mitigation projects. In exchange for the payment of these monies, the DOT is entitled to receive all necessary state and regional permits and have the DEP and WMDs act as agents for the DOT with respect to the federal permitting required under the Clean Water Act. It is expected that this legislation will expedite DOT construction projects and help subsidize DEP and WMD environmental acquisition and restoration activities.

Highlights

- Beginning July 1996, the DOT shall submit on an annual basis to the DEP and WMDs a copy of its adopted work program establishing the wetland and surface water habitats which will be impacted by the next 3 years of construction for projects identified in that work program.

- Prior to December 31, 1996, each WMD in the state after consultation with the DEP, Corps of Engineers and other agencies shall develop a mitigation plan intended to offset the construction impacts of the DOT construction projects. This plan is to be developed by each district and approved by the Governing Boards and submitted to the Secretary of DEP for review and final approval.

- The plans to be developed by the WMDs shall consider the purchase of credits from public and private mitigation banks so long as the purchase of these credits would offset the transportation impacts, provide equal benefits to water resources and be the most cost-effective mitigation option available.

- By July 1, 1996, the DOT shall transfer to the DEP $12 million from the state Transportation Trust Fund to be used for surface water improvement programs and to address aquatic and exotic plant removal. This advance of dollars is to be used as mitigation credit for construction impacts anticipated during 1996 and 1997.

- Once the mitigation plan is approved by the Secretary of DEP, the construction activities offset by the mitigation shall be considered approved and no other local, regional or state mitigation may be required.

- Beginning July 1, 1997, the DOT shall provide quarterly payments into a trust fund to be used for the benefit of DEP for purposes of implementing the mitigation plans.

- Certain projects may not be included in the DEP/WMD mitigation plan if the agencies are unable to identify sufficient mitigation or if the DOT specifically requested a construction project be excluded from the plan.

- The mitigation plans are to be updated annually and they must reflect the most current DOT work program.

- The status of this new mitigation plan approach to DOT projects shall be the subject of a report filed by December 1, 1997. DEP shall file this report with the Governor and the Legislature and should specifically include a section on how private and public mitigation banks are being utilized to meet DOT's mitigation requirements.

- Another section of the bill directs DEP to create general permits and exemptions relative to aquatic weed control. An exemption to perform exotic and aquatic plant control is created in section 403.813(2)(r), F.S. This exemption is based upon the activities already receiving a permit pursuant to section 369.20 or 369.25, F.S.

- Mitigation requirements for the high speed rail project are not expected to come within the mitigation plan created by this act. However, if DEP and DOT are unable to negotiate acceptable mitigation conditions, than the $75,000 per acre wetland impact cost can be applied to that project.

- A mechanism is provided in the legislation for a consumer price index cost adjustment beginning July 1, 1998 which may increase or decrease the $75,000 per wetland acre impact cost.

Future Actions

Owners of private mitigation banks should seek to ensure that their banks are considered for inclusion in the December 1996 mitigation plans being developed by each of the WMDs. Contractors or other interested parties involved in the eradication of aquatic weeds should carefully monitor the expenditure of this new infusion of dollars in this area.

COASTAL CONSTRUCTION CONTROL LINE/WETLAND MITIGATION BANK

CS/HB 2241

Effective Date: Upon Becoming Law

Potential Impact

Coastal property owners may benefit from additional exemptions provided for activities seaward of the coastal construction control line (CCCL) and landward of existing coastal armoring structures. In addition, local governments and utility companies may be eligible to obtain area-wide permits for certain coastal construction control activities. Furthermore, general permits are authorized for certain beach walkover, deck, fence, driveway and sidewalk structures. These structures must be part of a single family residence in order to be eligible for the general permit. Private mitigation bankers should benefit from the codification of the procedures relating to the approval of mitigation banks. Issues such as the scope of mitigation service areas, the role of local governments and the amount of credits to award mitigation banks have been modestly improved in existing rule language on these same subjects.

Highlights

- A limited exemption is provided to construction occurring seaward of the CCCL but landward of existing armoring structures, provided the armoring protects the proposed construction from erosion during a 100-year storm surge. The exemption generally applies to foundation, siting and excavation criteria. However, measures must be implemented to meet windload requirements and to protect marine turtle nesting.

- Areawide permits for coastal construction may be issued to local governments, governmental agencies or utility companies for a class of activities such as road repair, utility repair and replacement, beach cleaning, etc., provided the construction will not interfere with the natural functioning of the beach/dune system or marine turtle nesting.

- General permits for beach/dune walkover structures, decks, fences, sidewalks, driveways, pools and other nonhabitable structures may also be authorized in conjunction with a single family residence provided the construction does not measurably interfere with the natural functioning of a beach/dune system or marine turtle nesting.

- Section 161.0531, F.S., is created granting the department authority to enter into development agreements for construction activities seaward of a CCCL. The only limitation upon the issuance of these agreements is that the activity protect the beach/dune system and cause no measurable interference with marine turtles or their nesting sites.

- Language has been added relative to a funding formula for beach nourishment projects (also found in SB 38). Pursuant to this funding criteria, the state would consider the severity of erosion conditions, the availability of federal matching dollars, the local

government's financial administrative commitment to the project, previous state contributions, the anticipated physical performance of a project, the extent that the project is required to mitigate for adverse impacts of navigation inlets, and the innovative cost-effective and environmental sensitivity aspects of the application as it relates to reducing erosion. Legislative intent establishes a 50/50 cost-sharing basis between state and local government for the nourishment project.

MITIGATION BANKING

- Since 1993, the Florida Statutes have provided for the establishment of private mitigation banks, and rules governing mitigation banks were adopted in January, 1994. The remaining sections of this bill codify many of those rule provisions regarding procedures and criteria attending approval and operation of mitigation banks.

- Currently, there are 6 private mitigation banks approved in the state of Florida. They are facing increasing competition from state agencies who are either establishing informal public mitigation banks or accepting cash contributions which will be used for environmental restoration and enhancement projects.

- In an attempt to level the playing field between public and private banks, the Department of Environmental Protection (DEP) and water management districts are required to fully cost account for all cash contributions they use as a form of acceptable mitigation. They are also limited in using these cash contributions to agency endorsed creation, preservation, enhancement or restoration projects that will fully offset the impacts of the activity permitted for construction. Only when all state and federal permits have been received for a creation, preservation, enhancement or restoration project, may the state or water management district accept cash donations towards the implementation of that project.

- Throughout the legislation, off-site regional mitigation is referenced in conjunction with mitigation banks to alleviate concerns that applicants would be limited in the use of off-site mitigation.

- To further the idea of an equal playing field, public and private mitigation banks are to be subjected to the same regulations and rules except that public mitigation banks may have differing financial responsibility and ownership requirements.

- Mitigation banks should emphasize restoring and enhancing degraded ecosystems, rather than the alteration of existing uplands, so as to create additional wetlands.

- Mitigation banks may be used in combination with all other forms of mitigation.

- Local governments are prohibited from denying the use of a mitigation bank or off-site mitigation to offset impacts within their jurisdictional limits, simply due to the location

of the bank outside the jurisdiction of that local government. In other words, impacts incurred in one municipality or county may be offset by a mitigation bank located in another municipality or county.

- The conditions and criteria for the approval of mitigation banks is set forth as is the authority for the banker to withdraw credits on a phased basis.

- The department or water management district is required to establish a mitigation service area defining the geographic limits that may be serviced by a mitigation bank. The mitigation service area may be larger than a regional watershed, if the bank provides exceptional ecological value, or the mitigation service areas may be smaller than a regional watershed if localized, ecological or hydrologic conditions prevent adverse impacts from being offset throughout the entire regional watershed.

- Grandfathering provisions are included for pending mitigation bank applications or previously issued mitigation permits.

- A glitch in the legislation was created when the mitigation bank provisions were added such that section 8 and 9 contain conflicting effective dates. Section 8 states that the act becomes effective upon becoming law, while section 9 states that the act shall take effect July 1, 1996.

Future Actions

The Department of Environmental Protection and water management districts were granted limited rulemaking authority to implement the mitigation bank provisions. It would appear that this act will require modification of existing department and district mitigation bank rules.

WATER -- HILLSBOROUGH, PASCO & PINELLAS COUNTIES

CS/CS/HB 2385/2399

Effective Date: Upon Becoming Law

Potential Impact

This turned out to be the only water-related legislation which passed during the 1996 legislative session. Concerns regarding salt water intrusion and wellfield dewatering have created increasing confrontation in the Hillsborough, Pasco and Pinellas County areas. Those local legislative delegations unified in support of adopting this limited legislation. Because of the mandates regarding the 1997 establishment of minimum flows and levels, it could be used as a yardstick for other such determinations across the state. Furthermore, the independent scientific peer review requirements for minimum flows and levels can be applied to <u>all</u> parts of the state,

and the Governor's line item veto authority over all water management district budgets will have statewide ramifications.

Highlights

- Independent scientific peer review is defined in Chapter 373, F.S., as including experts in the fields of hydrology, hydrogeology, limnology and other scientific disciplines relevant to minimum flows and levels.

- The Southwest Florida Water Management District (SWFWMD) is directed to develop by July 1, 1996 a priority list of water bodies and aquifers for the establishment of minimum flows and levels. These priority waters are to be located in Hillsborough, Pasco and Pinellas counties and priorities are to be given to any source of water where withdrawals are expected to have significant harm and where those waters would be considered a new source water resulting in the withdrawal of more than 5 million gallons per day.

- The establishment of these minimum flows and levels for the priority waters is due by October 1, 1997. If the water management district is unable to adhere to the schedule, the Department of Environmental Protection is authorized to make these determinations.

- If there is a factual dispute regarding the minimum flows and levels, a request may be made by a substantially affected person for the determination to be subjected to independent scientific peer review. The peer review panel must be selected within 60 days. Panel costs shall be born equally by all parties involved and they must submit a report within 120 days after selection. The report submitted is not binding on the water management district, but the governing board is directed to give it "significant weight". It is noteworthy that this section was not limited to minimum flows and levels established within Hillsborough, Pinellas and Pasco Counties.

- The notice provisions for consumptive use permits are modified to require the mailing of these applications to the counties and municipalities within whose boundaries water is to be withdrawn.

- The West Coast Regional Water Supply Authority is requested to prepare a report by February 1, 1997, making recommendations regarding the Authority's membership, its funding options, and its ability to implement water supply development through the use of .10 mills of basin board ad valorem taxing authority should that be authorized. The report was a compromise from a previous draft of this legislation which would have provided the Authority with a percentage of the basin board millage and it may become the basis to justify the earmarking of such tax revenues.

- Local governments who are members of the West Coast Regional Water Supply Authority are authorized to specifically request the Governing Board to review withdrawals which they allege may have an adverse effect on those governments.

- The Governor's office is given authority to approve or disapprove, in whole or in part, the budgets of all 5 water management districts. This constitutes a line item veto authority which significantly increases the budgetary oversight the districts may confront.

Future Actions

A listing of priority water bodies and aquifers will be developed by July 1, 1996 and minimum flows and levels must be determined by October 1, 1997 for those priority waters. In preparation for the 1997 legislative session, the West Coast Regional Water Supply Authority will be preparing a report with recommendations by February, 1997.

CONSTITUTION REVISION COMMISSION

SJR 210

Effective Date: When adopted

Potential Impact

This Joint Resolution of the two Houses initiates one of the existing constitutional processes for amending the Florida Constitution. The proposed amendment to Article XI, Section 2, which will appear on the November 1996 general election ballot for voter approval or disapproval, would modify another of the existing processes for amending the State Constitution, i.e., revision proposals by the Constitution Revision Commission. The amendment would accelerate the time for establishing the next Constitution Revision Commission and would eliminate certain existing limitations on its powers to propose revisions for voter approval.

Highlights

- The next Constitution Revision Commission is scheduled to convene in 1998 following the adjournment of the legislature. The amendment proposed for voter approval would advance that meeting time by one year, to 1997.

- At present, the Constitution withholds from the Revision Commission any power to propose amendments relating directly to taxation or the state budgetary process, which are subject to review every ten years by another state body, the Taxation and Budgetary Reform Commission. The proposed amendment by removing that limitation would empower the Constitition Revision Commission, after appropriate public hearings, to propose amendments for voter consideration on any subject.

Future Actions

No further formal action is required to place the proposed constitutional amendments on the November 1996 ballot for voter adoption or disapproval. Should the amendments be adopted, however, a new Constitution Revision Commission will be constituted in the Spring of 1997, with 37 members then to be selected by the Governor, the Speaker of the House, the President of the Senate, and the Chief Justice of the Supreme Court, including the Attorney General ex officio. The Commission will then convene to consider new constitutional amendments, conduct public hearings, and file with the Secretary of State any proposals it has to amend the Constitution in the 1998 general election.

CONSTITUTION REVISION STEERING COMMITTEE

SB 2636

Effective Date: Upon Becoming Law

Potential Impact

This bill creates the Constitution Revision Commission Steering Committee, consisting of the President of the Senate, Speaker of the House, Governor, Attorney General, and Chief Justice (or their designees). The Steering Committee will conduct workshops and gather information on potential issues for consideration by the next Constitution Revision Commission. The Steering Committee's efforts will be summarized in a report to the chair of the Constitution Revision Commission.

Highlights

- Beginning July 1996, the DOT shall submit on an annual basis to the DEP and WMDs a copy of its adopted work program establishing the wetland and surface water habitats which will be impacted by the next 3 years of construction for projects identified in that work program.

- Prior to December 31, 1996, each WMD in the state after consultation with the DEP, Corps of Engineers and other agencies shall develop a mitigation plan intended to offset the construction impacts of the DOT construction projects. This plan is to be developed by each district and approved by the Governing Boards and submitted to the Secretary of DEP for review and final approval.

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- The status of this new mitigation plan approach to DOT projects shall be the subject of a report filed by December 1, 1997. DEP shall file this report with the Governor and the Legislature and should specifically include a section on how private and public mitigation banks are being utilized to meet DOT's mitigation requirements.

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Future Actions

Owners of private mitigation banks should seek to ensure that their banks are considered for inclusion in the December 1996 mitigation plans being developed by each of the WMDs. Contractors or other interested parties involved in the eradication of aquatic weeds should carefully monitor the expenditure of this new infusion of dollars in this area.

Wetlands Permitting/Ecosystems Management

Moderator: **Gene McNeill**

Speakers: **Ernie Barnett**
Tom Dyer

Biography

Gene McNeill, P. E.
Director of Safety, Health and
Environmental Control
PCS Phosphate
White Springs, FL 32096

Over thirty years in environmental control, with State and Federal Government and industry. Prior to current position, positions included District Manager for Florida Department of Pollution Control (now DEP), and Project Manger for EPA Areawide EIS on the Florida Phosphate Industry. In current position since 1979.

Education: Bachelor of Civil Engineering, and Master of Science in Environmental Engineering from Georgia Tech

Abstract

Ecosystems Management at PCS Phosphate - White Springs

The PCS Phosphate White Springs operation has taken the ecosystems management approach on several permitting issues, starting with a wetlands Environmental Impact Statement in 1981. This EIS resulted in a multi-agency agreement (MOU) in 1987. The agreement was developed by the company, four agencies, and several representatives from statewide environmental groups. It allowed issuance of a long-term permit which included permitted areas, conditional areas, deferral areas, and preservation areas.

More recently, an agreement has been reached with DEP for off-site mitigation. This agreement allows approval of a Conceptual Reclamation Plan with lower cost reclamation. The reclamation savings will be donated to the Nature Conservancy for purchase of environmentally sensitive lands in the upper Suwannee River basin.

Several other ecosystem approaches have also been taken on permitting issues, which will be summarized, one of which was an EIS for a new chemical complex.

BIOGRAPHY

ERNIE BARNETT is the Director of Ecosystem Planning and Coordination at the Florida Department of Environmental Protection. His responsibilities include coordinating the development and implementation of department-wide ecosystem management policies and strategies and coordinating the department's efforts in south Florida ecosystem restoration. Mr. Barnett has been with the department 12 years where he served previously as a shellfish biologist, aquatic preserve manager, Environmental Administrator, and Water Management Administrator. He has authored or co-authored 31 publications and agency reports on beach management, shellfish management, sea turtle nesting, natural resource damage assessment, and ecosystem management. Mr. Barnett received his B.S. in Environmental Resource Management and Planning and his M.S. in Biology from the University of West Florida.

Ecosystem Management Implementation Strategy

Abstract

Ernie Barnett, Director of Ecosystem Planning
Florida Department of Environmental Protection

The 1993 Legislature merged the Department of Environmental Regulation and the Department of Natural Resources creating the Department of Environmental Protection (DEP). The DEP was charged with developing a strategy to protect the functions of entire ecological systems. The department developed an Ecosystem Management Implementation Strategy that represents the work of over 300 people -- citizens, government employees, business and environmental leaders, university faculty, agriculture, forestry, mining and utility representatives, and others who participated in its development. The concepts expressed here are the distillation of over 500 recommendations developed by the participants.

Running throughout the Ecosystem Management Implementation Strategy is the theme of stewardship. Stewardship, as an idea, conveys strong sense of ownership in, and responsibility for, Florida's land, air, water and other resources. A fundamental goal of the ecosystem management initiative is to promote good stewardship. Supporting this primary theme of stewardship are what we call the four cornerstones of ecosystem management. They are place-based management, common-sense regulation, cultural change, and foundations.

Place-based management focuses on areas or places of sufficient size to address major regional hydrological and ecological connections. We call these places Ecosystem Management Areas (EMAs). An EMA can include urban, rural, developed and undeveloped lands. Environmental issues are addressed by local EMA Teams. Participation on EMA teams is voluntary and open to all.

Common-sense regulation is concerned with environmental results. It recognizes that traditional regulatory programs perform vital functions in the protection of human health and wetlands. Regulation must not be abandoned, but at the same time there is a need for workable alternatives that provide incentives for the regulated public to voluntarily go beyond compliance to wise stewardship of ecosystems.

Cultural change involves the attitudes and beliefs of agency employees and the citizens of the state. Ecosystem management encourages non-adversarial, voluntary partnerships between government and the citizenry, and emphasizes the necessity of informed and active citizens to achieve positive, long-term environmental results.

The **foundations** of ecosystem management include science and technology, environmental education, employee training, program audit and evaluation, and other such things that support ecosystem management.

THOMAS H. DYER
40 Ranch Road
Thonotosassa, Fl 33592

Tom Dyer is Vice President, General Manager and a Director of Two Rivers Ranch, Inc., and Crystal Springs Recreational Preserve, Inc. His responsibilities include the management of over 20,000 acres of low intensity agriculture operations in Hillsborough, Citrus, Hernando and Pasco counties. Their resource management activities include cattle, timer, wildlife, water and recreation. Crystal Springs operates as a public recreational park and has annual visitation of over 70,000 people and supplies over 40 million gallons of spring flow daily into the Hillsborough River.

Two Rivers Ranch was the recipient of; the 1994 Conservationist of the Year Award from the American Farmland Trust recognizing its outstanding efforts to conserve and protect open space and agriculture lands in the United States, the 1995 Audubon Corporate Conservation Award, the 1995 Land Conservationist of the Year Award from the Florida Wildlife Federation and the National Wildlife Federation for outstanding contributions to the wise use and management of the nation's natural resources.

Tom is a former member of the Governor's Private Property Rights Commission, serves as Chairman of the Hillsborough River Greenways Task Force, is Co-Chair of the Florida Department of Environmental Protection's Role of Private Landowners Committee for Ecosystem Management and is currently serving as a member of Florida's Water Management District Review Commission, and also serves as a member of the Florida Greenways Coordinating Council.

Tom is from Davie, Florida. He resides at Two Rivers Ranch and has been in his present position for over 6 years.

Implementation of Ecosystems Management
A FDOT Perspective

Speaker: **Chuck Walter**

Biography

Charles R. Walter, P.G.
(Chuck)
(Professional Geologist)

University of Wisconsin

Transplanted to Florida in 1988 to work on a research project which investigated the effects of On Site Disposal Systems on the environment.

The study was interrupted when I was activated from the Army Reserve for the Gulf War.

I have been employed by the FDOT since returning from the war and have had roles in storm water, waste water, and wetland permitting; geotechnical issues; contamination and risk assessments; Geographic Information Systems; and Ecosystem management.

Current Title:
Operations Environmental Manager

TELEPHONE: (813) 975-6639
SUNCOM: 571-6639
FAX: 975-6278
TOLL FREE: 1-800-226-7220

CHARLES R. WALTER, P.G.
OPERATIONS ENVIRONMENTAL MANAGER

STATE OF FLORIDA
DEPT. OF TRANSPORTATION
DISTRICT SEVEN

11201 N. MALCOLM MCKINLEY DRIVE
MAIL STATION 7-1200
TAMPA, FL 33612

Abstract

The provisions of the Clean Water Act and resulting National Pollutant Discharge Elimination System (NPDES) rules require the Florida Department of Transportation to control its non-point pollution sources. District VII, FDOT has developed an ecosystem management approach to satisfy these requirements. The implementation of this ecosystem management approach has four (4) primary areas of operations:

Wetlands management
Storm water management
Hazardous material spill management
Roadway maintenance

The non-specific nature of these types of pollution sources on the State Road System has made the tracking of reduction levels for these types of pollutants a management challenge. The key ingredient to managing those issues is a diverse staff of environmental and engineering professionals. The most effective tool we have is an effective Geographic Information and Management System.

Water Conservation in the Citrus Processing Industry

Speaker: **Jim Ashby**

Biography: James Ashby- Engineering Resource, Inc.

Bradenton, Florida

Paper Topic: Water Conservation In Citrus Processing

James Ashby is an environmental and process engineer with extensive experience in the food processing, manufacturing, and related industries with eight years specifically in citrus processing. He received his degree in Chemical Engineering from the University of Maine at Orono. He is a member of the Florida Section of the Institute of Food Technologists, the Water Pollution Control Federation, and the American Institute of Chemical Engineers. He is a project manager and directs Southeastern operations for Engineering Resource, Inc. from their Bradenton, Florida office.

WATER CONSERVATION IN CITRUS PROCESSING

James Ashby
Environmental Project Manager
Engineering Resource, Inc.
115 133rd Street East
Bradenton, Florida 34202

INTRODUCTION:

In the State of Florida, the vast majority of potable water comes from groundwater supplies. Salt water intrusion into groundwater aquifers coupled with variable rainfall and periodic droughts are affecting the availability of this supply. Rapid population growth anticipated over the next few decades will subsequently cause an increase in demand for these diminishing water resources. Water shortages in recent years have caused the Florida Legislature to respond with more stringent water supply regulation and control, and these regulations are expected to become more restrictive in the future.

As the supply of potable groundwater in the State of Florida becomes less and less available, it is crucial for municipalities and industry alike to take the initiative to protect diminishing water resources through conservation.

In this presentation I will:

1) Review some growing incentives and requirements for water conservation.

2) Highlight the many strides being made by the citrus processing industry in the area of water conservation through source water reduction, recycling, and reuse.

3) Outline the benefits of water use metering systems to quantify water flows and monitor conservation progress.

4) Discuss the importance of Water Use Audits in establishing a sound long-term Water Management Plan.

BACKGROUND:

Economic Benefit-

As the costs associated with regulatory noncompliance, bad publicity, water supply and wastewater treatment/disposal continue to rise, the cost benefit from source water conservation becomes all the more attractive. Increasing water supply costs coupled with tightening Water Management District regulations are making water consumption a more significant issue for citrus processors. Wastewater treatment and disposal often cost two or more times that of water supply. Citrus processors are forced to conserve available treatment capacities to prevent even more costly treatment plant or spray field expansions (particularly when faced with facility or production rate expansions). Clearly, there is increasing regulatory scrutiny on how water is being used by citrus processing plants. For example, Water Conservation Plans and long-term Water Management Plans must now be submitted by many citrus processors. The requirement for these plans also demonstrates the Florida Water Management Districts' commitment to forcing water conservation in citrus processing and the growing potential for monetary cost for noncompliance.

Some major reasons that citrus processors are showing a growing interest in water conservation are:

-Increasing regulatory pressure (particularly by the Florida Water Management Districts)
-Dwindling groundwater supplies and availability
-Increased water supply cost
-Increased wastewater treatment (disposal) cost
-Limited availability of wastewater treatment and/or spray field capacity
-The importance of promoting a sound environmental image to both employees and the public

The Federal EPA's Position-

Over the last ten to fifteen years the federal government of the United States has been developing and carrying out a national program that focuses on source reduction of wastes instead of "end-of-pipe" treatment. This agenda has been plainly stated in the 1984 Hazardous and Solid Waste (HSWA) Amendments to the Resource Conservation and Recovery Act (RCRA) and in the Superfund Amendments and Reauthorization Act of 1986. The mandate from the EPA has been for companies to investigate and implement source reduction and reuse to minimize waste production and conserve diminishing natural resources.

Waste minimization typically refers to changes that can be made in a production process to effectively reduce or recycle waste generated. For most processing plants waste minimization will not be an attractive opportunity as long as there is an adequate supply of raw materials and waste treatment and disposal capacity, and as long as these costs can be passed through to the consumer. A processor will tend to continue to rely on known requirements for treatment and disposal in order to avoid the potential risks associated with changing an established production process.

But in fact many changes can be made that reduce waste and save money without changing product quality. What's needed is a careful look at (1) what generates the waste in the first place and (2) what the costs for raw material supply and waste disposal really are.

Source reduction together with recycling and reuse is the best solution. It results in waste prevention, raw material use reduction and treatment capacity conservation.

The Florida Legislature's Position-

In 1961, by special act of the Florida Legislature, five regional districts were created in the state of Florida to preserve and protect Florida's water resources. Although the initial charge of these Water Management Districts was aimed at flood control, in 1972 the Water Resources Act required districts to implement consumptive use permitting programs and in recent years, water management has become a growing responsibility for these districts.

The District's Governing Board has adopted an aggressive plan to maintain an adequate water supply for the district's future. Elements of this plan have included: an intensive water conservation education program, the implementation of mandatory water conservation measures, the designation (and recent expansion) of Water Use Caution Areas, and the development of a long-range comprehensive water supply plan called the "Needs and Sources Assessment."

To protect groundwater supplies, the Water Management Districts have required all industrial facilities to submit Water Conservation Plans upon renewal of Consumptive Use Water Permits. These Water Conservation Plans must identify specifically what water conservation methods have been employed to date and what additional methods will be evaluated and implemented over the next few years by the user. This plan must include a schedule for the implementation of future conservation measures. It is expected that these conservation plans will be used to establish specific industry guidelines on water consumption that will eventually be required of all citrus processors in the State of Florida. Similar guidelines have already been created for both agricultural citrus and agricultural nursery water users.

The Water Management Districts also make it difficult for users to obtain new or expanded water supply access by requiring that Consumptive Use Permit applicants justify groundwater withdrawal requests by demonstrating that:

1) The use is a reasonable beneficial use

2) The use will not interfere with any presently existing legal use of water.

3) The use is consistent with the public interest

In addition, conditions of these Water Use Permits often require applicants to submit a Water Conservation Report highlighting current and future water conservation activities, particularly for facilities located in Water Use Caution Areas. In some areas such as the "Most Impacted Area of the Eastern Tampa Bay Water Use Caution Area", potential users cannot obtain a new Water Use Permit unless that user already has a permit now.

There has been speculation that the Florida Water Management Districts might eventually establish usage surcharges for groundwater withdrawals as a way to increase water supply costs and make water conservation a more attractive alternative. This issue of "user fee's" is currently under discussion in the Florida Legislature. The Water Management Districts have also been discussing new restrictions on groundwater withdrawal rates.

CURRENT WATER CONSERVATION PRACTICES-

Numerous water conservation techniques are currently employed by citrus processors to help conserve and reuse source waters. Many of these modifications can result in significant water savings but require only a limited capital investment to implement. Most likely, in time many of these will become required standard industry practices. The growing trend has been for citrus processors to install new process equipment that operates much more water efficiently (particularly for sanitation) and to retrofit existing systems (where feasible) to employ more water conservation practice.

One crucial factor in the success of any water conservation program is the degree of employee education included. Supplying operators with the proper water conservation tools does not guarantee that water conservation will become a primary part of their work ethic. For water conservation to be at the forefront of operators' minds, it must first become an important issue for operation managers. An operator's priorities are established directly by his respective manager.

How do you decide what conservation techniques are worth using? Even a water use reduction of twenty gpm (which is easily surpassed by the modifications listed below) will result in a daily reduction of almost 30,000 gallons. It is important to keep in mind that even a seemingly insignificant flow reduction of a few gpm can add up to serious daily water usage savings.

Some basic water conservation measures that should be employed to the greatest degree feasible by all citrus processors include:

Source Reduction:

Reduced Water Use in Sanitation-

Since equipment and area sanitation is one of the largest water users in most citrus plants, it offers one of the largest potentials for water use reduction.

-Educating operators to use shovels and squeegees for solids handling (leaves, pulp, etc.) will greatly reduce the water wasted by transporting solids hydraulically in area cleaning. Keeping these solids out of wastewater will also help reduce the load on wastewater treatment systems.

-Installing automatic shut-off low-flow water nozzles on all water hoses can reduce the water flow through a typical 1" water hose from 20-30 gpm to 5 gpm. These nozzles use higher water pressure at lower hydraulic flow for cleaning, resulting in a significant water savings.

-Many facilities employ high pressure sprayers, particularly for exterior equipment cleaning, in place of water hoses. These sprayers operate at a fraction of the water flow of a typical hose. Also, most operators prefer high pressure sprayers to water hoses (particularly for removing pulp), claiming better overall cleaning in less required time.

-Using spray balls for process tank and tank truck cleaning allows for improved sanitation of these vessels using a fraction of the water typically required for cleaning.

-Industrial-type vacuum systems can be used for cleaning up solids in place of water hoses, particularly at truck loading (feed mill, etc.) and unloading areas to reduce cleanup water usage and wastewater loading.

Reduced Water Use by Process Equipment-

-Rigorous plant maintenance will conserve source water by preventing and repairing water leaks and reducing associated water waste.

-Using solenoid valves to turn off the brushwasher and belt lubrication nozzles when the fruit belt stops will greatly reduce water waste associated with fruit handling and washing. Brushwasher nozzles often use up to 1-2 gpm per nozzle with 6-24 nozzles present on a given belt. This offers a large potential for water savings. It is much too common to see brushwashers running for long periods of time when the belts stop moving or when no fruit at all is present on a given belt.

-Another large potential for water use reduction exists in modifying pump seal water systems (process, MG, vacuum pumps, etc.) to reduce water flow. No-flow or low-flow pump seals can be used and solenoid valves installed on pump seal water lines to stop flow when the pump motors are turned off. Pump seal waters often run at flow rates of 1-3 gpm per pump, but manufacturers often require less than 1 gpm of seal water.

-Modifying pump suction arrangements or using self-priming pumps will eliminate the need for pump-priming water lines as well as the associated water use.

-Using conductivity equipment to control process backwash operations such as in carbon beds, filters, DI columns, etc. will help to both limit source water use and wastewater generation.

Reduced Water Consumption by Utilities-

-Where feasible, use air cooling in place of water on compressors, etc. to eliminate once-through cooling water.

-Using conductivity meters to determine the necessity for utility blowdowns will eliminate continuous blowdowns and reduce water waste and utility feed water treatment chemical consumption.

Water Recycle:

Water Recycle in Sanitation-

-Recycling of rinse waters and cleaning caustic during equipment, line, and tank truck cleaning will greatly reduce the overall volumes of water and caustic required.

-Clean-In-Place (CIP) systems have been used for many years in dairies and other food and pharmaceutical plants because of their ability to clean process tanks and piping with a

fraction of the water and caustic of other cleaning processes. CIP systems typically employ tanks for water and cleaning chemical recovery, spray balls for low-flow cleaning of tanks and closed loop piping circuits for recirculation of water and cleaning solutions. Recovered cleaning solutions are fortified with fresh caustic and reused many times over. Final rinse waters are recovered for reuse as prerinse water in the next cleaning circuit, reducing overall water usage by up to one-half.

-Using floor and street sweepers for cleaning floors and paved areas will greatly reduce hose water usage in area sanitation, by continually recycling cleaning water. Using sweepers will also limit the overflow of wash waters and contaminants into adjacent stormwater systems by containing cleanup waters in the sweeper vessel for ultimate disposal.

Water Recycle by Process Equipment-

-A large potential for water conservation exists in modifying pumps (process, MG, vacuum pumps, etc.) to recycle seal waters. Pump seal waters can be recycled (using a filtering device if necessary) to eliminate once-through seal water. The potential for water conservation is even more significant for large pumps or for areas containing large numbers of pumps in close proximity (i.e., around the evaporators, etc.).

Water Recycle by Utilities-

-Where feasible, use closed-loop, recycled water cooling on compressors, etc. to eliminate once-through cooling water.

-Recycling of steam condensate back to the boilers will eliminate the cost associated with treating additional boiler feed water and also reduce total water consumption.

-Continuous recycle of cooling water for refrigeration systems using evaporative condensers and cooling towers is one large way to eliminate once-through cooling water.

Water Reuse:

Water capture and reuse is one method for reducing the quantity of source water used in citrus processing. Many plants have installed complete water reuse distribution systems plant-wide to allow for reuse water consumption wherever feasible. Some plants have installed water reuse systems where several different levels of reuse water quality are available for different plant services. This allows for the reuse of water several times prior to

disposal as wastewater. Taste condensate might be used for boiler and utility feed water; boiler and utility blowdown water might be reused again as pump seal or fruit wash water; this in turn might be collected again and reused as area sanitation water (in fruit receiving, the feed mill, etc.). Citrus plant water reuse systems are typically supplied with condensate waters, utility cooling and steam condensate waters, utility blowdown waters, pump seal waters, recovered sanitation waters, etc.

One key to an aggressive water reuse program is having adequate tank surge capacity to store condensate and other quality reuse waters prior to reuse. Many plants capture condensate or other high quality waters only when reuse water is needed and do not have adequate storage capacity to save this water to supply future needs, and as a result, large quantities of high quality water are sewered. Processors need to realize the value of good quality reuse water and to conserve it just like source water (particularly since most water reuse systems are replenished with source water). It is far better to have too much reuse water available and search for new opportunities for source water replacement than to fail to practice basic conservation practices because it is only "reuse" water.

Citrus processing plants typically have two types of condensate water (with very different water qualities) readily available for reuse. These two condensate waters consist of high quality taste condensate water and lower quality waste heat evaporator condensate water. A primary difference in quality between the "taste" and "waste" heat condensate waters is the presence of corrosive D-Limonene in waste heat evaporator condensate. Using condensate water (particularly taste condensate) for utility water often offers a potential reduction in feed water chemical treatment cost and reduces source water consumption besides.

Some reuse opportunities available for evaporator condensate water include:

<u>Taste Evaporator Condensate-</u>

-Utility Boiler Makeup Water
-Utility Cooling Water
-Area Sanitation Water
-Pump Seal Water
-Brushwash and Belt Lube Water
-Pulp Wash Water

Waste Heat Evaporator Condensate-

-Utility Cooling Water
-Area Sanitation Water
-Pump Seal Water
-Brushwash and belt lube water

As illustrated in Table I (from "Land Applications of Citrus Wastewater, The Final Study", Phil Coram, P.E., Florida DER), although some citrus processors have made progress in reducing source water consumption through water reycle and reuse, many processors still have not installed adequate systems for the reuse of condensate water. Therefore, a great potential still exists in many plants for reducing source water use by capitalizing on the reuse of condensate water.

Table I - Summary of Reuse of Process Water

Use	% of Plants	# of Plants	Source
Fruit Wash	63	17/27	Condensate
Can Cooling	18	4/22	Conden/recycle
Pump Seal	33	9/27	Conden/recycle
Equipment Cleaning	59	16/27	Condensate
Floor Cleaning	56	15/27	Condensate
Cooling Tower Make Up	37	10/27	Condensate
Boiler Feed	19	5/27	Condensate

Because of the large potential for reuse of condensate water, it is important that facilities interested in water conservation be able to capture and reuse available condensate waters.

Upgrading used waters through primary solids removal (screening, filtering), chemical treatment (chlorination, ozonation) or biological treatment (aerobic, anaerobic). offers additional sources of reuse water.

Some plants employ raw wastewater in place of source water for operations that will not affect product quality, such as hydraulically moving fruit and leaves during fruit receiving operations.

Additional reuse water can be generated by collecting strong wastewaters from fruit extracting operations and evaporating it. In this way you can capitalize on spare evaporator capacity to increase solids recovery from waste waters, reduce effluent treatment or spray field loadings, and recover additional condensate waters for reuse.

Water Reuse in Sanitation-

-Capturing pre-rinse waters from tank truck cleaning and evaporating it, is one way to recover additional juice solids and condensate water for reuse.

-Employing condensate waters and reuse waters for area sanitation (feed mill, fruit receiving, etc.) also reduces overall source water consumption.

-Conductivity equipment can be used to segregate cleanup waters (particularly from CIP cleaning) for reuse. Difference in conductivity can be used to segregate caustic, wastewater, and clean rinse water for recovery and waste reduction.

Water Reuse by Process Equipment-

-Another potential source of reuse water exists in modifying pumps (process, MG, vacuum pumps, etc.) to employ seal water recovery systems. The pump seal waters can be captured for reuse locally or to supplement other reuse water systems. As we saw with water recycle, the potential for pump seal water recovery becomes even more significant for large pumps or for areas containing large numbers of pumps in close proximity (i.e., around the evaporators, etc.)

Water Reuse by Utilities:

-Using reuse waters (particularly condensate waters) as utility feed water reduces source water consumption and may reduce feed water chemical costs.

FUTURE TRENDS:

Future trends in water conservation will probably include changes in equipment and sanitation procedures geared at improved juice solids recovery, improved cleanliness and reduced water and caustic usage.

Clean-in-Place (CIP) Systems-

One growing trend is the modification of old systems and the installation of new processing systems using Clean-In-Place (CIP) technology. These CIP systems use spray balls in tank cleaning to limit the flow of water required; supply tankage for caustic and rinse water recovery and reuse; and employ closed-loop cleaning circuits to continuously recycle rinse waters and caustic solutions during sanitation.

Line Pigging-

One technology that has been widely used in other industries and is now finding use in citrus plants is the use of cleaning pigs to push juice solids and cleaning solutions through long lengths of process piping. Line pigging offers the advantage of improved solids recovery using compressed air rather than water as the transport media. Pigging also offers the ability to more easily capture caustic and rinse waters that might otherwise be sewered after cleaning.

Conductivity-Based Water Segregation-

Work is underway to expand the use of conductivity-based automatic diversion systems to segregate and collect clean water, wastewater, and cleaning caustic during process line cleaning (when Clean-In-Place equipment is not available), to allow for large scale recovery of both cleaning caustic and clean water for reuse in subsequent cleaning cycles.

Equipment Selection-

As water conservation becomes increasingly important to citrus processors, the selection of new equipment using low flow/no flow seal waters, recycled or recovered rinse waters, and low flow recycled (CIP) sanitation waters is going to become increasingly prevalent.

Water Use Monitoring-

One tool available for identifying the potential and quantifying the success of water conservation programs is water usage monitoring. A water usage monitoring (metering) system is crucial in establishing realistic water usage numbers for a facility and for identifying areas where the greatest potential for water conservation exist. A water monitoring system will not only help measure current water usage, but will also develop baseline data for future comparisons. In some plants, this water meter data is being used to budget water allocations to individual plant departments as a means to limit water usage. A periodic review of this data can identify areas or work-shifts with abnormally high or low water use.

The number of water meters required and the degree of sophistication of the monitoring system are highly dependent on the particular plant needs (plant size, water supply piping arrangement, incentive for water conservation, etc.). Some plants use only a few water meters on the major water supply lines, while others prefer individual water meters for each department. Some monitoring systems use meters that are manually read, while others utilize continuous on-

line meters interfaced with a PC to allow for instantaneous water usage data (with alarms for periods of high water use).

One large citrus processing plant employed an extensive water management system consisting of forty individual water meters plant-wide to monitor water use and establish water budgets for each department. The water data was used as a factor in determining each department manager's performance bonus. This water management system, along with other water conservation measures resulted in a 30% water use reduction over the past three years.

Water Use Audits-

Many citrus processors have turned to Water Use Audits as a first step to generating a long-term Water Management Plan. A Water Use Audit will study how water is used at a particular processing plant, what incentives exist for water conservation (supply cost, effluent treatment problems, regulatory pressure, etc.) and investigate what water conservation techniques can be cost-effectively implemented.

Conclusions-

Many citrus processing plants have already conserved a great deal of water with some plants currently operating at a fraction of historic source water consumption rates.

With ever-tightening regulations on water supply and the anticipated establishment of specific water use guidelines for citrus processors by Florida's Water Management Districts, it is important that processors continue to find new ways to conserve water. Processing plants must not only implement the basic water conservation techniques listed above, but they also must investigate new ways to reduce water use through source reduction, recycling and reuse. Through these measures they can avoid having production rates limited or facility expansions delayed because of limits on available source water supplies.

The payoff for rigorous water conservation is going to come from many areas including lower raw material costs, reduced wastewater treatment and disposal costs, and avoided surcharges or fines for regulatory noncompliance. Citrus processors must be far-sighted when establishing long-term Water Management Plans, realizing that source water restrictions are only going to become more stringent in the future.

Water Conservation Audits:

The first step toward water conservation is to obtain a thorough understanding of the sources and quantities of water used in a particular processing plant and to fully understand how and why this water is used. A water conservation audit is the way to obtain this information.

A water audit is designed: to provide an understanding of the sources and quantities of water being consumed; to identify equipment and practices which result in excessive water consumption; and finally to identify cost-effective ways to reduce water usage and associated waste generation. This audit information is commonly incorporated and implemented in a long-term Water Management Plan aimed at controlling and reducing water usage over the next three to five years.

Water Conservation Audits- Typical Highlights

A properly executed Water Conservation Audit will generally set out to accomplish the following:

1) Identify and outline current water use practices within a processing plant and generate a water balance for that plant highlighting every major water user. This information serves as a baseline against which future water use data for this plant can be compared.

2) Compare the information obtained about the plant's water use practices and equipment to industry standards to identify areas for potential improvement.

3) Produce a prioritized list of equipment modifications and changes to employee practices that will serve to reduce water usage plant-wide. (Indirect results from these modifications often include modifications to cleaning practices, etc. to reduce water and cleaner usage, improve cleanliness and reduce manpower).

   Equipment modifications will often range from extremely low capital cost flow restriction devices to higher capital water recycle and reuse systems.

4) Water use conservation audits are typically used to generate a long-term (3-5 yr.) Water Management Plan for a facility. This management plan will address the implementation of water conservation techniques over time to eliminate the need for increased waste handling systems, to reduce sewer surcharges, to decrease the impact of planned facility expansions (on water supply and wastewater treatment system capacities) and to reduce raw water use and cost.

Many areas around the country are already requiring water conservation audits from manufacturing facilities and municipalities, coupled with long-term Water Management Plans to help meet future tightening source water requirements.

Water Conservation Audits- Typical Benefits

The primary benefits from a water conservation audit for a facility include the following:

1) It will produce a solid outline (water balance) of water consumption in a particular plant, identifying actual water usages and identifying areas most in need of improvement.

2) A water conservation audit can result in a cost reduction through conserved raw materials, reduced "end-of-pipe" treatment costs and reduced environmental fines or surcharges.

   The obvious first economic benefit can be seen by considering the current cost of treating raw water and wastewater. Additional benefits often result from recovering waste streams for reuse within the plant or as saleable byproducts. Many waste streams (waste oils, food scraps, fruit peel, etc.), once costly to dispose of, are now sold or traded for profit.

   The need to switch to a more costly water source, or to increase the capacity of raw or wastewater treatment equipment can place a high economic premium on the conservation alternative. A planned process or production expansion often raises this issue.

3) The audit will produce a prioritized punch list of equipment modifications and changes to employee practices that can serve to greatly reduce water use in a facility often by bringing the plant in line with industry standard practices on water conservation.

   The suggested modifications will often focus on raw material conservation, improved sanitation practices, and proper education of employees on water conservation.

   These modifications may range from simple flow restriction devices to pressure sprayers (to improve cleaning), to water monitoring devices (to police area water use), to complete water capture and reuse systems.

4) The water audit is crucial in establishing a sound long-term (3-5 yr) Water Management Plan for a facility that will address:

-The implementation of water conservation measures over time to reduce water use and wastewater generation.

-Long-term wastewater treatment goals such as the need to expand treatment operations to handle wastewater loads, or the commitment to institute water conservation to eliminate the need for capital expenditures on increased treatment (and higher surcharges).

-Future plant expansions and the need for increasing water handling and wastewater treatment systems through water conservation or capital expenditures.

Conclusion:

Since water conservation has become one of the hottest environmental issues of the 1990's it is crucial that citrus processors address water use in their respective facilities and develop long-term water management strategies. Water conservation is a part of good management because it produces economic benefits, is environmentally responsible, and ensures that the citrus processor is in compliance with increasingly stringent regulatory requirements.

Luncheon Speaker

A. Stanley Meiburg
Deputy Regional Administrator
Region IV
EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

A. STANLEY MEIBURG
DEPUTY REGIONAL ADMINISTRATOR
ENVIRONMENTAL PROTECTION AGENCY REGION 4

Stan Meiburg was appointed Deputy Regional Administrator (DRA) for the EPA Region 4 in April 1996. Prior to this appointment, Dr. Meiburg held the same position with Region 6 in Dallas, Texas. In his position, he is responsible for a wide range of activities involving the overall and daily management of the clean air, clean water, hazardous waste, and toxic substances control programs in Region 4.

Stan Meiburg has been with the EPA since 1977 in several capacities in both headquarters and regional offices including Director of the Air, Pesticides and Toxics Division in Region 6, Director of the Planning and Management staff for EPA's air office in Research Triangle Park, North Carolina, and Executive Assistant to EPA's Deputy Administrator in Washington, D.C.

Stan has received numerous awards, including EPA's Gold Medal for his work on the 1990 Clean Air Act Amendments, and the Agency's Silver Medal for work on state-federal relations. He holds a B.A. degree from Wake Forest University and M.A. and Ph.D. degrees from Johns Hopkins University.

Return From the Asylum:
A Plea for Sanity in Environmental Compliance, Investigations, and Remediations

Speaker: John Barkett

Coll Davidson Carter Smith Salter & Barkett, P.A.
3200 Miami Center
201 South Biscayne Boulevard
Miami, Florida 33131

Telephone: 305-373-5200
Facsimile: 305-374-7296

JOHN M. BARKETT is a graduate of the University of Notre Dame (B.A. Summa Cum Laude, 1972, Phi Beta Kappa) and Yale University (J.D. 1975). He was a law clerk to the U.S. Circuit Judge David W. Dyer (1975-76) and was with Steel Hector and Davis, Miami, Florida for 11 years (1976-1987). In 1987, Mr. Barkett and five colleagues formed the law firm of Coll Davidson Carter Smith Salter & Barkett, P.A. Mr. Barkett concentrates his practice on all phases of environmental law in Florida and around the United States. Mr. Barkett is an active participant in governmental and private Superfund, hazardous waste, underground storage tank, and other environmental matters in both a litigation and non-litigation context, and counsels clients on real estate, loan, and merger and acquisition questions involving environmental issues and assessments. He has also been involved in efforts in the Congress and in the state legislature to make changes in environmental laws. Mr. Barkett also assists colleagues in the firm who are experts in insurance coverage matters and toxic tort litigation.

Risk Assessments in Florida: Practices and Recent Developments

Speakers: **Chris Teaf**
Steve Roberts

CHRISTOPHER M. TEAF, Ph.D.

Dr. Teaf is Associate Director of the Florida State University Center for Biomedical & Toxicological Research, as well as President and Director of Toxicology for Hazardous Substance & Waste Management Research, a Florida-based firm. Dr. Teaf received a BS from Penn State, an MS from Florida State, and a Ph.D. in Toxicology from the University of Arkansas for Medical Sciences. He conducted his research at the National Center for Toxicological Research. His professional interests include performance and evaluation of risk assessments regarding health impacts of chemical under requirements of CERCLA, SARA, RCRA, TSCA and related state/federal legislation. He has conducted research programs for the USEPA, USDA, Florida DEP, Florida Department of Health and Rehabilitative Services, and Florida Department of Community Affairs. He has taught graduate and undergraduate courses, as well as seminars and short courses for Florida State University, Florida A&M University, University of Florida, Georgia Institute of Technology, American Bar Association and other groups. He served as toxicologist to the Governor's Financial & Technical Advisory Committee (1986-1992), and toxicologist for the FDEP Landfill Technical Advisory Group (1993-1994). He is Chairman of the Toxic Substances Advisory Council for the Department of Labor and Employment Security, and served as Human Health Co-chair for the Florida Comparison of Environmental Risks Project, a cooperative study funded by U.S. EPA and FDEP. From 1986-1989, Dr. Teaf was the appointed liaison between the state Toxicological Research Coordinating Committee and the FDEP. In addition, he has provided toxicological advisory services to the U.S. Attorney, Florida Attorney General, Washington Attorney General and Florida State Attorney.

Dr. Teaf served on the Technical Advisory Committee for MGP '95, the International Symposium on the Cleanup of Manufactured Gas Plants, held in Prague in 1995. He also served on the Technical Advisory Board for the First (1992; Budapest), Second (1994; Budapest), and Third (1996; Warsaw) International Symposia on Environmental Contamination in Central and Eastern Europe, and is active in risk issues which are of principal concern to that region.

STEPHEN M. ROBERTS, Ph.D.

Dr. Stephen M. Roberts is Director of the Center for Environmental & Human Toxicology at the University of Florida, and is an Associate Professor with joint appointments in the Department of Physiological Sciences in the College of Veterinary Medicine and the Department of Pharmacology and Therapeutics in the College of Medicine. He received his Ph.D. from the University of Utah College of Medicine in 1977, and subsequently completed a National Institutes of Health (NIH) individual postdoctoral fellowship at the State University of New York (Buffalo). He has previously served on the faculties of the College of Pharmacy at the University of Cincinnati and the College of Medicine at the University of Arkansas for Medical Sciences in Little Rock. Dr. Roberts has an active research program funded by the NIH to examine mechanisms of toxicity, and has published over 50 research articles regarding toxicology in both humans and animals. His teaching responsibilities at the University of Florida include graduate courses in General Toxicology, Advanced Toxicology, and Issues in the Responsible Conduct of Research, as well as invited lectures on topics in toxicology and risk assessment in other graduate and professional courses throughout the country.

Dr. Roberts currently serves as the Chairman of the Florida Risk-Based Priority Council, appointed by the Florida Legislature and the Governor's Office, and he has provided extensive toxicology and risk assessment advisory services to the Florida Department of Environmental Protection and to other state agencies for a number of years.

RISK ASSESSMENT IN FLORIDA: PRACTICES AND RECENT DEVELOPMENTS

Dr. Christopher M. Teaf
Center for Biomedical & Toxicological Research
Florida State University
Tallahassee

Dr. Stephen M. Roberts
Center for Environmental & Human Toxicology
University of Florida
Gainesville

I. INTRODUCTION *(Teaf)*
   1. What is risk assessment and how can it be of benefit?
   2. Where does the practice stand from a national perspective?

II. SELECTED REQUIREMENTS AND APPLICATIONS *(Teaf)*
   1. Where are risk assessments typically proposed in Florida?
   2. What fundamental requirements apply to their performance?
   3. How are they evaluated and what influences their acceptance?

III. FLORIDA RISK-BASED PRIORITY COUNCIL *(Roberts)*
   1. Establishment legislative charge and composition
   2. Activities and progress to date
   3. Anticipated products and schedule for completion

IV. FUTURE DIRECTIONS FOR RISK ASSESSMENT IN FLORIDA *(Roberts)*

V. QUESTIONS AND ANSWERS *(Teaf, Roberts)*

Phosphate Partnerships and Prospects

Moderator: **Mary Lou Rajchel**

Speakers: **T.P. Fowler**
James Sampson

MARY LOU RAJCHEL received a B.A. in English from the University of Central Florida; an M.S. in Higher Education from Southern Illinois University; and a J.D. from Florida State University. She served as Director of Cabinet Affairs for Commissioner of Education Betty Castor with responsibilities covering general government, law enforcement, environmental, and growth management issues. In 1992 she came to the Florida Phosphate Council, the trade association for the phosphate mining and fertilizer manufacturing industry in Florida, as Vice President of Regulatory Affairs, where her government relations responsibilities focus on environmental and growth management issues and their affect on the phosphate industry. She has served on a number of state councils and commissions including the Land Management Advisory Council, Partners for a Better Florida Advisory Council, the Criminal Justice Standards and Training Commission, the Florida Greenways Commission, and the DEP's Ecosystem Management Implementation Strategy Committee. She has practiced law in the private and government sectors.

T. P. FOWLER

Theodore P. (Tip) Fowler joined IMC-Agrico Company as Senior Vice President-Operations on January 25, 1996, after having been with Freeport McMoRan Inc. for 20 years in the fertilizer and fertilizer raw material business. In his new capacity, he will be responsible for IMC-Agrico's phosphate rock mines, and fertilizer production facilities reporting to Mr. Richard H. Block, President of IMC-Agrico Company.

Mr. Fowler was most recently Senior Vice President for Growth and Commercial Activities overseeing Freeport McMoRan Resource Partners' expansion initiatives worldwide. These efforts included several domestic and international studies with IMC-Agrico Co. examining the feasibility of grass roots natural resource ventures in support of its' phosphate fertilizer business.

From late 1993 until mid 1995, he led FMRP's effort at the request of the Spanish government to restructure the bankrupt Spanish fertilizer industry. Under his leadership as General Director of Fertiberia, the company was able to secure long term credit and raw material supplies, and enhance sales margins and volumes which allowed it to emerge from a suspension of payments status.

From 1991 until the formation of IMC-Agrico Co. he was Senior Vice President-Florida Operations for Agrico Chemical Co. In this capacity, he was responsible for phosphate rock, fertilizer production, and distribution facilities in Florida, and participated heavily in the formation of the Joint Venture. Active in community and industry affairs, he was a board member of the Florida Phosphate Council, the United Way of Central Florida, Polk Community College, Polk Education Foundation, Florida Taxwatch, and the Imperial Symphony Orchestra. He was also a Governor's appointee to the Florida Advisory Council on Environmental Education and led the successful 1993 United Way campaign for the central Florida region.

From 1988-1991, he was responsible for sulphur marketing as Vice President, Sales for Freeport Sulphur Co. As part of these responsibilities, he also represented the company in Amsulex, a Webb Pomerene association formed to market US sulphur in offshore markets. Market and project development work provided the opportunity to work extensively in South America, North Africa, the European Economic Union, and the FSU.

Prior to this, Mr. Fowler worked in various management capacities at Freeport's sulphur mines, terminals, and commercial department.

Mr. Fowler graduated in electrical engineering from Tulane University in 1973, and obtained an MBA from Loyola University of New Orleans in 1979. Mr. Fowler, his wife Lynn and four children will reside in Lakeland, Florida.

Post Office Box 1480
Bartow, Florida 33831
Telephone: 941/533-3181
Fax: 941/533-2641

CF Industries, Inc.
Phosphate Operations

JAMES G. SAMPSON, DIRECTOR

ENVIRONMENTAL AFFAIRS

CF INDUSTRIES, INC. - PHOSPHATE OPERATIONS

BIOGRAPHICAL SKETCH

James (Jim) Sampson has a Bachelor of Science Degree in Civil Engineering and in Resource Conservation. His experience includes over 15 years of mine reclamation and environmental permitting in the Florida phosphate industry. His specific responsibilities have included directing environmental compliance and permitting; mine reclamation approval, implementation and compliance; and monitoring regulatory and legislative activities.

Environmental Compliance Auditing Strategies

Moderator: **Tom DeRose**

Speakers: **John Wiley**
Jeff Pardue
Mark Stephens

BIOGRAPHY

Thomas M. DeRose is a partner in the firm of Hopping Green Sams & Smith, P.A., in Tallahassee, Florida. He received his B.A. Degree from Bucknell University in 1976, his J.D. Degree from the National Law Center, George Washington University in 1979, and an LL.M. in Admiralty from the Tulane University School of Law in 1983. From 1984 through 1987, Mr. DeRose was Assistant Regional Counsel for the U.S. Environmental Protection Agency in Atlanta, Georgia. He is licensed to practice in law in Florida, Alabama, Louisiana and the District of Columbia and is a member of the Florida Bar Environmental and Land Use Section and the American Bar Association's Natural Resource Law Section.

USING ENVIRONMENTAL COMPLIANCE AUDITS TO MANAGE ENVIRONMENTAL LIABILITY

Thomas M. DeRose
Hopping Green Sams & Smith, P.A.
May 20, 1996

Environmental Enforcement Generally

Both the Federal and State governments have stepped up their enforcement of environmental regulations in recent years. Most federal and state environmental statutes give the environmental agencies which administer the statutes the authority to pursue both civil and criminal enforcement for violations of the statutes. In the past, civil penalties have been the standard enforcement method for dealing with environmental infractions; however, the increase in criminal actions in the last few years shows a trend of increased and increasing activity in criminal enforcement. The U.S. Department of Justice (DOJ) added an Environmental Crimes Section in 1987 specifically to handle enforcement of federal criminal laws relating to the protection of the environment. The number of indictments and the amount of criminal fines collected by DOJ is continually rising. In fact, the Pollution Prosecution Act of 1990 **requires** EPA to increase the number of criminal investigators. Even in Florida, criminal enforcement is becoming more mainstream.

Civil and Criminal Liability

The penalties for violations of environmental laws are staggering given the extreme complexity of the web of environmental regulations. Civil penalties under various environmental statutes range from $10,000 per day per violation to $75,000 per day for second and subsequent violations. Criminal penalties under various environmental statutes range from fines of $5,000 per day to $1 million and from one year up to 15 years imprisonment. In addition to these penalties, companies and individuals found to be in violation will incur substantial transactional costs for legal representation, consulting and other technical services, and lost time for employees involved in enforcement proceedings. Finally, enforcement proceedings frequently generate substantial negative publicity for a facility and adversely affect community relations efforts.

Examples of Federal and State Criminal Enforcement Activities

Following is an example of a criminal enforcement case brought against a corporation which is regulated by several environmental statutes.

> In US v. Rockwell International Corp., (1992) Rockwell plead guilty to a ten-count information charging four felony counts under the Resource Conservation and Recovery Act (RCRA), one felony count under the Clean Water Act (CWA) and four misdemeanor CWA counts. The court sentenced the corporation to $18.5 million in criminal penalties. The action alleged illegal storage and treatment of hazardous wastes, knowingly discharging pollutants in violation of a permit, and negligently discharging pollutants in violation of a permit.

Criminal liability is not limited to corporations. Individuals may be held criminally liable for their individual actions under environmental statutes. In 1992, while 50 corporations were criminally indicted, 24 presidents/past owners, 7 vice-presidents, 7 directors, 30 managers, 11 supervisors and 57 other individuals were indicted. Following are several examples of the federal government's enforcing environmental crimes against individuals.

> US v. Baytank, et.al. (1992) involved a criminal action against a corporation (Baytank) and three individual defendants. The corporation was sentenced to a $1 million criminal fine for six CWA violations and one violation under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) for failure to report the release of hazardous substances. The corporation's executive vice-president and the operations manager were both sentenced to a $40,000 criminal fine for two CWA violations. The technical manager was sentenced to a $20,000 criminal fine for one CWA count.

> US v. Goldsmith (1991) involved a criminal action against Goldsmith for the illegal storage and transportation of 70 drums of characteristically hazardous waste. Goldsmith was sentenced to 23 months in prison, without a fine.

As noted above, Florida is also pursuing criminal enforcement for environmental violations.

> State of Florida v. Caccamisi (1992) involved an unsound tank wash operation in Haines City, Florida, which allowed wastes to leak and cause widespread contamination. The owner-operator was sentenced to five years in a Florida state prison on three felony counts of illegal disposal of hazardous waste and five years probation on three additional counts of hazardous waste violations. He was credited with time served for a misdemeanor count of operating a hazardous waste facility without a permit.

Factors in Decisions on Criminal Prosecutions

Whether criminal enforcement will be pursued in addition to or in lieu of seeking civil penalties is within the discretion of the prosecutorial entity. On July 1, 1991, DOJ issued a guidance document entitled "Factors in Decision on Criminal Prosecutions for Environmental Violations in the context of Significant Voluntary Compliance or Disclosure Efforts by the Violator." The first two sentences read as follows:

> It is the policy of the Department of Justice to encourage self-auditing, self-policing and voluntary disclosure of environmental violations by the regulated community by indicating that these activities are viewed as mitigating factors in the Department's exercise of criminal environmental enforcement discretion. This document is intended to describe the factors that the Department of Justice considers in deciding whether to bring a criminal prosecution for a violation of an environmental statutes, so that such prosecutions do not create a disincentive to undermine the goal of encouraging critical self-auditing, self-policing, and voluntary disclosure.

The policy document describes several factors which DOJ will use to make its enforcement decisions. Among the most important of the DOJ factors in prosecutorial decisions is preventative measures and compliance programs. DOJ considers the existence and scope of any regularized, intensive and comprehensive environmental compliance program, including an environmental compliance or management program, considering whether the program includes sufficient measures (objectivity,

QA/QC) to identify and prevent future noncompliance. Another key factor is whether there is a strong institutional policy to comply with all environmental requirements.

Tools for Managing Environmental Liability

As the DOJ policy on prosecutorial decisions indicates, a strong program to monitor and maintain environmental compliance, coupled with a strong environmental management program, is vital to minimizing the risk of incurring substantial penalties, transactional costs, negative publicity, and other adverse consequences of environmental noncompliance.

Environmental Management Standards and Planning

The process of effective avoidance of liability should begin at the highest level: a specific program of corporate or facility environmental management policies and evaluations. Such a program does not assess compliance status (whether the company is obeying the law); rather, this program evaluates the presence and capabilities of the management systems and policies in place at the company and compares the operation of those systems to how they are designed to work. For example, the program examines whether a company has identified all of the regulatory requirements that apply to the company's operation, how those requirements affect the company's operations, and what procedures or systems the company has put in place to attempt to comply with those requirements.

The International Organization for Standardization (ISO) currently is developing comprehensive international standards for corporate environmental management, collectively called ISO 14000. These draft standards currently are in the international balloting process, with a final ISO standard publication date scheduled for October 1996. Another session of this seminar addressed the intent and implementation of ISO 14000 standards and issues posed by adoption of or conformance to those standards.

Multi-Media Compliance Audits

A very effective tool to limit the potential consequences of environmental noncompliance is the early detection of violations and the ability to respond to knowledge of the problem in order to correct it. Multi-media compliance audits are intended to determine a facility's status of compliance with applicable laws, regulations, and permits, through review of facility environmental records, conduct of a thorough facility inspection, and the presentation of results, findings and recommendations. Regular multi-media compliance audits allow regulated entities to detect actual or potential violations prior to agency inspections and enable the regulated entities to plan an effective method for reporting and correcting environmental violations. The compliance audit is an important step toward ensuring that a facility minimizes the potential for environmental noncompliance.

Confidentiality of Audits

One of industry's fears about conducting compliance audits is that the information will be used against them in the future. There is currently not a specific privilege in Florida to prevent the discovery of information obtained in a compliance audit. Both EPA and DEP have the authority (or believe that they have the authority) to request audit reports. However, EPA has recognized that routinely requesting audit reports could inhibit compliance audits in the long run and may diminish the quantity and quality of such audits. As a result, on January 22, 1996, EPA's policy on "incentives for self-

policing" became effective. On April 1, 1996, a very similar policy issued by the Florida Department of Environmental Protection (FDEP) became effective. EPA states that "as a matter of policy, EPA will not routinely request environmental audit reports." Nevertheless, EPA's policy does not limit the authority of the agency to request and receive an audit report. The provisions of both EPA's and FDEP's policies on voluntary self-audits are summarized on an attachment to this paper.

It may be possible to protect compliance audits from disclosure through the attorney-client privilege or attorney work product; however, the applicability of those theories for protection are not guaranteed. The audit work would have to be requested and conducted pursuant to instruction of the regulated entity's legal counsel. Nevertheless, some court have held that the attorney-client privilege does not apply because a compliance audit may not constitute legal advice. Furthermore, the work product doctrine requires that the document must be prepared in anticipation of litigation. Documents prepared in the ordinary course of business are generally not deemed to have been prepared in anticipation of litigation. A routine program of compliance inspection is more likely to be considered business advice or materials produced in the normal course of business and therefore less likely to be protected.

Audit Privilege Legislation

In order to provide a greater incentive to regulated entities to conduct voluntary compliance audits, several states have enacted legislation which protects voluntary environmental audits from disclosure. Legislation creating an environmental self-audit privilege has been adopted in Oregon, Colorado, Indiana, Kentucky and Illinois. The legislation adopted in Oregon stipulates that under certain conditions, voluntary audit reports are privileged and that they are not admissible in most legal proceedings, with certain exceptions. The exceptions are narrowly tailored, such as where there is fraud or failure to take appropriate steps to remedy noncompliance. Information which must be reported to the authorities as a matter of law, information gathered by the regulatory agency and information obtained from a source independent of the audit are not privileged from disclosure.

Florida is now considering enacting similar legislation. Legislation has been filed in Florida in each of the last two legislative sessions which is modeled after the Colorado law. Colorado's environmental audit law creates a limited privilege for the information which is contained in an environmental audit report in both the formal setting of court or an administrative hearing, and also during requests to inspect documents which are made pursuant to law. The privilege would be conditioned taking appropriate steps to correct any noncompliance discovered by the environmental self-audit and would be limited by certain other exceptions. The Colorado law also provides limited immunity from civil or criminal liability or administrative penalties or fines for violations of environmental laws which are revealed as a result of voluntary disclosure of any part of an environmental audit report or related materials. These provisions will likely be under discussion again during the 1997 legislative session.

FINAL EPA AND DEP POLICIES ON INCENTIVES FOR SELF-POLICING

The EPA policy became effective on January 22, 1996; the DEP policy on April 1, 1996.

PENALTY REDUCTIONS

- No gravity-based penalties sought for violations which:

  1. Are voluntarily discovered through an environmental audit or due diligence;
  2. Are disclosed in writing to the agency within 10 days of discovery, and are corrected within 60 days (EPA policy) or "as expeditiously as possible" (DEP policy);
  3. The violator agrees in writing to take necessary steps to prevent violations from recurring in the future.

  Gravity-based penalties include all penalties other than penalties for economic gain. EPA and DEP expressly reserve the right to collect penalties for any economic benefit which resulted from the noncompliance.

- Under EPA policy, gravity-based penalties will be reduced by 75% for violations which are voluntarily discovered, promptly disclosed and expeditiously corrected, even if not found through an audit or due diligence. DEP policy does not provide for partial penalty reductions.

- Penalty reductions will be granted only if the regulated entity cooperates in determining whether the policy applies.

- No penalty reductions will be granted for repeat violations or violations which:

  1. Result in actual serious harm or presented an imminent and substantial endangerment to human health or the environment; or
  2. Violate the terms of an order or consent agreement.

  Repeat violations are violations which are identified in an order, consent agreement, complaint, notice of violation, conviction or plea agreement, or for which the entity has previously received penalty mitigation.

CRIMINAL RECOMMENDATIONS

- EPA will not recommend criminal penalties against an entity in the same cases to which the penalty reductions described above apply, unless management practices concealed or condoned violations or high level management was involved in or willfully blind to the violation.

- In every case, EPA retains the right to recommend penalties against a culpable individual.

- DEP policy does not address criminal enforcement.

REQUESTS FOR AUDIT REPORTS

- Audit reports not requested in routine inspections.
- Audit reports not used to initiate an investigation.
- However, EPA and DEP may request an audit to prove liability or harm when they have independent evidence of the violation.

STATE PRIVILEGE LAWS

- EPA remains opposed to state laws which create a privilege.
- EPA reserves its right to overfile for violations which:

  1. Threaten human health or the environment;
  2. Reflect criminal conduct or repeated noncompliance; or
  3. Result in an economic gain.

APPLICATION

- The policies supersede any inconsistent provisions in media-specific penalty or enforcement policies and EPA's 1986 Environmental Auditing Policy Statement.

SHORTCOMINGS

- Policies are not binding; merely guide the agencies in exercise of "prosecutorial discretion."
- Policies provide no confidentiality for self-audit findings.
- Policies provide no protection from actions by local governments or other third parties.
- The agencies retain the right to compel an entity to enter into a consent agreement as part of the required disclosure.
- "Cooperation" includes providing information about related violations suggested by the disclosure, not just the disclosure itself.
- "Environmental audit report" is narrowly defined to include only the analysis, conclusions and recommendations resulting from an audit. Working papers and corrective action reports may not be covered by this definition.
- EPA and DEP have both declined to adopt the policy as a rule. By its terms, the policy provides guidance -- factors for consideration -- "in the exercise of its prosecutorial discretion."

JOHN G. WILEY

BIOGRAPHICAL SKETCH

John G. Wiley is the Environmental, Health, and Safety Superintendent at the Monsanto Company Plant in Pensacola, Florida. The Pensacola Plant is Monsanto's largest plant and world's largest unified nylon facility. John has held various assignments in manufacturing and in the support services areas during his 23 years with the company. John received a B.S. degree in Industrial Engineering from Auburn University and completed course work toward his Masters in System Management from F.I.T. in Melbourne, Florida. Prior to joining Monsanto, John was a System Engineer with Harris Corporation in Melbourne. John has been responsible for Monsanto's Environmental Program for the past 13 years and has been recognized by the corporation for his proactive approach with the regulated community. Through John's leadership Monsanto's Pensacola Plant has been recognized as the "Best-In-Class" in regulatory compliance and pollution prevention. This is evidenced by the fact that the plant was the first facility in the state and in the Monsanto Corporation to receive OSHA's Voluntary Protection Plan (VPP) STAR award for excellence. John has also received several individual awards and recognition regarding his proaction approach to Voluntary Pollution Prevention.

3156.jw

ENVIRONMENTAL AUDITS

"A" REAL LIFE EXAMPLE

John Wiley
Environmental Health & Safety Superintendent
Monsanto
Pensacola Plant

Monsanto's Environmental Audit Program

History:

- Audit Program in place for 12 years
- Evolution of program
- Proven Track Record

Monsanto's Environmental Audit Program

Current Audit Protocol:

- Dedicated corporate audit team
- Major plants audited on 2 year intervals
- Visible management commitment
- Internal legal reviews

Monsanto's Environmental Audit Program

Results:

- Increased awareness, commitment & ownership
- Continuous improvements realized
- Required to reach goal of 100% compliance

Purpose of Environmental Audit

- Assure continuous compliance with federal state & local environment laws, and regulations
- Assure conformance with Monsanto pledge guidelines, policies, and procedures
- Assure that effective environment compliance management systems are in place and functioning as designed

Functional Scope of Audit

- Air Pollution Control
- Water Pollution Control
- Spill Control & Emergency Planning
- Solid & Hazardous Waste Management
- Drinking Water Management

Functional Scope of Audit (cont.)

- PCB Management
- Underground Storage Tanks
- Underground Injection Control
- ESH Compliance Process
- Monsanto Pledge Guidelines

Environmental Audit Program

1. PLANNING & SCHEDULING
2. PRE-AUDIT (Each Auditor)
3. ON-SITE AUDIT
4. POST-AUDIT

Environment Audit Program (cont.)

❶ PLANNING AND SCHEDULING

- Schedule date for on-site audit with the plant
- Request pre-audit information from the plant
- Schedule/assign auditors

Environmental Audit Program (cont.)

❷ PRE-AUDIT (Each Auditor)

- Review pre-audit information from the plant
- Review company files on the plant
- Identify & review applicable laws/regulations
- Annotate protocols

Environmental Audit Program (cont.)

❷ PRE-AUDIT (Each Auditor) - [cont.]

- Develop preliminary audit scope
- Meet with environment manager
- Meet with environmental law department
- Finalize audit scope
- Develop detailed audit work plans

Environmental Audit Program (cont.)

❸ ON-SITE AUDIT

- Opening meeting with plant staff
- Plant tour
- Finalize audit schedule
- Execute audit work plans
- Document work/findings in work papers
- Daily feedback meetings with plant
- Closing meeting with plant staff

Environmental Audit Program (cont.)

❹ POST-AUDIT

- Develop draft of final audit report
- Review with Legal Dept. and operating company
- Issue final audit report
- Establish audit files
- Monitor status of audit recommendations
- Maintain audit recommendation closure file

On-Site Audit Approach

■ Audit Activities/Tools:

- Physical survey of the plant
- Examination of a sample of environmental, administrative, technical, and operating records available at the facility
- Interviews and discussions with key facility management and staff

On-Site Audit Approach (cont.)

- Strategy/Logic:
  - Understand management systems
  - Verification procedures designed to examine the facility's application of and adherence to environmental laws & regulations, company policies, and good management practices
  - Are systems in plance and functioning as designed?

Reporting Results

- Daily Feedback meetings
  - Verbal findings/observations vs. written recommendations
  - Open exchange of progress
  - Schedule next day

Reporting Results (cont.)

- On-site closing meeting
- Management review
- Final report

Action Plant & Follow-Up

- Action plan development issues
  - Audit is a sample => Expand plantwide
  - Address Findings and Systems
- Draft action plan (30 days)
  - Specific Actions
  - Person responsible
  - Completion dates

Action Plant & Follow-Up (cont.)

- Plant and Corporate Management Review
- Finalize action plan
- Quarterly status report
  - Exception report
  - Documentation on completed items
- Audit closure file

Summary

- Personal Testimony
- Commit to Self-Audition
- Customize Program to Fit Need
- Utilize Outside Expertise
- Support Self-Audit Legislation

W. Jeffrey Pardue
Florida Power Corporation

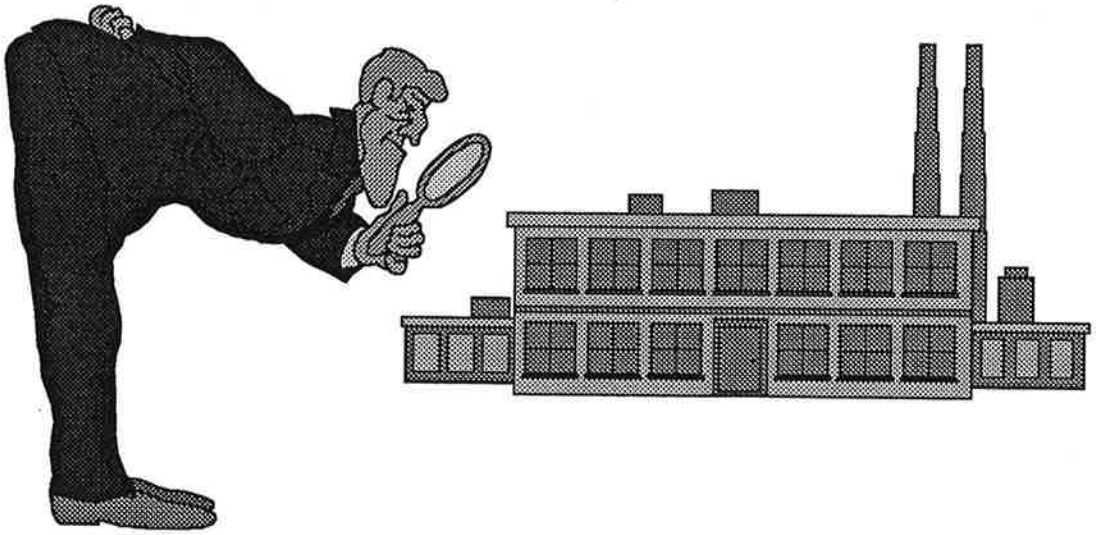
W. Jeffrey Pardue is currently Director of the Environmental Services Department at Florida Power Corporation in St. Petersburg, FL. Mr. Pardue has been with Florida Power Corporation for 10 years.

Prior to coming to Florida, Mr. Pardue worked in various disciplines of environmental investigation with the Tennessee Valley Authority. He holds both B. S. and M. S. degrees in Biology and an M.B.A. He has authored numerous technical reports and scientific publications. Among his current responsibilities Mr. Pardue is the Designated Representative for Florida Power Corporation, responsible for assuring compliance with the Acid Rain Provisions of the Clean Air Act Amendments of 1990.

Mr. Pardue resides in Bradenton, FL with his wife Sandra and two teenage sons, Cliff and Andrew.

ENVIRONMENTAL AUDITS

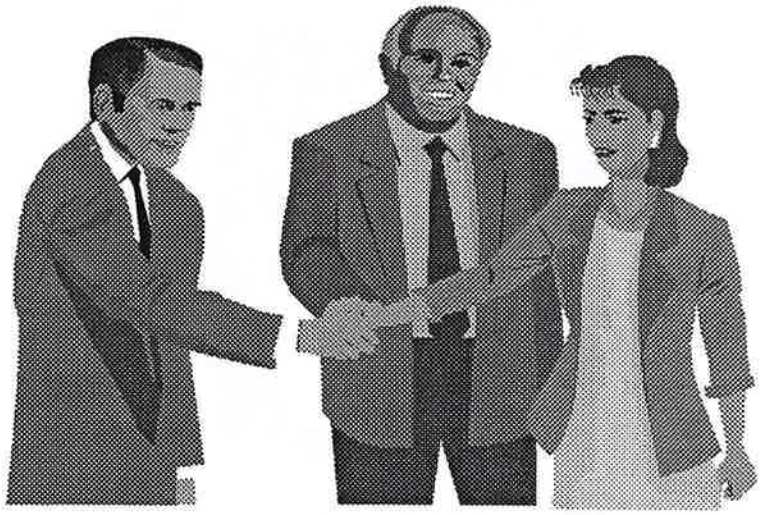
A PRACTICAL TOOL FOR POLLUTION PREVENTION



W. Jeffrey Pardue C.E.P.
Director, Environmental Services
Florida Power Corporation
St. Petersburg, FL 33733

WHY DO WE NEED LEGISLATION?

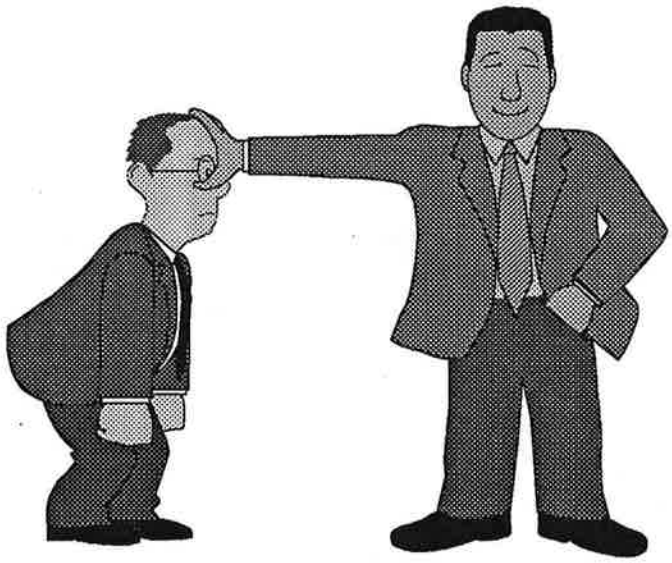
- Environmental compliance is enhanced



- To provide an incentive to continue existing programs & encourage new programs
- Corrective action is expedited
- DEP resources can be redirected

CURRENT FLORIDA STATUS

- *Passed subcommittee in 1995*
- *Unsuccessful in subcommittee in 1996*



- Strong opposition from Florida Attorney General & House Speaker
- Strong support from business community
- DEP "Policy" in effect

1996 Industry Legislation (as filed)

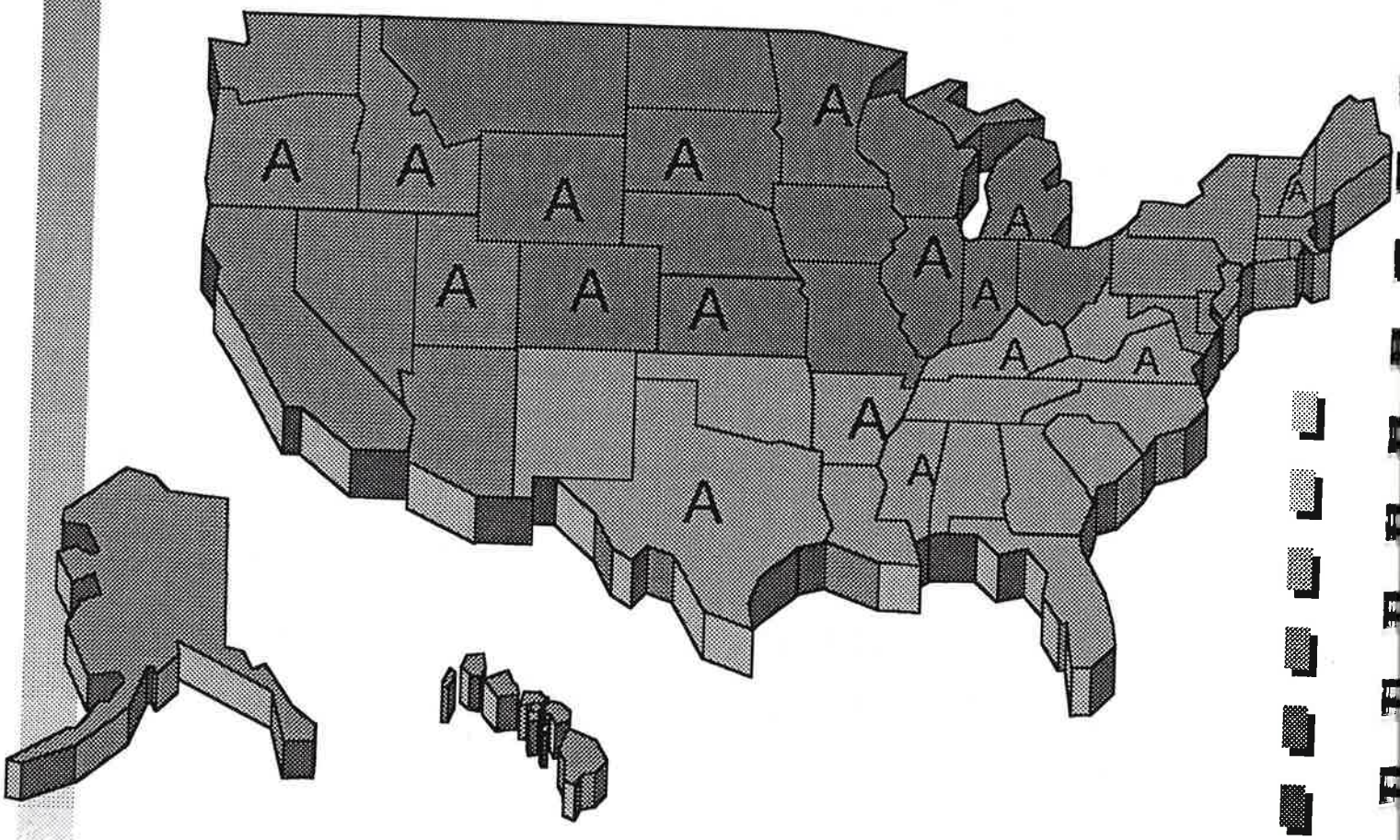
Revisions to '95 bill

- ✓ No immunity from criminal prosecution
- ✓ No "privilege" in defense of criminal charges
- ✓ No public records exemption
- ✓ Language clearly excluding certain documents and information from "privilege"
- ✓ Clarify the scope of "privilege"
- ✓ Requires evidence that non-compliance is corrected, plan to correct with reasonable access to verify

Is Florida the first?

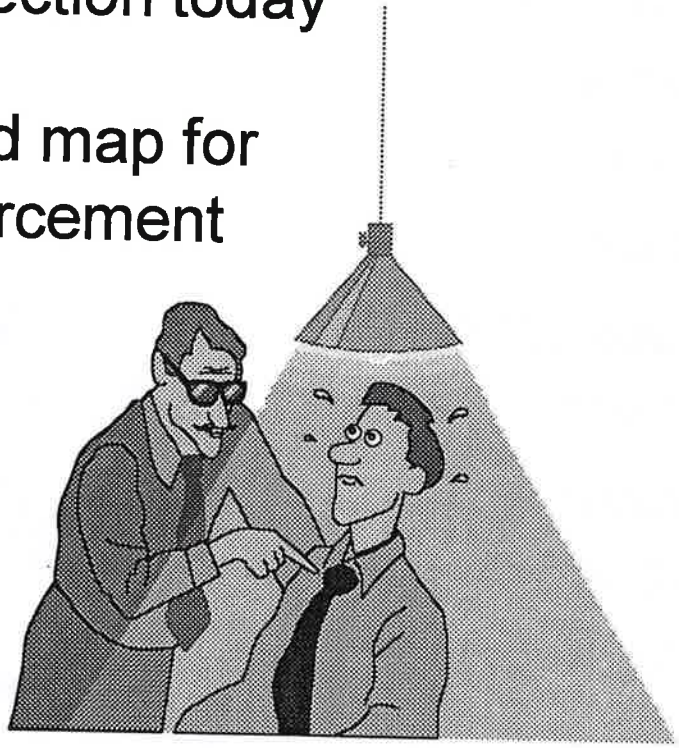
NO!

Seventeen states have passed legislation



EXISTING PROGRAMS ARE IN JEOPARDY!

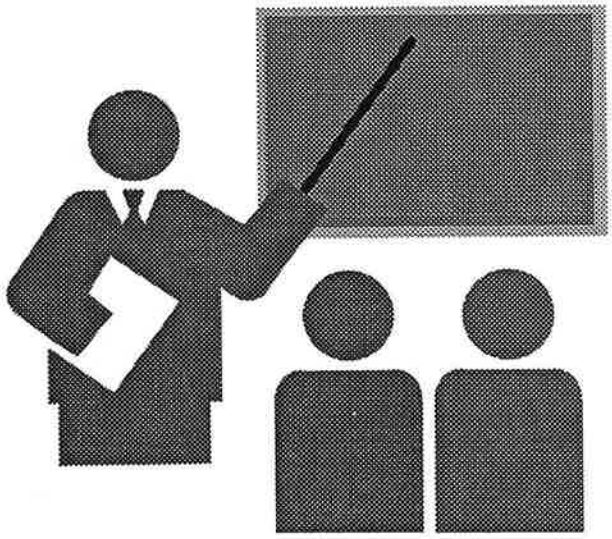
- Audit documents have limited protection today
- Road map for enforcement



- Penalizes companies for good faith effort to achieve 100% compliance
- Environmental quality suffers

AUDITS ARE EFFECTIVE

- ★ Education is key component
- ★ Knowledge leads to prevention
- ★ Facilities take ownership
- ★ Environmental compliance becomes a core value to facility operations
- ★ In Texas, 165 firms have indicated intent to audit since '95



AUDITS ARE EFFECTIVE

*=97 are storage tank inspections
^=based on 7 areas per audit

	AGENCY	FPC
AUDITS	0	81
INSPECTIONS	154*	567^
NON DISCRETIONARY	X	3.6X
RISK	Y	135Y
GOOD MANAGEMENT PRACTICES	0	13
TOTAL FINDINGS	T	5.7T

THE HAMMER WON'T WORK!

☹ DEP staff resources inadequate

☹ Enforcement staff knowledge is limited

Results:

- Inspections are superficial
- Many industries are not inspected
- Follow-up does not occur
- Missed opportunity for environmental enhancement

WHERE DO WE GO IN 1997?

- Focus on results rather than theoretical debates
- Identify incentives to make program more attractive
- Auditor must be able to protect the audit report
- Participate in constructive dialogue

MARK R. STEPHENS, P.G., P.E.

Biographical

Mr. Stephens is a Principal Consultant and Regional Manager with Atlanta Testing & Engineering, Inc. He has practiced environmental consulting 22 years, including the past 20 years in Florida. He is a registered Professional Engineer and a registered Professional Geologist in Florida and a registered Professional Engineer in Illinois. Mr. Stephens earned his B.S. degree in geology and his M.S. degree in geology/water resources from Iowa State University. During his 22 years of practice, he has and continues to conduct and direct a vast variety of environmental projects including: environmental compliance audits; RCRA permitting, closure, design, construction, and HSWA activities; investigations for all types of contaminants in soil, ground water, surface water, and sediment; remedial system design, permitting, construction oversight, and monitoring; ground water supply investigation and permitting; well field construction and testing; injection well permitting, design, testing, and construction; and project management. Mr. Stephens has published several papers and lectures frequently concerning environmental topics.

OUTLINE

Environmental Compliance Audits for Environmental Management Systems

by
Mark R. Stephens, P.G., P.E.
Atlanta Testing & Engineering, Inc.

Environmental Audits
- Two Categories
  - Compliance Audit = Reactive Audit
  - Performance Audit = Proactive Audit

Value of reactive compliance audits
- Performed to respond to compliance issues
- Related to enforcement mitigation/limiting or reducing liability

Value of proactive performance audits
- Performed in response to
  - identified need
  - internal policy
  - developing an Environmental Management System

Audit Procedures
- Pre-Audit Conference
- Review of Facility Environmental Records
- Detailed Facility Inspection
- Presentation of Report of Results and Recommendations

Pre-Audit Conference
- Who Should Attend?
  - Facility Personnel
  - Attorney
  - Audit team leader

Review of Facility Records
- Environmental permits, exemptions, and waivers
- Reports prepared to comply with permits
  - monitoring reports
  - inspection logs/reports
  - agency submittals
- Training records
- Records management

Equipment and processes which require permits
verify against existing permit conditions

Detailed Facility Inspection
Examples
Checks of materials storage, containment, separation, labels
Evaluate housekeeping
Verify in-house environmental procedures, laboratory and field sampling
Inspection of monitoring equipment, proper installation, operation, and maintenance
Evaluate materials handling practices, container loading/unloading, spill response, engineering controls
Proper placement and usage of signs, no smoking, lockout, noise

Report Types
Verbal Reports
Written Summary Reports
Detailed Written Reports

Environmental Management System Value
Cost reductions
waste minimization
enforcement mitigation
pollution prevention measures
Assisting in continuous compliance with customer environmental standards and expectations
Improving cost control through conservation
raw materials
by products
products
Facilitating acquisition of permits by "keeping the record clean."
Improving access to capital
lowered liability potentials
investment more attractive

Water Wars Panel

Moderator: **Frank Matthews**

Panelists: **Peter Hubbell**
Jeff Ward

Over the last 14 years as a member of the New York and Florida Bars, *Frank E. Matthews*, with the Tallahassee law firm of Hopping Green Sams & Smith, has developed an extensive regulatory practice and established himself as an expert in environmental/land use law. He specializes in wetlands and surface water permitting. He has participated in drafting and lobbying most of Florida's wetland laws and regulations over the last decade, as well as the Harris Property Rights Act of 1995. He has represented the electric utilities, mining, agricultural and development interests in administrative, judicial and legislative forums.

Southwest Florida Water Management District

2379 Broad Street • Brooksville, Florida 34609-6899 • 1-800-423-1476 (Florida Only) or
(352) 796-7211 • SUNCOM 628-4150 • T.D.D. Number Only (Florida Only): 1-800-231-6103

7601 Highway 301 North
Tampa, Florida 33637-6759
1-800-836-0797 or (813) 985-7481
SUNCOM 578-2070

170 Century Boulevard
Bartow, Florida 33830-7700
1-800-492-7862 or (941) 534-1448
SUNCOM 572-6200

115 Corporation Way
Venice, Florida 34292-3524
1-800-320-3503 or (941) 486-1212
SUNCOM 526-6900

2303 Highway 44 West
Inverness, Florida 34453-3809
(352) 637-1360

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PETER G. HUBBELL
Executive Director

Pete Hubbell has over twenty years experience in water management throughout the country. He has held several positions at the District before taking over as Executive Director in 1988. Pete received a bachelor of science degree in hydrology and water resources management in 1974 from the University of Maryland. Before coming to the District he worked as a hydrologist in Washington, D.C., for Dames and Moore, Environmental Consultants, as well as the Bureau of Land Management as a watershed hydrologist in New Mexico and in northern California.

Pete currently serves on boards of several national and state organizations including the National Research Council Committee, addressing the valuation of the nation's groundwater supply, the Environmental Careers Organization and the Florida Conflict Resolution Consortium.

Excellence Through Quality Service

JEFFREY J. WARD

Born in Springfield, Illinois

B.A. Degree in Political Science--University of Missouri--Columbia 1972

J.D. Degree from University of Missouri--Columbia 1976

Admitted to Missouri Bar 1976

Admitted to Florida Bar 1982

Served as Chairman of the Agricultural Law Committee of the Florida Bar for 1990-91 term. Active member of the Committee since its re-establihment in 1983.

Employed from 1976 to 1981 as an attorney in the headquarters office of the Missouri Division of Finance with primary responsibility in new bank charters, branch applications, mergers and acquisitions and accompanying litigation.

Employed since 1981 as the in-house attorney for Sugar Cane Growers Cooperative of Florida. His current title is Vice-President--Legal Affairs. Although he handles a wide variety of matters for the Cooperative, a large portion of his time is devoted to environmental issues.

Served as a Director of Project Civil Reform, a business group which lobbied for Tort Reform in Florida.

Served for two years as a member of the Land Use Advisory Committee during the development of the Palm Beach County Comprehensive Plan.

At the invitation of the American Farm Bureau, testified in 1990 before the responsible subcommittee of the United States House of Representative's Judiciary Committee regarding proposed reform legislation concerning the Legal Services Corporation.

WATER, WATER EVERYWHERE: NOT A DROP TO DRINK, IRRIGATE OR PROCESS

Over the last 24 months, everyone has suggested that water supply legislation would dominate the 1996 legislative session. It was expected that the results of the Water Management District Review Commission (WMDRC) and the controversy created by the water shortages in the Southwest Florida Water Management District (SWFWMD) would create an impetus for significant legislative revision to Florida's legislative water code. As is always true in Tallahassee, the expected did not happen.

Regulated interests throughout the state breathed a collective sigh of relief when the only water legislation that passed the 1996 legislative session was the CS/CS/HB 2385, which dealt specifically with Hillsborough, Pasco and Pinellas Counties. This relatively modest legislation provides for the priority scheduling of minimum flows and levels for water bodies within Hillsborough, Pasco and Pinellas Counties, culminating in the establishment of minimum flows and levels for priority waters within those 3 counties by October 1, 1997. The bill further provides that independent scientific peer review may be required if the facts underlying the establishment of those minimum flows and levels are subject to dispute. On a statewide basis, it is noteworthy that the legislation authorized the Governor to approve or disapprove, in whole or in part, the budgets of all 5 water management districts.

The failure of either the House or Senate Select Committees on Water Policy to develop omnibus water legislation can be attributed to the overall lack of consensus on what, if any, action the state should take in attempting to more equitably provide and distribute its water

resources. Most regulated interests argue vehemently against the politics of water shortage. Few, in the water consuming public, agree that legislation needs to be foisted upon the state, based on the underlying premise that a true water shortage exist. Admittedly, certain areas of the state have periodic water shortages and certain parts of the state have mismanaged the volume of fresh water which is available to them. Nevertheless, the notion that rollbacks of existing water withdrawals are necessary in order to insure a sustainable quality of life and a vital natural system simply isn't true. The 2 most common themes which plagued the regulated community during the water debates was the absence of any dedicated funding to implement water supply plans or innovations and the overall notion that the establishment of minimum flows and levels was a euphemism for the reservation of water for natural systems at the expense of existing and future consumptive use permit holders.

Unfortunately, 20 or more of the WMDRC's recommendations which would have reformed the water management districts, became hostages in the water policy legislation. Senator Charles Bronson put forth a valiant fight to incorporate WMDRC recommendations into legislation which would establish priority schedules for the establishment of minimum flows and levels and try to develop incentives for the development of alternative water supplies. (See CS/SB 1728.) This effort failed, however, due to attempts to amend the legislation with significantly more controversial issues.

Throughout the 1996 legislative session, the simplest criticism of the draft water bills, was the absence of additional water. In other words, nothing in the legislation would have

resulted in additional water being made available for public supply, irrigation, industrial consumption or natural system utilization. Rather than focusing on this relatively simply objective, which is the creation and distribution of more water for all appropriate users, the draft legislation attempted to set forth a growth management-like planning process which could have resulted in water being the tail which wagged the land use decision-making dog. The lesson of growth management since 1985 has been that the implementation of a planning and regulatory infrastructure, which is based upon unfunded capital improvements is a diagram towards disaster. Many felt the House proposed committee bill would have added water to the existing impediments to growth and economic development in Florida. Additionally, the Governor's office repeatedly fought the idea that the water policy rule approved by the DEP needed legislative ratification. Each time this subject was brought up in Committee, the idea passed, yet each time leadership prepared a strike-everything amendment, the issue disappeared. Beyond planning, funding and legislative ratification, a number of lesser issues were generally agreed upon as reflected in CS/SB 1728. However, no significant constituency emerged willing to advocate passage of the legislation.

The future is uncertain. Hillsborough, Pasco and Pinellas Counties will go forth pursuant to HB 2385, but that area is not a testing ground. Those circumstances don't exist statewide and neither the Southern Water Use Caution Area or the Lower East Coast of South Florida should be used as a model for water policy and supply legislation for the state. We all benefit by more water and better water management and that should be the goal. Let's not focus on allocation schemes based on assumptions of dwindling supply until we at least make a good faith effort to

fully supply man and nature. Alternative water supply development should not be the exclusive domain of agriculture and industry and that seems to be the dangerous trend. If allocation of a finite supply is the focus of legislation or regulation, that will pit urban versus rural, public supply versus non-potable users, water rich versus water poor, coastal versus inland and man versus nature.

Currently, minimum flows and levels may be set ignoring the realities of existing and future users. The existing section 373.042, F.S., provides no guidance on the establishment of minimum flows and levels and that lack of guidance was the strongest argument in favor of passing legislation. The thought being, that some guidance is better than none. The stronger sentiment however, was that case-by-case decisions can be administratively and legally adjudicated and greater damage could result if flawed legislative direction was provided. For example, it was repeatedly stated that minimum flows and levels must serve nature and be based on "pure" science. That flawed logic, ignores the reality that science is dependent on facts. Consequently, no minimum flow or level should be established ignoring the facts associated with existing withdrawals or future growth demands. If man's utilization of water isn't part of the minimum flow and level determinations, the litigation will be endless and the opportunity to improve this issue, lost. Next year may be better, but I doubt it.

Permitting of Produced Groundwater Discharges
A Case Study

Speaker: **Armando Rodriguez**

Biographical Information for Armando Rodriguez

Armando Rodriguez has been the Environmental Control Manager for Walt Disney World Co. since 1988, with responsibility for the hazardous waste, storage tank, air emissions and industrial water discharge programs. Prior to his position he was a Staff Environmental Engineer with Martin-Marietta in Orlando, where he handled hazardous waste and air pollution compliance. He previously spent eight years with the phosphate industry, dealing with all phases of environmental compliance. Armando has a degree in chemistry from the University of Florida.

PERMITTING OF PRODUCED GROUNDWATER DISCHARGES
A CASE STUDY

The EPA adopted modifications to the previously issued General Permit for Petroleum Fuel Contaminated Ground/Storm Waters in the State of Florida (General Permit) on August 9, 1991. These modifications consisted of language expanding the permitting requirement to "produced groundwater from any activity" (56 Fed. Reg 42739), which clearly explained that the permit would cover all dewatering activities, regardless of the purpose. This meant that dewatering discharges from construction activities would have to comply with the newly adopted discharge criteria, which consisted of Total Organic Carbon (TOC), pH, Mercury, Cadmium, Copper, Lead, Zinc, Hexavalent Chromium, Benzene, and Naphthalene. As new discharges came on line and were tested, it quickly became evident that the TOC and pH criteria would be difficult to comply with.

The shallow aquifer underlying the Walt Disney World Resort (WDW) is characterized by the presence of highly organic soil, resulting in groundwater with relatively high concentrations of naturally occurring organic compounds, such as humic acid. These organic acids contribute to the high TOC, low pH conditions observed in the shallow groundwater. TOC concentrations above 90 milligrams per liter (mg/l) and pH values below 4.0 have been observed.

WDW approached the EPA in November 1994 in an attempt to amend the General Permit, with the goal being the relaxation of the pH and TOC limits. The argument for the TOC request centered on the substances which cause the apparent contamination (e.g. humic acid), which are in reality not contaminants at all. Walt Disney Imagineering Research and Development, in conjunction with the Florida Institute of Technology, successfully developed a microfiltration technique to separate these naturally occurring substances from the produced groundwater. By using a one nanometer membrane, organic compounds with a molecular weight higher than 500 are filtered out. This procedure allows organic substances of concern, such as naphthalenes and other aromatic compounds normally associated with petroleum contamination, to pass through the membrane. The research indicated that high molecular weight organics constituted 87-90% of the total organic compounds found in the sample.

As a result of this request, the EPA added the following language to the General Permit:

> *For initial excessive TOC values caused by naturally occurring, high molecular weight organic compounds, the permittee may request to be exempted from the TOC requirement by submitting additional information with the NOI which describes the method used to exclude these naturally occurring compounds.*

The pH amendment request centered on the argument that naturally occurring, low pH values are the result of the presence of organisms such as botrytis, which generate acids as a biological byproduct. Testing of the waters on WDW property shows a pH range of 3.7 to 7.7. Additionally, since these groundwaters are weakly buffered, with total Hardness less than 10 mg/l, the effective impact to the pH of the receiving waters would be minimal. Because of this great pH variation, we requested the pH discharge criterion be amended to allow the discharge of otherwise uncontaminated groundwater so long as the pH falls in the background range of the receiving body of water. The EPA, citing constraint by the Florida water quality criteria (62-302.530 (52)(c)), rejected this argument.

As a result of this decision, it was decided to wait for the EPA to delegate the NPDES program to the Florida Department of Environmental Protection (DEP), which occurred on May 1, 1995, and to pursue the pH issue with the State. On June 19, 1995, the DEP adopted the Generic Permit for Discharge of Produced Groundwater from any Non-Contaminated Site Activity (Generic Permit) in Rule 62-621.302.

Following another round of data gathering and interpretation of existing DEP rules, it was determined that a Rule amendment would not be practical until the next scheduled triennial review. Therefore, a request was submitted for a Variance from the pH criterion as stated in paragraph (4) of the referenced material in the Generic Permit. This variance request was for the Disney's Animal Kingdom project only, since the size of the property (nearly 30,000 Acres) makes it unworkable for this mechanism. The variance was granted and became effective December 27, 1995, and remains in effect for a two year period. The terms of the variance allowed the discharges of produced groundwater only when in compliance with the Generic Permit conditions, except those in paragraph 4 limiting the pH of the discharge.

Issuance of the variance was basically a concurrence by the DEP that the low pH of the otherwise uncontaminated produced groundwater would have no detrimental effects on the surrounding waters which would eventually receive these discharges. Therefore, WDW determined that it was the appropriate time to apply to the DEP for an individual permit to cover these discharges wherever they occurred on the property (for this permit, the property south of US 192 is excluded); the application was submitted in March of this year.

Since the DEP's Central District had never issued this type of permit before, so a pre-application meeting was held with the permit writers. All foreseeable situations were discussed, and actual limits agreed to, so that when the application was submitted, there would be no surprises. Shortly after submittal, the application was deemed complete. Permit issuance is expected by September 1996.

RCRA/HSWA Update

Moderator: **Tom Patka**

Speakers: **Satish Kastury**
Terry Griffin

Thomas J. Patka practices in the area of environmental law and administrative law. His areas of experience include hazardous waste enforcement and regulatory issues before federal, state and local agencies; site remediation, including Superfund cases; federal and state stormwater and water use issues, in particular, the recently promulgated Environmental Protection Agency stormwater rules; environmental issues in commercial and financial transactions including environmental auditing and contracts; and federal and state petroleum and tank rules.

Mr. Patka was an Assistant Professor in the Department of Public Administration at Florida International University before moving to the Environmental Protection Agency (Washington, D.C.) on a postdoctoral fellowship in 1979. He has authored a number of articles and papers on government, public policy, and environmental issues and speaks regularly on environmental law at state and national conferences.

He is a member of the Environmental and Land Use Law Section of The Florida Bar and serves on the Solid Waste Committee of the Natural Resources Law Section of the American Bar Association. He is the legal advisor to the Florida Association for Water Quality Control. Mr. Patka was admitted to The Florida Bar in 1985.

Mr. Patka earned his B.A. in Microbiology and Chemistry in 1967 from the University of Minnesota, his M.P.A. and Ph.D. in 1973 from the Maxwell School, Syracuse University, and his J.D. in 1985 from the Catholic University of America.

Satish N. Kastury

Mr. Kastury is Environmental Administrator, Hazardous Waste Section, Florida Department of Environmental Protection (FDEP), Tallahassee, Florida. He received his BS Degree in Civil Engineering from the University of Calicut, India, and his MS Degree in Environmental Engineering from the University of Connecticut. In his current position he is responsible in administrating the State's Hazardous Waste (RCRA) Program, coordinating the Hazardous Waste Program with the U.S. Environmental Protection Agency, develops a yearly workplan and multiyear permitting strategies.

He represents the State on National Hazardous Waste Issues and participated in discussing with Environmental Protection Agency (Washington), National Governor's Associations (NGA) and the Association of State and Territorial Solid Waste Management Association (ASTSWMO). He is responsible for providing professional and technical assistance in the review of hazardous waste facility permit applications, compliance and enforcement activities, and coordinates the review with U.S. EPA and other inter-departmental agencies. He assists in the preparation of hazardous waste regulations, policies and prepares guidance and training for the FDEP field hazardous waste staff.

In addition, he is Adjunct Professor, Florida Atlantic University, College of Engineering. Prior experience includes Environmental Engineer, Division of Waste Management, New Jersey Department of Environmental Protection, Adjunct Professor at Florida State University and New Jersey Institute of Technology, Consulting Engineer, TestPak, Inc., and In-Charge, Environmental Division, Department of Civil Engineering, Hyderabad, India. Member, Florida Bar Association.

Florida Department of

Environmental Protection

Interoffice Memorandum

To: Waste Management Program Administrators

From: Satish Kastury, Environmental Administrator, HW Regulation

Date: July 27, 1995

Subject: Management of Contaminated Media under RCRA

Pursuant to our discussion during the WPAs meeting regarding contaminated media, provided are two attachments addressing management of contaminated media under RCRA.

The criteria listed in Attachment I under items 1, 2, 3 and 4 have already been reviewed by Bill Burns, Dan DeDomenico, Bill Martin, Jim Crane, Tom Conrardy, and Ligia Mora-Applegate of Waste Cleanup, and their comments were incorporated. Your comments from the discussion during the last WPAs Meeting were also incorporated into the text in Attachment I, and into the flowchart presented in Attachment II.

Should you have any questions, please contact me, Doug Outlaw, or Maher Budeir of my staff.

cc: John Ruddell; .....Division Director, Waste Management.
Bill Hinkley; .....Bureau Chief, Bureau of Solid and Hazardous Waste
Alan Farmer; .....EPA, Region IV
Doug Jones; .....Bureau Chief, Bureau of Waste Cleanup
Jim Crane;.....Bureau of Waste Cleanup
Bill Burns;.....Bureau of Waste Cleanup
Dan DeDomenico; .....Bureau of Waste Cleanup
Bill Martin; .....Bureau of Waste Cleanup
Ligia Mora-Applegate;...Bureau of Waste Cleanup
Diana Coleman;.....OGC
Agusta Posner; .....OGC
Doug Outlaw
Maher Budeir
Mike Redig
Merlin Russell
RCRA Permitting and Compliance Technical Committee Members

ATTACHMENT I

INTRODUCTION:

The following guidance was developed to be used for RCRA sites, that potentially may generate contaminated media through site investigation or corrective action/remediation activities.

This guidance does not change or supersede specific RCRA, CERCLA, or any other regulatory requirements. The outline below is to be used as interim guidance for handling contaminated media. It is anticipated that EPA will finalize a rule addressing management of contaminated media. This interim guidance will be finalized after the EPA rule is promulgated.

This guidance addresses contaminated media with contamination originating from a characteristic source or a listed source.

The objective of this guidance is to bring uniformity and consistency to the manner in which different programs in the Department handle, or require respondents/permittees to handle, contaminated media subject to RCRA requirements when contamination is above specified concentrations outlined in this memo. Approval of procedures for managing media below these concentrations will be the responsibility of the Department staff overseeing the specific project.

This guidance does not apply to contaminated media solely from petroleum cleanup sites. However it will be applicable to sites that have both petroleum and non-petroleum contamination.

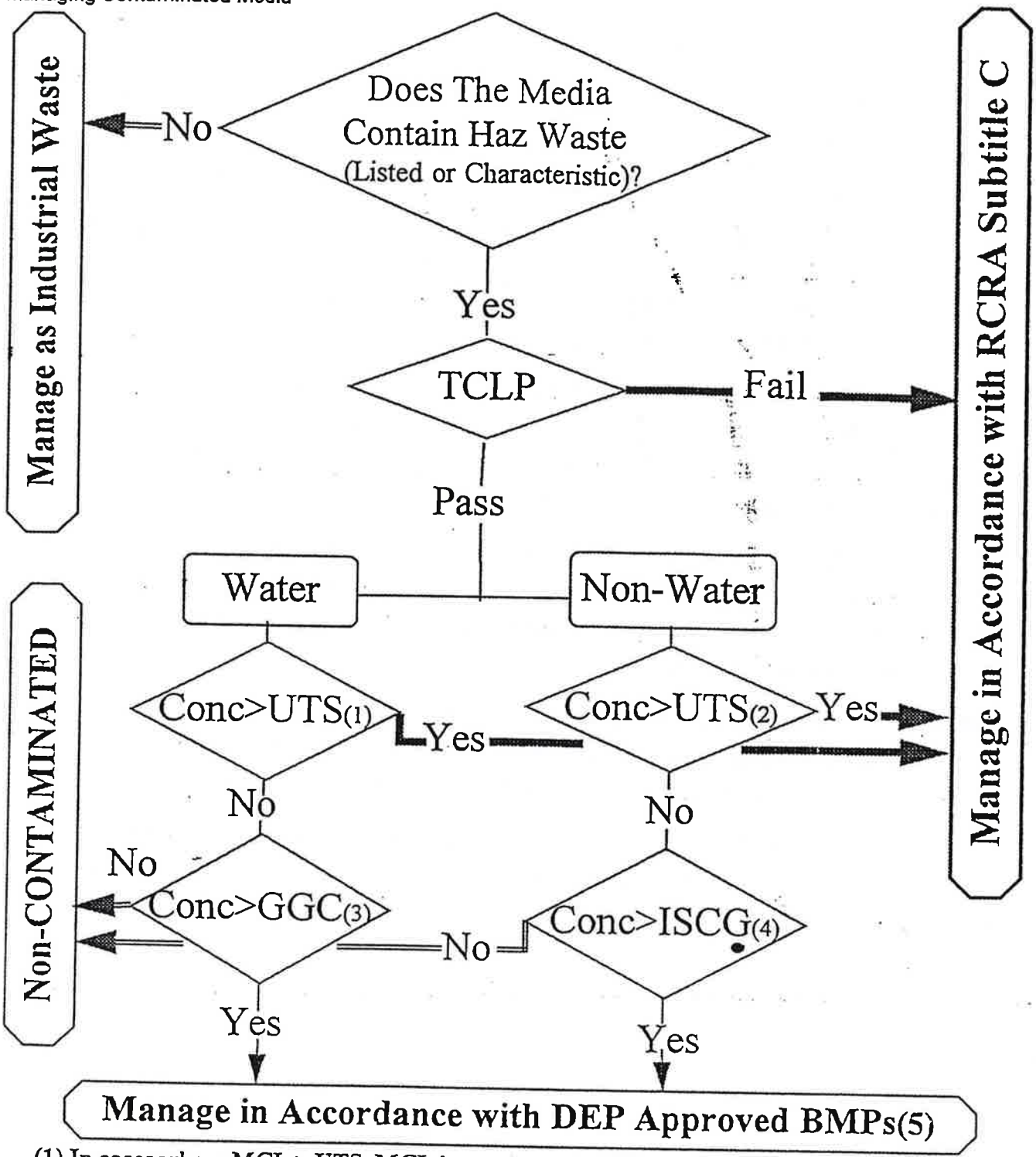
INTERPRETATION:

The following criteria clarify the use of Land Disposal Universal Treatment Standards (UTSs) in determining if contaminated media (from a listed or characteristic source) are subject to RCRA Subtitle C regulation (see flowchart on Page 4):

1. Contaminated media exhibiting hazardous waste characteristics shall be managed as hazardous waste and are subject to full RCRA Subtitle C regulation.

2. (a) For Waste Water: All waste water with hazardous constituent concentrations exceeding the Universal Treatment Standards (UTSs), (40 CFR 268.40), or the Maximum Contamination Levels (MCLs), (F.A.C. Chapter 62-550), whichever is

ATTACHMENT II



(1) In cases where MCL > UTS, MCL is considered in this step. In cases where there is no UTS for a contaminant, media management practices will be evaluated on a case to case basis.
(2) In cases where Soil Screening Levels (As developed in accordance to EPA's Soil Screening Levels "SSL" guidance) are greater than UTS levels, SSLs will be considered.
(3) GGC = Florida Groundwater Guidance Concentrations
(4) ISCG = Interim Soil Cleanup Goals Developed by Bureau of Waste Cleanup
(5) BMPs = Best Management Plans. BMPs are to be reviewed and approved by the Bureau/District overseeing the specific project.

higher, is considered hazardous waste and shall be managed in accordance with RCRA Subtitle C requirements.

(b) For Contaminated Soils: All soils with hazardous constituent concentrations exceeding the Universal Treatment Standards (UTSs), (40 CFR 268.40), or the Soil Screening Levels (SSL developed in accordance with EPA guidance), whichever is higher, are considered hazardous waste and shall be managed in accordance with RCRA Subtitle C requirements.

3. Contaminated media with hazardous constituent concentrations less than the UTSs (or SSLs/MCLs in cases where SSLs/MCLs are higher than UTSs) will not be subject to RCRA Subtitle C requirements, and shall be managed using Department approved best management practices (BMPs).

4. Contaminated media with hazardous constituent concentrations less than Groundwater Guidance Concentration levels (GGC) or the Interim Soil Cleanup Goal levels (ISCG developed by the Department's Bureau of Waste Cleanup), are considered decontaminated.

Department approved BMPs must be applied in managing media containing hazardous waste constituents at concentrations below the standards specified above in item 3, otherwise, media will be subject to full RCRA Subtitle C regulation.

BMPs will be reviewed by Department staff overseeing a specific project as a portion of the submitted assessment, interim measures, or corrective action (remediation) plans, and determine their adequacy.

FEB 2 9 1996

4WD-RCRA

MEMORANDUM

SUBJECT: Media Cleanup Standards and Conditional Remedies in the HSWA Program

FROM: Corrective Action Standing Team
Remedy Selection Subteam

THROUGH: G. Alan Farmer, Chief
RCRA Branch

TO: RCRA Staff

ISSUE

During implementation of the corrective action program covered by the 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA), the United States Environmental Protection Agency (EPA) - Region 4 has encountered numerous questions regarding media cleanup standards and implementation of remedial alternatives. Attached is final guidance developed by the EPA Region 4 Remedy Selection Subteam of the Corrective Action Standing Team to address the above questions. Specifically, the guidance addresses the setting of final media cleanup standards and the opportunities for implementing proposed Subpart S through conditional remedies.

The guidance on conditional remedies should be used in such cases where a conditional remedy is deemed appropriate. However, it is a site-specific decision to be made by the facility coordinator whether to use a conditional remedy or not. In several instances a conditional remedy might not be appropriate. For example, if a facility wishes to move a SWMU to the status of no further action with unrestricted use, a full conditional remedy might not be appropriate.

Conditional remedies accord well with stabilization activities. The remedies selected as conditional remedies are similar to those conducted under stabilization. Two major differences exist. First, because conditional remedies occur later in the corrective action pipeline (i.e., at remedy selection after the CMS), an Agency-initiated permit modification or public notice of a Statement of Basis for an order is required. This allows for public participation, which is often

missing with stabilization. Second, areas which exhibit low levels of contamination, which are not often dealt with in stabilization, are addressed, either through active or passive remediation or through institutional controls.

This guidance was written to provide general guidelines for setting final media cleanup standards and implementing conditional remedies. Each site may pose individual questions, all of which cannot be answered in one guidance document. For these individual questions, the facility coordinator is encouraged to request guidance from the Corrective Action Standing Team, if necessary. Additionally, because conditional remedies often make use of risk assessments and risk-based remediation goals, facility coordinators should also refer to the Corrective Action Standing Team's memorandum on risk assessments in the HSWA program. Though the attached guidance recommends the development of risk-based concentrations to demonstrate protection of human health and the environment based on current exposure, as pointed out in the risk assessment memorandum, EPA expects there to be cases where the proposed remedial alternative limits or completely eliminates exposure(s) without the need to establish specific numerical remedial goals (i.e., cleanup levels). In such cases risk-based goals may need not be developed.

EXAMPLE CONDITIONAL REMEDY

The use of conditional remedies is being exercised in Region 4. Most recently a conditional remedy was public noticed which entailed capping the soil in place for use as a parking lot and natural attenuation and monitoring of the groundwater. As discussed above, because each remedy will entail site-specific decisions not expressly addressed in the attached guidance, also attached is the Statement of Basis for the conditional remedy described above. This Statement of Basis may aid in giving a better indication of some of the site-specific decisions involved in a conditional remedy.

DISCLAIMER

This memo is intended to be a regional interpretation of how to set final media cleanup standards and how to implement conditional remedies. Nothing in this memo is intended to change or supersede future corrective action regulatory requirements. The proposed Subpart S rule is currently under review and a re-promulgation of the rule or a revision of the rule is due soon. If any provisions of the revisited Subpart S rule are in conflict with this guidance, then the final regulations will take precedent. The policies and procedures established in this document are intended solely for the guidance of employees of EPA. The policies and procedures are not intended and cannot be relied upon to create any rights, substantive or procedural,

enforceable by any party in litigation with the United States. EPA reserves the right to act at variance with these policies and procedures and to change them at any time without public notice.

Attachments

EPA Region 4
February 29, 1996

MEDIA CLEAN-UP STANDARDS AND CONDITIONAL REMEDIES

Executive Summary

Several questions have arisen regarding the selection of media clean-up standards and the use of conditional remedies. Though these questions apply to various media, they have arisen particularly with respect to their applicability to groundwater. The proposed rule for Corrective Action for Solid Waste Management Units at Hazardous Waste Facilities (proposed S rule) (FR, Vol. 55, July 27, 1990) was evaluated to provide preliminary guidance on these issues.

Based on an evaluation of the proposed Subpart S rule, it is recommended to develop conservative health-based media clean-up standards within a 10^{-6} to 10^{-4} risk range for carcinogens, assuming a residential scenario. For groundwater and surface water that are current or potential sources of drinking water, MCLs should be considered, where available. The conservative media clean-up standards should be developed to reflect all potential exposure pathways (*e.g.*, ecological risk associated with contaminated surface water or sediment, contaminated soil acting as a contaminant source, etc.) These conservative media clean-up standards are used for final "walk away" clean-up which has no deed notifications, institutional controls, etc. If risk evaluations are used to deviate from these conservative media clean-up standards, then the remedy selected will not be "final" but conditional.

These are certain instances where HSWA corrective action may be deferred for a release from a solid waste management unit (SWMU) or area of concern (AOC), even if the release is above conservative media clean-up standards. These include: 1) areas of broad contamination, where any remediation of a SWMU or SWMU area would be conducted in conjunction and consistent with on-going, area-wide remediation; 2) groundwater that is not a current or potential source of drinking water (*i.e.*, a Class III aquifer or state equivalent) and that is not hydraulically

connected to waters, either groundwater aquifers or surface water, where hazardous constituents would migrate at concentrations greater than conservative media clean-up standards; and 3) remediation of the media of concern is technically impracticable. Variants of these instances may be determined on a case-by-case basis. In these instances the level of protection has not been lessened, as either remediation will take place on a community-based project; exposure is unlikely and/or limited due to inherent limitations on the use of the resource; or remediation will continue when appropriate technology becomes available.

Proposed Subpart S also allows for "conditional remedies." If certain conditions are met, conditional remedies allow the owner/operator to phase-in a remedy or remedies over time. Under conditional remedies existing contamination (sometimes at existing concentrations) within the facility boundary can remain unremediated for a period of time, provided certain conditions are met. However, conservative media clean-up standards must be met for any releases that have migrated beyond the facility. Again, though remediation may be phased in over time in a conditional remedy, the final clean-up goals (*i.e.*, compliance with conservative media clean-up standards) have not changed. Rather the attainment of these goals has been delayed.

The selection of final remediation, no further action or conditional remedies varies on a site-specific and media specific basis. Generally, it is anticipated that for soil, a conditional remedy, which would allow clean-up to other than the conservative media clean-up standards (*e.g.*, industrial scenarios) provided certain conditions are met, will be the most likely scenario used. The determination of an appropriate option for groundwater is based on the fact that groundwater has "intrinsic qualities" which need preservation. Therefore, EPA must protect groundwater as a natural resource. As a resource, the level of protection is dependent on whether the groundwater is a potential drinking water source, whether the plume is within the facility boundary, and the hydrogeologic nature of the site. As discussed above, for groundwater that is not a potential drinking water source, a level of protection is maintained because contamination is

contained within the facility boundaries, and the affected aquifer, which is not a potential drinking water source, is not discharging into an aquifer that is a potential drinking water source or into a surface water body. Circumstances where a conditional remedy might apply are discussed below.

Existing Framework - Proposed Subpart S

Media Clean-Up Standards: The July 1990, Proposed Subpart S rule addresses the selection of media clean-up standards and provides criteria for adopting some type of no further action decision or conditional remedy. For establishing media clean-up standards, proposed §264.525(d) provides the methodology for establishing health-based concentrations as media clean-up standards. Point of departure for carcinogens should be 10^{-6} risk, but the clean-up standard should not exceed 10^{-4}. The clean-up standard for systemic toxicants are based on a life-time exposure. These health-based media clean-up standards generally address exposure through ingestion. Additionally, media clean-up standards must address any route of exposure (*e.g.*, effects of soil on groundwater and subsequent groundwater exposure, ecological exposure to surface water/sediment, inhalation pathways, etc.) present at the site.

In addition as per proposed §264.525(d)(1)(iv), Maximum Contaminant Levels (MCLs), including any state MCLs which may be more stringent than federal MCLs, shall be considered in establishing media clean-up standards for groundwater and surface water that are potential drinking water sources. Though not specifically stated in the proposed Subpart S regulations, the preamble discusses generally using the approach outlined in the EPA's Ground-Water Protection Strategy (August 1984 and subsequently updated) for determining if groundwater is a current or potential source of drinking water (*e.g.*, Class I and II versus Class III aquifers).

These clean-up goals would be developed using conservative exposure assumptions, which would allow a facility to "walk away" from residual contamination at a SWMU, and would

apply to a final clean-up. Thus the establishment of final media clean-up standards are based on conservative exposure assumptions, both present and future, site-specific migration pathways and MCLs, where applicable. These standards allow the facility to walk away from the SWMU after remediation. Exhibit 1 presents a general outline for the establishment of these conservative media clean-up standards.

No Further Action and Remediation Deferment: No further action decisions may occur at several instances throughout the corrective action process. The most obvious is at the end of Confirmatory Sampling or the RCRA Facility Investigation where no release or no contamination greater than "action levels" has been detected. Additionally, during the Corrective Measures Study proposed Subpart S outlines instances where a determination is made that remediation may be deferred, even though releases occurred above any conservative media clean-up standards, as outlined above. Specifically for groundwater, if the constituent(s) is present in groundwater that is not a current or potential source of drinking water (*e.g.*, Class III aquifer), and is not hydraulically connected with waters to which the hazardous constituents are migrating or likely to migrate in a concentration(s) greater than an action level, MCL or surface water standard, where appropriate, remediation is not required. However, in this case there needs to be assurance that the groundwater is not nor will be a source of drinking water. Also, in broad areas of contamination (*e.g.*, highly industrialized areas with significant contamination), remediation may not be required as EPA does not believe the corrective action program's objective is to result in "islands of purity." In these instances remediation would be conducted in conjunction and consistent with any on-going area-wide remediation. Variants of these instances may be determined on a case-by-case basis.

MEDIA CLEAN-UP STANDARDS

- Clean-up standard shall protect human health and the environment
- Unless a lower standard is deemed necessary to protect the environment, standards shall be established as follows:
  - For Class A and B carcinogens, a 10^{-4} to 10^{-6} lifetime risk shall be used, with point of departure being 10^{-6}
  - For systemic toxicants, concentrations shall be at levels at which deleterious effects would not be a risk with daily exposure for a lifetime
- The following may also be considered:
  - Multiple contaminants
  - Exposure threats to sensitive environmental receptors
  - Other site-specific factors
  - Remedy-specific factors
- For groundwater or surface water that are current or potential drinking water sources, MCLs should be considered

EXHIBIT 1 Development of Media Clean-Up Standards

Conditional Remedies: Proposed Subpart S also provides the flexibility for conditional remedies. These allow the owner/operator to phase-in the remedy over time. In essence these remedies would allow existing contamination (sometimes at existing concentrations) to remain within the facility boundary for a period of time, provided certain conditions are met. With a conditional remedy media clean-up standards throughout the plume are still set to MCLs or equivalent health-based concentrations for the particular media of concern, but remediation to these numbers is not required at this time. It should be noted that though remediation may be phased in over time in a conditional remedy, the final clean-up goals (*i.e.*, conservative media clean-up standards) have not changed. Rather the attainment of these goals has been delayed. Though the time frames of conditional remedies are determined on a site-specific basis, the permit or order should remain in effect for at least the length of the time frame of a conditional remedy . Prior to permit or order termination, a decision regarding the final remedy must be made.

As stated in proposed Subpart S, a conditional remedy may be selected if the following criteria are met: 1) the conditional remedy is protective of human health and the environment (based on current exposure); 2) the Permittee shall remediate to the media clean-up standards (*e.g.*, MCLs) for any contamination that has left the facility boundary; 3) the remedy prevents further significant degradation of the environmental media through treatment and/or engineering methods as necessary (*i.e.*, control of releases from source *and* control of the further migration of a release within the facility boundary); 4) monitoring is continued to determine if significant degradation occurs; 5) institutional or other controls are instituted to prevent significant exposure; 6) financial assurance for the conditional remedy is provided; and 7) the Permittee complies with standards for management of wastes. If each of these criteria are met, then final remediation to conservative media clean-up standards is not necessarily required at the present time, but may be delayed until current exposure changes.

Summary: As noted, though final media clean-up standards are conservative, proposed Subpart S allows for flexibility in implementing environmental remediation. It is anticipated that in most instances, a combination of final remedies, conditional remedies and potentially no further actions will occur at a facility, based on site and SWMU conditions and media-specific information. The determination of the best combination of these options is highly site specific. However, it is anticipated that conditional remedies will probably be the most appropriate way to address existing on-site contamination for soils, as the areal extent of the contamination is generally well defined, and RCRA facilities will generally remain industrial facilities. The remediation of surface water and sediment will be driven by site-specific conditions, particularly ecological risk and the potential for off-site migration. Conditional remedies may apply to groundwater. However, given the nature of groundwater (*e.g.*, intrinsic properties, potential to migrate off-site, etc.), closer evaluation of the applicability of a conditional remedy will be required, and it is likely that more controls and conditions will be necessary to implement a conditional remedy for groundwater versus for soil. The use of conditional remedies will not lessen the protection of human health and the environment, as current exposures are addressed, and future exposures will be addressed if and when they arise.

Conditional Remedies for Groundwater

As discussed above, several conditions must be met to select a conditional remedy at a RCRA facility. It must be determined that the land use in the vicinity of the facility supports the use of a conditional remedy (*e.g.*, the facility is zoned industrial/commercial, etc.). Land use should be such that current exposure is limited and can be controlled. The specific conditions for implementation, as listed in Table 1, are as follows: 1) the conditional remedy is protective of human health and the environment (based on current exposure); 2) the Permittee shall clean up to the conservative media clean-up standards (*e.g.*, MCLs) for any contamination that has left the facility boundary; 3) the remedy prevents further significant degradation of the environmental

TABLE 1 - Conditional Remedy Criteria

Criteria No.	Criteria
1	The conditional remedy is protective of human health and the environment (based on current exposure)
2	The Permittee shall clean up to the conservative media clean-up standards (*e.g.*, MCLs) for any contamination that has left the facility boundary
3	The remedy prevents further significant degradation of the environmental media through treatment and/or engineering methods, as necessary (*i.e.*, control of releases from source *and* control of further migration of a release within the facility boundary)
4	Monitoring is continued to determine if significant degradation occurs
5	Institutional or other controls are instituted to prevent significant exposure
6	Financial assurance for the conditional remedy is provided.
7	The Permittee complies with standards for management of wastes

media through treatment and/or engineering methods, as necessary; 4) monitoring is continued to determine if significant degradation occurs; 5) institutional or other controls are instituted to prevent significant exposure; 6) financial assurance for the conditional remedy is provided; and 7) the Permittee complies with standards for management of wastes.

For a conditional remedy the protection of human health and the environment would be determined based on "risk-reduction concentrations," which are developed based on existing current human exposures and an evaluation of any long term adverse impacts to the environment. For example, the exposure scenario for humans to soil at an industrial site might reflect what type of exposure would be expected in that scenario rather than a residential scenario. However, as the second criteria listed above indicates, the conservative media clean-up standards (*i.e.*, MCLs or equivalent health-based concentrations for the appropriate media) would apply to off-site contamination. Thus, in instances where a groundwater plume has migrated off site, remediation of this off-site contamination to conservative media clean-up standards is required.

For groundwater compliance with criteria #1 is determined by monitoring compliance with the risk-reduction concentrations. In addition, compliance with criteria #1 includes the facility initiating measures to ensure that the assumptions of exposure, on which the risk-reduction concentrations are based, are met. For example, if it is assumed that drinking water wells will not be installed on site, the facility must initiate measures to ensure that no such wells are installed. Monitoring wells will need to be designated to demonstrate compliance with the risk-reduction concentrations. It is likely that these wells may be the same as the point-of-compliance (POC) wells for a final remedy. Proposed Subpart S outlines several alternatives for the POC, including the physical edge of the SWMU or SWMU area, throughout the plume, the leading edge of the plume, if contained within the property, or the facility boundary. Though the appropriate placement of the POC wells for final remedy is still under discussion and is a site-specific decision, proposed Subpart S regards, and EPA Region 4 concurs, that the use of the facility boundary as a

POC is inadvisable. This is because locating the POC wells at the facility boundary will allow the increased degradation of the groundwater in cases where the groundwater plume has not reached the property boundary, which would potentially make final remedial goals more difficult to attain. It is recommended that for final remedies the POC be set at the physical edge of the SWMU or SWMU area. However, as mentioned above, this is a site-specific decision. This POC may be used to determine compliance with the risk-reduction concentrations for the conditional remedy and would be used to demonstrate compliance with the media clean-up standards for the final remedy. That is, while the conditional remedy is on-going, the POC wells would be used for monitoring compliance with the risk-reduction concentrations; at the time of the final remedy (*e.g.*, facility closing), the POC wells would be used to monitor compliance with the conservative, residential media clean-up standards (*e.g.*, MCLs).

In addition to the POC wells discussed above, additional monitoring wells located in the vicinity of the downgradient property boundary (usually some distance within the property boundary to provide a buffer) will need to be sampled to verify that off-site migration above the conservative, residential media clean-up standards is not occurring. This monitoring will provide demonstration of the compliance with criteria #2.

The third criteria for a conditional remedy is prevention of further significant degradation of an environmental media. The "further significant degradation of environmental media" is generally defined as releases of contaminants to the environment above action levels and/or MCLs for each migration/exposure pathway. The prevention of further degradation includes addressing both the original source of contamination and also the continued migration of the release. For groundwater the source of the plume can consist of both soil contamination acting as a source and the original source of existing groundwater contamination. Determination that potential further degradation of the environment is occurring requires on-going monitoring, as stated in criteria #4, and may require treatment and/or engineering controls. Monitoring of an existing plume should

occur at or near the downgradient edge of the groundwater plume. Containment systems (*e.g.*, pump-and-treat, interceptor trenches, etc.) are necessary to control the migration of elevated groundwater contamination. The success of this containment system may also be monitored through a set of monitoring wells, located at or near the downgradient, non-detect edge of the groundwater plume and outside of the containment system. In instances where it appears that there is increased degradation (*i.e.*, plume is not contained, as is) of the environmental media, additional treatment and/or engineering controls (*e.g.*, source removal, groundwater containment, active remediation, etc.) may be required.

Many types of remediations may be used as a conditional remedy for groundwater, as long as the criteria in Table 1 are met. A particular category of remediation includes the use of natural attenuation. Natural attenuation, which is considered a passive remediation, is defined as dilution, dispersion, adsorption or biological degradation of contamination within the groundwater medium. With natural attenuation the attenuation of contaminants to risk-reduction concentrations during a conditional remedy, and ultimately to MCLs of equivalent for the final remedy, will occur over an extended period of time. To utilize natural attenuation, the contaminated soils, which may act as a source of leachate to the groundwater, and any free product must be removed. In addition the hydrogeology of the site needs to be well characterized. There also should be some indication of the propensity of the constituents of the contaminated plume to attenuate naturally. In additon the contaminated groundwater would not likely become a source of drinking water in the future because of the distance from any population or other factors. In these instances proposed Subpart S allows remediation to occur over an extended period of time, with natural attenuation (*i.e.*, physical diffusion, chemical binding or chemical and/or biological degradation) being a major factor in the remedy. Thus, in instances where an on-site plume is fairly isolated and a sufficient distance from the facility boundary, the monitoring of the degradation of the environment may factor in natural attenuation before

requiring additional remediation and/or containment. However, performance standards will need to be determined to evaluate the effectiveness of the natural attenuation.

Exhibits 2 and 3 depict two potential configurations of a conditional remedy and required monitoring. First is a situation where containment is used; second is a situation of an isolated plume where natural attenuation is being evaluated. In both instances the POC at the SWMU boundary is used to monitor compliance with risk-reduction concentration (RRCs). These concentrations are developed based on existing current exposure. Also, a set of wells near the facility boundary is designated to determine if contamination is migrating off site. If so, this contamination must be remediated to MCLs or equivalent health-based concentrations. Last, additional monitoring is required downgradient of the plume. In Exhibit 2, this set of monitoring wells monitors the effectiveness of the containment system and any degradation of the groundwater. For Exhibit 3 this set of monitoring wells monitors natural attenuation and any degradation of the groundwater. Based on the data from this third set of wells, in both situations, additional source control, groundwater containment or groundwater remediation may be required to prevent further degradation.

The remaining factors for implementation of a conditional remedy include institutional controls, financial assurance and waste management practices. Institutional controls may include deed notifications, fencing and posting of areas. These controls are utilized to limit exposure to residual contamination. Inspections and maintenance may be required for some for the institutional controls, such as fencing. Other institutional controls are currently under consideration. The requirements for financial assurance are also under consideration, but may possibly be similar to the financial assurance requirements under a post-closure care permit. Last, the facility must comply with appropriate waste management regulations and practices during the implementation of a conditional remedy. Exhibit 4 presents a flow chart which indicates the

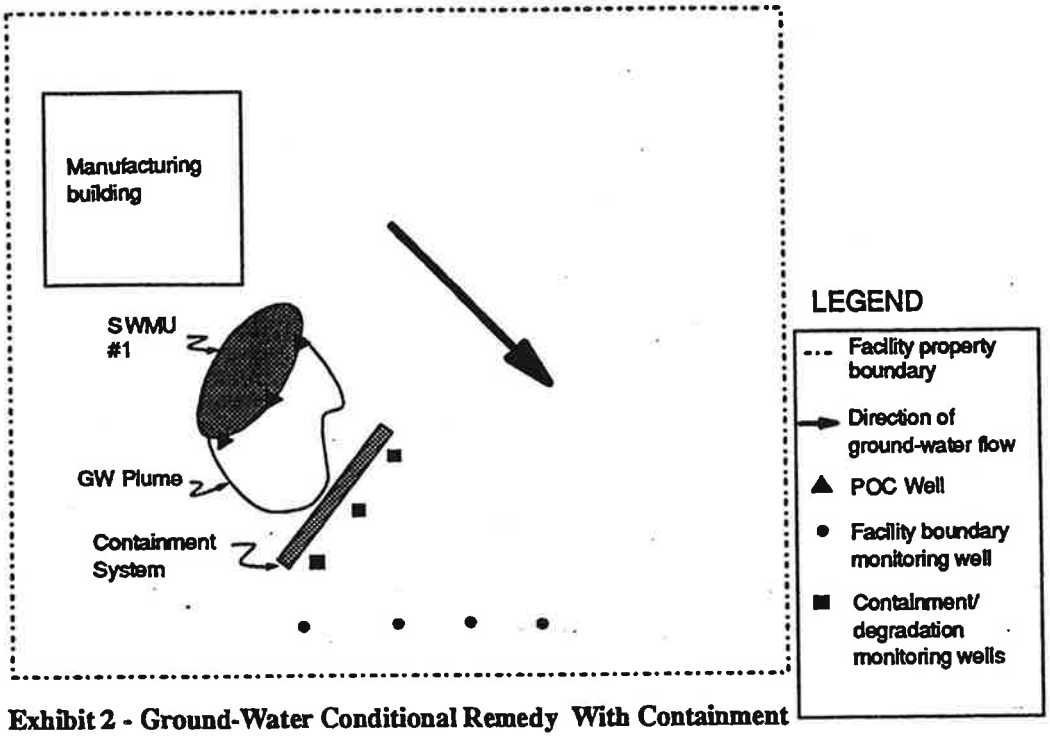


Exhibit 2 - Ground-Water Conditional Remedy With Containment

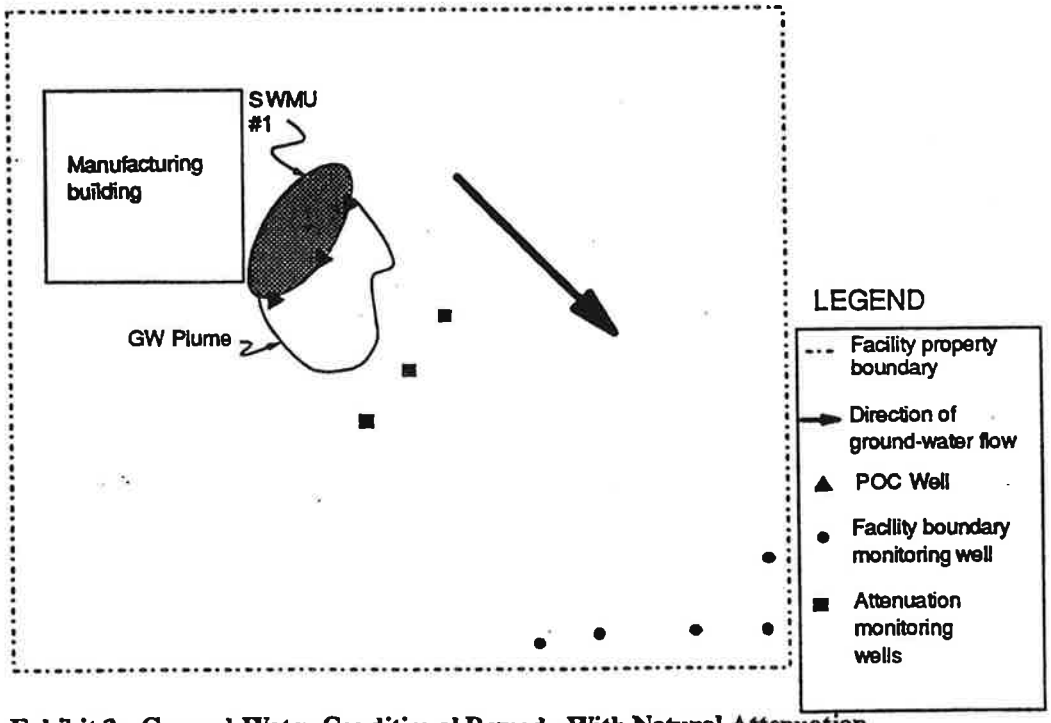


Exhibit 3 - Ground-Water Conditional Remedy With Natural Attenuation

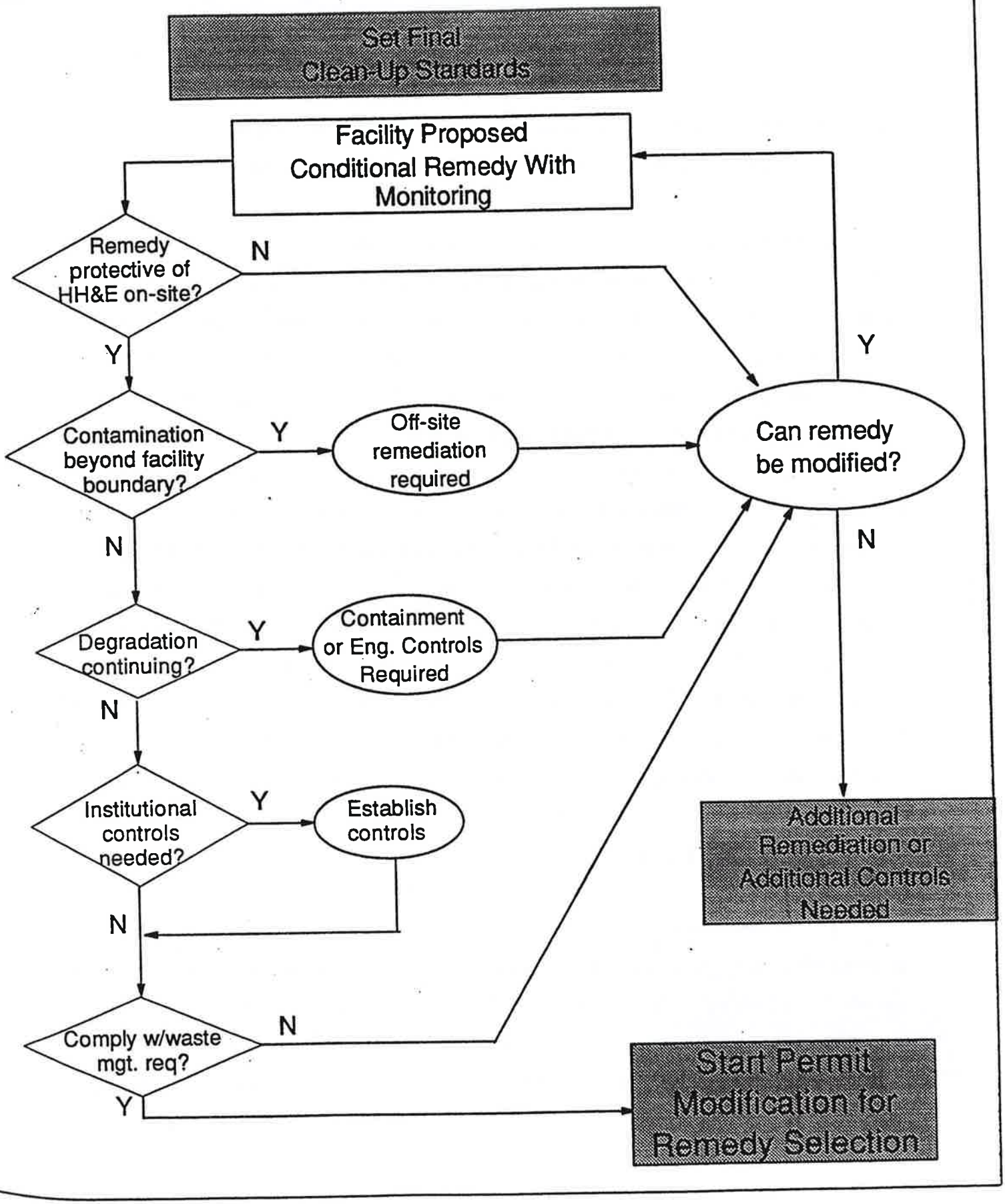


Exhibit 4 - Conditional Remedy Decision Flow Chart

decision process for selecting a conditional remedy. Exhibit 5 presents a similar flow chart for the evaluation of data from monitoring required for the implementation of a conditional remedy.

To implement a conditional remedy, the following conditions, at a minimum, will need to be included at the time of the permit modification or development of a Statement of Basis for a 3008(h) order. These conditions include: 1) conditions listing the conservative media-specific standards for final clean-up and for off-site contamination during the conditional remedy; 2) conditions listing the risk-reduction concentrations for the conditional remedy, which also lists or references the assumptions used in developing these concentrations; 3) conditions outlining the remedy itself, including any operation and maintenance and inspection requirements (such as inspection of fences to assure effectiveness of the institutional controls); 4) conditions requiring submittal of reports, such as periodic effectiveness reports or monitoring/progress reports; 5) conditions allowing for reopening the remedy selection process either due to the effectiveness of the chosen remedy (or lack thereof) or due to a change in the assumptions used to develop the risk-reduction concentrations (hence resulting in the remedy not being protective); 6) conditions that allow periodic review (*e.g.*, every five years) by the implementing agency of the remedy (both for effectiveness and protectiveness); 7) conditions that require deed notifications; and 8) conditions which include requirements for complying with standards for management of waste.

Redevelopment of Subpart S

Several aspects of proposed Subpart S are currently undergoing evaluation for the re-proposal of the rule. This evaluation includes, among other things, examining land use issues, the use of risk assessments (including ecological risk assessments), location of the POC for final remedies, institutional controls, remedy selection and clean-up goals. As more information is gathered and examined during these evaluations, the strategy outlined above might necessarily

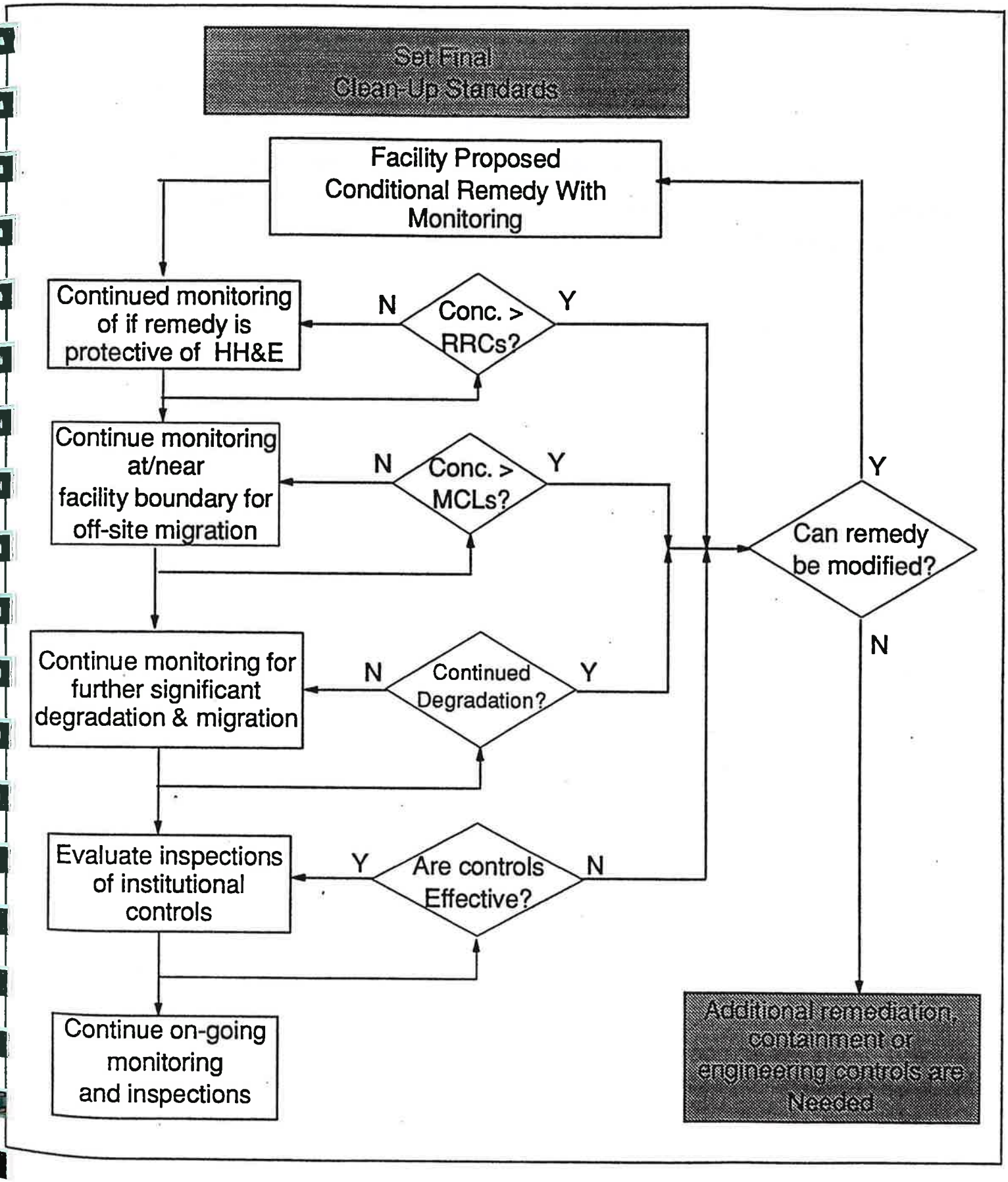


Exhibit 5 - Conditional Remedy: Evaluation of Monitoring Data

change. As with may aspects of corrective action under HSWA, this strategy will continue to be evaluated to assure adherence to any new guidance or policy that results from the evaluation of the proposed Subpart S rule.

BIOGRAPHICAL SKETCH FOR TECHNICAL SESSION PAPER:

CORRECTIVE ACTION FOR RELEASES FROM SOLID WASTE MANAGEMENT UNITS AT HAZARDOUS WASTE MANAGEMENT FACILITIES

Terry W. Griffin, M.S., P.G.
HSW Environmental Consultants, Inc.
3820 Northdale Blvd., Suite 210B
Tampa, Florida 33624
(813) 968-7722

Terry Griffin is an associate hydrogeologist with HSW Environmental Consultants, Inc. (HSW). He has over 13 years of experience managing geologic and hydrogeologic investigations, and groundwater contamination assessment and remediation projects throughout Florida and Texas. He is knowledgeable about both federal and state regulations including RCRA, CERCLA, and Florida consent orders. Prior to joining HSW, Mr. Griffin worked as a hydrogeologist for Hillsborough County Department of Solid Waste while completing his masters degree in hydrogeology. Before entering graduate school, Mr. Griffin worked for six years as an exploration geologist for Cities Service Oil and Gas Corporation and Total Petroleum, Inc. and as a field geologist for Anaconda Copper Corporation. He received a B.S. in Geology from the University of North Carolina, Wilmington, and an M.S. in Hydrogeology from the University of South Florida, Tampa. Mr. Griffin is a registered professional geologist in Florida, Kentucky, and Tennessee.

CORRECTIVE ACTION FOR RELEASES FROM SOLID WASTE MANAGEMENT UNITS

Terry W. Griffin, P.G.
HSW Environmental Consultants, Inc.

Ms. Carol Browner, Administrator of EPA, signed the Advanced Notice of Proposed Rulemaking (ANPR) for Corrective Action for Releases from Solid Waste Management Units (SWMUs) at Hazardous Waste Management Facilities. The ANPR, which was published in the Federal Register on May 1, 1996 (61 FR 19431):

- **introduces EPA's strategy** for promulgating regulations governing corrective action for releases from SWMUs;
- **requests information on potential improvements** to the protectiveness, responsiveness, speed, or efficiency of corrective actions;
- **provides a historical account** of how the corrective action program has evolved since EPA originally proposed corrective action regulations in July 1990; and
- **emphasizes areas of flexibility** within the current program.

Significant to industry is that EPA is moving away from a more traditional management system (the "command and control approach," in EPA's own words) to a more performance-based system that is self-implementing. EPA's future management of corrective action programs will focus on two environmental indicators: (1) eliminating unacceptable risk to humans from releases of contaminants (known as Human Exposures Controlled Determination) and (2) eliminating migration of contamination across the facility or other designated boundary (known as Groundwater Releases Controlled Determination). These environmental indicators focus on results and can serve as performance measures for remediation activities.

The concept of self-implementation for corrective action programs is introduced in the ANPR, but EPA provides few specifics. Rather, EPA requests direction from stakeholders. Currently, the agency is wrestling with how to develop an approach that will afford industry the flexibility that is necessary to effectively and efficiently implement corrective action, given site-specific conditions, while balancing EPA's needs for national consistency and minimum national standards for cleanup. For instance, EPA presents alternatives for defining action levels and cleanup levels, including national standardized lists of values, state standardized lists of values, and standardized approaches (i.e., formulas). The ANPR does not provide EPA's recommendation or preference.

There are many other corrective action topics covered in the ANPR for which EPA is requesting comments, including: general implementation of the corrective action program and suggestions for improvement, consistency with the Superfund program, voluntary cleanup, future land use, points of compliance, expanding opportunities for public participation, measuring and enforcing corrective action performance standards, and state authorization. Written or electronically formatted comments

on the ANPR were requested from the public by July 30, 1996 and a public hearing was scheduled for June 3, 1996. EPA was especially interested in comments based on actual corrective action implementation experiences.

Mr. Griffin will discuss the EPAs strategy for promulgating regulations governing corrective action for releases from SWMUs and will emphasize areas of flexibility outlined in the current program, including program improvements currently underway or under consideration. The outcome of the June 3 public meeting were not available for discussion at the time of abstract submittal.

Florida Storage Tank Program Update

Moderator: **Mike Petrovich**

Speakers: **Doug Jones**
David Mica

Biographical Information

Michael P. Petrovich, Esquire
Hopping Green Sams & Smith, P.A.
123 South Calhoun Street
Tallahassee, Florida 32301

Michael P. Petrovich graduated from Indiana University, with a B.A. in Economics in 1986 and took his law degree from Florida State University with honors in 1989. He is a senior associate in the Tallahassee law firm of Hopping Boyd Green and Sams. His practice involves all facets of administrative and environmental law, including groundwater, solid/hazardous waste, and storage tank matters.

Doug Jones

- Employed by the Department of Environmental Protection and predecessor agencies for 22 years
- Involved in hazardous waste cleanup for past 15 years
- Currently Bureau Chief of the Bureau of Waste Cleanup responsible for:

  state and federally (Superfund) funded cleanup of hazardous waste sites;

  petroleum cleanup and reimbursement programs;
  dry cleaner cleanup program;
  underground and aboveground storage tank regulation;

David R. Mica

David R. Mica is Associate Director for the Florida Petroleum Council. The Florida Petroleum Council is a Division of the American Petroleum Institute, which is a trade association of most of the nation's major oil companies. The group develops standards and training programs on public issues of importance to the petroleum industry.

A 1977 graduate of the University of Florida, David obtained his Bachelor of Arts degree in Political Science. He began his career as a District Assistant to then U.S. Senator Lawton Chiles, and later moved into legislative advocacy as Director of Legislative of Affairs for the Florida Farm Bureau. Now in his eleventh year with the Florida Petroleum Council, David has been involved in many important environmental issues including the Warren Henderson Wetlands Protection Act, Florida's landmark Used Oil Recycling legislation, which has been replicated in many states, and the original Underground Storage Tank Cleanup Program and its many revisions, including the 1996 legislation.

David is active in both community and statewide organization. He has served on the Board of Directors of Keep Florida Beautiful since its inception in 1989 and is currently Chairman. He is on the Board of Directors of the University of Florida Alumni Association, and Vice Chairman of the Florida Food and Fuel Retailers Association, an industry roundtable coalition.

David and his wife, Karen live in Tallahassee with their son David, Jr., and daughters, Julianne and Allison.

SECTION V

Expo Participants

1996 FAWQC EXHIBITORS

Ms. Glori Ann Snow
American Compliance Technologies
1875 West Main Street
Bartow, Florida 33830
Phone: (941) 533-2000
Fax: (941) 534-1133

Mr. Louis A. Liggerio
Atlantic Construction Fabrics
P.O. Box 1417
Punta Gorda, Florida 33951
Phone: (800) 552-9575
Fax: (941) 625-8811

Ms. Korey Toepel
AMJ Equipment Corporation
1755 W. Olive Street
Lakeland, Florida 33801
Phone: (941) 682-4500
Fax: (941) 687-0077

Ms. Lisa Sutton
Atlanta Testing & Engineering
Imperial Lakes Crown Center, Ste 218
P.O. Box 527
Lakeland, Florida 33807
Phone: (941) 644-1337
Fax: (941) 644-4628

Mr. Hank Robinson
Florida Environments Publishing
4040-F Newberry Road
Gainesville, Florida 32607
Phone: (352) 373-1401
Fax: (352) 373-1405

Mr. Mike Eastman
Florida Specifier
P.O. Box 2027
Winter Park, Florida 32790
Phone: (407) 740-7950
Fax: (407) 740-7957

Mr. Gene Whitney
Pembroke Laboratory, Inc.
528 Gooch Road
Ft. Meade, Florida 33841
Phone: (941) 285-8145
Fax: (941) 285-7030

Ms. Georgia Turner
REGfiles, Inc.
P.O. Box 14289
Tallahassee, Florida 32317
Phone: (800) 543-1618
Fax: (904) 878-3527

Ms. Cheryl Moore
R.H. Moore & Associates, Inc.
8917 Maislin Drive, Bldg. E
Tampa, Florida 33637
Phone: (813) 988-0200
Fax: (813) 985-4533

Ms. Kathie Englert
Terra Environmental Services, Inc.
14902 Winding Creek Court
Suite 101-C
Tampa, Florida 33613
Phone: (813) 265-1651
Fax: (813) 968-8607

Mr. Neumie Roberts
Thornton Laboratories
1145 E. Cass Street
Tampa, Florida 33602
Phone: (813) 223-9702
Fax: (813) 223-9332

Mr. Dennis Raichart
WOOLF Enterprises
3960 Silver Place
Titusville, Florida 32796
Phone: (407) 269-8212
Fax: (407) 269-8212

1996 FAWQC EXHIBITOR PROFILES

American Compliance Technologies, Inc. (ACT)

ACT employs a staff of professional scientists, geologists, chemists, biologists and support personnel. ACT provides the environmentally regulated community with a full range of environmental clean-up services including:

- 24 hour hazardous & non hazardous response
- pollutant storage tank management
- contamination assessment and site restoration
- closure/decontamination of facilities
- hazardous and non hazardous waste disposal
- industrial cleaning
- radon/air quality testing
- used oil filter/fluorescent light recycling
- site audits/assessments

Atlantic Construction Fabrics, Inc.

Atlantic Construction Fabrics, Inc.: complete source for geosynthetics, geogrids, geotextiles - drainage, stabilization, rip rap, silt fence, safety fence, turbidity barrier, gabions, retaining walls, pipe, erosion control mats, geonets, artificial coverings, liners, edge drains, landfills, petraflex and value engineering.

Atlanta Testing & Engineering (AT&E)

AT&E is an engineering consulting firm specializing in hydrogeology, environmental permitting, geotechnical engineering, and construction materials engineering and testing. Founded in Atlanta in 1969, AT&E has expanded throughout the southeast with Florida offices located in Lakeland, Clearwater, Sarasota, North Palm Beach, Tampa, Jacksonville and Orlando. The Florida Hydrotechnology Division offices in Lakeland, Clearwater, Sarasota, North Palm Beach and Orlando specialize in ground water contamination and remediation, environmental audits, environmental permitting, ground water supply development, leaking underground storage tank investigations, surface water hydrology, water quality monitoring, wastewater disposal, RCRA facility audits, contingency plans/RCRA training courses, OSHA site safety audits/HazCom (RTK) training, and regulatory compliance manuals.

Florida Environments

Florida Environments Publishing Inc. is Florida's only full-service environmental news and information service. In addition to the respected monthly magazine, *Florida Environments*, FEP produces a daily environmental news wire, a popular Internet environmental news and jobs site, *EnviroWorld*, and is also now offering a daily RFP delivery service for environmental businesses.

Florida Specifier

The Specifier, now in its 17th year, is the state's newspaper of record for environmental professionals working in the remediation, waste management and water/wastewater industries. Each monthly issue delivers regulatory news, technology updates, columns from industry experts, the most complete calendar available and a lot more.

The Specifier is published by National Technical Communications Co., Inc., headquartered in Winter Park.

Pembroke Laboratory, Inc.

Pembroke Laboratories, Inc. is a 90 year old analytical laboratory with wide capabilities in drinking water, environmental, minerals, agricultural, and industrial sampling and testing. Our turn-of-the (20th)-century facility houses turn-of-the (21st)-century instrumentation to provide reliable results in metals, nutrients, microbiology, radiochemistry, and other areas.

REGfiles, Inc.

For environmental professionals in Florida, **REGfiles, Inc.** means timely, accurate

information and reliable service. REGfiles is dedicated to providing effective solutions for those faced with the challenge of regulatory compliance. REGfiles systematically tracks the regulatory activities of Florida's DEP, DCA, and WMD's, and in turn, delivers the most current information available into the hands of their clients. **The REGfile system® Service** is available in loose-leaf, compact disc, or customized to fit your needs!

R.H. Moore & Associates

R.H. Moore & Associates, Inc. represents the industry's leading manufacturers of soil stabilization, erosion control systems and products. These product lines cover a range from geotextile construction filter & stabilization fabrics to erosion control blankets, confinement systems and concrete blocks.

Terra Environmental Services, Inc.

Terra Environmental Services, Inc. is an independent environmental consulting firm with offices in Tampa, Florida; LaSalle, Illinois; and Milwaukee, Wisconsin. The company was formed in 1990 to provide high-quality and cost-effective environmental consulting services to industrial and municipal clients. The Firm specializes in assessment and remediation of impacted soils, surface water and ground water, and the development of ground-water resources. The Firm has a reputation for providing innovative solutions to difficult environmental challenges, effective technical and regulatory support, and timely completion of projects.

WOOLF Enterprises

WOOLF Enterprises is a woman owned, small business, organized toward providing those services needed to optimize life functions in four major areas: analytical laboratories, learning needs in the analytical laboratory and health care field, personal productivity enhancements via computers and modern techniques, and individualized elder care in home settings. The two principals of WOOLF Enterprises, Nancy Raichart, RN, and Dennis Raichart, PhD, total some forty years of experience in the health care, chemistry, computer, management, and teaching fields.

I. WOOLF - We Optimize Operational Laboratory Facilities

A. Quality Assurance
B. Data & Information Management Systems
   1. Laboratory Information Management Systems
   2. Laboratory Logistics Systems
C. Marketing Techniques
D. Efficiency Studies
E. Performance Audits
F. Comprehensive Evaluations

II. WOOLF - We Optimize Operational Learning Functions

A. Subject Areas
   1. Environmental Chemistry
   2. Elder Care Nursing Practice
   3. Computer Efficiency Software

III. WOOLF - We Optimize Operational Labor Functions

A. Personal Productivity Software and Techniques
   1. Personal Time Management
      a. Computer Software & Techniques
      b. Time Management Systems
   2. Management Software
      a. Individual Consulting
      b. Group Instruction
      c. Software
         (1) ManagePro - Goals & Objectives
         (2) DecideRight - Decision Making
         (3) ECCO - Time and Desk Management
         (4) GoldMine - Contact Management
         (5) Org Plus - Organizational Charts
         (6) ACT! - Contact Management

Group Productivity Software Techniques

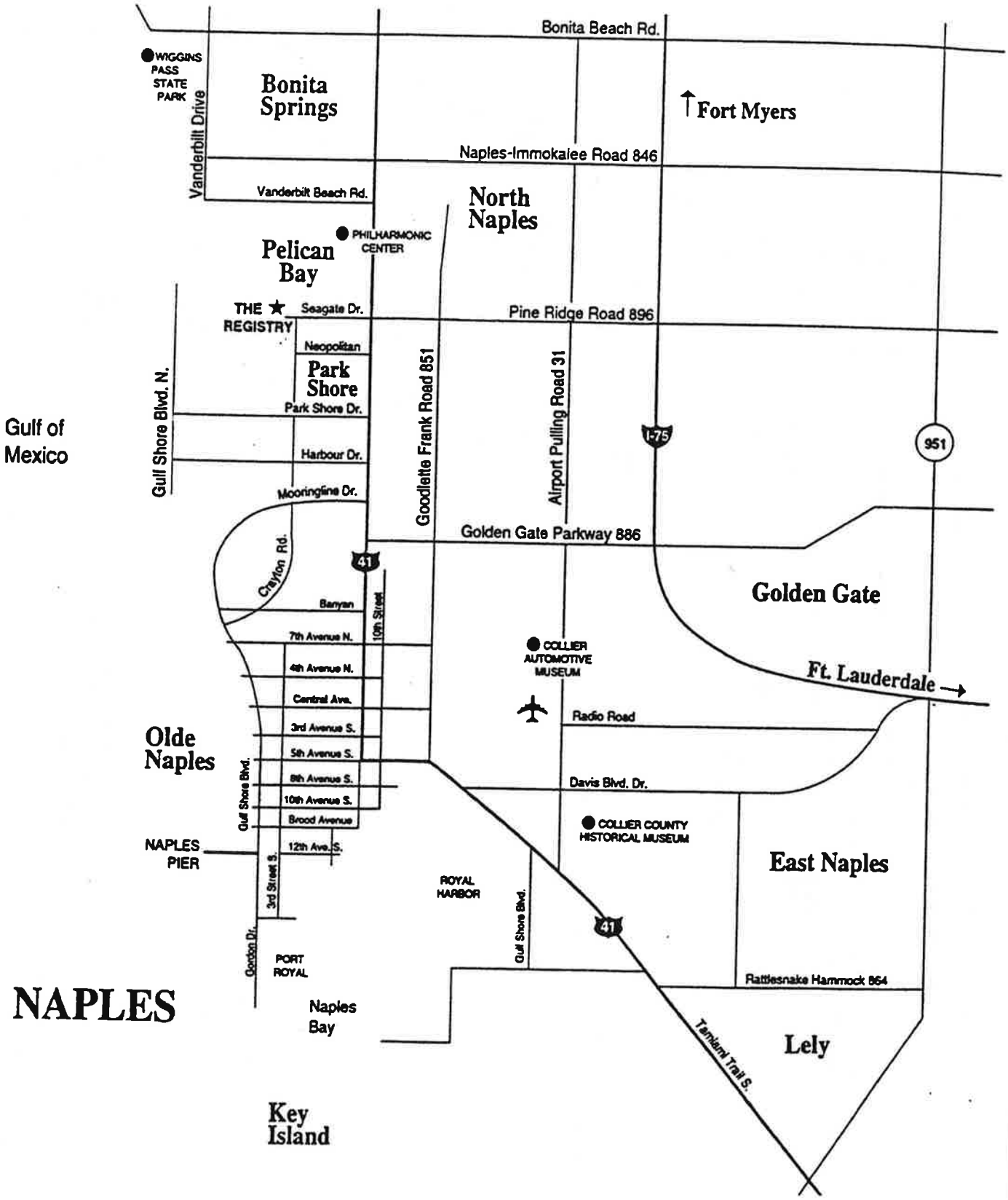
IV. WOOLF - We Optimize Operational Living Functions

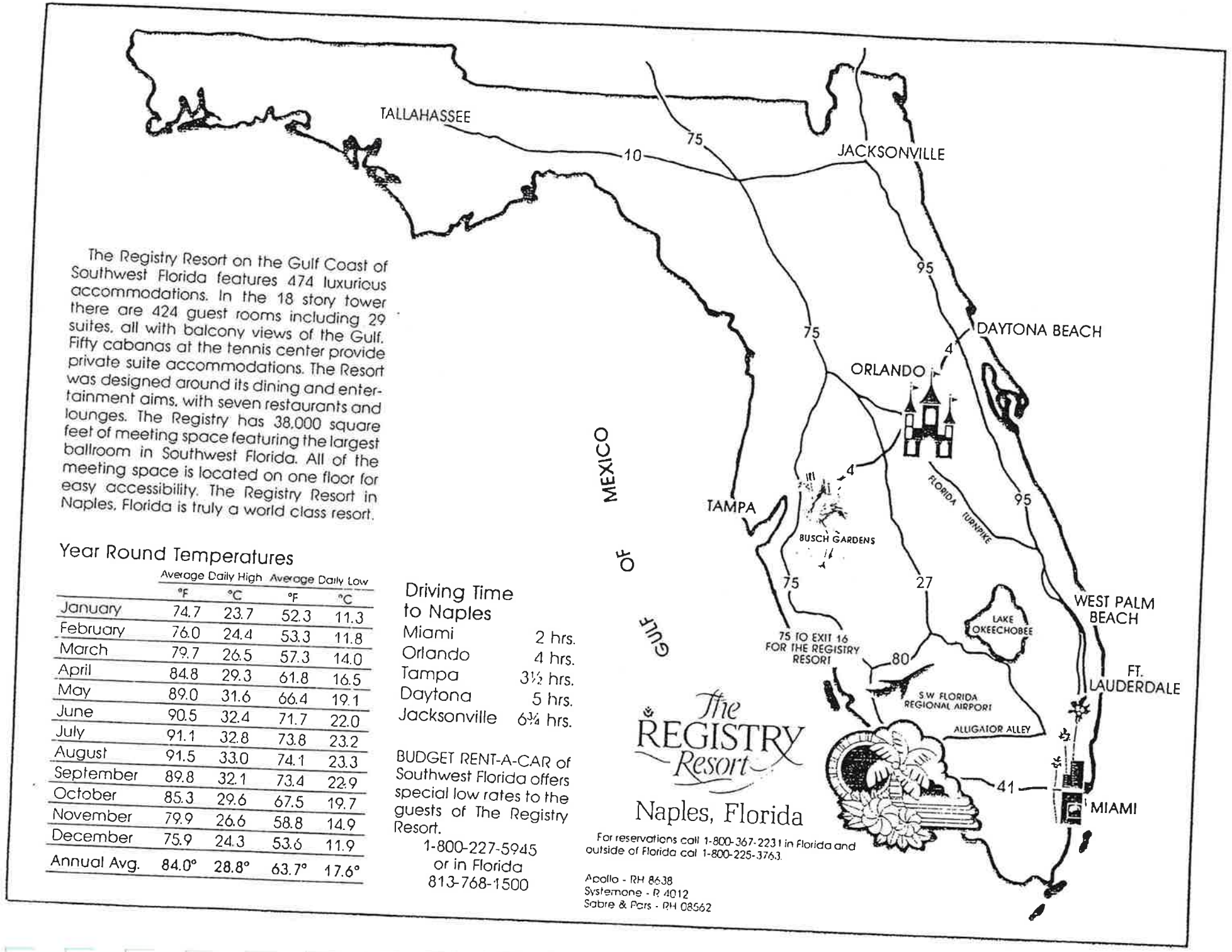
A. Foster Home Custodial Care
B. Drop Off Day Care
C. Interim Custodial Care

SECTION VI

About the Registry Resort and Surrounding Area

NAPLES AREA MAP





The Registry Resort on the Gulf Coast of Southwest Florida features 474 luxurious accommodations. In the 18 story tower there are 424 guest rooms including 29 suites, all with balcony views of the Gulf. Fifty cabanas at the tennis center provide private suite accommodations. The Resort was designed around its dining and entertainment aims, with seven restaurants and lounges. The Registry has 38,000 square feet of meeting space featuring the largest ballroom in Southwest Florida. All of the meeting space is located on one floor for easy accessibility. The Registry Resort in Naples, Florida is truly a world class resort.

Year Round Temperatures

	Average Daily High		Average Daily Low	
	°F	°C	°F	°C
January	74.7	23.7	52.3	11.3
February	76.0	24.4	53.3	11.8
March	79.7	26.5	57.3	14.0
April	84.8	29.3	61.8	16.5
May	89.0	31.6	66.4	19.1
June	90.5	32.4	71.7	22.0
July	91.1	32.8	73.8	23.2
August	91.5	33.0	74.1	23.3
September	89.8	32.1	73.4	22.9
October	85.3	29.6	67.5	19.7
November	79.9	26.6	58.8	14.9
December	75.9	24.3	53.6	11.9
Annual Avg.	84.0°	28.8°	63.7°	17.6°

Driving Time to Naples

Miami	2 hrs.
Orlando	4 hrs.
Tampa	3½ hrs.
Daytona	5 hrs.
Jacksonville	6¾ hrs.

BUDGET RENT-A-CAR of Southwest Florida offers special low rates to the guests of The Registry Resort.

1-800-227-5945
or in Florida
813-768-1500

The Registry Resort

Naples, Florida

For reservations call 1-800-367-2231 in Florida and outside of Florida cal 1-800-225-3763.

Apollo - RH 8638
Systemone - R 4012
Sabre & Pars - RH 08562

Destination: Southwest Regional Airport

— Directions —

1. Exit the hotel drive and turn left onto Seagate Drive.
2. Continue straight approximately 4 miles until you reach I-75.
3. At I-75 turn left heading North.
4. Follow I-75 North to Exit #21 (Daniels Road) and turn right heading East to the Airport. *Travel Time approximately 40 minutes.*

The REGISTRY Resort

Destination: Naples Airport

— Directions —

1. Exit the hotel drive and turn left onto Seagate Drive.
2. Cross over US 41 and continue straight approximately 2.5 miles to Airport-Pulling Road.
3. Turn right onto Airport Road and follow it approximately 4.5 miles. (The Naples Airport will be on your right.)

The REGISTRY Resort

THE BUSINESS CENTER
REGISTRY RESORT

Phone Number (813) 597 - 3232 Facsimile Number (813) 592 - 1901

SERVICE

The Business Center can provide all the tools you need to conduct business as usual when you're away from your office with the same exemplary service you've come to expect from The Registry Resort.

LOCATION AND OFFICE HOURS

The Business Center is conveniently located on the Ballroom level. We are open normal business hours.Extended hours are available upon request.

EQUIPMENT RENTAL

	Week
Typewriter	100.00
Digital Beepers	50.00
Cellular Phone	50.00/week
(plus 1.25 a minute local air time)	
Plain Paper Facsimile Machine	275.00/week
Thermal Paper Facsimile Machine	125.00/week
(includes 1 roll, additional rolls 15.00/each)	

Computers and Table Top Copier Rental.
Please inquire for further information.

Other office equipment and supplies are available.

SHIPPING & POSTAGE SERVICE

Federal Express, U.P.S., and U.S. Postal Service available. Handling charges are based on cost of shipment.

WORKSTATION RENTALS

	Hourly
PC w/color monitor/laser or dot matrix printer	25.00
Laser Prints	.50 per page
Typewriter Station	15.00

Minimum 1/2 hour

FACSIMILE SERVICE

TRANSMISSION - 1 - 3 pgs	5.00
Each additional page	1.00
	Plus Toll Charge

COPY CENTER SERVICES

High quality duplication. Base price includes stapling, enlargements, reductions, and collation of single or doubled sided copies on letter or legal.

Simplex Original Per Sheet	1 - 100 pages	.25
	101 - 250	.20
	251 and up	.15
Duplex Original Per Sheet	1 - 100 pages	.30
	101 - 250	.25
	251 and up	.20

Copier Transparencies (from your originals) 1.50

WORD PROCESSING SERVICES

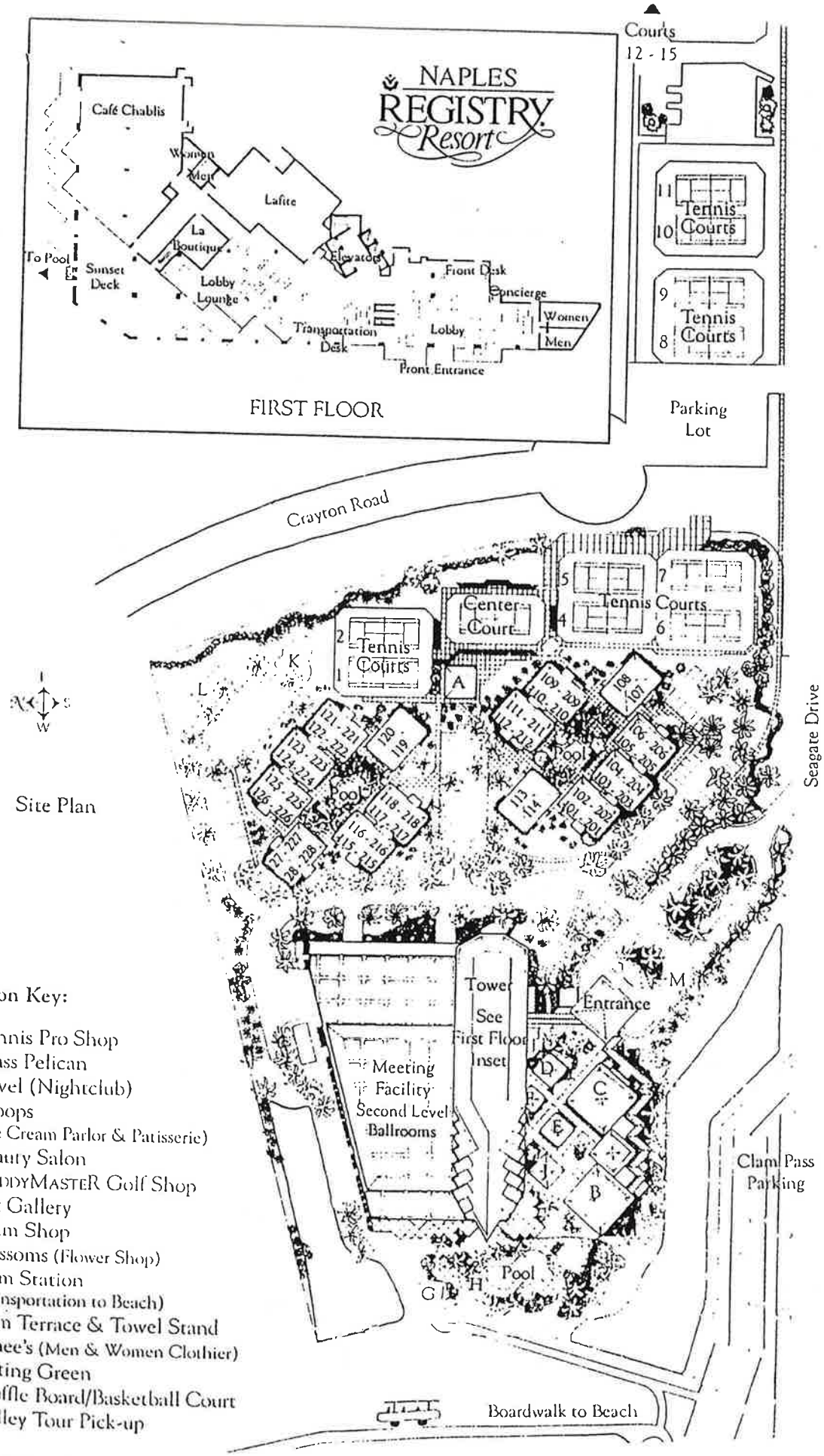
First page	20.00
Each additional page	10.00

(prices based on finished product; single spaced; pro-rated to quarter page.)

ADDITIONAL SERVICES

- Temporary Personnel available for secretarial registration and other convention needs
- Sale of General Office supplies.

Advanced Notice Would Be Appreciated On Special Requirements!



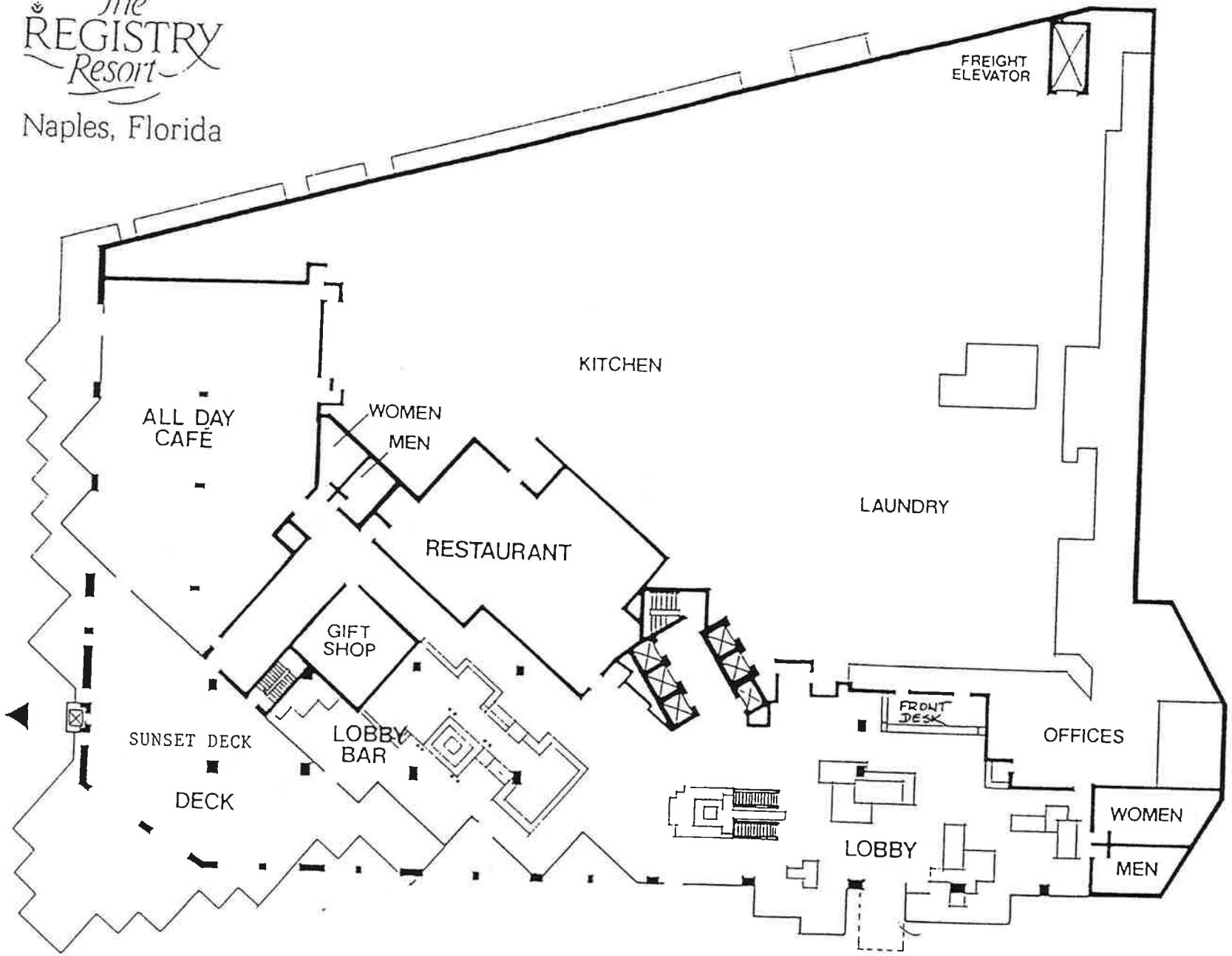
Location Key:

- A - Tennis Pro Shop
- B - Brass Pelican
- C - Revel (Nightclub)
- D - Scoops (Ice Cream Parlor & Patisserie)
- D - Beauty Salon
- E - CaddyMaster Golf Shop
- E - Art Gallery
- E - Swim Shop
- F - Blossoms (Flower Shop)
- G - Tram Station (Transportation to Beach)
- H - Palm Terrace & Towel Stand
- J - Renee's (Men & Women Clothier)
- K - Putting Green
- L - Shuffle Board/Basketball Court
- M - Trolley Tour Pick-up

Childrens's Activities Program & Camp Registry (Ext. 5612) located on the fourth floor in the main tower

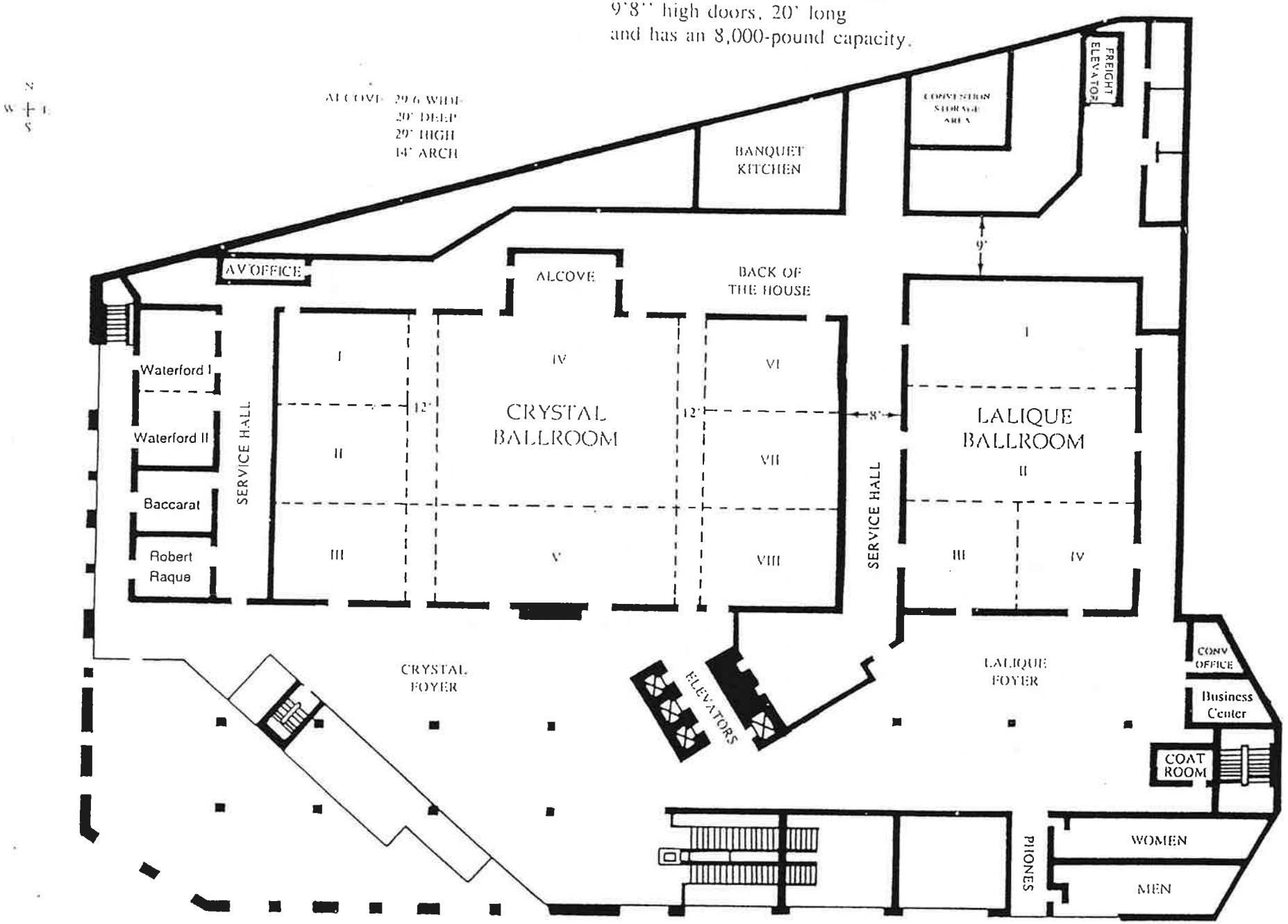
The REGISTRY Resort

Naples, Florida

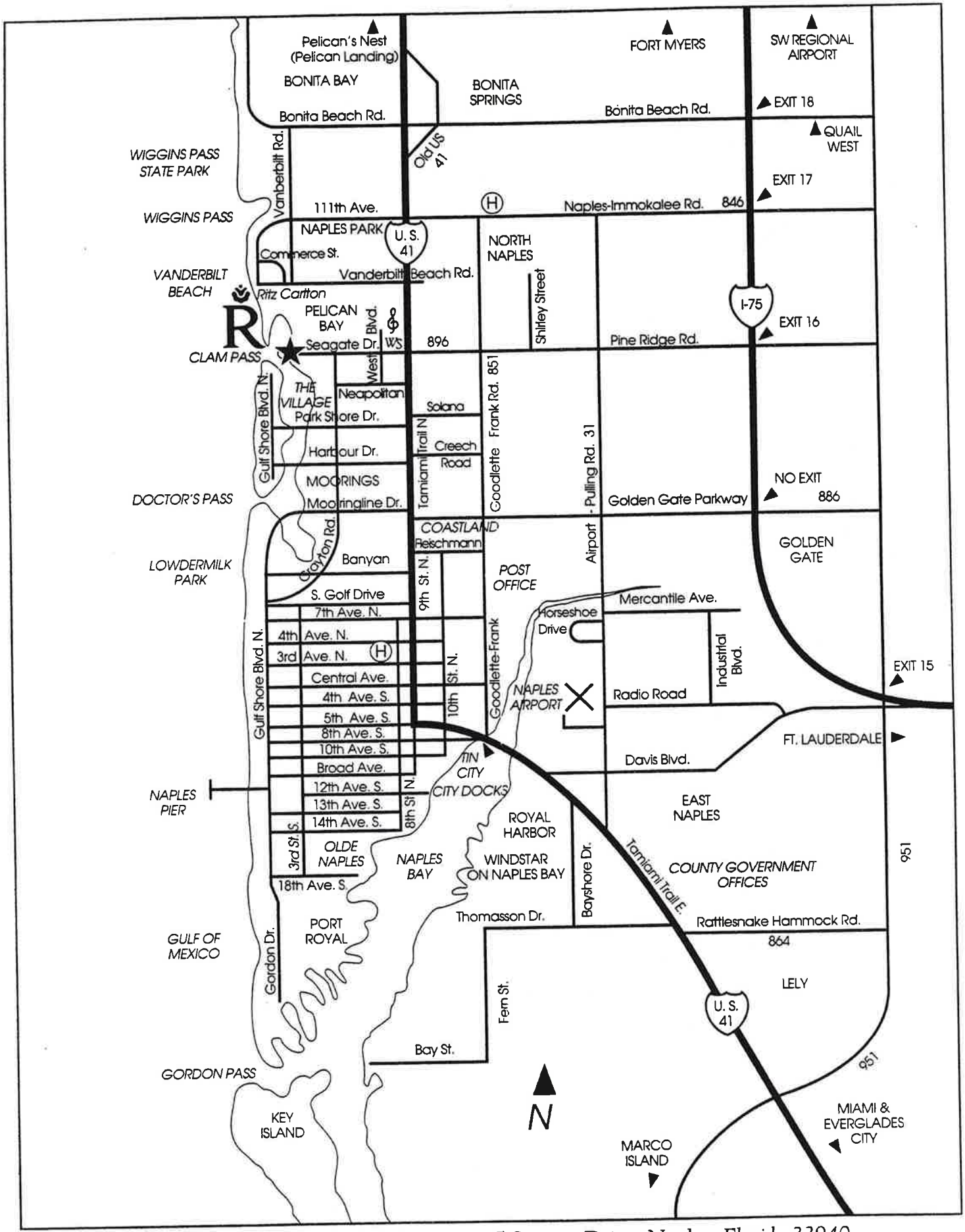


FIRST FLOOR

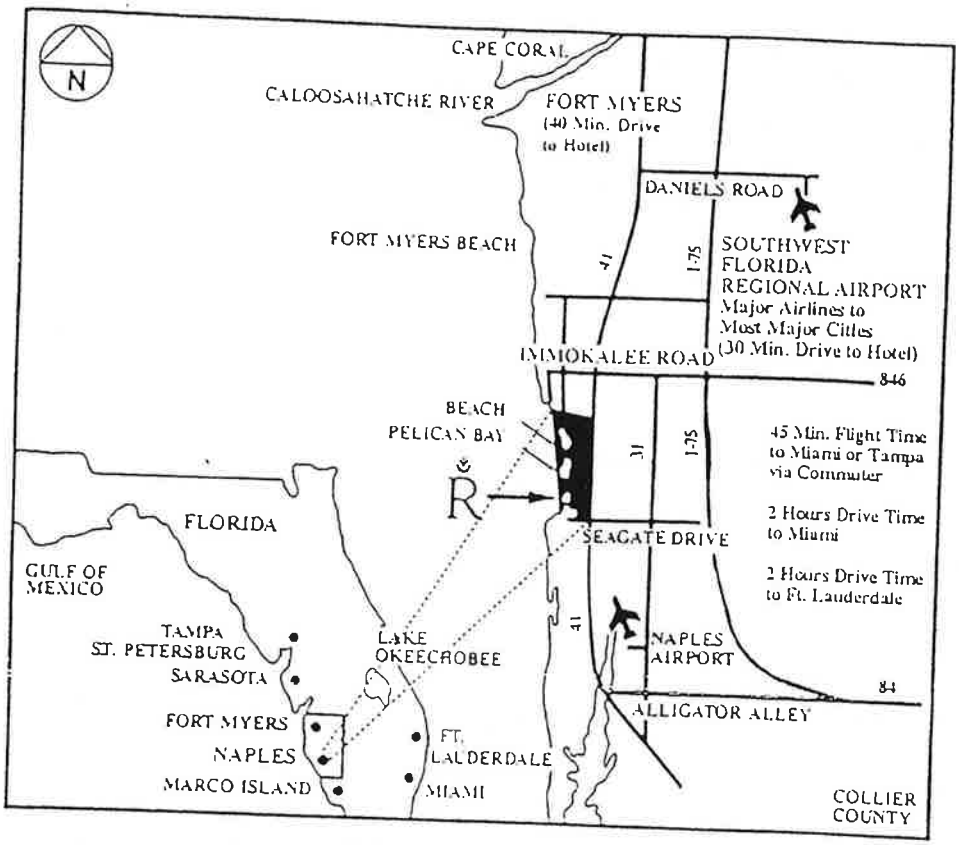
Freight elevator is 7'8" wide,
9'8" high doors, 20' long
and has an 8,000-pound capacity.



SECOND FLOOR
(BALLROOM LEVEL)



Compliments of The Registry Resort, 475 Seagate Drive, Naples, Florida 33940



Naples Fact Sheet Capacity Chart

Room	Dimensions	Total Sq. Ft.	Ceiling Height	Auditorium	Classroom	Reception	Banquet
Crystal Ballroom	166' × 87'	14,442	17'	1,660	900	1,660	1,229
Section I	37'6" × 29'	1,087	17'	125	70	125	93
Section II	37'6" × 29'	1,087	17'	125	70	125	93
Section III	37'6" × 29'	1,087	17'	125	70	125	93
Section IV	66' × 58'	3,828	17'	440	240	440	325
Section V	66' × 29'	1,914	17'	220	120	220	162
Section VI	37'6" × 29'	1,087	17'	125	70	125	93
Section VII	37'6" × 29'	1,087	17'	125	70	125	93
Section VIII	37'6" × 29'	1,087	17'	125	70	125	93
ALCOVE	29'6" × 20'	590	29'				
Lalique Ballroom	99' × 65'	6,435	10'	740	400	740	545
Section I	33' × 65'	2,145	10'	245	130	245	180
Section II	33' × 65'	2,145	10'	245	130	245	180
Section III	33' × 32'6"	1,073	10'	120	65	120	90
Section IV	33' × 32'6"	1,073	10'	120	65	120	90
Robert Raque	21' × 20'	420	12'	48	26	48	35
Waterford I	23'6" × 22'	517	12'	60	32	60	45
Waterford II	21' × 21'	441	12'	50	27	50	38
Baccarat	21' × 20'	420	12'	48	26	48	35
Crystal & Lalique Foyers	Varies	15,477	12'				
Total Meeting Space		22,675					
Total Function Space		38,152					

The REGISTRY Resort

OFF-PROPERTY ACTIVITY LIST

THOMAS EDISON HOME TOUR

Step into the unique world of the winter home of Thomas Alva Edison. See Edison's chemical lab, botanical gardens and museum. (Combination tour with Henry Ford home available.)

Duration: Approximately 1 1/2 hour tour plus approximately two hours round trip travel time.
Limit: Availability

HENRY FORD WINTER HOME

Visit the home of Henry Ford which was purchased so he could spend time visiting his friend, inventor Thomas Edison. Tour the newly renovated estate and six-bedroom house. Combination tours with the Thomas Edison Home are also available.

Duration: 45 minute tour plus approximately two hours round trip travel time.
Limit: Availability

SHOPPING TOURS

Spend a leisurely day shopping at one of Naples unique shopping areas. TIN CITY, VILLAGE AT VENETIAN BAY, 5TH AVENUE SOUTH and 3RD STREET SOUTH. Choose the area that pleases your personal style or experience them all! (Combine with lunch.)

Duration: 1 - 8 hours.
Minimum: No limit

EVERGLADES NATIONAL PARK

A narrated tour in the depths of the Everglades provides an adventure packed with the areas most beautiful and interesting wildlife including alligators, exquisite water birds, tropical plants, sea turtles and manatees while traveling through the mangrove wilderness of the 10,000 islands.

Duration: 1 1/2 hour tour plus two hours round trip travel time.
Minimum: Availability

SIGHTSEEING BOAT CRUISES

Arrange a scenic boat trip for your group including tours of our local bays. Learn historical facts while you enjoy watching our area's most beautiful fauna, birds and flora. Fishing and shelling tours can also be arranged. May include food and beverage if desired.

Duration: 1-5 hours
Minimum: 6-49 people (one boat)

NAPLES SIGHTSEEING

By car, van or trolley, stop at your favorite destinations while getting an overview of the beautiful city of Naples.

Duration: 1-5 hours
Minimum: Open

BABCOCK WILDERNESS TOUR

Enjoy the fun and excitement of traveling in a comfortable swamp buggy through the dark waters of the Telegraph Swamp. Highly skilled guides will make the woods come to life and you will have the opportunity of meeting some woodland creatures. Babcock has the largest reserve in the United States for the endangered Florida panther.

Duration: 2 hour tour plus 2 hours round trip travel time.
Minimum: Availability

WINERY TOUR (IN COMBINATION WITH BABCOCK TOUR)

Experience the beautiful Eden Vineyards Winery and Park. Enjoy the nature trail and boardwalk and take a tram ride through Cypress woods to the winery, or just sit and rock on the porch after a tasting of the wines.

Duration: 1 to 2 hours plus travel time of 2 hours round trip
Limit: Availability

HOGAN ART GALLERY

The HOGAN GALLERY is an enlarged modern replica of the Navajo house called a "hogan". It is like a museum in quality and display but all items are for sale. Enjoy browsing and maybe bring home a treasure or two!

THALHEIMERS AUCTION/GALLERY TOUR

Jewels, oriental carpets and ivory carvings are just a few of the items displayed in this unique gallery. Tour the gallery on your own and join them for an exciting evening "at the auction".

JUNGLE LARRY'S ZOOLOGICAL PARK

Experience JUNGLE LARRY'S which features exotic wild animals, lush and botanical gardens. Included in your adventure is an alligator lecture, petting zoo, tiger training center, a guided tour through 52 acres of Southwest Florida's nature land.

Duration: Travel time of ten minutes each way.
Minimum: Availability

GOLF/PELICAN'S NEST

Tournaments or casual play can be arranged on the immaculately manicured greens of the 27-hole, Tom Fazio designed PELICAN'S NEST championship golf course.

Duration: Travel time of twenty minutes each way.
Minimum: Availability

FISHING

Test your skills on the Gulf of Mexico. Charter boats including those for backwater or deep sea fishing can be arranged. Familiar fish of the area include: Grouper, Tarpon, Snook, Redfish and Trout. Food and beverage can also be provided.

Duration: Half day or full day charters available.
Minimum: Availability

GREYHOUND TRACK

This is one of the finest racing facilities in the country. Matinees, evening fun trips or dining can be arranged.

Duration: Travel time is twenty minutes each way.
Minimum: Availability

COLLIER AUTOMOTIVE MUSEUM

Visit one of the most exciting automotive museums in the country. The museum is dedicated to the preservation and display of one of the world's finest high-performance sports, sports racing and racing car collection. Call for hours.

Duration: Travel time is fifteen minutes each way.
Minimum: Open

TEDDY BEAR MUSEUM

More than 1800 Teddy Bears are on display at this unique museum, including antique and limited edition bears.

Duration: 10 minutes travel time
Minimum: Availability

The REGISTRY Resort

IN-HOUSE ACTIVITY LIST

AEROBIC CLASSES

Our instructor will join your group for an energizing workout. We offer both high and low impact sessions.

Duration: 1 hour.

REJUVENATION BREAK/STRETCH BREAK

Our aerobic instructor will come to your meeting room, stretch and rejuvenate your group and add a great deal of fun to those long seminars!

Duration: 5 - 10 minutes (meeting planner's discretion)

AQUACISE

Join our aquacise instructor for a private water workout. Loads of fun! Splish and splash your way to fitness!

Duration: 1 hour

FITNESS WALK

Your group will enjoy a leisurely stroll through Pelican Bay! Our guide will set the set and all are sure to enjoy!

Duration: 1 hour

BIKE TOUR

Enjoy a leisurely ride through Pelican Bay!

Duration: *1 hour*
Limit: *12 people*

TEE SHIRT PAINTING

Create your own personalized T-shirt masterpieces. All supplies will be provided for you to let your imagination run wild!

Duration: *1 - 1 1/2 hours*
Minimum: *5 people*
Maximum: *15 people*

DRAW THE TROPICS

Join our Naples resident artist for a taste of the tropics! Learn to draw animals and scenes native to Southwest Florida. Beginners welcome.

Duration: *1 hour*
Limit: *12 people*

PORTRAIT SKETCHES

Our artist will sketch individuals or entire groups! A perfect vacation souvenir. Able to work from pictures as well as personal sittings.

Duration: *8-10 sketches per hour*

PRIVATE DRAWING EXCURSIONS

Our resident artist will tour you through Naples and teach you to draw your favorite sights! Private instruction for those wishing to express their creativity. Beginners welcome.

Duration: *4 hours*
Maximum: *3 people*

SCAVENGER HUNT/TREASURE HUNT

A chance to go blundering through the grounds of the Registry Resort. Solve clues, endure obstacles to compete for success!

Duration: 1 -2 hours
Minimum: 10 people

GAME SHOW/BOARD GAME COMPETITIONS

The following activities can be set up for free play or in a tournament fashion:

WIN, LOSE OR DRAW
TRIVIAL PURSUIT
CHECKERS
CHESS
TRIVIA CHALLENGE

CANOE TRIP

Join our guide for an intriguing, informative and exciting canoe trip through Clam Pass. Bring hats, cameras and sunscreen.

Duration: 2 hours
Limit: 40 people

SPECIALTY LECTURES

Tailor a lecture to fit your own groups needs. Allow spouses to enjoy an afternoon while learning something new. The following are suggestions:

1. *Feeling Good About Yourself*
2. *Art Reflections*
3. *Cooking Class*
4. *Makeover/Skin Care Classes*
5. *Wardrobe Analysis and Accessory Coordination*
6. *Self Defense*
7. *Flower Arrangement*

Duration: 1-4 hours
No limit to the number of participants.

FASHION SHOW

From beach wear to formal wear, we can do it all! Relax by the pool or enjoy a show as an excellent addition to a breakfast or luncheon.

BEACH OLYMPIC COMPETITION

For the lovers of surf and sun arrange a mini beach olympics for your group! Builds unity in a competitive fashion! Choose from events such as tug-o-war, obstacle course, sand sculpting, volleyball and many, many others!

Duration: Flexible
No limit to the number of participants.

BEACH ACTIVITIES

Arrange a volleyball tournament for your group or relax and enjoy our "beach toys" including hobie cats, day sailors, canoes, kayaks, aqua bikes, wind surfers and more! Equipment in limited supply.

TENNIS TOURNAMENT

Arrange a "Round Robin" tournament - Men's, Women's or Mixed Doubles. Contact our tennis pro shop for details. Feel free to enjoy our fifteen beautifully manicured Har-Tru courts for casual play as well! Private lessons and clinics can be arranged through our tennis pro shop.

The REGISTRY Resort

Classic Collectic

SPECIALIZED FACIAL AND BODY TREATMENTS

JO TULLO - ESTHETICIAN

1. Algae Full Body Mask - Detox **$65.00**

The special properties of Seaweed and Essential Oils rich in minerals and trace elements that help purify the body by stimulating the sluggish lymphatic system to release trapped toxins leaving skin tissue firm and refined.

2. Algae Full Body Mask - Hydrating **$65.00**

The combination of Seaweed and Essential Oils necessary to hydrate and soften dull, crepey skin. The use of natures minerals and trace elements, amino acids and enzymes, all abundant in Seaweed, helps feed and nourish the body thus encourage cellular repair.

3. M.D. Formulations Body Treatment

Glycolic Acid peel for hands, arms, shoulders, neck & chest for sun damaged skin - smooths & exfoliates crepey skin for a more youthful appearance. In home products available for entire body. Smoothing complex contains a 12% Glycolic solution, physician studied and tested at U.C.L.A. Medical Center.

4. Muscle Relief Treatment **$65.00**

A rich blend of Seaweed and Essential Oils used in conjunction with a stimulating gel that when applied to localized areas helps, detoxify and relieve swollen problem areas such as arthritis and sports related injuries.

5. Sea Mud Treatment **$65.00**

Formulated from Seaweed, Vegetable Extracts and Essential Oils combined together to produce a mud, rich in minerals and trace elements that gently exfoliates and pulls impurities from the body, thus restoring tissue elasticity and leaving a younger, healthier looking skin.

6. Body Salt **$65.00**

Sea Salts are rich in minerals. Combined with either Body Velvet for Dry Room or Sea Gel for Wet Room help stimulate and removes skin debris leaving the skin smooth and hydrated for a healthier, younger look. This is recommended for course textured skin or badly damaged and abused skin. DO NOT SHAVE BEFORE THIS TREATMENT.

7. Body Polish **$65.00**

This deep cleansing treatment exfoliates and removes dead skin cells and surface impurities, while increasing circulation. Leaves the skin hydrated and remineralized. DO NOT SHAVE BEFORE THIS TREATMENT.

The REGISTRY Resort

SWEDISH THERAPEUTIC MASSAGE TREATMENTS

•THE TWO WORST THINGS FOR MUSCLES ARE OVERUSE AND NO USE•

- If the stress and strain of everyday living gets to be too much, massage can help reduce the emotional and mental tensions generated by high-tech, high achievement lifestyles.
- If you are inactive due to age, illness or injury, massage can relieve muscular pain and soreness and improve range of movement by kneading the muscles and tendons.
- If you are an athlete, be aware that muscle tightening is the prime cause of injury and reduced power and performance. Massage will extend the good health and overall life of your athletic career.

Whether you are used to treating yourself to a massage or whether you'd like to start giving yourself or someone you care for the special benefits a massage can give, please let us hear from you.

HOW TO RECEIVE A MASSAGE

Because massage is not yet a commonly experienced method of personal health care, many people do not know how to get the most out of a massage. You may wish to check into the health club early to use the steam or sauna before your appointment. You will receive a robe, slippers, towel and locker key for your personal belongings. Change into the robe. Most people prefer to remove all clothing, but if you feel more comfortable leaving on undergarments, that is fine. Our therapists are trained professionals and will do everything possible to answer your questions and help you feel comfortable. Here are some suggestions:

(1) If you have concerns and/or physical ailments, be sure to discuss them with your therapist.

(2) Let the therapist know if anything feels uncomfortable or if you want more or less pressure. If you are troubled by tension in a particular muscle site (such as back, neck or shoulders) make sure to tell your therapist in advance so they can spend extra time on that area.

(3) Closing your eyes and taking deep breaths during the massage helps focus your attention out of your head and into your body.

50 MINUTE TREATMENTS.....$60.00

25 MINUTE TREATMENTS.....$45.00

Please arrive at least five minutes prior to your appointment. Services cancelled within a four hour notice will be charged.

THERAPEUTIC MASSAGE TREATMENTS

Do yourself a favor... Relax and rejuvenate with a massage at the Registry Resort Health Club.

The kneading of muscles and tendons helps to release tension, eleviate pain, and increase joint flexibility.The increased vascular and lymphatic circulation brings oxygen and nutrition to the muscles and joints which hastens the elimination of harmful deposits. Injured muscle tissue will heal faster through the increased circulation and mental and physical fatigue will diminish from the soothing affect.

You may wish to check in at the Health Club early to use the steam or sauna before your appointment. You will receive a robe and a locker key for your personal belongings. Please change into the robe ; most people prefer to remove all clothing. If you feel more comfortable leaving on undergarments, that is fine. Our therapists are trained professionals and will do everything possible to answer your questions and help you feel comfortable. The following are the different therapies you may choose from.

SWEDISH- A combined relaxing technique to help calm your nervous system and relax surface muscle tension. $65/50 minutes,$45/25 minutes.

DEEP TISSUE- A form of massage which uses pressure therapy pinpointing areas of chronic tension. It is helpful for those who suffer from extreme tightness or sore muscles . (This may involve some discomfort) $85/50 minutes, $60/25 minutes.

AROMATHERAPY- Fragrance and obsorbtion from essential oils are used to enhance the relaxing and therapeutic effects of massage. $85/50 minutes, $60/25 minutes.

JET-LAG/CHAIR MASSAGE- A 15 minute energizing massage using no oils, while seated on a specially designed chair. This treatment concentrates on relieving tension in the upper body. $20./15 minutes.

Note : Services cancelled with less than four hours notice will be charged in full.

NAPLES REGISTRY RESORT HEALTH CLUB

Overlooking the Gulf of Mexico, the Naples Registry Resort Health Club offers state-of-the-art equipment and a trained, knowledgeable and friendly staff. The 5,500 square foot facility offers the following:

Equipment

Three (3) Life Cycles
Three (3) Life Steps
Three (3) Lifestride Treadmills
Two (2) Bodyguard Treadmills
One (1) Monarch Cycle
Two sets Dumbell Free Weights (3 - 50 lbs.)
Cal Gym Weight Equipment
Body Master Weight Equipment
Two (2) Concept II Rowing Machines

Services

Seasonal Aerobic Classes
VCR and Aerobic Videos available daily
Aquasize Classes
Bicycle Rentals and Tours
Fitness Walks
Personal Training Available

Men's/Women's Locker Rooms

Private Redwood Saunas
Private Steam Room
Coed Eucalyptus Steam Room
Private Key-lock Lockers
Weight Scales

Other Services

Swedish Massage
Fresh Fruit and Juice Bar
15 minute "Jet Lag" Massage (seasonal)
Bottled Water
Exercise clothes and merchandise for sale
Loaner workout clothes available

Hours

M-F 6:30am - 8:00pm
SAT 7:00am - 7:00pm
SUN 8:00am - 6:00pm

DAILY WORKOUT FEE - $10.00

Multiple Day Rates:	Single	Couple
3-day pass	$25.00	$40.00
4-day pass	$30.00	$45.00
5-day pass	$35.00	$50.00
6-day pass	$40.00	$55.00

Purchase of the 6-day pass entitles guest to use Club for entire stay.

SECTION VII

FAWQC Officers, Board and Committee Chairmen

FLORIDA ASSOCIATION for WATER QUALITY CONTROL

1995 - 1996 OFFICERS AND BOARD

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Fred Crabill
Southeast Environmental Solutions, Inc.
801 N. Park Road
Plant City, Florida 33566
(813) 752-1289
(813) 757-0721 Fax

Vice Chairman

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Atlanta Testing & Engineering
Imperial Lakes Crown Center, Suite 218
Post Office Box 527
Lakeland,Florida 33807
(813) 644-1337
(813) 644-4628 Fax

Secretary/Treasurer

Dennis Raichart
WOOLF Enterprises
3960 Silveroak Place
Titusville, FL 32796
(407) 269-8212
(407) 269-8212 Fax

Directors

Dale Caldwell
Southeast Environmental Solutions, Inc.
801 N. Park Road
Plant City, Florida 33566
(813) 752-1289
(813) 757-0721 Fax

Marvin Miller
PCS Phosphate - White Springs
P.O. Box 300
White Springs, Florida 32096
(904) 397-8269
(904) 397-8619 Fax

Kathy Englert
Terra Environmental
14902 Winding Creek Court
Suite 101-C
Tampa, Florida 33613
(813) 265-1651
(813) 968-8607 Fax

Lisa Georgiou
Atlanta Testing & Engineering
U.S. 19 North, Suite 101
Clearwater, Florida 34624
(813) 532-4447
(813) 535-3817 Fax

FLORIDA ASSOCIATION for WATER QUALITY CONTROL

1995 - 1996 COMMITTEE CHAIRS

Keynote Speaker

John Wiley
Monsanto Chemical Corp.
P.O. Box 12830
Pensacola, Florida 32575
(904) 968-7582
(904) 968-7220 Fax

Hotel & Sponsors

Sam Zamani
Department of Environmental Protection
8407 Laurel Fair Circle
Tampa, Florida 33610
(813) 744-6100
(813) 744-6457 Fax

Advertising

Lisa Georgiou
Atlanta Testing & Engineering
19321 U.S. 19 North, Suite 101
Clearwater, Florida 34624
(813) 532-4447
(813) 535-3817 Fax

Exhibitors

Kathy Englert
Terra Environmental
14902 Winding Creek Court
Suite 101-C
Tampa, Florida 33613
(813) 365-1651
(813) 968-8607 Fax

Exhibitors

Cheryl Moore
R. H. Moore & Associates, Inc.
8917 Maislin Drive
Building E
Tampa, Florida 33637
(813) 988-0200
(813) 985-4533 Fax

Advertising

Michael Eastman
National Technical Communications Company, Inc.
P.O. Box 2027
Winter Park, Florida 32790-2027
(407) 740-7950
(407) 740-7957 Fax

FLORIDA ASSOCIATION for WATER QUALITY CONTROL

1995 - 1996 COMMITTEE CHAIRS

Sporting Events

John N. (Jay) Allen, Jr.
Regulatory Support Services, Inc.
1701 S. Alexander St., Ste. 111
Plant City, Florida 33567
(813) 754-3720
(813) 752-3303 Fax

Attendance

Alan Goldstein
South Florida Water Management District
305 E. North Park Street
Okeechobee, Florida 34972
(813) 763-2128
(813) 763-3872 Fax

Federal Regulation

Bruce Barrett
Bruce Barrett & Associates
223 The South Chase
Atlanta, Georgia 30328
(404) 257-0481
(404) 257-0908 Fax

Field Trip

Jon Hull
Atlanta Testing & Engineering
19321 U.S. 19 North, Suite 101
Clearwater, Florida 34624
(813) 532-4447
(813) 535-3817 Fax

Legal

Tom Patka
Holland & Knight
P.O. Box 1288
Tampa, Florida 33601
(813) 227-8500
(813) 229-0134 Fax

SECTION VIII

Conference Survey

FLORIDA ASSOCIATION FOR WATER QUALITY CONTROL

19th Annual Conference Survey
June 19 - 22, 1996
Naples, Florida

Upon completion of the conference, please complete this survey and give it to a FAWQC staff member or mail it to: FAWQC, P.O. Box 8232, Lakeland, Florida 33802-8232. Your input will help FAWQC plan conferences that are valuable and enjoyable to you, so please take a few minutes to complete this evaluation.

1. Overall, the conference was: ( ) Excellent ( ) Very Good ( ) Good ( ) Fair ( ) Poor

2. Overall, the faculty was: ( ) Excellent ( ) Very Good ( ) Good ( ) Fair ( ) Poor

3. Would you be interested in attending this type of conference on an annual basis?
( ) Yes ( ) No

4. The length of the conference was: ( ) Too long ( ) Just right ( ) Not long enough

5. What topics would you like to see added/deleted/emphasized for future conferences?
(Please provide comments on topics of interest to you.)

RCRA/HSWA Update _____
Water Use and Permitting Strategies _____
Risk Assessment _____
Wetlands Permitting/Ecosystems Management _____
Annual Legislative/Regulatory Update _____
NPDES Delegation _____
Compliance Auditing Strategies _____
Water Wars Panel _____
ISO/Environmental Management Systems _____
Florida Storage Tank Program Update _____

FLORIDA ASSOCIATION FOR WATER QUALITY CONTROL

19th Annual Conference Survey

June 19 - 22, 1996

Naples, Florida

6. What criteria are important to you in determining whether to attend a conference? (Number in order of priority.)

( ) Speakers ( ) Topics

( ) Location ( ) Opportunity for Networking

7. What locations do you prefer for conferences?

_____

_____

8. Which of the following are you interested in receiving in the future?

( ) FAWQC Newsletter

( ) Notices/mailouts regarding upcoming conferences

NAME: _____

TITLE: _____

COMPANY: _____

ADDRESS: _____

_____

PHONE/FAX _____

E-MAIL ADDRESS: _____