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May 15, 1996

BY HAND DELIVERY

Ms. Blanca S. Bayó
Director, Records & Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. [REDACTED] 051056-WS

Dear Ms. Bayó:

Enclosed for filing on behalf of Dunes Community Development District (Dunes) are the original and 15 copies of the prefiled direct testimony of Arsenio Milian and Gary Moyer.

By copy of this letter this document has been provided to the parties on the attached service list.

Very truly yours,

Richard D. Melson

Richard D. Melson

- ACK
- AFA 2
- APP
- CAF
- CMU RDM/cc
- CTR Enclosures
- ~~FRS~~ Parties of Record
- LEG 1
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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing was furnished by hand delivery this 15th day of May, 1996, to the following:

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DUNES COMMUNITY DEVELOPMENT DISTRICT

DOCKET NO. 951056-WS

PREFILED DIRECT TESTIMONY OF ARSENIO MILIAN, P.E.

Q. Please state your name and business address.

A. My name is Arsenio Milian. My business address is 2025 S.W. 32nd Avenue, Miami, Florida 33145.

Q. By whom are you presently employed, and in what capacity?

A. I am President of the firm Milian, Swain & Associates, Inc. (MSA), which was established to provide civil and environmental engineering consulting services as well as utility management, systems valuation and rate consulting services.

Q. Please state your educational background and professional experience.

A. I have received both B.S. and M.E. degrees from the University of Florida. After graduating, I worked for Post, Buckley, Schuh, & Jernigan, Inc. in Miami for one year. I was then employed by The Deltona Corporation in August, 1969, as Utilities Engineer. In 1972, I became Chief Utilities Engineer for Deltona, a position in which I served until December 1975, when I became Vice-President of Utility Operations. In December 1982, I became President of all Utility Divisions, a position I

1 held until June 1989. I have been President of MSA since that time.

2

3 Q. What professional licenses do you hold?

4 A. I have been a licensed professional engineer in the State of Florida since
5 1972.

6

7 Q. What professional and civic organizations are you associated with?

8 A. A complete list of my professional and civic activities is included in the
9 resume attached as Exhibit ____ (AM-1). For example, I am a member of
10 the American Water Works Association, American Society of Civil
11 Engineers, Water Environment Federation, and National Association of
12 Water Companies. I am a member of the Dade County Environmental
13 Task Force and the Technical Advisory Committee of the Governor's
14 Commission For a Sustainable South Florida. I am also President of
15 Citizens for a Better South Florida, a Council member of the Wilderness
16 Society, Board member of 1000 Friends of Florida, and Governor's
17 appointee to the Miami River Coordinating Committee. I serve as a Board
18 member of the National Audubon Society and as Chairman of its
19 Everglades Campaign. I served a four year term as a member of the
20 Governing Board of the South Florida Water Management District and was
21 its representative on the Policy Advisory Committee on the Dade County
22 West Well field, the Committee on Inter-District Water Transfer and the
23 Lake Okeechobee Technical Advisory Committee. I have also served on

1 the State Environmental Land Management/Study Committee (ELMS III)
2 and the Florida Economic Growth & International Development
3 Committee.

4
5 Q. Have you attended professional seminars?

6 A. Yes, I have attended numerous seminars relating to water quality and
7 treatment, wastewater treatment and disposal, utility management,
8 environmental issues, NARUC seminars on rates and regulation of water
9 utilities, and others.

10

11 Q. Have you previously testified before regulatory bodies?

12 A. Yes, I have testified as an expert witness in rate hearings before the
13 Florida Public Service Commission. Additionally, I have appeared before
14 the St. Johns, Hillsborough, and Collier County Boards of County
15 Commissioners in water and sewer rate proceedings.

16

17 Q. In each of these proceedings, were you qualified as an expert witness?

18 A. Yes, I was qualified as an expert in connection with utility engineering,
19 utility operations and utility regulation.

20

21 Q. Have you previously testified before this Commission on the issue of
22 Effluent Reuse Rates?

23 A. Yes. I testified in the following Dockets on this issue: No.850151-WS,

1 No. 870743-SU and No. 870980-WS.

2

3 Q. What is the nature of your assignment in this rate case?

4 A. I have been engaged by Dunes Community Development District (Dunes)
5 to address Palm Coast Utility Corporation's (PCUC) proposed Effluent
6 Reuse Rate.

7

8 Q. What documents have you reviewed in this regard?

9 A. I have reviewed documents filed by PCUC in its Application for rate
10 increase, including the "Effluent Reuse Rate Analysis," the "Used and
11 Useful Analysis" and the portions of MFR's and prefiled testimony related
12 to the proposed effluent reuse rate. In addition, I have reviewed Effluent
13 Agreements between Dunes and PCUC, public records on file with the
14 Florida Department of Environmental Protection (DEP) and the St. John's
15 River Water Management District related to PCUC, and engineering,
16 financial and administrative records of Dunes.

17

18 Q. In your opinion is the effluent reuse rate proposed by PCUC consistent
19 with the policies of DEP and the Water Management Districts?

20 A. These agencies have made it policy to encourage and in many cases require
21 reuse of effluent for irrigation. Both agencies require water reuse in their
22 permits to PCUC. To the extent that higher rates for effluent reuse will
23 discourage reuse for irrigation, the proposed rates would, in effect, be

1 contrary to the implementation of the policies of these agencies.

2

3 Q. In your opinion, what factors should be considered in determining whether
4 a reuse rate should be established and in setting a rate if one is determined
5 to be appropriate?

6 A. There should be a feasibility analysis which evaluates the alternatives
7 available to the wastewater utility and the recipient of the effluent, the
8 costs of these alternatives and the benefits received by each party. The
9 costs of the additional treatment necessary to meet regulatory requirements
10 for effluent irrigation to public access areas should be identified. The
11 appropriate sharing of these incremental costs should be determined based
12 on the relative benefits received by each party.

13

14 Q. Does PCUC's Effluent Reuse Analysis and the proposed rate take these
15 factors into consideration?

16 A. No. Apparently these factors were not considered in calculating the
17 proposed rate. I believe if they had been properly considered, no rate
18 would have been proposed. PCUC provides unfiltered effluent to Dunes
19 under the Effluent Agreement between PCUC and Dunes. This unfiltered
20 effluent is wastewater which has received secondary treatment, making it
21 suitable for disposal via land application only in non-public access areas.

22

23 The point of delivery is defined in the Effluent Agreement as the pump

1 transport effluent from the plant site to the ponds and additional wet
2 weather storage facilities. Without an extensive study, it is impossible to
3 know whether percolation ponds are a viable option, how much land would
4 be required and what the cost would be.

5
6 The third and fourth alternatives identified - disposal into a deep injection
7 well and ocean outfall - are undesirable alternatives from an environmental
8 and water resources standpoint. DEP and the Water Management Districts
9 do not encourage the use of deep injection wells for effluent disposal
10 because the water is a limited resource that should be returned to the
11 aquifer. Obtaining a permit for deep injection well or ocean outfall is a
12 long and costly process. It is unlikely that either of these effluent disposal
13 methods would be feasible for PCUC.

14
15 Effluent disposal to Dunes is by far the best and least-cost alternative to
16 PCUC. In fact, it is a no-cost alternative since PCUC has incurred no
17 incremental costs in providing effluent to Dunes. Dunes has invested over
18 \$4 million in its effluent reuse facilities, including the cost of the pumps
19 located on PCUC's wastewater treatment plant site, the 12" main which
20 transports effluent to Dunes, filters, chlorination facilities, wet weather
21 storage, meters and distribution mains within the Community Development
22 District. In addition, Dunes pays all of the operating and maintenance
23 costs associated with disposal of the unfiltered effluent it receives from

1 PCUC, including the power costs for operation of the effluent pump station
2 located at PCUC's wastewater treatment plant. I have never seen an
3 effluent reuse arrangement so clearly beneficial to the utility since disposal
4 of the effluent is accomplished solely at the expense of the recipient of the
5 effluent. Usually the utility must pay for most of the investment associated
6 with effluent reuse, including pumps, mains and additional treatment
7 equipment.

8

9 Q. What other benefits does PCUC receive as a result of its arrangement with
10 Dunes?

11 A. In addition to reduced costs associated with effluent disposal as described
12 above, PCUC benefits from its agreement with Dunes in that PCUC's
13 requirements for wet weather storage facilities are reduced by the amount
14 of effluent disposal Dunes is obligated to take. PCUC is not obligated to
15 supply Dunes with any quantity of effluent, but Dunes is obligated to take
16 at least 300,000 gallons each day and an annual average of 600,000 gallons
17 per day. Dunes has agreed to use its best efforts to take an annual
18 average of 1.6 MGD. It is likely that PCUC would not have received a
19 permit for expansion of its wastewater treatment plant if it did not have the
20 Effluent Agreement with Dunes. In February, 1994, DEP cited PCUC for
21 heavy ponding and run-off from its spray field sites into neighboring
22 wetlands. The addendum agreement between Dunes and PCUC provided
23 PCUC with an interim solution to this problem. The current Effluent

1 Agreement has provided an ongoing solution for PCUC. PCUC's permit
2 for expansion of the wastewater treatment plant, issued June, 1994 and
3 modified February, 1995, designates Dunes as one of the reuse areas
4 where unfiltered effluent will be sent.

5
6 Q. Does Dunes also receive benefits under the Effluent Agreement?

7 A. Yes. Under the agreement, Dunes has a source of water for irrigation
8 that, even with the additional treatment costs required to make it suitable
9 for application to public areas, is less expensive than the alternative -
10 potable water. But it is important to note that Dunes has incurred all of
11 the incremental costs associated with receiving the unfiltered effluent it
12 receives from PCUC. In other words, it is a symbiotic arrangement where
13 both parties benefit.

14
15 Q. Should an effluent reuse rate be established?

16 A. No. In prior cases, the Commission has taken the position that where both
17 parties benefit there should be a sharing of the incremental costs. In this
18 case both parties benefit and 100% of the incremental cost is already borne
19 by Dunes.

20
21 Q. Do you have any additional comments about PCUC's Effluent Reuse Rate
22 Analysis?

23 A. Yes. The analysis does not take into account the fact that the unfiltered

1 effluent PCUC provides to Dunes does not meet the regulatory
2 requirements for land application to public access areas. Most utilities
3 utilizing spray irrigation to public access areas as a means of effluent
4 disposal have been required to invest in all or most of the facilities
5 associated with additional filtering and chlorination/disinfection as well as
6 delivery of effluent to its final destination (e.g.: golf course). If PCUC
7 provided this level of service to Dunes, then an allocation of some of the
8 incremental cost to Dunes may be appropriate.

9
10 The rate base identified as Effluent Reuse in PCUC's Analysis consists
11 primarily of land and treatment and disposal equipment associated with the
12 6.0 MG effluent storage tank and 1.0 MGD RIB "necessary to provide
13 effluent reuse water for irrigation purposes." These two items of plant are
14 not necessary to provide effluent reuse water to Dunes. The 6.0 MG
15 effluent storage tank was constructed to provide wet weather storage for
16 PCUC. Dunes would be happy to accept its effluent directly from the
17 wastewater treatment plant if the 6.0 MG storage tank had not been
18 constructed. Dunes has its own facilities for wet weather storage of reuse
19 effluent. As for the 1.0 RIB, PCUC is prohibited under paragraph I. C.
20 of the Effluent Agreement from providing unfiltered effluent to Dunes
21 from the RIB: "Delivery of effluent to DCDD [Dunes] shall be from the
22 ground storage tank, chlorine contact chamber or other closed system via
23 piping owned and maintained by PCUC." The RIB is not within the

1 delivery train. PCUC's investment and operating costs associated with
2 these facilities are in no way allocable to unfiltered effluent delivered to
3 Dunes. Therefore, no rate base should be charged to Dunes.

4
5 In the Analysis, operating and maintenance costs allocated to Effluent
6 Reuse include Sewer Operating Salaries, Administrative and General
7 Salaries allocated based on Sewer Operating Salaries, Chemicals and Rate
8 Case Expense. Paragraph I. A. of the Effluent Agreement provides that,
9 "DCDD [Dunes] shall be responsible for all costs associated with the
10 operation and maintenance of the pump station, including but not limited to
11 labor, materials, utilities and additional and replacement equipment."

12 Dunes has paid these costs and others incurred by PCUC related to the
13 unfiltered effluent it receives. I have reviewed PCUC's invoices to Dunes
14 for direct costs incurred in 1995 totaling \$1,064.87. The invoices include
15 charges for chlorine, fuses and labor for work at the pump station and on
16 effluent lines owned by Dunes. It appears that PCUC has invoiced Dunes
17 for even very minor expenses incurred in providing unfiltered effluent to
18 Dunes and Dunes has reimbursed these expenses.

19
20 I do not believe that PCUC has incurred any incremental labor costs that
21 are allocable to Dunes. Chlorine used in the treatment process at the
22 wastewater treatment plant is a cost that would be incurred regardless of
23 the means of effluent disposal employed by PCUC. It is not an

1 incremental cost and is therefore not attributable to Dunes.

2

3 All other costs allocated to Effluent Reuse in the Analysis are allocated
4 based on those items of rate base and operating and maintenance expense
5 discussed above. Since no incremental investment and no operating and
6 maintenance expenses are attributable to Dunes, there should be no
7 allocation of PCUC's Administrative and General Salaries, Rate Case
8 Expense, Intangible Plant, Common Plant and associated Accumulated
9 Depreciation and Depreciation expense, Regulatory Assessment Fees and
10 Return on Rate Base. Consequently, no Effluent Reuse Rate should be
11 established.

12

13 In analyzing the arrangement - the costs incurred by Dunes and the benefits
14 received by both parties - I conclude that Dunes has paid the lion's share
15 of the costs while PCUC is the primary beneficiary under this
16 arrangement. In effect, Dunes has provided adequate effluent disposal to
17 PCUC at no cost to PCUC and its customers. PCUC's rates to its
18 customers are already kept lower as a result of the agreement with Dunes.

19

20 Q. Does this complete your direct testimony at this time?

21 A. Yes.

22

23

ARSENIO MILIAN, P.E.
PRESIDENT

PROFESSIONAL SPECIALIZATION

Engineering, management, design, permitting and operation of utility and solid waste systems.

GENERAL EXPERIENCE

Milian, Swain & Associates, Inc., President, 1989 - present.
President, Utility Subsidiaries of The Deltona Corporation (TDC), 1983-1989.
Senior Vice President, TDC, 1987-1989.
Vice President, Utility Subsidiaries of TDC, 1975-1983.
Chief Utilities Engineer, Utility Subsidiaries of TDC, 1972-1975.
Junior Engineer, Post, Buckley, Schuh & Jernigan, Inc., 1968-1969.

RELEVANT EXPERIENCE

Environmental Permitting

Participated and directed negotiations with key members of various regulatory agencies in the procurement of permits required for the construction and operation of numerous utility facilities. Recent projects include Class IV permits from the Department of Environmental Resources Management (DERM) - Dade County for the Miami Dade Water and Sewer Department (MDWASD), and SFWMD permits for the Dade County Aviation Department.

Stormwater Utility Systems

Participating in development of stormwater master plan for the City of Hialeah, which will include data acquisition and development, operating and maintenance staff and equipment evaluation, review of funding and permitting aspects of the Phase I Pilot Study Area Master Plan. Additional participation will include aspects of the Pilot Study Area Design, and the City wide Master Plan.

Participated in the National Pollutant Discharge Elimination System (NPDES) permitting process for the City of Miami, with responsibilities including the identification and evaluation of regulatory and permitting programs affecting stormwater management practices, development and evaluation of public information programs, assessment of operation and maintenance activities, and obtained outside funding for portions of the program.

Developed a preliminary needs analysis for several municipalities in Metropolitan Dade County by analyzing available information.

Participated in the first phase of a stormwater utility system for Metropolitan Dade County, with responsibilities related to the analysis of administrative, operating and maintenance costs, prioritizing system requirements, and creation of stormwater utilities for the City of Coral Gables and the City of Miami Beach.

Directed and supervised the preparation and regulatory approval of several stormwater management plans for construction debris land fill installations.

Solid Waste

Participated in the development of a solid waste management master plan for Metropolitan Dade County, which required the assessment of alternatives to solid waste disposal. Responsibilities included providing information to the public, acting as liaison with Citizens' Task Force, organizing and supervising the waste stream composition analysis, establishing goals, objectives, and alternative evaluation criteria.

Utility System Valuations

Supervised and directed performance of system valuations, including performance of replacement cost studies, reproduction cost studies, and original cost studies.

Engineering - General

Planning, design and construction of land development, roadway, and drainage projects. Coordinated preparation of relevant parts of DRI for new developments. Worked closely with local, regional, State and Federal agencies. Design of wastewater collection, pumping, treatment and disposal system and paving and drainage for large commercial business site. Participated and visited several Central and South American Countries in order to conduct on-site inspections and make recommendations for the preservation, protection and improvement of environmental quality of natural systems and existing wastewater systems.

Utility Management

Responsible for the preparation and control of all capital and operational budgets of the Utility Divisions. Directed, analyzed and made recommendations for long range planning, feasibility studies and rate increase applications. Defined organizational structure and achieved improved productivity. Responsible for the management and coordination of all engineering staff, establishment of basic design criteria to be used for all network systems and treatment facilities.

Managed the operation of the numerous water and wastewater treatment facilities for all Deltona Corporation planned communities in the State of Florida. Treatment processes included lime softening, iron removal, and different modes of the activated sludge treatment.

Water Systems - Community Development

Resource management planning, including location and assessment of underground potable water sources, water supply wellfields, treatment, storage and high service pumping, transmission and distribution for all Deltona Corporation communities. Treatment systems included planning and design of lime softening and iron removal plants.

Wastewater Systems - Community Development

Supervision of design and construction of wastewater treatment plants ranging in capacities from .70 MGD to 2.5 MGD, included trickling filters, extended aeration and contact stabilization processes. Design, certification and construction management of wastewater collection systems, lift stations, and force mains.

EDUCATION

Bachelor of Civil Engineering	University of Florida -1967
Master of Engineering	University of Florida -1968

REGISTRATION

Professional Engineer Florida #13134

MEMBERSHIPS (Past and Present)

- American Waterworks Association
- American Society of Civil Engineers
- Citizens for a Better South Florida - President
- City of Miami Planning Advisory Board
- City of Miami Zoning Board
- Dade County's West Wellfield - Policy Advisory Committee
- Dade County's Environmental Endangered Land Acquisition Committee
- Environmental Education Foundation of Florida - Board of Directors
- Florida Economic Growth & International Development
- Florida Waterworks Association
- Miami River Coordinating Committee - Board Member
- National Audubon Society - Board of Directors
- The Nature Conservancy, Florida Chapter - Board of Trustees
- South Florida Water Management District - Governing Board
- State Environment Land Management Study Committee (ELMS III)
- 1000 Friends of Florida - Board of Directors
- The Wilderness Society - Governing Council
- Water Pollution Control Federation

AWARDS

- 1994 Conservation Award - Everglades Coalition
- 1991 Sustainable Development Award - Global Tomorrow Coalition
- 1991 Thomas Barbour Medal - Fairchild Tropical Garden
- 1990 Conservation Award - Tropical Audubon Society