### SUPPLEMENT

to

### PRELIMINARY ENGINEERING REPORT

### 

DARE COUNTY REGIONAL WATER SUPPLY SYSTEMS

SEPTEMBER 1974

HENRY VON OESEN AND ASSOCIATES, INC. Consulting Engineers & Planners Wilmington, North Carolina 28401

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### + SUPPLEMENT +

### PRELIMINARY ENGINEERING REPORT

### DARE COUNTY REGIONAL WATER SUPPLY SYSTEM

**INTRODUCTION** 

### General

This Preliminary Engineering Report (PER) Supplement has been prepared to comply with Farmers Home Administration (FHA) Instruction 442.1, Guide 7. The Dare Beaches Water and Sewer Authority (DBW&SA) has previously had a PER prepared (with Addendum I and II), which proposes a regional water supply system for the Dare Beaches area. This PER and addenda provide a detailed analysis of the proposed project, including an overall system plan, water supply source investigation and analysis, and detailed cost and economic feasibility analyses to demonstrate the viability of the proposed project.

Since completion of the PER, meetings have been held with representatives of the North Carolina Local Governments Commission and other State and Federal agency representatives. It has been determined that Dare County should be the sponsor for the project and that the undertaking can be supported by General Obligation Bonds supplemented by grant assistance by the State (under the Clean Water Bond Act) and cooperating Federal agencies. The Dare County Board of Commissioners and other participating local units of government have, by resolution, indicated their acceptance, desire and intent to proceed with the regional water supply project as proposed in the preliminary engineering reports prepared for the DBW&SA. Copies of these resolutions are attached as Appendix A to this report.

### Purpose

The purpose of this PER Supplement is to revise and update the preliminary cost estimates and other financial data included in the original
PER and to present this data in a format compatible with FHA Guide 7.
The data presented in the original PER (September 1973) and Addenda I
(January 1974) and II (April 1974) are used extensively as a basis for the
information presented in this PER Supplement and should be referred to
for details pertaining to the project. Where changes are presented,
these are referenced in appropriate sections of the earlier reports.

### II GENERAL PROJECT DATA

### A. Area to be Served

The Dare Beaches Water and Sewer Authority service area is described in detail in the September 1973 PER and is generally defined as that part of the Dare Beaches area extending between Oregon Inlet on the south and the Currituck County line on the north. Although water distribution throughout Roanoke Island and the nearby mainland areas is not included in the Phase I project, provisions are made in the PER for expanding service to these areas when required or desired.

### B. Existing Facilities

There are no existing <u>regional</u> water supply facilities in the Dare Beaches area. The communities of Nags Head and Kill Devil Hills have separate existing water supply systems. However, their source of water supply (fresh water pond) is seriously overtaxed and incapable of meeting supply requirements during peak demand periods. These systems and the water supply problem are discussed in detail on Pages 13-14 in the September 1973 PER.

Both of the community systems referenced above are in good condition and will be integrated into the proposed regional system under the continued ownership, operation and maintenance of the two towns. These communities will become "bulk water supply" customers in the regional system (see pages 49-51 in the PER and other information in later sections of this supplement).

### C. Proposed Facilities and Service

A detailed description of the proposed regional system is presented on Pages 24-32 of the September 1973 PER. The Kitty Hawk (North) and other possible service area distribution systems are described in detail on Pages 33-47 of the PER. Alternative plans are discussed.

Land requirements for the project are described in the above referenced sections of the PER. Fourteen (I4) well sites of approximately one-acre each on Roanoke Island will be required to support the project. Tentative locations have been identified and three of these sites have been acquired. Easements or fee purchase of the other sites will have to be negotiated. Approximately two acres of land (on Roanoke Island) will be required for the water treatment facility. A small piece of land will have to be acquired for location of an elevated storage tank in the Kitty Hawk (North) service area. It is planned that all trunk supply and distribution lines will follow public roads and rights of way, thereby eliminating the need for any major land acquisition to support the project.

### D. Proposed System

Proposed system descriptions are outlined in detail in the sections of the PER described in "C" above. Water supply sources are discussed

in detail in Pages 13-24 of the September 1973 PER, and PER Addendum I (January 1974) gives a detailed description and analysis of the findings of the research and test well drilling program conducted to prove the adequacy of the proposed source of supply.

Storage, treatment and distribution system requirements are also defined in the above referenced sections of the preliminary engineering reports. It was noted on Page 25 of the PER that "The hardness of the water (about 150 ppm) is in a range where softening may be desirable but is not absolutely necessary." Although it is planned that some minimum treatment will be provided for certain chemical and pH adjustments, the costs for providing additional softening would be extremely high and are considered to be economically infeasible in the initial project. However, space will be provided for the addition of softening equipment (as mentioned in the PER) if this proves desirable at some future time. The quality of water from the identified principal aquifer is considered to be excellent and meets all prescribed standards for public water supply.

### III CONSTRUCTION COST ESTIMATES

Part II, Section 5F of the September 1973 PER (pages 30-42) presented preliminary construction cost estimates for the proposed regional water supply and Kitty Hawk-North distribution systems. Addendum II (April 1974) addressed combining these two separate projects into a single project and gave a gross estimate of the proposed combined project construction costs. This data has been further revised and updated to reflect projected costs for the project through June 1975 as shown in the following estimate tabulations.

REVISED COST ESTIMATE: COMBINED DARE BEACHES WATER & SEWER AUTHORITY PROJECTS

Main Water Supply System and Kitty Hawk (North) Distribution System

## A. REGIONAL WATER SUPPLY AND TRUNK DISTRIBUTION SYSTEM

		•
(I) Water Supply Facilities		
Water Supply Wells		
10" deep well with auxiliary por	wer 7 8 \$20,000	\$ 140,000
10" deep well with auxiliary por 10" deep well with electric motor	or only 7 17.142	120,000
	Total Amount - Wells	\$ 260,000
(2) Water Supply Field Pipelines		200,000
24" water pipeline	80001 22.00	\$ 176,000
20" water pipeline	44001 19.00	83,600
18" water pipeline	33001 16.50	54,450
12" water pipeline	3600' 11.50	41,400
8" water pipeline	74001 8.00	59,200
Pipeline valves	Lump Sum	15,000
Fittings, pavement repair, etc.	Lump Sum	25,000
	Total Amount - Pipeline	\$ 454,650
	•	121,030
(3) Water Storage and Control Facilities	3	
I million gallon elevated tank		\$ 540,000
l million gallon ground reservoir		150,000
Pump house, controls, pumps, etc.	•	125,000
	Total Amount - Storage & Pumping	\$ 815,000
(4) m: 11		
(4) Pipeline to Service Areas		
Pipeline to Nags Head and Kill Dev	il Hills plants and Kitty Hawk District	
24" pipeline ground	51,500' 22.00	\$1,133,000
24" pile bents	4500 70.00	310,500
24" subaqueous	600 240.00	144,000
18" pipeline ground	1640' 16.50	27,060
16" pipeline ground	25,500' 14.00	<b>3</b> 57,000
Valves and fittings	Lump Sum	32,000
Meters (rate control, etc.)	Lump Sum	40,000
	Total Amount - South Area Pipeline	\$2,043,560
(5) Summary of Facilities and Other Cost		
Supply facilities	5	
Supply field pipelines	•	\$ 260,000
Elevated and ground storage		<b>454</b> ,650
Service area pipeline		815,000
. Out a real hite illie		<b>2,043,</b> 560
•	TOTAL CONSTRUCTION COST	A
4	TOTAL CONSTRUCTION COST	<b>\$3,573,</b> 210

### B. KITTY HAWK (NORTH) DISTRIBUTION SYSTEM

### (I) Main Distribution System

12" mains	25,000	If @ \$	9.00	\$	225,000
8" mains	99,700	1 f	4.00		398,800
6" mains	64,600	lf	2.50		161,500
12" valves	12	ea	500.00		6,000
8" valves	52	ea	235.00		12,220
6" valves	60	ea	175.00		10,500
Hydrants	1 136	ea	350.00		47,600
Services	1,325	ea	140.00		185,500
Miscellaneous	pavement repairs, cas			*******	52,880
Total - Distr	ribution System			\$1.	.100.000

### (2) Water Control and Storage Facilities

500,000 gallon reservoir Pumping station 500,000 gallon elevated tank		\$ 100,000 100,000 300,000
Subtotal - Water Control & Storage		\$ 500,000
TOTAL CONSTRUCTION COST	\$ 1,600,000	

COMBINED PROJECT COST SUMMARY

Dare Beaches Water and Sewer Authority Regional Supply Facility and Main Trunk System	\$3,573,210
Kitty Hawk (North) Distribution System	1,600,000
Contingency (10%)	516,690
TOTAL COMBINED PROJECT CONSTRUCTION COST	\$5,690,000

(The above prices are considered to be current through June 1975.)

### IV PROJECT COST ESTIMATE AND FINANCING PLAN (WATER FACILITY)

The following summarizes the total project cost estimate and financing plan. It is intended that the applicant's (county) contribution to the project will be in the form of General Obligation Bonds, which, based on current property valuations and bonded indebtedness, can be an amount up to \$5,000,000. This schedule identifies total project costs and projected grant fund sources to support the project.

Item	Clean Wate Bond Gran		FHA Loan GO Bonds	Total
Construction	\$1,000,000	\$500,000(FHA) 250,000(CPRC)	\$3,940,000	\$5,690,000
Land, easements & R/W			150,000	150,000
Legal & administrative			75,000	75,000
Engineering			370,000	370,000
Interest			500,000 <sup>2</sup>	500,0002
Contingencies			(516,690)	(516,690)3
Totals	\$1,000,000	\$750,000	\$5,035,000	\$6,785,000

- Notes: (I) Federal grant amounts are based on an assumed construction grant of \$500,000 from Farmers Home Administration and a supplementary grant of \$250,000 from the Coastal Plains Regional Commission.
  - (2) Based on two years' borrowed interest at 5% on maximum GO Bond issue.
  - (3) Included in total construction costs shown in Item 1.

### V RATE SCHEDULES AND USER DATA

### Rate Schedules

The Towns of Nags Head and Kill Devil Hills have existing water systems and established rate schedules. The present water rates for these two towns are identical and are summarized as follows:

### (I) Nags Head and Kill Devil Hills (Existing):

First 3,000 gallons @ \$4.40 minimum Next 7,000 gallons 1.05 per 1000 gallons Next 10,000 gallons .88 per 1000 gallons Next 20,000 gallons .77 per 1000 gallons Next 60,000 gallons .66 per 1000 gallons Next 100,000 gallons .55 per 1000 gallons All over 200,000 gallons .44 per 1000 gallons

It is again emphasized that water will be sold to the above communities at a bulk rate of \$400 per million gallons with the minimum annual consumption (and revenue) rates as shown on Schedule I. The towns may adjust their rate schedules as necessary to maintain a viable economic posture for their water systems.

### (2) Kitty Hawk (North) Distribution System (Proposed):

(a) The proposed water rate schedule for the Kitty Hawk (North) system is shown on Page 39 of the September 1973 PER and is repeated as follows: (This should be reviewed when final costs are determined.)

First 3,000 gallons @ \$6.00 minimum

 Next
 7,000 gallons
 1.00 per 1000 gallons

 Next
 40,000 gallons
 .75 per 1000 gallons

 Next
 50,000 gallons
 .60 per 1000 gallons

 Next
 100,000 gallons
 .50 per 1000 gallons

 All over
 200,000 gallons
 .40 per 1000 gallons

### (b) Use and Income Estimate (Kitty Hawk-North System):

The use and income estimate for the Kitty Hawk (North) system was presented on Page 40 of the PER and is summarized again as follows:

Residential and Small Commercial	•	Takat Ampunt Haasa	
Users	Annual Rate	Total Annual Usage (Million Gallons)	Income
600	\$ 72.00	36	\$ 43,200
400	90.00	54	36,000
150	100.00	66	15,000
50	120.00	100	6,000
Motels/Hotels			
20 small	100.00	66	2,000
30 medium	200.00	216	6,000
20 large	500.00	630	10,000
Commercial			
5 medium	120.00	100	600
5 large	200.00	216	1,000
Public & Institution	nal		
5 small	72.00	36	360
10 medium	120.00	100	1,200
10 large	200.00	216	2,000
Industrial			
2	1,000.00	1,400	2,000
Total Income			\$125 360

The above rates will be charged to all customers on the Authority's system outside of the communities with existing systems which are supplied at the bulk rate. Anticipated revenues from the Kitty Hawk (North) system are also shown on Schedule I and are included in the total income from water sales reflected in Schedule 2.

### Water User Data

Anticipated water use or consumption by the two towns and the individual customers in the Kitty Hawk (North) service area is summarized in the September 1973 PER. These usage rates were developed based on population and growth projections included in land use plans prepared for the project area. Consumption rates in new service areas were based on normal domestic and commercial usage rates generally experienced in coastal recreational areas and were applied for the Kitty Hawk (North) service area. These consumption rates are summarized on Page 40 (September 1973 PER) for the Kitty Hawk (North) area and on Pages 49-50 for the two towns. They are also summarized again on Schedule I previously referenced and included in this Supplement to the PER.

There are presently 950 customers (service connections) on the Nags Head water system and 1,468 connections on the Kill Devil Hills system.

The most recent annual water consumption experience within the Nags Head and Kill Devil Hills systems are summarized below: (For the twelve-month period - | July 1973 through 30 June 1974)

Consumption in Million Gallons

		per Month
Month	Nags Head	Kill Devil Hills
July 1973	20.441	19.444
August	19.161	20.171
September	10.388	13.096
October	7,003	10.822
November	4.366	7.736
December	2.883	5.499
January 1974	s <sup>∞</sup> , s′ 1.539	4.933
February	را ۱.395	3.901
March	3.292	5.030
April	5.550	8.497
May	8.709	10.479
June	12.881	13.021
Totals	97.608	122.629

It is interesting to note that the Town of Nags Head added a supplementary deep well to their system in April 1974, and during the month of July 1974 pumped 5,067,000 gallons from this well. This, added to the 17,667,000 gallons of water the town pumped from the fresh water pond represents a total of 22,734,000 gallons consumed by the town during the month of July 1974.

### VI BUDGET SUMMARY

The aforementioned PER and Addenda presented detailed summaries of anticipated revenues from water sales, assessments, operation and maintenance and debt service costs for the proposed project. Income is predicated on bulk water sales to the Towns of Nags Head and Kill Devil Hills who presently own and operate their existing water systems, and from retail sale of water to customers in other service areas. Water would be sold to Nags Head and Kill Devil Hills at a bulk rate of \$400 per million gallons (\$0.40 per 1,000 gallons), and agreements will be negotiated for a minimum annual fee based on water usage experience. Annual fees will be based on an average monthly minimum and will be paid on a monthly basis. The schedule of annual water supply rates and revenues produced were shown in PER Addendum II and have been updated and summarized for the first three years as shown on <a href="Schedule I following Page 12">Schedule I following Page 12</a>.

Based on the water consumption (usage) experience of the two towns shown in the preceding section it may be seen that approximately 55% of the water consumed by the two towns goes to Kill Devil Hills and the remaining 45% by Nags Head. Kill Devil Hills also has about 30% more customers on its system than does Nags Head. It was demonstrated in the PER that the total income to the county system from these two towns must produce approximately \$146,000 in revenues during the first year's operation.

On the basis of usage experience referenced above it would appear that \$66,000 annually (at a minimum monthly rate of \$5,500 per month) should be borne by the Nags Head system, and \$80,400 annually (at a minimum monthly rate of \$6,700 per month) should be attributed to the Kill Devil Hills system. The estimated revenues shown in Schedule I reflect these rates.

Experience also indicates that during the peak summer season (May through September), the minimum water consumption rate allocated to each town will be exceeded, thereby producing additional water sales revenues to the county regional system supplying the water. These excess quantities have been conservatively estimated and are included as additional income over the minimum annual rates as shown on Schedule 1.

Water supply to the unincorporated Kitty Hawk (North) area will be provided by the new distribution system to be constructed as a part of the combined project described in this and previous preliminary engineering reports. Water will be sold to customers in this area on a retail cost basis at a minimum monthly cost of \$6.00. There are presently 1,350 to 1,400 potential customers within this system area. The rate schedule and anticipated income (based on 1,307 customers) is shown on Pages 33-43 of the September 1973 PER, and the total annual income from this area is again summarized on the Schedule I following this page.

A project economic feasibility analysis was prepared and presented in Addendum II (April 1974) to the PER. This analysis was based on the assumption that the project would be funded by up to \$5,000,000 in GO bonds supplemented by State and Federal grants. This is still assumed to be the basis for financing the project as reflected in Section III of this supplement.

# SCHEDULE 1: ESTIMATED ANNUAL SOURCE OF REVENUES FROM WATER SALES

Total Income From Water Sales		\$ 72,000 84,400 125,360	\$281,760		\$ 73,200 86,400 131,600	\$291,200	•	\$ 74,800 88,400 138,700	\$301,900
Estimated Additional Income From Sales During Months that Exceed Minimum (June, July, August, September)	FIRST YEAR	0/mo. = \$66,000	TOTAL: First Year Income	SECOND YEAR	18 mg x \$400/mg = \$ 7,200 15 mg x \$400/mg = 6,000 is annually @ retail sales rate	TOTAL: Second Year Income	THIRD YEAR	00/mo. = \$66,000	TOTAL: Third Year Income
Income From Monthly Minimum Rate		12 mo. @ \$5,500/mo. = \$66,000 12 mo. @ \$6,700/mo. = 80,400 87.0 million gall		SECO	12 mo. @ \$5,500/mo. = \$66,000 12 mo. @ \$6,700/mo. = 80,400 92 million gallons		THE	12 mo. @ \$5,500/mo. = \$66,000 12 mo. @ \$6,700/mo. = 80,400 110 million gallo	
Sales Area		Nags Head Kill Devil Hills Kitty Hawk (North)			Nags Head Kill Devil Hills Kitty Hawk (North)			Nags Head Kill Devil Hills Kitty Hawk (North)	

It is worthy to note that an application has been filed with the State for a full 25% grant under the Clean Water Bond Act totalling \$1,571,000. However, a grant amount of \$1 million from this source has been assumed for purposes of this supplementary analysis.

Schedule 2 following this page summarizes the economic feasibility of the project based on a GO bond issue of \$5 million, a State Clean Water Bond Grant of \$1 million and Federal grants totalling \$750,000. (FHA = \$500,000; CPRC = \$250,000). A careful analysis indicates that the project can be constructed in one year and that the system will produce revenues from water sales beginning the second year. This analysis assumes that two years' borrowed interest (\$500,000) will be available at the beginning of the project, as will the bond funds. No short term interest earning capacity is attributed to these funds, although such should be anticipated. Any such income that does accrue would be added to the capital operating fund balance shown on the schedule. As was demonstrated in the ten-year economic feasibility analysis in Addendum II to the PER (Page 7), income from water sales alone is expected to exceed the total project expenses sometime between the fifth and seventh year of operation. During this period there should always be a positive balance (surplus) in the capital and operating fund account.

ECONOMIC FEASIBILITY FOR COMBINED DARE COUNTY REGIONAL WATER SYSTEM SCHEDULE 2:

Balance in Capital and Operating Fund(2)	\$500,000	307,750	313,260	269,920	234,970
Total Income		\$ 57,750	339,510	348,950	359,650
Assessment Income(1)	(spuoc	\$ 57,750	57,750	57,750	57,750
Water Sales Income	interest on \$5,000,000 GO bonds)	ı	\$281,760	291,200	301,900
Total Expenses	interest on	\$250,000	334,000	386,200	394,600
<pre>\$ Debt Service</pre>	borrowed	\$250,000	250,000	296,400	296,400
Operations & Debt & Maintenance Service	(Two years' borrowed	• <b>1</b>	\$ 34,000	89,400	98,200
Time Schedule	Beginning of Project	Construction Year	ist Operational Year	2nd Operational Year	3rd Operational Year

Assumes: 1. 60 bond issue of \$5,000,000

. State Clean Water Bond Act Grant of \$1,000,000

. Federal grants of \$750,000 (\$500,000 FHA and \$250,000 CPRC)

Based on \$1.50/front foot assessment for Kitty Hawk (North) area. No other tax increases deferred payment plan. It may be expected that many land owners will pay full assessment fee initially and avoid interest payments. Any such assessment funds received would be are planned or required for the project. Assumes worst condition of everyone electing added to capital fund account.  $\widehat{\Xi}$ 

Notes:

placed in interest bearing accounts, thereby increasing the annual balance in the Capital Includes no interest accumulations. It is reasonable to assume that these funds will be and Operating Fund over and above those shown on this schedule. (5)

### VII BUDGET FOR COMPLETED FACILITY

The operation and maintenance budget for the Dare Beaches Regional Water System is based on the anticipated costs for the Authority to operate and maintain the regional water supply system and the distribution system for the Kitty Hawk (North) service area. The two towns will continue to own and operate (and collect revenues from) their individual systems, so no operation and maintenance costs for these town systems are included in the Authority's operation and maintenance budget.

Total operation and maintenance costs for the Authority's system (combined project) for the first ten years of operation are shown in Schedule I. Debt service and "reserve" costs are also reflected in this schedule. Annual operation and maintenance costs for the regional system are shown on Page 32 of the PER. Estimated "O&M" costs for the Kitty Hawk (North) system were summarized on Page 38. It is concluded that operation and maintenance of the combined regional project now proposed will be accomplished in accordance with the schedule as summarized below:

	IST YEAR	2ND YEAR	3RD YEAR
Salaries and associated costs	\$ 30,000	\$ 30,000	\$ 34,000
Office expense, administrative, audit, etc.	2,500	2,800	3,200
Chemicals, supplies & materials	3,500	4,000	4,600
Power (electricity)	8,000	9,000	10,000
Miscellaneous, maintenance & repairs	40,000	44,000	46,400
Debt service	250,000	296,400	296,400
TOTAL	\$334,000	\$386,200	\$394,600

### VIII OTHER MISCELLANEOUS FINANCIAL DATA

### Property Valuation and Tax Rate Data

January I, 1974 property valuation and tax rates for Dare County and the municipalities of Nags Head and Kill Devil Hills are summarized as follows:

### (I) Dare County

Total Assessed Property Valuation: \$109,040,224

Tax Rate for FY 1975: \$1.11/\$100.00 @ 100% valuation

### (2) Nags Head

Total Assessed Property Valuation: \$20,656,473

Tax Rate for FY 1975: \$1.20/\$100.00 @ 100% valuation

### (3) Kill Devil Hills

Total Assessed Property Valuation: \$17,663,860

Tax Rate for FY 1975: \$1.00/\$100.00 @ 100% valuation

### Existing Indebtedness (Dare County)

The existing bonded indebtedness of Dare County is limited to a small bond issue made in 1971 to support the County's sanitary landfill project, plus a series of nine different bond issues made during the years 1956 to 1965 to support the county school system. These school bonds were issued at different interest rates and for payment of varying annual amounts over an extended period of time, with amortization periods extending through 1992. A composit summary of the county's bonded indebtedness as of 30 June 1973 is tabulated on Schedule 3 following this page.

BONDED INDEBTEDNESS	Dare County, North Carolina	(As of 30 June 1973)
SCHEDULE 3:		

					INTEREST	BALANCE	PAYMENT RE	PAYMENT REQUIREMENTS (1972–73)
BOND DESCRIPTION	DATE OF ISSUE	AMO	UNTS &	AMOUNTS & MATURITIES	RATE	(6-30-73)	PRINCIPAL	PRINCIPAL INTEREST
Sanitary Landfill	12/02/9	4M annually	ual Iv	6/1/73	53	\$ 36,000	\$ 4,500	\$ 1,800
		4.5M		6/1/74-81	55 56	0	0	0
School Bonds	12/1/56	<u>N</u> O	2-	6/1/67-73(Incl)	6%	0	0	0
	12/1/56	MO.		6/1/74-77(Incl)	3-3/4%	40,000	10,000	1,500
	12/1/56	OM	. =	6/1/78-83(Incl)	28	000,09	0	0
	15/1/9	<u> </u>	±	6/1/73-77(Incl)	5%	40,000	000,01	2,000
	6/1/57			6/1/73	3-1/2%	10,000	0	350
ť	6/1/65	25M	<b>:</b>	6/1/67-73(Incl)		180,000	45,000	10,800
		45M	£	6/1/74-77(Incl)	1	1		t
	6/1/65	4M	-	6/1/78	4 26	155,000	0	6,200
		5514	=	08-6/1/9				
	6/1/65	55W	:	6/1/81-83(Incl)	4. 18 86 - 18	345,000	0	14,145
٠.		M09	=	6/1/84-86(Incl)	ı •	j	1	i
	9/1/65	M09	=	6/1/87-92(Incl)		360,000	0	15,120
	9/1/9	25M	11	6/1/93	.10%	35,000	0	35
					·			1
TOTALS					<b>₩</b>	. \$ 1,261,000	\$ 69,500	\$ 53,150

General conclusions and recommendations have been summarized in the aforementioned PER and Addenda. Recent developments have influenced these recommendations somewhat, but the principal conclusion that the proposed project is direly needed and is economically feasible remains unaltered. Therefore, it is recommended that:

- Authority as its agent, diligently pursue implementation of the regional water supply project proposed in the preliminary engineering report as modified by PER Addendum II and this PER Supplement.
- 2. The County proceed with plans to hold public hearings and referendum to obtain public approval of a \$5.0 Million General Obligation Bond Issue to support the project.
- 3. Every effort be made to obtain full State Clean Water Bond Act grant assistance in accordance with the application previously submitted to the State for this purpose.
- 4. Formal applications be submitted to the Farmers Home Administration and the Coastal Plains Regional Commission for Federal grant assistance as outlined in the PER Supplement.

Respectfully submitted,

HENRY VON OESEN AND ASSOCIATES, INC. Consulting Engineers & Planners

Henry M. von Oesen, P. E.

A TRUE AND VALID ABSTRACT FROM THE MINUTES OF A SPECIAL MEETING OF THE BOARD OF COMMISSIONERS OF THE TOWN OF KILL DEVIL HILLS HELD AT TOWN HALL ON TUESDAY, MAY 14, 1974.

Commissioner Gard made a motion, seconded by Commissioner Loy, that the Board of Commissioners go on record as being in favor of and desiring to support the recommendations contained in Addendum II of the Preliminary Engineering Report prepared for the Dare Beaches Water & Sewer Authority, recommending a course of action leading to the construction of a regional water supply system. Motion was approved unanimously.

Attested to May 20, 1974

Clavic M. Water field by Claire M. Waterfield

Town Clerk

A TRUE AND VALID ABSTRACT FROM THE MINUTES OF A SPECIAL MEETING OF THE BOARD OF COMMISSIONERS OF THE TOWN OF NAGS HEAD HELD AT THE TOWN HALL ON MONDAY, MAY 20, 1974.

A motion was made by Commissioner Bell, seconded by Commissioner Pool that the Nags Head Board of Commissioners, as one of the sponsoring local governments approves and supports the recommendations contained in Addendum II of the Preliminary Engineering Report prepared for the Dare Beaches Water and Sewer Authority and urges that the Authority follow the recommended course of action leading to the construction of a regional water supply system. The motion carried unanimously.

Attested to May 24,1974

# OF A REGIONAL WATER SYSTEM IN SUPPORT OF THE DARE BEACHES COMPLEX

WHEREAS, on the <u>21st</u> day of <u>November</u>, 1971, in accordance with the provisions of Chapter 162A, General Statutes of North Carolina, the Dare Beaches Water and Sewer Authority was established by the combined actions of the Dare County Commissioners and the Boards of Commissioners of the incorporated towns of Nags Head and Kill Devil Hills for the purpose of providing regional water supply and sewerage services to the Dare Beaches Complex encompassing the beach area extending from Oregon Inlet to the Dare - Currituck County Line: and

WHEREAS, The required technical engineering and economic feasibility studies, plans and reports were made possible by planning assistance grants and loans from the North Carolina Department of Health, and the Department of Natural and Economic

Resources, and the Coastal Plains Regional Commission; and

WHEREAS, the Dare Beaches Water and Sewer Authority, acting for Dare County, and the towns of Nags Head and Kill Devil Hills has caused the completion of the required studies, plans, and reports, namely, a Dare Beaches Sketch Development Plan, an Economic Study of the Dare Beaches, and a Preliminary Engineering Report and Addendums I and II thereto; and

WHEREAS, The towns of Nags Head and Kill Devil Hills have passed motions pledging their approval and support of the recommendations contained in Addendum II of the Dare Beaches Water and Sewer Authority, Preliminary Engineering Report; and

WHEREAS, Dare County recognizes the benefits to the County and the Towns and Communities involved which can accrue from the construction and operation of such a water supply system;

NOW, THEREFORE, BE IT RESOLVED THAT:

The County of Dare wholeheartedly endorses and approves all of the recommendations as set forth in Addendum II to the Preliminary Engineering Report for the construction of a Regional Water System, and will meet with the North Carolina Local Government Commission to obtain approval to proceed with the water supply project; and the County will provide for the holding of the necessary public hearings and referendums required to obtain public approval of a General Obligation Bond issue under County sponsorship to facilitate construction of the water project.

Adopted by the Board of Commissioners of the County of Dare this 6th day of

<u>June</u>, 1974.

Attest:

Jack W. Cahoon

(County Manager

P. A. Tillett, Chairman

Dare County Board of Commissioners