Pinelands Infrastructure Trust Fund Packet

Pinelands Infrastructure Master Plan, December, 1986
Resolutions:

- PC4-90-22
- PC4-91-39
- PC4-93-69
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- PC4-94-76
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[SECOND REPRINT]

SENATE, No. 2319

STATE OF NEW JERSEY

MAY 16 1990

INTRODUCED FEBRUARY 8, 1990

By Senator DALTON

AN ACT concerning infrastructure capital projects in the pinelands area, and amending P.L.1987, c.306 [2]and the title thereof[2].

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey*:

[2]1. The title of P.L.1987, c.306 is amended to read as follows:

AN ACT [appropriating $30,000,000.00] making an appropriation from the "Pinelands Infrastructure Trust Fund" to provide grants and loans to local units of government in the pinelands area for infrastructure capital projects necessary to accommodate development in regional growth areas.[2]

(cf: P.L.1987, c.306, Title)

[2][1.]2.[2] Section 1 of P.L.1987, c.306 is amended to read as follows:

1. There is appropriated to the Department of Environmental Protection from the "Pinelands Infrastructure Trust Fund," created pursuant to section 14 of the "Pinelands Infrastructure Trust Bond Act of 1985" (P.L.1985, c.302), the sum of [2][$30,000,000.00] $29,310,152[2] to provide grants and loans to local units in the pinelands area for infrastructure capital projects necessary to accommodate development in the regional growth areas in a manner consistent with the plan prepared pursuant to section 4 of that act. This sum shall be allocated as follows:

a. [2][$19,600,000.00] $19,140,102[2] for State grants to the following local units:

Local Unit	Grant Amount:
Monroe Municipal Utilities Authority, Interceptor	$2,083,000
Atlantic County Utilities Authority, Coastal Interceptor	9,200,000
[Waterford Municipal Utilities Authority, Sewage Treatment Plant	1,680,000]
Ocean County Utilities Authority, Ridgeway-Cabin Branch Interceptor	2,432,000

EXPLANATION--Matter enclosed in bold-faced brackets [thus] in the above bill is not enacted and is intended to be omitted in the law.

Matter underlined thus is new matter.
Matter enclosed in superscript numerals has been adopted as follows:
[1] Senate SEQ committee amendments adopted March 5, 1990.
[2] Senate SRF committee amendments adopted March 12, 1990.

[Chesilhurst Borough, Interceptor..... 205,271]
Chesilhurst Borough, Collection System [211,929] 1,931,415
Hamilton Township Municipal Utilities
Authority, Harding Highway Interceptor..... 570,000
Galloway Township, Pinehurst Interceptors..... 263,824
Stafford Municipal Utilities Authority,
Ocean Acres Skeleton System.....[1,920,002] 1,625,889
Total, Local Unit Grants.....[1][18,566,026] 18,106,128[1]
Contingency Grants..... 1,033,974
[2][1Unallocated funds..... 459,898[1]][2]

Total Grants..... [2][$19,600,000] $19,140,102[2]
b. [2][$9,800,000.00] $9,570,050[2] for State loans to local units:

[1]Local Unit	Loan Amount:[1]
Monroe Municipal Utilities Authority, Interceptor	$1,041,500
Atlantic County Utilities Authority, Coastal Interceptor	4,600,000
[Waterford Municipal Utilities Authority, Sewage Treatment Plant	840,000]

[1][Local Unit Grant Amount:][1]

Ocean County Utilities Authority Ridgeway-Cabin Branch Interceptor	$1,216,000
[Chesilhurst Borough, Interceptor	102,635]
Chesilhurst Borough, Collection System...[105,965]	965,707
Hamilton Township Municipal Utilities Authority, Harding Highway Interceptor	285,000
Galloway Township, Pinehurst Interceptors	131,912
Stafford Municipal Utilities Authority, Ocean Acres Skeleton System .....[960,001]	812,944

Total, Local Unit Loans.....[1][$9,283,013] 9,053,063[1]
Contingency Loans..... 516,987
[2][1Unallocated Funds..... 229,950[1]][2]
Total Loans..... [2][$9,800,000] $9,570,050[2]

c. $500,000.00 for State costs associated with preparation of the Pinelands Infrastructure Master Plan and the issuing of bonds.
d. $100,000.00 for grants to local units for costs associated with the planning and design of infrastructure capital projects.
[e. The provisions of subsections a. and b. of this section to the contrary notwithstanding, the Commissioner of Environmental Protection may, with the approval of the Pinelands Commission,

allocate the grants and loans allocated to the Chesilhurst Borough Interceptor and the Waterford Municipal Utilities Authority Sewage Treatment Plant to the Camden County Municipal Utilities Authority for those projects.] [2]e. (Deleted by amendment, P.L. , c.)[2]

(cf: P.L.1987, c.306, s.1)

[2]3. Section 2 of P.L.1987, c.306 is amended to read as follows:

2. [In order to provide flexibility in administering this act, the] The Commissioner of Environmental Protection, with the approval of the Pinelands Commission, [may] shall apply to the Director of the Division of Budget and Accounting for permission to transfer a portion of any loan or grant authorized, or any amount from the Contingency Grants or Contingency Loans appropriations, in section 1 of [this act] P.L.1987, c.306 to any other loan or grant authorized in section 1 of [this act] P.L.1987, c.306. Upon the approval of an application by the director and by the [Legislative Budget and Finance Officer] Joint Budget Oversight Committee, or its successor, in writing, the commissioner shall make the transfer as provided by law.[2]

(cf: P.L.1987, c.306, s.2)

[2][2.]4.[2] This act shall take effect immediately.

ENVIRONMENT

Amends 1987 pinelands infrastructure appropriations.

RESOLUTION OF THE NEW JERSEY PINELANDS COMMISSION

No. PC4-93-143

TITLE: To Amend the Pinelands Infrastructure Master Plan

Commissioner Lee moves and Commissioner Radano seconds the motion that:

WHEREAS, P.L. 1985, Chapter 302 (the Pinelands Infrastructure Trust Bond Act) authorized creation of a debt of the State of New Jersey by issuance of bonds in the sum of $30,000,000 for the purpose of providing grants and loans to local units of government in the Pinelands Area for infrastructure capital projects necessary to accommodate development in the Regional Growth Areas; and

WHEREAS, the Pinelands Infrastructure Trust Bond Act specifies that the Pinelands Commission is to adopt an infrastructure master plan for use in evaluating projects to be financed, and the Commissioner of the Department of Environmental Protection and Energy is to adopt rules and regulations to implement the act; and

WHEREAS, the Pinelands Commission, with the assistance of a consulting firm, prepared and adopted by Resolution 87-3 the Pinelands Infrastructure Master Plan cataloging and ranking potential sewer construction projects; and

WHEREAS, the Commission also adopted as part of the Infrastructure Master Plan, the Pinelands Infrastructure Financing Plan, recommending the level of funding for specific projects; and

WHEREAS, the Department of Environmental Protection and Energy adopted regulations regarding grant and loan procedures as N.J.A.C. 7:22-6 and regulations regarding allowable costs as N.J.A.C. 7:22-7; and

WHEREAS, P.L. 1987, Chapter 306 appropriated $30,000,000 from the Pinelands Infrastructure Trust, specifying amounts for specific construction projects, as well as for contingency grants and loans, certain costs of planning and administration, and planning grants; and

WHEREAS, the Commission adopted Resolution 90-22 which amended the Pinelands Infrastructure Master Plan to revise the project priority list and associated amounts of funding and to revise the system for evaluating projects as of February 21, 1990; and

WHEREAS, the Commission adopted Resolution 91-39 which further revised the ranking system with respect to the cost criteria, and revised the project priority list and associated amounts of funding based on an October 16, 1990 proposal solicitation; and

WHEREAS, the Commission received nine eligible wastewater capital projects from public agencies located in the Pinelands Area pursuant to the November 13, 1992 request for proposal; and

WHEREAS, one of the proposals received pursuant to the November 13, 1992 request for proposal solicitation was an interceptor and collection proposal submitted by Winslow Township; and

WHEREAS, the Winslow Township project scored the highest of the ranked projects; and

WHEREAS, the Manchester Township Municipal Utilities Authority met with Commission staff on March 31, 1993 and advised that the combined Ocean County Utilities Authority/Manchester Township Municipal Utilities Authority interceptor and collection project, awarded $4,337,848 in grant and loan assistance by the February 21, 1991 amendment to the Pinelands Infrastructure Master Plan, might be withdrawn due to a lack of local financing; and

WHEREAS, the Commission on May 7, 1993 adopted an amendment to the Pinelands Infrastructure Master Plan by revising the project priority list and awarding $4,687,754 in unused funds to the Winslow Township project; and

WHEREAS, the May 7, 1993 amendment also required that

1. the $4,337,848 allocation of Pinelands Infrastructure Trust grant and loan assistance for the Ridgeway-Cabin Branch interceptor and collection project shall be automatically withdrawn if the Manchester Township Municipal Utilities Authority or the Ocean County Utilities Authority is unable to provide a commitment for the construction of the interceptor and collection system on or before July 9 1993.

2. If a commitment to proceed with the Ridgeway-Cabin Branch interceptor and collection project is not received by July 9, 1993, the $4,337,848 in Trust funding currently allocated to that project will be made available for re-allocation to new wastewater projects which were submitted to the Commission pursuant to the November 13, 1992 solicitation. A new amendment revising the project priority list and associated amounts of funding would then be prepared for consideration by the Commission.

3. For purposes of maintaining the Trust assistance allocation, local commitment shall be viewed as the execution of an agreement by the Manchester Township Municipal Utilities Authority or the Ocean County Utilities Authority to secure financing for its local share of the construction costs.

WHEREAS, a commitment to proceed with the Ridgeway-Cabin Branch interceptor and collection project was not received by July 9, 1993, and the project priority list has been re-evaluated for funding consideration; and

WHEREAS, the Ocean Acres Holiday Lakes Collection Project was withdrawn by the Stafford Township Municipal Utilities Authority; and

WHEREAS, the Winslow Township project retained the highest ranking of the submitted projects; and

WHEREAS, the Barnegat Township Phase I interceptor project was the second highest ranked project; and

WHEREAS, the Egg Harbor Township Municipal Utilities Authority collection project and the Hamilton Township Municipal Utilities Authority collection project tied for third highest ranking; and

WHEREAS, the Agriculture and Economic Development Committee has reviewed the projects and their ranking and concurs with the ranking; and

WHEREAS, it is necessary at this time to revise the Pinelands Infrastructure Master Plan to implement the proposed October 1, 1993 amendment; and

NOW, THEREFORE BE IT RESOLVED that the attached document titled AMENDMENT TO THE PINELANDS INFRASTRUCTURE MASTER PLAN, October 1, 1993, is adopted as an amendment to the Pinelands Infrastructure Master Plan by revising the project priority list and associated amounts of funding as indicated.

Record of Commission Votes

Commissioners	AYE	NAY	NP	ABS	Commissioners	AYE	NAY	NP	ABS	Commissioners	AYE	NAY	NP	ABS
Ashmun	✓				Hogan	✓				Norcross			✓	
Avery			✓		Lee	✓				Ontko	✓			
Brown	✓				Lefke	✓				Radano	✓			
Chavooshian			✓		McFadden			✓		Griffin	✓			
Darlington	✓				McGrail			✓		Sullivan			✓	

Adopted at a meeting of the Pinelands Commission Date: October 1, 1993

Terrence D. Moore
Executive Director

~~Richard J. Sullivan~~
Chairman
acting

PINELANDS INFRASTRUCTURE MASTER PLAN AMENDMENT

October 1, 1993

PC4-93-143

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PINELANDS INFRASTRUCTURE MASTER PLAN AMENDMENT
October 1, 1993

1. Third Round of Pinelands Infrastructure Trust Fund (PITF) Program

On November 13, 1992, a third round of project solicitations was undertaken for the remaining $4,687,754 in unallocated funds from the original $30,000,000 appropriation.[1] Initial project rankings of the nine projects submitted for funding consideration are summarized in the May 7, 1993 amendment to the Pinelands Infrastructure Master Plan. (A tenth project, a proposed collection system for portions of Galloway Township located in a Pinelands Town and Agricultural Production Area was also submitted in the third round. However, this project was ineligible for PITF assistance and was therefore not included in the ranking.) This amendment awarded the $4,687,754 to the highest ranking project, the Winslow Township Route 73 Corridor interceptor and collection system submitted by Winslow Township. Because of the limited funds available at that time, the award amount is less than 60% of the total estimated project costs.

Subsequent to the adoption of the May 7, 1993 amendment, an additional $4,771,632[2] in unallocated funds has become available. These funds result from deactivating the Ocean County Municipal Utilities Authority (MUA)/Manchester Township MUA Ridgeway-Cabin Branch interceptor and collection system project. This project was withdrawn from PITF assistance based on the inability, at this time or in the short-term forseeable future, of either of the project sponsors to obtain financial local commitment to the project by the July 9, 1993 deadline adopted in the May 7, 1993 plan amendment.

Final rankings of the nine projects submitted for funding consideration in the third round is shown in Appendix A. All outstanding questions relative to the project rankings as identified in the May 7, 1993 plan amendment have been resolved, and are discussed in the Summary of Wastewater Projects section.

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1. $3,392,847 resulting from the low bid amount for the ACUA Coastal Interceptor project, $1,136,114 resulting from the low bid amount for the Chesilhurst Collection project, and an additional $158,793 available from unused ($1,113,438) less potentially needed ($954,645) contingency funds.

2. $4,337,848 in unused project allocations and $433,784 in unused contingency funds.

Subsequent to the May 7, 1993 Plan amendment, the Stafford Township MUA withdrew the Ocean Acres Holiday Lakes collection project from eligibility for funding under this round. Because the project is near the contract bid stage, the Stafford MUA believes that acceptance of a PITF award at this time would result in unnecessary and costly delays for this project. This decision was made after Stafford Township MUA representatives consulted with Pinelands staff and DEPE's Municipal Wastewater Assistance Element. As a result, the final rankings exclude the Stafford Holiday Lakes collection project.

As shown in Appendix A, the highest ranking project is the Winslow Township Route 73 Corridor interceptor and collection system submitted by Winslow Township.

Based on the final rankings of the third round projects and on the limited amount of unallocated funds remaining, the Pinelands Commission recommends that the $4,687,754 awarded to the proposed Winslow Township Route 73 Corridor interceptor and collection system be increased by $1,297,519 for a total award amount of $5,985,273. This would increase the PITF award amount for this project from 46.9% to 60% of the total estimated project costs.

It is also recommended that the Phase I Barnegat interceptor project, which ranked second in the final ranking be awarded $1,737,600 in PITF funds. This award amount represents 60% of total estimated project costs.

Funding the top two ranked projects at the 60% award level results in $1,350,079 in unused PITF funds. Unfortunately, insufficient PITF funds are available to fund both of the third ranked projects at the 60% award level. To maximize the amount of residential development served, it is recommended that both the Egg Harbor Collection and the Hamilton ACUA Collection projects be funded at approximately 27% of eligible project costs. This recommendation is conditioned upon notification from project sponsors of both of the third ranked projects on or before November 1, 1993 that this amount is sufficient to accept as an award.

If either of the third ranked project sponsors choose not to accept PITF assistance at the 27% award level, it is recommended that the $1,350,079 be allocated to the remaining third ranked project sponsor up to 60% of eligible project costs. In the event that both of the third ranked project sponsors elect not to the accept a PITF award at the 27% funding level, it is recommended that the Pinelands Commission determine which of the two projects should be recommended for funding.

Table 1 compares the recommended funding allocations for the February 25, 1990, February 21, 1991, May 7, 1993 and October 1, 1993 Pinelands Infrastructure Master Plan amendments to the current funding appropriation.

Table 1

Pinelands Infrastructure Master Plan Recommendations

February 25, 1990, February 21, 1991, May 7, 1993 and October 1, 1993

Item	P.L. 1968 Chapter 306 Appropriation	Feb. 25, 1990 Recommendation	Feb. 21, 1991 Recommendation	May 7, 1993 Recommendation	Oct. 1, 1993 Recommendation	
State Administration	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000	
Local Planning & Design Grant	100,000	100,000	100,000	100,000	100,000	
Monroe Interceptor	3,124,500	3,124,500	3,124,500	3,124,500	3,124,500	(a)
ACUA Coastal Int.	13,800,000	13,800,000	13,800,000	10,407,153	10,407,153	(b)
Waterford Sewage Treatment Plant	2,520,000	-0-	-0-	-0-	-0-	(c)
Ridgeway Cabin Branch Interceptor						
OCUA(d)	3,648,000	-0-	-0-	-0-	-0-	(c)
OCUA/Manchester(e)	N/A	N/A	4,337,848	4,337,848	-0-	(c)
Chesilhurst Interceptor	307,906	-0-	-0-	-0-	-0-	(f)
Chesilhurst Collection	317,894	2,897,122	2,897,122	1,761,008	1,761,008	(g)
Hamilton-Harding Highway Interceptor	855,000	855,000	855,000	855,000	855,000	(h)
Galloway-Pinehurst Interceptor	395,736	395,736	395,736	395,736	395,736	(i)
Stafford-Ocean Acres Skeiton System	2,880,003	2,438,833	2,438,833	2,438,833	2,438,833	(b)
Winslow Route 73 Interceptor & Collection	N/A	N/A	N/A	4,687,754	5,985,273	
Barnegat Phase 1 Interceptor	N/A	N/A	N/A	N/A	1,737,600	
Hamilton ACUA Collection	N/A	N/A	N/A	N/A	744,467	
Egg Harbor Collection	N/A	N/A	N/A	N/A	605,612	
Contingency Grants & Loans	1,550,961	1,550,961	1,550,961	1,392,168	1,344,818	(j)
Reserve for Future Use	-0-	4,337,848	-0-	-0-	-0-	
TOTAL	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	

a. Project qualifies for an additional $312,450 from the Contingency.
b. Actual costs were less than estimated.
c. Project has been abandoned.
d. Manchester and Jackson Townships service area (interceptor only).
e. Manchester Township service area, only (interceptor & collection).
f. Project to be constructed without Pinelands Trust Assistance.
g. Finances 60% of revised eligible cost; balance to be funded with FmHA grants and loan.
h. Project also qualifies for an additional $85,500 from the Contingency.
i. Project also qualifies for an additional $38,573 from the Contingency.
j. After allocations of $437,523 for projects as referenced in (a.), (h.), and (i.) above, effective balance is $907,295.

2. Status of Approved and Recommended Construction Projects

Of those projects which have received or have been recommended for PITF awards (and have not been deactivated), five projects have been built, and one more is under construction.

Estimated funding for the projects built or under construction is based on actual or bid costs where known. Status, cost, and funding is summarized in Table 2.

TABLE 2. Pinelands Infrastructure Trust (PIT) Project Status
October 1, 1993

Status Report		Eligible Cost $	Estimate or Bid	Pinelands Infrastructure Trust Funding*
Built:				
(a)	Harding H'way Interceptor	$1,567,500	Bid	$ 940,500
(b)	Stafford Ocean Acres Skeletal	4,064,722	Bid	2,438,833
(c)	Pinehurst Interceptor	725,515	Bid	435,309
(d)	Monroe Interceptor	5,728,250	Bid	3,436,950
(e)	ACUA Coastal Interceptor	17,345,256	Bid	10,407,153
	Subtotal	$29,431,243		$17,658,745
Under Construction:				
(f)	Chesilhurst Collection	$ 2,935,012	Bid	$ 1,761,008
	Subtotal	$ 2,935,012		$ 1,761,008
Active: likely to begin construction by 1994:				
(g)	Winslow Rte. 73 Interceptor & Collection	$ 9,975,455	Estimate	$ 5,985,273
(h)	Barnegat Phase I Interceptor & Pump Station	2,896,000	Estimate	1,737,600
(i)	Egg Harbor McKee/Virginia Ave. Collection	2,226,500	Estimate	605,612
(j)	Hamilton ACUA Collection	2,737,000	Estimate	744,467
	Subtotal	$17,834,955		$ 9,072,952
	Total	$50,201,210		$28,492,705

* 60% of cost plus contingency approved to date. (27% of costs for Egg Harbor and Hamilton projects.)

(a) Infrastructure master plan estimated cost was $1,425,000; actual eligible costs were $2,841,000; in accordance with the infrastructure financing plan the cost basis and funding were increased by 10%.

(b) Cost estimated in Pinelands Infrastructure Master Plan was $4,800,006. Low bid was $17,345,256; grant and loan funding was based on 40% and 20% of the low bid amount rather than the estimated costs.

(c) Infrastructure master plan estimated cost was $659,560; actual eligible costs were $725,515; in accordance with the infrastructure financing plan, the cost basis and funding were increased by 10%.

(d) Infrastructure master plan estimated cost was $5,207,500; actual eligible costs were $5,728,250; in accordance with the infrastructure financing plan, the cost basis and funding were increased by 10%.

(e) Cost estimated in Pinelands Infrastructure Master Plan was $23,000,000. Low bid was $10,407,153; grant and loan funding was based on 40% and 20% of the low bid amount rather than the estimated costs.

(f) Appropriation to finance 60% of revised eligible cost pursuant to reauthorization of funds through NJDEPE-OMB. Balance to be funded with FmHA grants and loan.

(g) Award amount will be decreased if the final allowable costs are less than estimated eligible costs. Applicant is eligible for 10% contingency if final eligible costs exceed $9,975,455.

(h) Award amount will be decreased if the final allowable costs are less than estimated eligible costs. Applicant is eligible for 10% contingency if final eligible costs exceed $2,896,000.

(i) Since PIT funds are insufficient for 60% funding of eligible costs, applicant will have to fund the balance of eligible costs up to $2,226,500. Applicant is eligible for 10% contingency if final eligible costs exceed $2,226,500.

(j) Since PIT funds are insufficient for 60% funding of eligible costs, applicant will have to fund the balance of eligible costs up to $2,737,000. Applicant is eligible for 10% contingency if final eligible costs exceed $2,737,000.

3. Contingency Funds Status

The Pinelands Infrastructure Financing Plan provides for an increase in funding for a project if the low bid received exceeds the cost estimated in the Pinelands Infrastructure Master Plan. Grant and Loan funding may each be increased in proportion to the increased cost; the maximum increase is 10% for any one project, and is subject to available funds. The amount originally appropriated for these contingency grants and loans was less than the potential need if every project received bids at least 10% above estimated cost; however, not all projects needed the contingency and as a result, it will be possible to provide contingency funding for the last four projects.

To date, the Hamilton MUA's Harding Highway interceptor, Monroe interceptor and Galloway's Pinehurst interceptor projects have received the 10% contingency increase. Based on available information, it is possible that three other projects may seek contingency funds.

Table 3. Contingency Funds Used, Potentially Needed and Available

Contingency Funds Used	
Hamilton Harding Highway Interceptor	$ 85,500
Pinehurst Interceptor	39,573
Monroe Interceptor	312,450
TOTAL	**$ 437,523**
Contingency Funds Potentially Needed:	
Winslow Rt. 73 Interceptor & Collection	$ 598,527
Barnegat Phase I Interceptor & Pump Station	173,760
Egg Harbor McKee/Virginia Ave. Collection	60,561
Hamilton ACUA Collection	74,447
TOTAL	**$ 907,295**
Contingency Funds Potentially Available:	
Appropriation grants	$ 604,863
Appropriation loans	302,432
TOTAL	**$ 907,295**

PROJECT RANKING
PINELANDS INFRASTRUCTURE TRUST FUND PROGRAM
October 1, 1993

Project #	Applicant	Future DUs Score	Future PDC Unit Score	Future PDC as % DUs Score	Unmet Needs Score	Known Problem Score	Project Status Score	Total Score	Existing RGA DUs Served	Future RGA DUs Served	Total RGA DUs Served	Future PDC DUs Served
1	Winslow Twp. Rte. 73 Corridor New Interceptor & Collection	16.0	6.0	7.0	20.0	0.0	10.0	59.0	2,506	7,860	10,366	3,840
2	Barnegat Twp. Phase I New Interceptor & 4th Str. Pump Station	6.0	1.5	5.0	14.0	0.0	10.0	36.5	449	2,400	2,849	790
3	Egg Harbor Twp. MUA McKee/Virginia Ave. New Interceptor & Collection	2.0	1.5	5.0	2.0	0.0	10.0	20.5	183	965	1,148	309
3	Hamilton Twp. MUA McKee Avenue Area New Collection	6.0	1.5	2.0	4.0	0.0	7.0	20.5	95	2,584	2,679	314
4	Waterford Twp. MUA Jackson/Louden/Hays Mill New Collection	0.0	0.0	2.0	8.0	0.0	10.0	20.0	161	111	272	34
5	Galloway Twp. MUD Pinehurst & Pomona Gardens New Collection	2.0	0.0	0.0	2.0	4.0	10.0	18.0	290	517	807	0
6	Waterford Twp. MUA Bishops Area New Collection	0.0	0.0	0.0	0.0	0.0	10.0	10.0	60	4	64	0
6	Stafford Twp. MUA Industrial Park New Collection	0.0	0.0	0.0	0.0	0.0	10.0	10.0	0	0	0	0
Total Possible Score:		20.0	7.5	7.5	20.0	15.0	10.0	80.0				

Note: Stafford Twp. MUA Holiday Lakes New Collection project, originally submitted as a 3rd round project, has been withdrawn for consideration of PITF funding.

Summary of Wastewater Projects
Submitted for PITF Funding Assistance

Winslow Township Route 73 Interceptor & Collection System:

This proposal is the highest ranking project of all projects submitted. The proposal comprises phases I, II, and III of a regional interceptor network to serve build-out of Winslow Township's Regional Growth Area. The proposal also includes a proposed collection system to serve existing and future development east of Waterford Road, and in the Walden Chase development.

The proposal consists of 22,750 linear feet of 4- to 8-inch pressure mains, 93,263 linear feet of 8- to 27-inch gravity mains, and four pumping stations at an estimated $9.9 million dollars. Two of the pumping stations will serve the proposed collection systems, and two will collect sewage along the regional interceptor lines. The interceptor lines will be sized to accommodate build-out flows for the Township's Regional Growth Area. The interceptor system will tie into the proposed Camden County MUA Cedarbrook pumping station at the Route 73/Beebetown Road intersection.

The proposed Cedarbrook pumping station is part of the regional interceptor system to serve Waterford Township, Winslow Township, and Chesilhurst Borough that was approved by the Commission on June 24, 1991. The system will convey wastewater from these areas to the Camden County treatment facility located in the Delaware River Basin.

The Township has adopted an ordinance to sell general obligation bonds up to $9,500,000 to complete this project. In addition, the Township may receive local matching funds from the Lower Camden County Regional Board of Education to meet its local share of phase II of the proposal.[3]

In order to provide for full collection to the Township's Regional Growth Area, an additional 13 pumping stations along the regional interceptor pathway with attendant collection networks will need to be constructed. Because the number of units that may be initially served by this project is limited by the capacity of the proposed pumping stations, a condition has been placed on the award that any future proposals for additional pumping stations or upgrading existing pumping stations with or

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3. As a result of this project, effluent disposal beds located at the Edgewood Junior and Senior High School facilities on Cooper Folly Road will be able to connect to the regional sewerage system.

without attendant collection facilities to tie into the regional interceptor will be ranked on their ability to serve the local collection needs of the area proposed, only.

Pursuant to resolution PC4-88-65 adopted by the Commission on June 8, 1988, up to 1.2 million gallons per day of treated wastewater from the Regional Growth Areas of Winslow Township, Waterford Township and Chesilhurst Borough may leave the Mullica River Basin. Future flows beyond 1.2 million gallons per day, up to 2.6 million gallons per day, must be treated and disposed of in the Pump Branch subbasin of the Mullica Basin. Camden County MUA is presently conducting a long-term hydrologic monitoring program for the Mullica Basin.

On August 8, 1992, the Commission notified the Department of Environmental Protection and Energy that it was not opposed to allowing approximately 0.15 million gallons per day of treated wastewater from that portion of Winslow Township's Regional Growth Area located in the Great Egg Harbor River Basin to be transferred to the Township's sanitary sewer system within the Mullica Basin.

Any future water supply wells using Kirkwood/Cohansey sources to service the Mullica Basin portion of the Township's Regional Growth Area must be located in the Pump Branch subbasin and must be sited in a manner that minimizes stream flow reductions and wetlands impacts in that basin.

The proposed project easily ranked the highest of the nine projects submitted and there are no outstanding questions remaining with regard to the project ranking. Some public concerns have been expressed regarding placement of the two pumping stations that will serve the collection portion of the proposal. However, these concerns have been addressed by the Township, and will be examined by the Commission in its review of the development application.

Barnegat Township - Phase I Interceptor & Pumping Station

This proposal represents the first of two phases to serve future development in areas both east and west of the Garden State Parkway in Barnegat. The phase I proposal would service both existing and new development in a significant portion of Barnegat Township's Regional Growth Area. The phase II proposal would service full build-out of the Township's Regional Growth Area.

The phase I proposal consists of the construction of 7,160 linear feet of 21-inch gravity sewer located in the Township's Regional Growth Area within the Pinelands National Reserve (PNR), and 4,280 linear feet of a 10-inch gravity sewer, and a pumping station located in the Township's Regional Growth Area within the Pinelands Area. Estimated project cost is $2.9 million dollars.

The phase II proposal (which is not part of this PITF application) would finalize the linkage of the Township's remaining collection system with the phase I interceptor by the construction of a 15-inch force main in the PNR Regional Growth Area. The phase II proposal would also accommodate build-out levels in the Pinelands Area Regional Growth Area by the construction of a new 10-inch gravity sewer and upgrading the capacity of the proposed Fourth Street Pumping Station.

The phase I 21-inch gravity sewer would reroute the Township's sewage collection system to provide direct connection to the Ocean County Utilities Authority interceptor at Ridgeway Street and Bay View Boulevard. The existing flow pathway to the Ocean County interceptor via the Timbers Pumping Station would be abandoned. Although physically located outside the Township's Pinelands Area Regional Growth Area, the phase I interceptor is necessary to allow the excess capacity in the Township's existing interceptor system to be fully utilized for new connections in the Pinelands Area Regional Growth Area.

The proposed phase I pumping station and 10-inch gravity sewer (to be constructed along West Bay Avenue between Fourth and Lighthouse Drive) would pump sewage generated in the Pinelands Area Regional Growth Area to the Township's interceptor system.

Documentation for seven incidences of septic failures in the Winwood development in the Township's Regional Growth Area were submitted by the applicant. Due to the small number of documented incidences, and the uncertainty regarding whether this proposal would serve this development, zero points were assigned for the existence of a known public health problem.

It should be noted that the ranking assigned to this project is based on assumptions that reflect the best possible scenario of the project to serve future dwelling units, including Pinelands Development Credit bonus units, within the Pinelands Area Regional Growth Area. This scenario accounts for the fact that several local residential development approvals from 1988 and 1989 that do not use Pinelands Development Credit bonus units in the Township's Regional Growth Area have expired. Any development of these sites must, therefore, be based on the currently certified zoning ordinance which would provide the opportunity for Pinelands Development Credit bonus use. Therefore, full points were assigned in the ranking for bonus units. A condition has been placed on the project requiring the Township not to utilize the previously approved Sungate, Cedar West Villages, and Barnegat Woods developments for financing since their local approvals have expired.

Secondly, several conditions (as described in Appendix D) have been placed on the project to address the fact that the project's proposed capacity is inadequate to support build-out levels, and some of the proposed capacity will serve future growth outside the Pinelands Area Regional Growth Area. Two conditions have been placed on the award to ensure that funding assistance is limited to serving the future growth needs of the Township's Pinelands Area Regional Growth Area.

A condition has been placed on the project to ensure that future related proposals submitted for PITF assistance do not result in "doublecounting" the ranking for this project.

Finally, a condition has been placed on the project to require that the proposed interceptor routing avoid traversing PNR Forest Areas in the Township.

Egg Harbor Township MUA - McKee/Virginia Avenue Interceptor & Collection System:

This proposal, which ties for third place would serve that portion of Egg Harbor Township's western Regional Growth Area that is in closest proximity to the previously PITF awarded Coastal Interceptor. The proposed collection service area encompasses approximately 405 acres in the vicinity of McKee and Virginia Avenues.

Estimated project cost for the system, which consists of 10,000 linear feet of 8-inch gravity mains, 9,600 linear feet of 10-inch gravity mains, 5,300 linear feet of 12-inch pressure mains, and a proposed McKee Avenue pumping station, is $2.2 million dollars. The proposed 12-inch force main would tie into an existing Atlantic County Utilities Authority Interceptor pumping station at English Creek Avenue.

Although certain portions of the Township contain residences with documented septic failures, water supply wells that exceed state safe drinking water standards, or homes located within a designated Ground Water Impact Area, no portion of the proposed collection system is located within any of these areas. Therefore, the proposal received zero points for the existence of a documented known public health problem.

While the project area is outside the Commission's hydrologic study area for Hamilton Township's Regional Growth Area, concerns may arise as development proceeds and if pressures on the Kirkwood-Cohansey continue. It is not anticipated that this project will be large enough to provide serious impacts, either individually or cumulatively. However, the water purveyors in this area are examining other supply options, and as noted below, the Commission will continue to monitor events. A condition has

been placed on the project to require the Township to coordinate water supply with wastewater planning throughout the municipality.

Hamilton Township MUA - Collection System to Serve the Atlantic County Utilities Authority Coastal Alternative Interceptor:

This proposal, which ties for third place, represents a resubmission of a second round PITF project. The proposed collection system would serve that portion of the Hamilton Township's eastern Regional Growth Area that is in closest proximity to the previously PITF awarded Coastal Interceptor. The proposed collection service area encompasses approximately 1,431 acres in the vicinity of the Hamilton Mall along the Atlantic City Expressway and West Jersey Avenue.

Estimated project cost for the system, which would consist of both gravity and pressure mains, is $2.7 million dollars. The proposed collection system, similar to the funded Coastal Interceptor, would meet its 40% local share match through a combination of betterment assessments levied against landowners and upfront developer contributions in the service area. As was the case with the Coastal Interceptor, sewer reserve agreements would be required between the Hamilton Township MUA and area developers with local development approvals pending, (subject to sewer access). The Hamilton Township MUA is expected to supplement these financing sources through its available reserves or through the sale of local bonds.

The proposal, which ranked second in the last round of PITF project evaluations, lost points in this round as a result of a change in the approval status of the Carlton Homes development proposal. This resulted in a lower number of future homes expected to be served by the collection proposal. The project also lost points relative to its earlier ranking based on the absence of a firm commitment by the Township to meet its local share. Since November 1990, written sewer reserve agreements have not yet materialized for most of the project area.

A concern previously raised by the public was the potential for adverse water supply impacts on subbasins that may directly result through proposed interbasin transfers from the project area. This concern arises from the potential reliance by water users in the area on the Kirkwood-Cohansey aquifers. Unfortunately, assessments on impacts cannot be made until information on proposed water source, and well locations are evaluated by the Commission. According to the project sponsor, up to 1.2 million gallons per day of additional water allocation would be needed by the Township to serve the eastern portion of the Regional Growth Area. The potential for adverse impacts is mitigated by the fact that the number of future dwelling units proposed for the project area is less than the permitted zone density and, more

importantly, that the Township and MUA have been notified of the Commission's concerns for the entire Regional Growth Area early in the planning process. Both are looking at water supply sources other than the Kirkwood-Cohansey aquifers. A condition has been placed on this project regarding this concern.

A second condition has been placed on the project to allow future hook-ups to the Township's Regional Growth Area/Rural Development Area reserve area.

Waterford Township MUA - Jackson/Louden/Hays Mill Areas Collection:

This proposal consists of extending the Township's existing collection system into four small areas located near Jackson, Louden and the Hays Mill Branch. These areas include both existing septic units and vacant developable land in both residential and commercially zoned areas. The proposal consists of 8-inch diameter gravity sewers at an estimated cost of $2 million dollars.

Although a portion of Waterford Township has been designated as a Ground Water Impact Area by the Department of Environmental Protection and Energy, no portion of the proposed collection system is located within this designated area. Therefore, the project received zero points for the existence of a known public health problem.

Based on the small number of future units to be served, combined with the level of remaining unmet future residential collection needs in the Township, this project ranked fifth place.

Galloway Township MUD- Pinehurst Area & Pomona Gardens Collection System:

Although originally submitted as separate proposals, this project was combined into one for ranking purposes. The proposal consists of an infill collection system for the partially sewered Pinehurst section of Galloway Township's Regional Growth Area. Extending collection to a second smaller built-out area, Pomona Gardens, is also proposed. The two areas are physically separated by a Pinelands Village Area.

The project consists of 8-inch gravity and force mains at a combined estimated cost of $4.7 million dollars.

Because a significant portion of the Pinehurst Area is designated as a Ground Water Impact Area by the Department of Environmental Protection and Energy, this proposal received points for the existence of a known public well contamination problem.

Because this project would serve only a moderate portion of Galloway's unmet future residential collection needs, this project was ranked sixth place.

Waterford Township MUA - Bishops Area Collection System:

This proposal would provide collection to a portion of the Township's Regional Growth Area that is zoned for industrial development. The project consists of 8-inch diameter gravity sewers at an estimated cost of $500,000 dollars. Because businesses and existing residences would be primarily served, this proposal tied for the lowest ranking value.

Stafford Township MUA - Industrial Park Collection System:

This proposal would provide a collection system to that portion of the Township's Regional Growth Area that is zoned for industrial park development. The project represents the resubmission of a second round PITF project. The project consists of 8- to 12-inch diameter gravity sewers at a revised estimated cost of $500,000 dollars. Because zero future residences would be served, this proposal tied for the lowest ranking value.

Galloway Township MUD - Lorraine, Geneva & Frankfurt Avenues Collection System:

An tenth project submitted, but not ranked, was a small collection system in a Pinelands Town and Agricultural Production Area in Galloway Township. Because no portion of the proposal would serve Pinelands Area Regional Growth Areas, the project was determined to be ineligible for funding assistance.

APPENDIX B
TRUST ASSISTANCE BY RECOMMENDED PROJECT
October 1, 1993

Pinelands Infrastructure Trust Revised Funding List

Project	Final Eligible Cost	Trust Assistance (includes 10% Contingency for eligible projects) Grant	Loan
Monroe Interceptor	$ 5,728,250	$2,291,300	$1,145,650
ACUA Coastal Interceptor	17,345,256	6,938,102	3,469,051
Chesilhurst Collection	2,935,012	1,761,008	-0-[1]
Harding H'way Interceptor	1,567,500	627,000	313,500
Pinehurst Interceptor	725,515	290,206	145,103
Stafford Ocean Acres	4,064,722	1,625,889	812,944
Winslow Rt 73 Interceptor & Collection	9,975,455[2]	3,990,182	1,995,091
Barnegat Interceptor	2,896,000[2]	1,158,400	579,200
Egg Harbor Collection	2,226,500[2]	403,741	201,871
Hamilton ACUA Collection	2,737,000[2]	496,311	248,156
TOTAL	$50,201,210	$19,582,139	$8,910,566

Notes:

[1] Pinelands Infrastructure Master Plan amendment of February 7, 1992 - Resolution PC4-92-23 converted the entire loan amount of $965,707 to a grant based on an appeal for a hardship exception by the applicant.

[2] Estimated eligible cost, only. No contingency amounts may be authorized for these projects until bids are received.

APPENDIX C

PINELANDS INFRASTRUCTURE TRUST
CURRENT STATUS
October 1, 1993

Local unit construction grants*	$19,582,139
Contingency construction grants remaining	604,863
Local unit construction loans*	8,910,566
Contingency construction loans remaining	302,432
State costs of preparing infrastructure master plan and issuing bonds	500,000
Planning and design grants	100,000
TOTAL	**$30,000,000**

*includes contingency allowances applied to Harding Highway, Monroe, and Pinehurst Interceptors trust assistance

APPENDIX D

RECOMMENDED CONDITIONS OF FUNDING BY PROJECT
October 1, 1993

Project	Condition(s)
Monroe Interceptor	o Commitment to upgrade pump to GCUA interceptor
	o Request increased plant allocation from GCUA
	o No more than 3 mgd of sewage may be generated from water drawn from sources in the Great Egg Harbor River Basin
	o Must establish a ground and surface water monitoring program
ACUA Coastal Interceptor	o Commitment to upgrade pumps to reach approved capacity
	o Increased costs associated with Harding Highway alignment change not eligible for Trust assistance
Chesilhurst Collection	o Fund only if CCMUA constructs Chesilhurst interceptor and regional interceptor to provide necessary conveyance and treatment
	o CCMUA must, in conjunction with their regional interceptor, establish a ground and surface water monitoring program
	o If the low bid exceeds the estimated cost, Pinelands Infrastructure Trust funding may be based on 60% eligible costs up to the point where eligible costs equal 110% of estimated costs. In no case,

		however, can the P.I.T.A. funding coupled with FmHA assistance exceed total eligible costs. This funding will be from the Infrastructure Trust contingency funds, subject to availability
Stafford Skeleton	o	Must submit detailed plans for completion of Ocean Acres Collection system within 5 years of funding agreement, which plan would be subject to acceptance by DEP
	o	Must complete construction of system within 20 years of date of agreement unless there is insufficient demand for completion of system or despite diligence in seeking funds excessive user fees would create hardship
Winslow Route 73 Interceptor & Pump Station	o	Proposed interceptor must be sized to accommodate full build-out of Winslow's Regional Growth Area. Any future pump stations/collection lines will be ranked as a collection project.
Barnegat Phase I Interceptor & Pump Station	o	Any future PITF application to upgrade the Fourth Street Pump Station to increase its capacity up to 1.15 mgd shall be ineligible for PITF assistance. Costs associated with capacity increases beyond the 1.15 shall be eligible for PITF assistance.
	o	Service cannot be provided to the portion of the PNR-RGA as described below without the express approval of the Pinelands Commission and a finding that such service will not diminish the system's ability to otherwise service the PA-RGA. The area affected

by this condition is that portion of the PNR-RGA south of West Bay Avenue and east of the straight line distance connecting the intersection of U.S. Route 9 and Bay View Boulevard, which is 70 degrees east of north relative to the intersection of West Bay Avenue and Barnegat Boulevard North.

- Any costs associated with sizing lines to accommodate capacity outside the PA-RGA shall be ineligible for PITF assistance.

- Interceptor routing through a PNR-FA is not generally consistent with the Comprehensive Management Plan and will not be permitted unless it is demonstrated that no feasible alternatives exist to meet the public need for this proposal.

- The Township must affirm by Committee resolution that it can, and will, finance its local share of the project despite the fact that the 1988 and 1989 Planning Board approvals for the 2,436 P.A.C. dwelling units in the RL/AC zone for the Sungate, Cedar West Villages and Barnegat Woods proposals have expired. These local approvals are exempt from the Permit Extension Act due to the rezoning in Barnegat Township's Ordinance #1990-26 being mandated by the density requirements contained in N.J.A.C. 7:50-5.28(a)1i. These projects must obtain new approvals under the currently certified Township land development ordinance.

Egg Harbor Collection	o Must achieve certification prior to execution of grant and loan agreement with DEPE. o Must submit a coordinated water supply and wastewater treatment utilities service plan for the RGA before the final 20% of grant/loan construction payment is received. o Must evidence ability and willingness to increase its local match to above 40% of eligible costs to make up the shortfall in available PITF funding. However, the project is still eligible for 10% contingency funding, if available.
Hamilton ACUA Collection	o Must submit an analysis that explores and assesses the feasibility of various RGA water supply alternatives to the use of the Kirkwood/ Cohansey aquifer before the final 20% of loan/grant construction payment is received. o Must size gravity interceptor along West Jersey Avenue up to 18-inch diameter to serve adjacent RD/RGD area. o Must evidence ability and willingness to increase its local match to above 40% of eligible costs to make up the shortfall in available PITF funding. However, the project is still eligible for 10% contingency funding, if available.

3. The granting of the requested waiver is consistent with the purposes and objectives of the Trust Act, the Bond Act or other appropriations to the Trust for the purpose of providing financing to eligible projects, and any amendatory or supplementary acts thereto.

New Rule, R.1997 d.346, effective August 18, 1997.
See: 29 N.J.R. 2207(a), 29 N.J.R. 3723(a).

SUBCHAPTER 6. PINELANDS PROCEDURES AND REQUIREMENTS

7:22–6.1 Scope

This subchapter shall constitute the rules of the New Jersey Department of Environmental Protection governing the disposition of appropriations pursuant to the Pinelands Infrastructure Trust Bond Act of 1985 (P.L. 1985, c.302) or other monies appropriated to the Pinelands Infrastructure Trust Fund, as well as future bond acts enacted for the purpose of awarding financial assistance to local government units through the issuance of Pinelands grants or loans for the planning, design, and construction of wastewater treatment facilities. As they are enacted, reference to such bond acts shall be added to this section through a notice of administrative change published in the New Jersey Register, pursuant to N.J.A.C. 1:30–2.7. These rules prescribe the procedures to be followed by the applicant and the Department, respectively, in the application for grants and loans from the Pinelands Infrastructure Trust as well as the administration of these funds, including accounting and record keeping procedures, loan repayment requirements, minimum standards of conduct for recipients, and standards for the construction of wastewater treatment facilities.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Changed to reflect new title of the Department.
Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).

7:22–6.2 Construction of rules

This subchapter shall be construed so as to permit the Department and the Pinelands Commission to discharge its statutory functions and to effectuate the purposes of the law.

7:22–6.3 Purpose

(a) This subchapter is promulgated for the following purposes:

1. To implement the purposes and objectives of the Pinelands Infrastructure Trust Bond Act of 1985 (P.L. 1985, c.302) and future bond acts;

2. To establish policies and procedures for the distribution of funds appropriated pursuant to the Pinelands Infrastructure Trust Bond Act of 1985 and other monies appropriated to the Pinelands Infrastructure Trust Fund, as well as future bond acts passed, for the purpose of providing financial assistance to local government units through the issuance of Pinelands grants and loans for the costs planning and design, in accordance with N.J.A.C. 7:22–6.11(e), (f), and (g), and the construction of wastewater treatment facilities necessary to accommodate development in the regional growth areas as defined in the comprehensive management plan. As they are enacted, reference to such bond acts shall be added to this paragraph through a notice of administrative change published in the New Jersey Register, pursuant to N.J.A.C. 1:30–2.7;

3. To protect the public and the State by insuring that Pinelands Infrastructure Trust funds appropriated are spent in a proper manner and for the intended purposes;

4. To assure that the distribution and use of Pinelands Infrastructure Trust funds is consistent with the laws and policies of the State;

5. To establish minimum standards of conduct to prevent conflicts of interest and to insure proper administration of Pinelands Infrastructure Trust funds;

6. To establish accounting procedures for the administration of Pinelands Infrastructure Trust funds;

7. To establish Pinelands loan repayment requirements for projects receiving loans; and

8. To establish standards for the construction of wastewater treatment facilities.

Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).

7:22–6.4 Definitions

The following words and terms, when used in this subchapter, have the following meanings unless the context clearly indicates otherwise.

"Ad valorem tax" means a tax based upon the value of real property.

"Allowable costs" means those costs that are eligible, reasonable, necessary and allocable to the project; permitted by generally accepted accounting principles; and approved by the Department in the Pinelands grant or loan agreement. Allowable costs will be determined on a project specific basis in accordance with N.J.A.C. 7:22–7.

"Allowance" means an eligible project cost for planning and design costs based on a percentage of the project's allowable building cost, computed in accordance with N.J.A.C. 7:22–7.12, and awarded in conjunction with the Pinelands Fund grant or loan to build the project.

"Alternative technology" means proven wastewater treatment processes and techniques which provide for the reclaiming and reuse of water, productively recycle wastewater constituents or otherwise eliminate the discharge of pollu-

tants, or recover energy. Specifically, alternative technology includes, but is not limited to, land application of effluent and sludge, aquifer recharge, aquaculture, direct reuse (nonpotable), horticulture, revegetation of disturbed land, containment ponds, sludge composting and drying prior to land application, self-sustaining incineration, methane recovery, individual and on-site systems, and small diameter pressure and vacuum sewers and small diameter gravity sewers carrying partially or fully treated wastewater.

"Applicant" means any local government unit that applies for a Pinelands grant or loan pursuant to the provisions of these rules and regulations.

"Best Practicable Waste Treatment Technology" (BPWTT) means the cost-effective technology that can treat wastewater, combined sewer overflows and nonexcessive infiltration and inflow in publicly owned or individual wastewater treatment facilities, to meet the applicable provisions of:

1. 40 CFR Part 133—secondary treatment of wastewater;

2. 40 CFR Part 125, Subpart G—marine discharge waivers;

3. 40 CFR 122.44(d)—more stringent water quality standards and State standards; and/or

4. 41 FR 6190 (February 11, 1976)—Alternative Waste Management Techniques for Best Practicable Waste Treatment (treatment and discharge, land application techniques and utilization practices, and reuse).

"Bond Act" means the Pinelands Infrastructure Bond Act of 1985 (P.L. 1985, c.302) and any amendatory and supplementary acts thereto as well as future bond acts passed for the purpose of providing funds for the construction of wastewater treatment facilities.

"Bonds" means the bonds authorized to be issued, or issued, under the Pinelands Infrastructure Trust Bond Act or future bond acts passed for the purpose of providing funds for the construction of wastewater treatment facilities.

"Building cost" means the cost for the acquisition, erection, alteration, remodeling, improvement or extension of wastewater treatment facilities. This definition excludes administration, legal, fiscal and engineering costs associated with the planning and design of the project.

"Certified mail" means any means of delivery where proof of receipt is obtained and date of receipt is recorded.

"Change order" means an alteration of the cost, scope or time of performance of a subagreement occurring subsequent to the execution of that subagreement.

"Collection system" means the sewers which are primarily installed to receive wastewaters directly from individual systems or from private property and which include service "Y" connections designed for connection with those private facilities when owned, operated and maintained by or on behalf of the local government. Included in this definition are crossover sewers connecting more than one property on one side of a major street, road or highway to a lateral sewer on the other side when more cost effective than parallel sewers, and pumping units and pressurized lines serving individual structures or groups of structures when units are cost effective and are owned, operated and maintained by the local government unit.

"Combined sewer" means a sewer that is designed to function as both a sanitary sewer and storm sewer.

"Commission" means the New Jersey Commission on Capital Budgeting and Planning.

"Comprehensive management plan" means the plan for the protection of the Pinelands area adopted pursuant to N.J.S.A. 13:18A–8.

"Construction" includes, but is not limited to, the preliminary planning to determine the economic and engineering feasibility of wastewater treatment facilities; the engineering, architectural, legal, fiscal, and economic investigations and studies, surveys, designs, plans, working drawings, specifications, procedures, and other action necessary for the construction of wastewater treatment facilities; the acquisition of land (including sewer right-of-ways); the erection, building, alteration, remodeling, improvement, or extension of wastewater treatment facilities; and the inspection and supervision of the construction of wastewater treatment facilities.

"Contract" means a subagreement as defined in this subchapter.

"Conventional technology" means the processes and techniques involving the treatment of wastewater at a centralized treatment plant by means of biological or physical/chemical unit processes followed by direct point source discharge to surface waters.

"DAC" means "Discharge Allocation Certificate".

"Department" means the New Jersey Department of Environmental Protection and its successors and assigns.

"Design life" means the length of time during which a wastewater treatment facility is planned and designed to be operated.

"Discharge Allocation Certificate" (DAC) means the certificate issued by the Department pursuant to N.J.A.C. 7:14A which designates the quantity and quality of pollutants which may be discharged by any person planning to undertake any activity which will result in a discharge to surface water or a substantial modification in a discharge to surface water.

"Economically disadvantaged individuals" as defined in 15 U.S.C. 637(a)(6) means those socially disadvantaged individuals whose ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities as compared to others in the same business area who are not socially disadvantaged individuals.

"EPA" means the United States Environmental Protection Agency.

"Excessive infiltration/inflow" means the quantities of infiltration/inflow which can be economically eliminated from a sewer system as determined in a cost-effectiveness analysis that compares the costs for correcting the infiltration/inflow conditions to the total costs for transportation and treatment of the infiltration/inflow.

"Federal grant" means a grant awarded pursuant to section 201 of the Federal Water Pollution Control Act Amendments.

"Federal Water Pollution Control Act Amendments" means the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1251 et seq.) and any amendatory of supplementary acts thereto.

"Final building cost" means the total actual allowable cost of the final work in place for the project, in accordance with the project scope as defined in the Pinelands grant or loan agreement.

"Force account work" means the use of the recipient's own employees or equipment for construction, construction related activities, or for repair or improvements to a facility.

"Infiltration" means water other than wastewater that enters a sewer system (including sewer service connections and foundation drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.

"Inflow" means water other than wastewater that enters a sewer system (including sewer service connections) from sources such as, but not limited to, roof leaders, cellar drains, yard drains, area drains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street washwaters, or drainage. Inflow does not include, and is distinguished from, infiltration.

"Initiation of operation" means the date specified by the recipient in the Pinelands grant or loan agreement on which use of the project begins for the purposes that it was planned, designed and built.

"Innovative technology" means developed wastewater treatment processes and techniques which have not been fully proven under the circumstances of their contemplated use and which represent a significant advancement over the state of the art in terms of significant reduction in life cycle cost or significant environmental benefits through the reclaiming and reuse of water, otherwise eliminating the discharge of pollutants, utilizing recycling techniques such as land treatment, more efficient use of energy and resources, improved or new methods of waste treatment management for combined municipal and industrial systems, or the confined disposal of pollutants so that they will not migrate to cause water or other environmental pollution.

"Local government unit" means a county, municipality, municipal or county sewerage or utility authority, municipal sewerage district, joint meeting, or any other political subdivision of the State authorized to construct and/or operate wastewater treatment facilities.

"Low bid building cost" means the total allowable cost for the project due to the award of all contracts within a project scope to the lowest responsible and responsive bidder(s). Excluded from this cost is any cost due to change orders.

"Operation and maintenance" means the following activities required to assure the dependable and economical functioning of wastewater treatment facilities:

1. Maintenance: Preservation of functional integrity and efficiency of equipment and structures, including, but not limited to, preventive maintenance, corrective maintenance, and replacement of equipment as needed.

2. Operation: Control of the unit processes and equipment which make up the wastewater treatment facilities, including, but not limited to, financial and personnel management, recordkeeping, laboratory control, process control, safety and emergency operation planning.

"Pinelands Area" means the area so designated by N.J.S.A. 13:18A–11a.

"Pinelands Bond Act" means the Pinelands Infrastructure Bond Act of 1985 (P.L. 1985 c.302) and any amendatory complementary acts thereto.

"Pinelands Commission" means the commission created pursuant to N.J.S.A. 13:18A–4.

"Pinelands Fund" or "Pinelands Infrastructure Trust Fund" means the Pinelands fund established pursuant to the Pinelands Bond Act or other fund established by a future bond act for the construction of wastewater treatment facilities.

"Pinelands grant" or "Pinelands Infrastructure Trust grant" means a grant from the Pinelands Infrastructure Trust fund or future bond act funds or other appropriations for the allowable costs of a wastewater treatment facilities project.

"Pinelands grant agreement" means the legal instrument executed between the State of New Jersey and the local government unit for the construction of wastewater treatment facilities.

"Pinelands Infrastructure Master Plan" means an infrastructure needs report prepared by the New Jersey Pinelands Commission which includes a capital projects inventory within regional growth areas, assessment of projects, establishment of a priority ranking system for projects, and a final ranking of Pinelands Infrastructure projects.

"Pinelands Infrastructure Trust Funding List" means the mechanism by which projects are ranked and a subsequent funding list developed by the Pinelands Commission through the Pinelands Infrastructure Master Plan.

"Pinelands loan" or "Pinelands Infrastructure Trust loan" means a loan from the Pinelands Infrastructure Trust Fund or future bond act funds or other appropriations for the allowable costs of a wastewater treatment facilities project.

"Pinelands loan agreement" means the legal instrument executed between the State of New Jersey and the local government unit for the construction of wastewater treatment facilities.

"Professional services" means services rendered or performed by a person authorized by law to practice a recognized profession, whose practice is regulated by law, and the performance of which services requires knowledge of an advanced type in a field of learning acquired by a prolonged formal course of specialized instruction and study as distinguished from general academic instruction or apprenticeship and training. Examples include services provided by an accountant, archaeologist, attorney, auditor, bond counsel, engineer, environmentalist and financial advisor.

"Project" means the defined services for the construction of specified operable facilities as approved by the Department in the Pinelands grant or loan agreement.

"Project performance standards" means the performance and operations requirements applicable to a project including the enforceable requirements of the Federal Water Pollution Control Act Amendments and the specifications, including the quantity of excessive infiltration and inflow proposed to be eliminated, which the project is planned and designed to meet.

"Project scope" or "scope of work" means the scope of services and/or activities for which a Pinelands grant or loan agreement has been executed by the Department and a recipient.

"Qualified inspector" means a person in the building trades or who has construction experience and who is knowledgeable regarding acceptable construction practices and terminology related to pipe installation, concrete placement and mechanical equipment installation.

"Recipient" means any local government unit which has received preaward approval pursuant to N.J.A.C. 7:22–6.32 or a Pinelands grant or loan pursuant to this subchapter.

"Regional growth area" means an area designated in the comprehensive management plan as a receiving area for Pinelands Commission development credits to accommodate regional growth.

"Responsible bidder" means a bidder that satisfactorily demonstrates to the Department that it has:

1. Financial resources, technical qualifications, experience, organization and facilities adequate to carry out the project, or a demonstrated ability to obtain these;

2. Resources to meet the completion schedule contained in the subagreement;

3. A satisfactory performance record for completion of subagreements;

4. Accounting and auditing procedures adequate to control property, funds and assets; and

5. A demonstrated record of compliance or willingness to comply with the civil rights, equal employment opportunity, labor law and other statutory requirements under this subchapter.

"Responsible engineer" means the engineer or engineering firm who is contracted by the recipient to ensure that the construction work is performed in accordance with the approved contract documents.

"Right-of-way" means a strip of land or route acquired by the local government unit in which a conveyance pipe will be installed.

"Socially disadvantaged individuals" as defined in 15 U.S.C. 637(a)(5) means those individuals who have been subjected to racial and ethnic prejudice or cultural bias because of their identity as a member of a group without regard to their individual qualities. 15 U.S.C. 637(d)(3) presumes that socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian Pacific Americans, and other minorities.

"State" means the State of New Jersey.

"Subagreement" means a written agreement between a recipient and another party (other than another public agency) which may include the prime building agreement for the project, and any lower tier agreement for services, supplies, or construction necessary to complete the project; agreements for personal and professional services with consultants; and purchase orders.

"Substantial alteration" means any change which results in an alteration of the project costs or a change of 90 days or more in the project schedule.

"User charge" means a charge levied on users of a wastewater treatment facility or that portion of the ad valorem taxes paid by a user, for the user's proportionate share of the cost of operation and maintenance (including replacement) of such facilities and may include debt service.

"Wastewater" means residential, commercial, industrial, or agricultural liquid waste, sewage, septage, stormwater runoff, or any combination thereof, or other residue discharged or collected into a sewer system or stormwater runoff system or any combination thereof.

"Wastewater treatment facilities" includes, but is not limited to, any equipment, plants, structures, machinery, apparatus, or land that shall be an integral part of the treatment process or used for the ultimate disposal of residues resulting from such treatment, or any combination thereof, acquired, used, constructed or operated by or on behalf of a local government unit for the storage, collection, reduction, recycling, reclamation, disposal, separation or other treatment of wastewater, wastewater sludges, septage or industrial wastes, including but not limited to, pumping and ventilating stations, treatment systems, plants and works, connections, extensions, outfall sewers, combined sewer overflow, intercepting sewers, trunklines, sewage collection systems, and other equipment, personal property and appurtenances necessary thereto.

"Water Quality Management Plans" means the plans prepared pursuant to Sections 208 and 303 of the Clean Water Act (33 U.S.C. 1251 et seq.) and the Water Quality Planning Act (N.J.S.A. 58:11A–1 et seq.).

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3382(a), 24 N.J.R. 246(a).
Amended to provide definitions applicable to the test of the amendments included in subsequent sections of the subchapter.
Amended by R.1993 d.242, effective June 7, 1993.
See: 24 N.J.R. 4310(b), 25 N.J.R. 2271(a).
Amended to include several definitions applicable to the construction requirements included in N.J.A.C. 7:22–6.17.

Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).

7:22–6.5 Pinelands Infrastructure Trust Fund

(a) The proceeds from the sale of bonds issued pursuant to section 5.a of the Pinelands Act shall be paid to the State Treasurer and held thereby in a separate interest bearing account specifically dedicated to making grants and low interest loans to local government units for financing the cost of the construction of wastewater treatment facilities.

(b) The moneys in the Pinelands Fund are specifically dedicated and shall be used for the purposes identified in N.J.A.C. 7:22–6.3; however, no moneys shall be expended from the Pinelands Fund for those purposes without the specific appropriation thereof by the Legislature.

(c) Payments of principal and interest on loans awarded from the Pinelands Fund shall be made to the Pinelands Fund.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
In (b), affirmatively state that moneys . . . "shall be used for."

7:22–6.6 Terms of grants and loans from the Pinelands Infrastructure Trust Fund

(a) The Pinelands Fund may offer grants and loans for up to 100 percent of allowable project costs for the acquisition, construction, improvement, expansion, repair or rehabilitation of all or part of any structure, facility, or equipment necessary for or ancillary to any wastewater treatment facilities and may offer a range of options regarding the term, interest rate and level of loan funding.

(b) The term of the Pinelands loans will generally be 20 years or as indicated in the Pinelands grant or loan agreement. The interest rate will not exceed 50 percent of the Bond Buyer Municipal Bond Index for bonds available for purchase during the last 26 weeks preceding the date of the execution of the loan agreement by the Department. Pinelands loan repayments shall be made by the recipient in accordance with the repayment schedule indicated in the Pinelands loan agreement. Principal and accrued interest with respect to a particular Pinelands loan may, however, be prepaid in accordance with the provisions of the relevant Pinelands loan agreement.

(c) Local government units shall secure all Pinelands loans in a manner acceptable to the Department. Acceptable security arrangements include but are not limited to general obligation bonds of the local government unit, service/deficiency agreement(s) with government units with general taxing power, municipal bond insurance, surety bonds and other arrangements acceptable to the Department.

(d) Pinelands grant and loan proceeds will be disbursed to recipients in accordance with N.J.A.C. 7:22–6.24.

(e) The specific terms and conditions of the grant or loan shall be incorporated in the Pinelands grant or loan agreement to be executed by the recipient and the State.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Deleted more specific time frames regarding initiation of repayment in lieu of repayment schedule as indicated in loan agreement.

7:22–6.7 Criteria for project funding priority

(a) The Department shall utilize a Pinelands Infrastructure Trust Funding List which will be the same as the priority list of projects contained within the Pinelands Infrastructure Master Plan developed by the Pinelands Commission. The Pinelands Infrastructure Master Plan will be the subject of at least one public hearing held by the Pinelands Commission including a public comment period. Local government units are only eligible for Pinelands Infrastructure Trust funding if they are on the priority list and are ranked by the Pinelands Infrastructure Master Plan. Eligible projects placed on the Pinelands Infrastructure Trust Funding List shall be eligible to receive a Notice of Project Eligibility in accordance with N.J.A.C. 7:22–6.8. The following must be submitted by the authorized representative of the local government unit to be considered for ranking on the Pinelands Infrastructure Trust Funding List:

1. Brief description of the project including category of need (that is, secondary treatment, advanced treatment, collection system) and any significant change in scope of work from that contained in the Pinelands Infrastructure Master Plan;

2. Brief description of existing and anticipated water quality deficiencies; and

3. Estimated costs associated with building the project, excluding planning and design except as provided in 7:22–6.11(e), (f), and (g). Significant changes in estimated costs shall be outlined.

(b) Any significant change in estimated costs or scope of work from that contained in the Pinelands Infrastructure Master Plan may result in deferral or rejection of a project.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Deleted address of the Pinelands Commission.

7:22–6.8 Pinelands Infrastructure Trust, State and Federal funding

(a) Local government units which receive funding through a grant from any Federal program, including a special project grant or loan authorized pursuant to Federal law, or a loan from the New Jersey Wastewater Treatment Trust pursuant to N.J.A.C. 7:22–4 shall also be eligible to receive financial assistance from the Pinelands Infrastructure Trust Fund for the construction of the same work (planning, design or building) within the scope of the project. However, in no case shall the total funding assistance under a Federal grant, special project grant or loan, Trust loan and the Pinelands Fund exceed the total eligible costs. However, local government units which receive funding through a loan from the Wastewater Treatment Fund pursuant to N.J.A.C. 7:22–3 shall not be eligible to receive financial assistance from the Pinelands Infrastructure Trust Fund for construction of the same work within the scope of the wastewater treatment facilities project.

(b) Those local government units whose projects are ranked within the fundable range of the Pinelands Infrastructure Trust Funding List shall receive a Notice of Project Eligibility in accordance with N.J.A.C. 7:22–6.9. The Department as directed by the Pinelands Commission reserves the right to send a Notice of Project Eligibility to the next highest ranked local government unit(s) for contingency project(s) should the project(s) within the fundable range not proceed as planned.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Added new (a) allowing projects to receive Federal funding in addition to funding pursuant to N.J.A.C. 7:22–6 but prohibits projects from receiving funding in excess of the total allowable costs for the same project scope.
Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).

7:22–6.9 Notice of project eligibility

(a) The Department shall send a Notice of Project Eligibility by certified mail to those local government units whose projects rank high enough on the Pinelands Infrastructure Trust Funding List to receive funds. The Department as directed by the Pinelands Commission reserves the right to send a Notice of Project Eligibility to the next highest ranked project(s) outside the fundable range to act as contingency project(s) should the project(s) within the fundable range not proceed as planned. This notice shall not constitute an obligation to provide Pinelands Infrastructure Trust funding for the project. The Notice of Project Eligibility may not be sent to any local government unit who is in current default on any State loan. However, unless the Department determines that repayment of the defaulted loan will be received, a Pinelands grant or loan agreement will not be executed between the Department and the local government unit.

(b) Local government units receiving a Notice of Project Eligibility shall notify the Department within 45 days of receipt as to their intent to proceed with the project and shall submit to the Department a complete application in conformance with N.J.A.C. 7:22–6.11 within the time period specified in the Notice of Project Eligibility. Failure of the local government unit to respond to the Notice of Project Eligibility within 45 days shall be interpreted as a decision by the local government unit to not apply for Pinelands Infrastructure Trust funding at this time and may result in that project being bypassed on the Pinelands Infrastructure Trust Funding List. Failure to submit the complete application within the time period specified in the Notice of Project Eligibility shall result in the Department's disapproval of the local government unit's loan application unless the Department, at its discretion approves, for good cause, an extension to this period.

(c) Written notice of a bypass or disapproval action shall be forwarded to the local government unit by certified mail. As a result of such an action, the project shall be bypassed on the Pinelands Infrastructure Trust Funding List which may allow the next highest ranked contingency project to be within the fundable range on the Pinelands Infrastructure Trust funding list. A bypassed or disapproved project shall remain on the funding list and its priority shall remain the same.

7:22–6.10 Pre-application procedures

(a) Local government units are urged to be familiar with the requirements of this subchapter and to contact the Department early in the planning process so that their projects are in a position to proceed at time of Notice of Project Eligibility.

(b) The Department requires a pre-application conference with potential applicants prior to submission of a formal application for a Pinelands grant or loan. During the conference the Department shall identify and explain all application documents. This conference is not part of the application procedures and verbal statements made during the conference shall not bind the Department.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Deleted (c) with address of Division of Water Resources in it.

7:22–6.11 Application procedures

(a) Each application for Pinelands Infrastructure Trust funds shall be submitted to the Department in conformance with the time period specified in the Notice of Project Eligibility or as otherwise extended by the Department and must include full and complete documentation and any supplementary materials that the Department requires an applicant to furnish.

(b) Submissions which do not substantially comply with this subchapter shall not be processed further and the applicant shall be so advised.

(c) Processing of a Pinelands grant or loan application generally requires 60 calendar days after receipt of a complete application by the Department.

(d) The following must be submitted when applying for Pinelands Infrastructure Trust funding for the construction of wastewater treatment facilities:

1. An application for Pinelands Infrastructure Trust funding pursuant to this subchapter for the construction of wastewater treatment facilities. Each application constitutes an agreement to accept the requirements of this subchapter;

2. A resolution passed by the local government unit authorizing the filing of an application for Pinelands Infrastructure Trust funding and specifying the individual authorized to sign the Pinelands grant or loan application on behalf of the local government unit. If two or more local government units are involved in the project, a resolution indicating the lead applicant and the authorized representative is required from each;

3. Statement of Assurances (MWA Form LP–4) and an executed Professional Services Affidavit (MWA Form LP–11) for each person or firm whose professional services have been procured by the local government unit for the project for which cost reimbursement will be sought under this chapter, including those planning and design activities for which direct funding is provided in accordance with N.J.A.C. 7:22–6.11(f) and (g) below. If the professional services for which cost reimbursement will be sought under this chapter, have not been procured at the time of loan application, submittal by the local government unit of a letter of commitment to comply with the requirements of the Professional Services Affidavit, and to submit a copy of the executed Professional Services Affidavit to the Department immediately upon execution of the contract for the professional services, will satisfy this requirement. Submittal of the executed Professional Services Affidavit or letter of commitment is a requirement of the application process so that the Department will have written confirmation from the local government unit that it has or will procure any necessary professional services in conformance with the procurement requirements of the Local Public Contracts Law (N.J.S.A. 40A:11–1 et seq.), the Wastewater Treatment Privatization Act (N.J.S.A. 58:27–1 et seq.) or other State-approved method and the local government unit has or will review the proposed costs and activities and finds them acceptable. This Professional Services Affidavit requirement does not apply to professional services obtained for those planning and design activities which are covered through an allowance in accordance with N.J.A.C. 7:22–5.12;

4. Assurance of compliance with the civil rights requirements of Title VI of the Civil Rights Act of 1964 (P.L. 88–352) and the New Jersey Law Against Discrimination (N.J.S.A. 10:5–1 et seq.) (CGA Form LP–5);

5. Project Report/Facilities Plan including evidence of compliance with the appropriate Water Quality Management Plans in accordance with the provisions of N.J.A.C. 7:15 and the Environmental Assessment Requirements for State Assisted Wastewater Treatment Facilities (N.J.A.C. 7:22–10). A complete Project Report/Facilities Plan must include:

i. A description of both the proposed wastewater treatment facilities and the complete wastewater treatment system of which it is a part;

ii. A description of the Best Practicable Wastewater Treatment Technology;

iii. A cost effectiveness analysis of the feasible conventional, innovative and alternative technologies capable of meeting the applicable effluent, water quality and public health requirements over the design life of the facility while recognizing environmental and other non-monetary considerations. The planning period for cost effectiveness analysis must be 20 years. The monetary costs to be considered must include the present worth or equivalent annual value of all capital costs and operation and maintenance costs. The population forecasting in the analysis must be consistent with the appropriate Water Quality Management Plan. A cost effectiveness analysis must include:

(1) An evaluation of flow reduction methods. If the applicant demonstrates that the existing average daily base flow (ADBF) from the area is less than 70 gallons per capita per day (gpcd), or if the Department determines the area has an effective existing flow reduction program, this evaluation is not required;

(2) A description of the relationship between the capacity of alternatives analyzed and the needs to be served, including capacity for future growth expected after the wastewater treatment facilities become operational. This includes letters of intent from significant industrial users and all industries intending to increase their flows or relocate in the area documenting capacity needs and characteristics for existing or projected flows;

(3) An evaluation of improved effluent quality attainable by upgrading the operation and maintenance and efficiency of existing facilities as an alternative or supplement to construction of new facilities;

(4) An evaluation of the alternative methods for the reuse or ultimate disposal of treated wastewater and sludge material resulting from the treatment process;

(5) A consideration of systems with revenue generating applications;

(6) An evaluation of opportunities to reduce use of or recover energy; and

(7) Cost information on total capital costs, and annual operation and maintenance costs, as well as estimated annual or monthly costs to residential and industrial users;

iv. An infiltration/inflow analysis of the sewer system in accordance with N.J.A.C. 7:22–6.35;

v. An analysis of the potential open space and recreation opportunities associated with the project;

vi. An adequate evaluation of the environmental impacts of the alternatives analyzed in N.J.A.C. 7:22–6.11(d)5iii;

vii. An evaluation of the water supply implications of the project; and

viii. For the selected alternative, a concise description at an appropriate level of detail, of at least the following:

(1) Relevant design parameters, including a description of the treatment units and/or sewer system to be built, schematic flow diagrams, hydraulic profiles and preliminary design criteria;

(2) Estimated capital construction and operation and maintenance costs identifying the Pinelands Funds and local (or other source) shares, and a description of the manner in which local costs will be financed;

(3) Estimated cost of future expansion and long-term needs for reconstruction of facilities following their design life;

(4) Cost impacts on wastewater system users; and

(5) Institutional and management arrangements necessary for successful implementation;

6. For sewer rehabilitation projects, a Sewer System Evaluation Survey in accordance with N.J.A.C. 7:22–6.35;

7. Department approvable plans, specifications and technical design report;

8. A description of the public participation process to date. Public participation activities undertaken in connection with the environmental review process should be coordinated with any other applicable public participation program wherever possible;

9. A report on the participation by socially and economically disadvantaged individuals during planning and design as required by N.J.A.C. 7:22–9.12(a);

10. Project cost breakdown for each subagreement;

11. Projected cash flow schedule to be used to establish the disbursement schedule;

12. Project construction schedule. A court-sanctioned order or a Department-issued Administrative Consent Order indicating a compliance schedule will be required where applicable;

13. A sewer use ordinance and user charge system acceptable to the Department;

i. The sewer use ordinance or other legally binding document must include provisions that prohibit any new connections from inflow sources into the treatment facilities and require that new sewers and connections to the treatment facilities are properly designed and constructed. The ordinance or other legally binding document must require the local unit to diligently investigate any existing inflow sources (such as sump pumps) and eliminate such sources within a reasonable time period. The ordinance or other legally binding document must also require that all wastewater introduced into the treatment facilities not contain toxics or other pollutants in amounts or concentrations that endanger public safety and physical integrity of the treatment facilities; not violate effluent or water quality limitations; or not preclude the selection of the most cost effective alternative for wastewater treatment and sludge disposal.

ii. The user charge system shall be designed to produce adequate revenues required for operation and maintenance (including replacement) and, in most cases, to cover debt service costs for the local government unit's wastewater treatment facilities. It must provide that each user which discharges pollutants that cause an increase in the cost of managing the effluent or sludge from the treatment facilities shall pay for such increased cost. Unless otherwise approved by the Department, the user charge system shall be based on either actual use under (d)13ii(1) below, ad valorem taxes under (d)13ii(2) below, or a combination of the two. It must also meet the requirements set forth in (d)13ii(3) through (8) below.

iii. The applicant may establish lower user charge rates for low income residential users as authorized by State law. The total revenue for operation and maintenance, including equipment replacement, of the facilities must not be reduced as a result of establishing a low income residential user class;

(1) A user charge system based on actual use (or estimated use) of wastewater treatment services must provide that each user (or user class) pays its proportionate share of operation and maintenance (including replacement) costs of treatment facilities within the service area, based on the user's proportionate contribution to the total wastewater loading from all users (or user classes).

(2) A user charge system which is based on ad valorem taxes may be approved if:

(A) On December 27, 1977, the applicant had in existence a system of dedicated ad valorem taxes which collected revenues to pay the cost of operation and maintenance of wastewater treatment facilities within the service area and the applicant has continued to use that system;

(B) The ad valorem user charge system distributes the operation and maintenance costs for all treatment facilities in the applicant's jurisdiction to the residential and small nonresidential user class (including at the applicant's option nonresidential, commercial and industrial users that introduce no more than the equivalent of 25,000 gallons per day of domestic sanitary wastes to the treatment facilities), in proportion to the use of the treatment facilities by this class; and

(C) Each member of the industrial user and commercial user class which discharges more than 25,000 gallons per day of sanitary waste pays its share of the costs of operation and maintenance of the treatment facilities based upon charges for actual use.

(3) Each user charge system must provide that each user be notified, at least annually, in conjunction with a regular bill (or other means acceptable to the Department) of the rate and that portion of the user charges or ad valorem taxes which are attributable to wastewater treatment services.

(4) Each user charge system must include an adequate financial management system that will accurately account for revenues generated by the system and expenditures for operation and maintenance (including replacement) of the treatment system, based on an adequate budget identifying the basis for determining the annual operation and maintenance costs and the costs of personnel, material, energy and administration.

(5) The user charge system must provide that the costs of operation and maintenance for all flow not directly attributable to users (that is, infiltration/inflow) be distributed among all users based upon either of the following:

(A) In the same manner that it distributes the costs for their actual use; or

(B) Under a system which uses one or any combination of the following factors on a reasonable basis:

(I) Flow volume of the users;

(II) Number of hookups or discharges of the users;

(III) Property valuation of the users, if the applicant has an approved user charge system based on ad valorem taxes.

(6) After completion of construction of a project, revenue from the project (for example, sale of a treatment-related by-product, lease of the land, or sale of crops grown on the land purchased under the Pinelands grant or loan agreement) must be used to offset the costs of operation and maintenance. The applicant shall proportionately reduce all user charges.

(7) One or more municipal legislative enactments or other appropriate authority must incorporate the user charge system. If the project accepts wastewater from other municipalities, the subscribers receiving waste treatment services from the applicant shall adopt user charge systems in accordance with this section. These user charge systems must also be incorporated in appropriate municipal legislative enactments or other appropriate authority of all municipalities contributing wastes to the treatment facilities.

iii. The applicant shall submit a draft plan of operation that addresses development of: an operation and maintenance manual, an emergency operating program, personnel training, an adequate budget consistent with the user charge system, operational reports, laboratory testing needs, and an operation and maintenance (including replacement) program for the complete waste treatment system;

14. Certificate (legal opinion) from counsel as to title or mechanism to obtain title necessary for project sites and easements;

15. An affidavit (CGA Form LP–8) certifying that required permits and approvals for building the wastewater treatment facilities, were received from applicable Federal, State, and local agencies;

16. A statement from the applicant indicating that it has not violated any Federal, State or local law pertaining to fraud, bribery, graft, kickback, collusion or conflicts of interest relating to or in connection with the planning and design of the project;

17. A statement from the applicant which indicates if it used the services of a person for planning or design of the project whose name appears on the State Treasurer's list of debarments, suspensions and voluntary exclusions;

18. Executed service, and/or deficiency or other intermunicipal agreements, if applicable. If the project will serve two or more local government units, the applicant shall submit the executed service agreements, contracts or other legally binding instruments necessary for the financing, building and operation of the proposed wastewater treatment facilities. At a minimum, these documents must include the basis upon which costs are allocated, the formula by which costs are allocated, and the manner in which the cost allocation system will be administered;

19. Draft engineering agreements for building services;

20. A description of how the applicant plans to repay the Pinelands loan, if applicable, and pay any other expenses necessary to fully complete and implement the project, the steps it has taken to implement this plan, and steps it plans to take before receiving the Pinelands loan that guarantee that at the time of the signing of the Pinelands loan agreement it is irrevocably committed to repay the Pinelands loan and pay any other expenses necessary to fully complete, implement, operate and maintain the project. The description must include: pro forma projections of the applicant's financial operations during the construction period of the project and five years thereafter; a summary of the sources and uses of all funds anticipated to be used for the project to be financed by the Pinelands Fund loan; and a statement of the assumptions used in creating these projections. Applicants shall secure all loans in a manner acceptable to the State pledging to provide funds to repay the debt, even if the Pinelands loan is terminated pursuant to N.J.A.C. 7:22–6.43. Acceptable security arrangements include, but are not limited to, general obligation bonds of the local government unit, municipal bond insurance, and service/deficiency agreement(s) with government units with general taxing power and surety bonds.

21. Comments or approvals from relevant State, local, and Federal agencies.

22. Such other information as the Department may require.

(e) Certain planning and design projects shall be permitted under the Pinelands Infrastructure Trust Bond Act. These projects shall be approved subject to a determination of need as determined by the New Jersey Pinelands Commission. This determination of need may be based on but is not necessarily limited to groundwater contamination, surface water contamination, the potential use of Pinelands Development Credits in Regional Growth Areas, community financial and budget restraints, or overall development pressures. Any agency receiving a planning grant or loan moneys must agree, as a grant or loan provision, to abide by and follow the findings of the Planning Study with regard to recommendations for infrastructure construction.

(f) The following shall be submitted when applying for Pinelands Infrastructure Trust funding for the planning of wastewater treatment facilities:

1. A plan of study representing:

i. The proposed planning area;

ii. An identification of the entity or entities that will be conducting the planning;

iii. The nature and scope of the proposed project including a schedule for the completion of certain tasks;

iv. An itemized description of the estimated costs for the project; and

v. Any significant public comments received.

2. Comments or approvals of relevant State, local and Federal agencies.

3. Draft engineering agreements and related cost documentation and an executed Professional Services Affidavit (MWA Form LP–11) for each person or firm whose professional services are procured by the local government unit for the project for which cost reimbursement is sought under this chapter.

(g) The following shall be submitted when applying for Pinelands Infrastructure Trust Funding for the design of wastewater treatment facilities:

1. A project report (including the environmental assessment) in accordance with Department guidelines;

2. Adequate information regarding availability of proposed site(s), if relevant;

3. Comments or approvals of relevant State, local and Federal agencies;

4. Proposed intermunicipal agreements necessary for the construction and operation of the proposed wastewater treatment for any facilities serving two or more municipalities and facilities; and

5. A schedule for initiation and completion of the project including milestones.

6. Draft engineering agreements and related cost documentation and an executed Professional Services Affidavit (MWA Form LP–11) for each person or firm whose professional services are procured by the local government unit for the project for which cost reimbursement is sought under this chapter.

(h) Applicants shall obtain all necessary Federal, State, and local permits and approvals prior to the award of a Pinelands grant or loan unless prior approval for an extension for one or more specific permits has been granted by the Department that does not significantly affect the grant or loan award. Excluded from prior acquisition are permits and approvals which are impractical to obtain prior to the loan award (such as, road opening permit and blasting permit).

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Amended to provide greater detail as to the components of a Project Report/Facilities Plan and as to what constitutes a Department-approvable user charge system and sewer use ordinance.
Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).

7:22–6.12 Use and disclosure of information

All applications and other submissions, when received by the Department, constitute public records. The Department shall make them available to persons who request their release to the extent required by New Jersey and/or Federal law.

7:22–6.13 Evaluation of application

(a) Each application shall be subject to:

1. Preliminary administrative review to determine the completeness of the application. The applicant will be notified of the completeness or deficiency of the application;

2. Technical and scientific evaluation to determine the merit and relevance of the project to the Department's objectives and the objectives of the Pinelands Infrastructure Master Plan;

3. Budget evaluation to determine whether proposed project costs are reasonable, applicable, and allowable; and

4. Final administrative evaluation.

(b) Upon the completion of a full review and evaluation of each application, the Department shall either certify the project for funding or make the determination that the awarding of Pinelands Infrastructure Trust funds shall be deferred. An approval by the Department shall only be issued after certification by the Pinelands Commission that the master plan and zoning ordinance of the municipalities and the Master Plan of the county wherein the project is to take place is in conformance with the Comprehensive Management Plan.

(c) The Department shall promptly notify applicants in writing of any deferral action, indicating the reasons for the deferral and a time frame for the resolution of any outstanding issues. A deferral action results in one of the following:

1. An approval of the application if the outstanding issues are addressed to the satisfaction of the Department within the specified time frame; or

2. A disapproval of the application if the outstanding issues are not addressed to the satisfaction of the Department within the specified time frame.

(d) The Department shall promptly notify an applicant by certified mail of any disapproval. A disapproval of an application will not preclude its reconsideration if resubmitted by the applicant. However, reconsideration of a revised Pinelands application and/or processing of a Pinelands grant or loan agreement for the project within the current fiscal year may be bypassed, precluding funding of the project until a future fiscal year. Affected applicants shall be notified in writing of such action. As a result of a disapproval and project bypass action, the next highest ranked project on the Pinelands Infrastructure Trust Funding List may fall within the fundable range.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
In (a), deleted Department notification of application receipt. In (b), added "certify the project for funding". In (d), added notification "by certified mail". Changed "Division" to "Department" throughout.

7:22–6.14 Supplemental information

At any stage during the evaluation process, the Department may require supplemental documents or information necessary to complete its full review of the application. The Department may suspend its evaluation until such additional information or documents have been received.

7:22–6.15 Pinelands Infrastructure Trust Fund grant and loan agreements

(a) The Department shall prepare and transmit the Pinelands Infrastructure Trust Fund grant or loan agreement to the applicant. The Pinelands grant or loan agreement sets forth the terms and conditions of the Pinelands Infrastructure Trust Fund grant or loan, approved project scope, allowable and unallowable project costs, estimated disbursement schedule, estimated loan repayment schedule and the approved commencement and completion dates for the project or major phases thereof.

(b) The Pinelands Infrastructure Trust Fund grant or loan agreement shall be executed by the applicant within such period of time and pursuant to such terms and conditions as the Department may determine. Such determinations shall be made in consultation with the Pinelands Commission and in consideration of any conditions identified in the Pinelands Infrastructure Master Plan.

(c) The Department, pursuant to such terms and conditions as it may determine, may require the applicant to irrevocably commit itself through a loan commitment letter, escrow agreement or other similar document to borrow the amount for which it has made application under the terms and conditions of the Pinelands Infrastructure Trust Fund grant or loan agreement transmitted to the applicant.

(d) The Pinelands grant or loan agreement and/or loan commitment letter, escrow agreement or other similar document shall be executed by a person authorized by resolution to obligate the applicant to the terms and conditions of the particular document for the project specified therein. A certified copy of the authorizing resolution shall be delivered to the Department at the time that the executed Pinelands grant or loan agreement, loan commitment letter, escrow agreement or other similar document is delivered to the Department.

(e) The Pinelands grant or loan agreement is deemed to incorporate all requirements, provisions, and information in documents or papers submitted to the Department in the application process.

(f) The Pinelands grant or loan agreement shall not be executed by the State if the applicant is in current default on any State loan.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).

Modified to identify the procedures related to the execution of the Pinelands Infrastructure Trust Fund grant or loan agreement, including the requirements for the applicant to provide a loan commitment letter, escrow agreement or other similar document to irrevocably commit itself to borrow the amount included within the loan agreement, if such commitment is required by the Department.

7:22–6.16 Grant and loan awards and closing

(a) Upon the execution of the Pinelands grant or loan agreement by the Department and the recipient, the grant or loan shall be deemed awarded and the agreement becomes effective and constitutes an obligation of the Pinelands Infrastructure Trust Fund in accordance with its terms and conditions. The obligation of the State under a Pinelands grant or loan agreement is contingent upon the availability of appropriated funds from which disbursements can be made. The Pinelands grant or loan is considered closed as indicated in the Pinelands grant or loan agreement.

(b) The award or closing of the Pinelands grant or loan does not commit or obligate the Department to award any continuation or supplemental funds to cover cost overruns of the project. Cost overruns for any project or portion thereof are the sole responsibility of the recipient.

(c) The award or closing of a Pinelands grant or loan by the State can not be used as a defense by the applicant to any action by any agency for the applicant's failure to obtain all requisite permits, licenses and operating certificates.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Language added regarding the obligation of the state regarding grants is contingent upon availability of funds.

7:22–6.17 Loan conditions

(a) The following requirements, in addition to N.J.A.C. 7:22–6.18 through 6.30, as well as such statutes, rules, terms and conditions which may be applicable to particular loans, are conditions to each Pinelands grant or loan, and conditions to each disbursement under a Pinelands grant or loan agreement:

1. The recipient shall comply with the Local Public Contracts Law (N.J.S.A. 40A:11–1 et seq.), the New Jersey Wastewater Treatment Privatization Act (N.J.S.A. 58:27–1 et seq.) or other applicable procurement method authorized by State law;

2. The recipient shall certify that it is, and shall assure that its contractors and subcontractors are, maintaining their financial records in accordance with generally accepted accounting principles and auditing standards for governmental institutions. The recipient shall comply with the requirements of the Single Audit Act of 1984 (31 U.S.C. 7501–7507), Federal OMB Circular A–128 and State OMB Circular 87–11, incorporated herein by reference. Copies of these documents may be obtained from the Department;

3. The recipient shall comply with the Department's standards of conduct (N.J.A.C. 7:22–8) and the Local Government Ethics Law (P.L. 1991, c.29; N.J.S.A. 40A:9–22);

4. The recipient shall comply with the requirements of N.J.A.C. 7:14–2, Construction of Wastewater Treatment Facilities, and the provisions of the NJPDES rules at N.J.A.C. 7:14A;

5. The recipient shall adopt a sewer use ordinance and implement the user charge system consistent with the provisions of N.J.A.C. 7:22–6.11(d)13;

6. The recipient shall establish an effective regulatory program pursuant to N.J.S.A. 58:10A–6 and enforce pretreatment standards which comply with 40 C.F.R. Part 403;

7. The recipient shall comply with all applicable requirements of Federal, State and local laws;

8. The recipient shall pay the unallowable costs of the construction of the project and shall pay the allowable costs not covered by the Pinelands grant or loan, if any;

9. The Pinelands grant or loan agreement or any amendment thereto may include special conditions necessary to assure accomplishment of the project objectives or Department requirements. The recipient shall comply with any special conditions which the Department requires in the agreement or any amendment thereto;

10. The recipient shall retain sufficient qualified operating and management personnel including a qualified chief operating officer or executive director, from the time of completion of construction or initiation of operation, whichever is earlier, until such time as the operation of the facility is discontinued;

11. Construction of the project, including letting of contracts in connection therewith, shall conform to applicable requirements of federal, State and local laws, ordinances, rules and regulations and to contract specifications and requirements;

12. No Pinelands grant or loan moneys shall be disbursed to a local government unit who is in current default on any State loan. In order to facilitate full or partial payment of such defaulted loan obligation the Department may, at its discretion, make a Pinelands grant or loan disbursement where it determines that the local government unit will repay the defaulted loan obligation and associated penalties. Nothing in this paragraph shall in any way limit any right or duty of the Department to demand and collect at any time the total due under any such defaulted loan;

13. An amount of any Pinelands grant or loan disbursement equal to any unpaid portion of a finally determined State assessed penalty pursuant to N.J.A.C. 7:14–8, Assessment of Civil Administrative Penalties, shall, at the discretion of the Department, be held in escrow until said penalty is paid in full. In no case will the total amount withheld under this subsection exceed the unpaid amount of said penalty;

14. The Department may assess penalties to late loan repayments as appropriate as specified in the Pinelands grant or loan agreement;

15. The recipient shall comply with the Environmental Assessment Requirements for State Assisted Wastewater Treatment Facilities (N.J.A.C. 7:22–10);

16. The recipient shall certify to the Department that a final plan of operation, including an operations and maintenance manual, an emergency operating program, personnel training, an adequate budget consistent with the user charge system, operational reports, laboratory testing needs, and an operation and maintenance (including replacement) program for the complete wastewater treatment system acceptable to the local government unit, has been developed for the project;

17. The recipient shall certify that it has not and shall not enter into any contract with, nor has any subcontract been or shall be awarded to any person debarred, suspended or disqualified from Department contracting pursuant to N.J.A.C. 7:1D–2 for any services within the scope of project work.

18. The recipient shall certify that the project or phase of the project was initiated and completed in accordance with the time schedule specified in the Pinelands grant or loan agreement or approved amendments thereto;

19. The recipient shall certify that it and its contractors and subcontractors shall comply with all insurance requirements of the Pinelands grant or loan agreement and certify, when appropriate, that the insurance is in full force and effect and that the premiums have been paid. The recipient shall include the State and its agencies, employees and officers as additional "named insureds" on any certificate of liability insurance coverage of the contractor. The recipient shall provide the Department with such certificate of liability insurance (or other similar document evidencing liability insurance coverage) prior to the issuance of the notice to proceed with the project. Such certificate shall be maintained in full force and represent a continuing obligation to include the State and its agencies, employees and officers as additional "named insureds" through the completion of construction. The recipient shall not alter or cancel such certificate without prior notification to the Department, in writing, 15 days in advance of any alteration or cancellation. In addition, when required, the recipient shall acquire or have the contractor acquire, as appropriate, flood insurance made available under the National Flood Insurance Act of 1968 (P.L. 90–448), as amended. Flood insurance coverage shall begin with the period of building and continue for the entire period during which the wastewater treatment facility operates. The insurance must be in an amount at least equal to the allowable improvements or the maximum limit of coverage made available to the recipient under the National Flood Insurance Act, whichever is less. The recipient shall comply with each requirement of this subsection prior to the release of the initial disbursement for building the project;

20. The recipient shall certify that it and its contractors and subcontractors shall comply with the discrimination and affirmative action provisions of N.J.S.A. 10:2–1 through 10:2–4, the New Jersey Law Against Discrimination (N.J.S.A. 10:5–1 et seq.), and the rules and regulations promulgated pursuant thereto, including, but not limited to, N.J.A.C. 17:27;

21. The recipient shall certify that it has established an affirmative action program for the hiring of minority workers in the performance of any construction contract for that project, consistent with the provisions of the New Jersey Law Against Discrimination (N.J.S.A. 10:5–1 et seq.);

22. The recipient shall designate an officer or employee, who may be an existing officer or employee, to serve as its public agency compliance officer, pursuant to N.J.A.C. 17:27–3.5 and N.J.A.C. 7:22–9.11;

23. The recipient shall certify that it shall comply with the Rules and Regulations for Awarding Contracts for State Assisted Projects to Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals (N.J.A.C. 7:22–9);

24. The recipient shall make a good faith effort to award not less than 10 percent of the total amount of all contracts for building, materials or services (including planning, design and building related services) for a project to small business concerns owned and controlled by socially and economically disadvantaged individuals as defined in the Small Business Act (15 U.S.C. 637(a) and 637(d)), and any regulations promulgated pursuant thereto. Where a local government unit has Minority Business Enterprise/Women's Business Enterprise (MBE/WBE) goals which exceed 10 percent of the total amount of all contracts, the local government unit's goals will take precedence over State goals;

25. The recipient shall pay not less than the prevailing wage rate to workers employed in the performance of any contract for the project, in accordance with the rate determined by the Commissioner of the New Jersey Department of Labor pursuant to N.J.S.A. 34:11–56.25 et seq. or the United States Secretary of Labor pursuant to 29 CFR Part 5, whichever is greater;

26. After the award of a contract and prior to the start of work, a preconstruction meeting shall be scheduled by the recipient. The recipient, the responsible engineer, the environmental and construction inspectors, the contractor and one or more representatives of the Department must be present at the preconstruction meeting;

27. Prior to starting construction, the recipient shall provide photographs or videotapes to the Department in conformance with the provisions of N.J.A.C. 7:22–10.11(q);

28. The recipient shall provide inspection coverage of the construction work using qualified personnel on a routine basis as follows:

i. A qualified inspector shall be provided at each construction site. There are times when a qualified individual can cover more than one site; however, this must be governed by on-site conditions which determine rate of progress;

ii. Inspection coverage at a treatment plan site shall be on a full-time basis at all times;

iii. For pipeline construction, full-time construction inspections shall be provided during the following operations:

(1) Preparation of trench bottom for placement of bedding and to determine if bottom will support pipe or if additional support must be provided;

(2) Placing of pipe bedding material where required, as necessary, and in the quantity required in conformance with the approved specifications;

(3) Alignment and joining of pipe sections;

(4) Bedding, placement, and alignment of manholes and other appurtenances; and

(5) Placement and compaction of trench backfill material;

iv. Inspection coverage at pump station and metering station sites shall be sufficient to ensure that the work satisfies specifications. The coverage shall include, but not be limited to, the following:

(1) Excavation and spoils disposal;

(2) Checking of all elevations including footings, piles, slabs and equipment pads (this function may be performed by the responsible engineer);

(3) Installation of all concrete reinforcing bars;

(4) Installation of all electrical conduit, plumbing and piping; and

(5) Installation of all equipment;

v. All concrete shall be checked for truck mix time and temperature prior to placing in forms. Periodic slump tests and test cylinders, per good construction practice, shall be taken. Cold weather and hot weather precaution shall be taken as appropriate. Any additions to the specified concrete mix must be approved by the responsible engineer; and

vi. During the construction period, the construction inspector shall keep a job diary in which he will keep a record of progress, problems encountered, and corrective action taken to rectify any problems. The job diary shall be made available to the Department upon request;

29. The recipient shall provide environmental inspection coverage and ensure completion of environmental restoration in conformance with the provisions of N.J.A.C. 7:22–10.12;

30. During the construction phase of the projects, job meetings shall be held at frequent intervals to review construction and restoration progress and to resolve difficulties which might delay completion of the work. Attendees at these meetings shall include the recipient, the responsible engineer, the recipient's inspectors (construction and environmental), the contractor, and one or more representatives of the Department;

31. The recipient shall provide notification, information and conduct visual inspections and testing of projects as follows:

i. The recipient shall notify the Department one week prior to all final visual inspections and tests of all sewer lines, force mains, mechanical equipment and treatment plant operation at which time the Department shall notify the recipient if it is necessary that a Department representative be present at the visual inspection or testing activity, a determination that will be made based on the specific project circumstances such as project location, design, construction methods and other factors;

ii. Copies of all final visual inspections and test reports shall be forwarded to the Department;

iii. Copies of record drawings shall be forwarded to the Department prior to the start of visual inspection and testing of all pipeline projects; and

iv. All visual inspections and testing shall be done in accordance with the following:

(1) All manholes and pipelines shall be completed and flushed clean prior to the visual inspection. This inspection must be performed with a representative of the recipient and/or the responsible engineer, the contractor and, if determined necessary under (a)31i above, a representative from the Department present. All discrepancies must be noted and a reinspection performed to verify the corrective action;

(2) All manholes and pipelines shall be visually inspected and accepted prior to testing;

(3) Upon acceptance of the visual inspection by the Department, the necessary infiltration, exfiltration, or low pressure air test and deflection tests when applicable shall be performed by the contractor. The test must be witnessed by the recipient and/or the responsible engineer (or representative), the contractor, and, if determined necessary under (a)31i above, a representative from the Department. Upon completion of the test, a copy of the test results must be forwarded to the Department;

(4) Infiltration tests of gravity lines shall be limited to 2,000 linear feet per test;

(5) Force mains shall be tested to two times the maximum operating pressure, but not greater than the pipe pressure rating, whichever is less. The length of pipe tested during a force main pressure test is not restricted; however, it is recommended that it be limited for ease in locating leaks if present;

(6) Testing of all mechanical equipment at treatment plants and pump stations must be witnessed by a representative of the Department; and

(7) If required, actual flow tests must be done in accordance with parameters established by the Department and performed in the presence of a representative of the Department; and

32. The recipient shall forward a letter to the Department upon completion of all construction and restoration of each contract of a project, stating that the project (or contract) is ready for final inspection. No final inspection will be scheduled until formal notification is received. The final inspection will be a joint inspection with the recipient and/or the responsible engineer, the recipient's inspector(s), the contractor, and one or more representatives of the Department in attendance.

(b) The recipient shall certify that it is in compliance with all other requirements and conditions of the Pinelands grants or loan agreement.

(c) The Department may impose such other conditions as may be necessary and appropriate to implement the laws of the State and effectuate the purpose and intent of the Pinelands Bond Act.

(d) Neither the State of New Jersey nor the Pinelands Commission will be a party to any contracts and subcontracts awarded pursuant to this subchapter. All such contracts and subcontracts shall include the following statement:

"This contract or subcontract is expected to be funded in part with funds from the New Jersey Department of Environmental Protection and the Pinelands Commission. Neither the State of New Jersey, the Pinelands Commission nor any of their departments, agencies or employees is, or will be, a party to this contract or subcontract or any lower tier contract or subcontract. This contract or subcontract is subject to provisions of N.J.A.C. 7:22–6, 7, 9 and 10."

(e) The recipient shall insert into the contracts for building the project EPA Form 5720–4 (5–13), Labor Standards Provisions for Federally Assisted Construction Contracts.

(f) The recipient shall insert into the contracts, and shall ensure that their contractor(s) include within their subcontractor(s), the following statement:

"In accordance with the provisions of N.J.S.A. 58:11B–26 and N.J.A.C. 7:22–6.17(a)24, the contractor (subcontractor) shall comply with all of the provisions of N.J.A.C. 7:22–9."

(g) All applicable surety bonds required in connection with the advertisement and award of building contracts or subagreements shall be written by a surety company listed on the Federal Treasury List (Department Circular 570—Surety Companies Acceptable on Federal Bonds), incorporated herein by reference. Copies of this document may be obtained from the Department.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Modified to conform with program requirements applied to projects funded under the Wastewater Treatment Financing Program and generally reflect good management practices, to incorporate standards regarding auditing and to ensure consistent practices by local government units receiving a loan pursuant to this subchapter, clearly indicate that a local government unit is subject to the ethics standards of the Local Government Ethics Law (P.L. 1991, c.29; N.J.S.A. 40A:9–22) and modified to identify program requirements related to implementation of a user charge system, liability and flood insurance requirements, wage rates, labor standards, contractor/subcontractor certification provisions and surety companies acceptable under the program.
Amended by R.1993 d.242, effective June 7, 1993.
See: 24 N.J.R. 4310(b), 25 N.J.R. 2271(a).
Amended to include specific requirements for the construction of wastewater treatment facilities; also amended to delete the requirement for recipients to provide a Subcontractor Certification Form to the Department.
Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).
Amended by R.1997 d.346, effective August 18, 1997.
See: 29 N.J.R. 2207(a), 29 N.J.R. 3723(a).
In (a)31i, inserted "at which time ... and other factors"; in (a)31iv(1) and (3), inserted ", if determined necessary under (a)31i above,"; in (a)31iv(1), inserted "clean" following "and flushed"; and in (a)31ii and iv(3), deleted reference to a request regarding forwarding results to the Department.
Administrative change.
See: 32 N.J.R. 1796(a).

7:22–6.18 Administration and performance of funds

The recipient bears primary responsibility for the administration and success of the project, including any subagreements made by the recipient for accomplishing funding objectives. Although recipients are encouraged to seek the advice and opinion of the Department on problems that may arise, the giving of such advice does not shift the responsibility for final decisions from the recipient to the Department.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Deleted last sentence containing non-regulatory language.

7:22–6.19 Project changes and grant or loan modifications

(a) A Pinelands grant or loan modification means any written alteration of the terms or conditions, budget or project method or other administrative, technical or financial provisions of the Pinelands grant or loan agreement.

(b) The recipient shall promptly notify the Department in writing (certified mail, return receipt requested) of events or proposed changes which may require a Pinelands grant or loan modification, including, but not limited to:

1. Rebudgeting;

2. Changes in approved technical plans or specifications for the project;

3. Changes which may affect the approved scope or objectives of the project;

4. Significant, changed conditions at the project site;

5. Acceleration or deceleration in the time for performance of the project or any major phase thereof; and

6. Changes which may increase or substantially decrease the total cost of a project;

(c) If the Department determines that a Pinelands grant or loan modification by means of a Pinelands grant or loan agreement amendment is necessary in accordance with N.J.A.C. 7:22–6.20, the recipient shall be notified and a Pinelands grant or loan agreement amendment shall be processed. If the Department decides a Pinelands grant or loan agreement amendment is not necessary, the Department and the recipient shall follow the procedures of N.J.A.C. 7:22–6.21 or 6.22, as applicable.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Deleted (b); recodified (c) and (d) to (b) and (c).

7:22–6.20 Pinelands grant or loan agreement amendments

(a) The Department, in consultation with the Pinelands Commission, shall require a Pinelands grant or loan agreement amendment to change principal provisions of a Pinelands grant or loan agreement where the Department determines that project changes substantially alter the objective or scope of the project or time of performance of the project or any major phase thereof, or to change substantially a term or condition of the Pinelands grant or loan agreement.

(b) In the event that a project has a need for additional moneys due to the low bid building cost being higher than the original Pinelands grant or loan amount, the local government unit may request a supplemental Pinelands grant or loan. After consultation with the Pinelands Commission, the Department may award a supplemental Pinelands grant or loan only after legislative approval, and only with a Pinelands grant or loan agreement. The recipient shall be responsible for all other increased costs.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Clarified operating procedures and the parameters under which a recipient may request a line item adjustment within a Pinelands Infrastructure Trust Fund grant or loan agreement.

7:22–6.21 Administrative grant or loan changes

Administrative changes by the Department, such as a change in the designation of a key Department personnel or of the office to which a report is to be transmitted by the recipient, or a non-substantial alteration of the disbursement schedule for Pinelands grants or loans for construction of wastewater treatment facilities, constitute changes to the Pinelands grant or loan agreement (but not necessarily to the project work) and to not affect the substantive rights of the Department or the recipient. The Department may issue such changes unilaterally. Such changes shall be in writing and shall generally be effected by a letter (certified mail, return receipt requested) to the recipient.

7:22–6.22 Other changes

All other project changes, which do not require a Pinelands grant or loan agreement amendment as stated in N.J.A.C. 7:22–6.20, require written approval of the Department.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Stylistic changes.

7:22–6.23 Access

(a) The recipient and its contractors and subcontractors shall provide to Pinelands Commission personnel, Department personnel and any authorized representative of the Department access to the facilities, premises and records related to the project.

(b) The recipient shall submit to the Department such documents and information as requested by the Department.

(c) The recipient, and all contractors and subcontractors which contract directly with the recipient or receive a portion of State moneys, may be subject to a financial audit.

(d) Records shall be retained and available to the Department until the final loan repayment has been made by the recipient.

7:22–6.24 State disbursement

Disbursement of Pinelands grant and loan moneys shall be made as indicated in the Pinelands grant or loan agreement at intervals as work progresses and expenses are incurred by the local government unit and as approved by the Department, but in no event shall total disbursements at any time exceed the cumulative Pinelands grant and loan amounts indicated in the disbursement schedule of the Pinelands grant and loan agreement or the allowable costs which have been incurred at that time. No disbursement shall be made until the Department receives satisfactory cost documentation which must include all forms and information required by the Department and completed in a manner satisfactory to the Department.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Stylistic changes.

7:22–6.25 Assignment

The right of a recipient to receive disbursements from the State under a Pinelands grant or loan may not be assigned, nor may repayments due under a Pinelands loan be similarly encumbered, unless such assignment or encumbrance has been approved in writing pursuant to the conditions set forth in the Pinelands grant or loan agreement.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).

Modified to reflect that assignment of loan disbursements and/or repayments (although expected to be an unlikely event) may be allowed if approved by the Department pursuant to the conditions of the Fund loan agreement.

7:22–6.26 Unused funds

Where the total amount disbursed under a grant or loan due to the low bid building cost is less than the initial Pinelands grant or loan award, and/or where the total amount disbursed under a Pinelands grant or loan due to the final building cost is less than the Pinelands grant or loan amount due to the low bid building cost, the Pinelands grant or loan shall be adjusted, if necessary, and the difference shall be retained by the Pinelands Infrastructure Trust Fund to be reallocated, pursuant to the provisions of a legislative appropriations act, to other wastewater treatment facilities projects. However, where allowable cost overruns occur, Pinelands moneys may be used to cover these cost overruns up to the grant or loan amount adjusted due to the low bid building cost. Line item adjustments for allowable project costs may be made at the request of the recipient provided the Pinelands grant or loan amount in the Pinelands grant or loan agreement is not exceeded and provided all project related contracts have been awarded. However, the Department shall not allow line item adjustments to reallocate funds resulting from cost underruns due to a reduction in project scope.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Clarify operating procedures and the parameters under which a recipient may request a line item adjustment within a Trust loan agreement.

7:22–6.27 Publicity and signs

(a) Press releases and other public dissemination of information by the recipient concerning the project work shall acknowledge State grant and/or loan support.

(b) A project identification sign, at least eight feet long and four feet high, bearing the emblem of the Pinelands Commission shall be displayed in a prominent location at each publicly visible project site and facility. The sign shall identify the project, the amount of financial assistance from the Pinelands Infrastructure Trust Fund, and other information as required by the Department.

Amended by R.1993 d.242, effective June 7, 1993.
See: 24 N.J.R. 4310(b), 25 N.J.R. 2271(a).
Replaced the word "Division" (which had been defined to mean the Division of Water Resources, which no longer exists) with the word "Department."

7:22–6.28 Land acquisition

The acquisition of land (including sewer rights-of-way) shall be eligible for Pinelands Infrastructure Trust funding in accordance with N.J.A.C. 7:22–7.7.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Grammatical correction.

7:22–6.29 Project initiation

(a) The recipient shall expeditiously initiate and complete the project in accordance with the project schedule contained in the Pinelands grant or loan agreement. Failure to promptly initiate and complete a project may result in the imposition of sanctions included in this subchapter.

(b) The recipient shall not advertise any contract and or addendum thereto for the building of the wastewater treatment facilities until authorization to advertise the contract or any addendum thereto has been granted by the Department. Further, the recipient shall be required to execute the engineering agreement for building services prior to, or concurrently with, receipt of authorization to advertise. The recipient shall transmit an executed copy of the engineering agreement for building services to the Department immediately upon its execution.

(c) Once bids for building the wastewater treatment facilities are received, the recipient shall not award any subagreement(s) until authorization to award has been given by the Department.

(d) The recipient and the contractor to whom the subagreement(s) has been awarded shall attend a preconstruction conference with Department personnel prior to the issuance of a notice to proceed.

(e) The recipient shall award the subagreement(s) and issue notice(s) to proceed, where required, for building all significant elements of the project no later than 12 months after the grant or loan closing, unless a specific extension has been approved by the Department.

(f) Failure to promptly award all subagreement(s) for building the project shall result in a limitation on allowable costs in accordance with N.J.A.C. 7:22–7.4(b)4.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Required the Department's approval of addenda to project-related contracts prior to their issuance by a recipient or prospective recipient and requires eligible entities to execute the Department-approved engineering agreement for building services prior to, or concurrently with, the receipt of authorization to advertise their first project-related building contract.

7:22–6.30 Project performance

(a) Within 30 days of the actual date of initiation of operation of the wastewater treatment facilities the recipient shall, in writing, notify the Department.

(b) For the wastewater treatment process portion of the project, on the date one year after the initiation of operation, the recipient shall certify to the Department the performance record of the project. If the Department or the recipient concludes that the project does not meet the wastewater treatment facilities' performance standards as specified in the Pinelands grant or loan agreement, the recipient shall submit the following:

1. A corrective action report which includes an analysis of the cause of the project's failure to meet the performance standards and an estimate of the nature, scope and cost of the corrective action necessary to bring the project into compliance;

2. The schedule for undertaking in a timely manner the corrective action necessary to bring the project into compliance; and

3. The scheduled date for certifying to the Department that the project is meeting the specified performance standards.

(c) The recipient shall take corrective action necessary to bring a project into compliance with the specified performance standards at its own expense.

(d) Nothing in this section:

1. Prohibits a recipient from requiring more assurances, guarantees, or indemnity or other contractual requirements from any part performing project work; or

2. Affects the Department's right to take remedial action, including enforcement, against a recipient that fails to carry out its obligations.

(e) At a minimum, unless further specified, the project performance standards consist of the effluent discharge limitations in the NJPDES permit (if applicable) and the design criteria in the Department-approved Engineer's Technical Design Report submitted by the local government unit for the Project.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Modified to clearly indicate that, at a minimum, project performance standards will include the NJPDES permit effluent discharge limitations as well as the design criteria within the Technical Design Report for the wastewater treatment facilities project.

7:22–6.31 Allowable project costs

(a) Project costs shall be determined allowable to the extent permitted by N.J.A.C. 7:22–7, Determination of Allowable Costs: Pinelands.

(b) Notwithstanding (a) above, the Department shall not participate in costs for work that the Department determines is not in compliance with specifications or requirements of project contracts or Pinelands grant or loan agreement. Costs for work not in compliance with the contracts or agreement are unallowable.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Grammatical correction.
Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).
Amended by R.1997 d.346, effective August 18, 1997.
See: 29 N.J.R. 2207(a), 29 N.J.R. 3723(a).
In (a), amended N.J.A.C. reference.

7:22–6.32 Preaward costs

(a) The Department shall not consider allowable those costs incurred for building performed prior to closing the grant or loan for the project, unless the local government unit has met the requirements as specified in (a)1 or 2 below:

1. For allowable building costs, if the local government unit has met (a)1i through iii or (a)1iv:

i. The local government unit has submitted items required at N.J.A.C. 7:22–6.11(d)3 through 20. to the Department prior to the advertisement of any contract for which cost reimbursement is being sought.

ii. The local government unit has not advertised any contract or any addendum thereto, for which cost reimbursement is being sought, without the authorization to advertise the contracts or any addendum thereto being given by the Department.

iii. The local government unit has not awarded any contract for which cost reimbursement is being sought without the authorization to award the contracts being given by the Department.

iv. The local government unit has submitted items required at N.J.A.C. 7:22–6.11(d)3 through 20 to the Department prior to the issuance of a notice to proceed for building the project and has met the provisions of the New Jersey Wastewater Treatment Privatization Act (N.J.S.A. 58:27–1 et seq.) or other applicable procurement method authorized by State law.

2. In emergencies or instances where delay could result in significant cost increases or significant environmental impairment, the Department may approve preliminary building activities such as procurement of major equipment requiring long lead times, minor sewer rehabilitation, acquisition of allowable land or advance building of minor portions of wastewater treatment facilities. However, advance approval shall not be given until after the Department reviews and approves an environmental assessment and any specific documents necessary to adequately evaluate the proposed action.

(b) If the Department approves preliminary building activities, such approval is not an actual or implied commitment of Pinelands Infrastructure Trust funds and the local government unit proceeds at its own financial risk. The local government unit shall receive cost reimbursement of approved activities only upon receiving legislative approval in the form of an appropriations act and closing a Pinelands grant or loan for the project.

(c) Any procurement is subject to the requirements of applicable State law.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Clarifying language at (a) and (b).
Amended by R.1995 d.494, effective September 5, 1995.

See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).

7:22–6.33 Force account work

(a) A recipient must secure the Department's prior written approval for use of force account work for construction, construction-related activities or for repairs or improvements to a facility where costs shall exceed $25,000.

(b) The recipient shall demonstrate that:

1. The work can be accomplished cost effectively by the use of force account; or

2. Emergency circumstances necessitate its use.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
"Assistant Director" changed to "Department".

7:22–6.34 Planning and design

The costs associated with the planning and design of wastewater treatment facilities are ineligible for reimbursement from the Pinelands Fund unless Pinelands Commission approval for separate planning and design costs or for costs related to the preparation of an environmental impact statement has been obtained. However, an allowance to assist in defraying the planning and design costs shall be provided to a project as a percentage of the allowable building cost in accordance with N.J.A.C. 7:22–7.12.

Amended by R.1997 d.346, effective August 18, 1997.
See: 29 N.J.R. 2207(a), 29 N.J.R. 3723(a).
Inserted "or for costs related to the preparation of an environmental impact statement".

7:22–6.35 Infiltration/Inflow

(a) An infiltration/inflow analysis shall be required as part of the Project Report/Facilities Plan.

(b) The applicant shall demonstrate to the Department's satisfaction that each sewer system discharging into the wastewater treatment facility is not or will not be subject to excessive infiltration/inflow. For combined sewer overflow projects, in no case shall inflow be considered excessive.

(c) If the rainfall induced peak inflow rate results or will result in chronic operational problems or system surcharging during storm events or the rainfall induced total flow rate exceeds 275 gallons per capita per day during storm events, the applicant shall perform a study of the sewer system to determine the quantity of excessive inflow and shall propose a rehabilitation program to eliminate the excessive inflow.

(d) If the flow rate at the existing wastewater treatment facility is less than 120 gallons per capita per day during periods of high groundwater, the applicant shall design the project including sufficient capacity to transport and treat any existing infiltration. If the applicant demonstrates that its sewer system is subject to excessive infiltration of 120 gallons per capita per day or more during periods of high groundwater, the applicant shall perform a sewer system evaluation survey including a cost effectiveness analysis and shall propose a rehabilitation program to eliminate the excessive infiltration.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Amended to reflect that an infiltration/inflow analysis is required for all wastewater treatment facilities projects, and to clarify that the capacity necessary to transport and treat existing infiltration where wastewater flow rates of less than 120 gallons per capita per day during periods of high groundwater are involved must be used as a basis for design by the local government unit.

7:22–6.36 Reserve capacity

The Department shall limit the recipient's Pinelands grant or loan assistance to the cost of the project based on the ultimate build out capacity as defined by the Pinelands Commission. Design shall be based on up to 120 gallons per capita per day for existing flows and flow projections calculated in accordance with N.J.A.C. 7:14A–23.3 and 7:15–5.18.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Language regarding effective date of the regulation deleted.
Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).

7:22–6.37 Fraud and other unlawful or corrupt practices

(a) The recipient shall administer funds, acquire property pursuant to the award documents, and award contracts and subcontracts pursuant to those funds free from bribery, graft, and other corrupt practices. The recipient bears the primary responsibility for the prevention, detection, and cooperation in the prosecution of any such conduct. The State shall also have the right to pursue administrative or other legally available remedies.

(b) The recipient shall pursue available judicial and administrative remedies and take appropriate remedial action with respect to any allegations or evidence of such illegality or corrupt practices. The recipient shall immediately notify the Department when such allegation or evidence comes to its attention, and shall periodically advise the Department of the status and ultimate disposition of any related matter.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
"Assistant Director" replaced by "Department".

7:22–6.38 Debarment

(a) No recipient shall enter into a contract for work on a wastewater treatment project with any person debarred, suspended or disqualified from Department contracting pursuant to N.J.A.C. 7:1D–2.

(b) Recipients shall insert in every contract for work on a project a clause stating that the contractor may be debarred, suspended or disqualified from contracting on any project financially assisted by the State or the Department if the contractor commits any of the acts listed in N.J.A.C. 7:1D–2.2.

(c) The recipient, prior to acceptance of Pinelands Infrastructure Trust funds, shall certify that no contractor or subcontractor is included on the State Treasurer's list of debarred, suspended and disqualified bidders as a result of action by a State agency in addition to that of the Department of Environmental Protection. If Pinelands Infrastructure Trust funds are used for disbursement to a debarred firm, the Department reserves the right to immediately terminate (N.J.A.C. 7:22–6.43) the Pinelands loan and/or take such other action pursuant to N.J.A.C. 7:1D–2 as is appropriate.

(d) Whenever a bidder is debarred, suspended or disqualified from Department contracting pursuant to N.J.A.C. 7:1D–2, the recipient may take into account the loss of Pinelands Infrastructure Trust funds under these regulations which result from awarding a contract to such bidder, in determining whether such bidder is the lowest responsive and responsible bidder pursuant to law and the recipient may advise prospective bidders that these procedures shall be followed.

(e) Any person included on the State Treasurer's list as a result of action by a State agency, who is or may become a bidder on any contract which is or will be funded by a Pinelands grant or loan under this subchapter, may present information to the Department why this section should not apply to such person. If the Department determines that it is essential to the public interest and files a finding thereof with the New Jersey Attorney General, the Department may grant an exception from the application of this section with respect to a particular contract, in keeping with N.J.A.C. 7:1D–2.9. In the alternative, the Department may suspend or debar any such person, or take such action as may be appropriate, pursuant to N.J.A.C. 7:1D–2.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
The term "Commissioner" replaced by "Department".
Administrative change.
See: 32 N.J.R. 1796(a).

7:22–6.39 Noncompliance

(a) In addition to any other remedies as may be provided by law, or in the Pinelands grant or loan agreement, in the event of noncompliance with any grant or loan condition, requirement of this subchapter, or contract requirement or specification, the Department may take any of the following actions or combinations thereof:

1. Issue a notice of noncompliance pursuant to N.J.A.C. 7:22–6.40;

2. Withhold Pinelands Infrastructure Trust funds pursuant to N.J.A.C. 7:22–6.41;

3. Order suspension of project work pursuant to N.J.A.C. 7:22–6.42;

4. Terminate or rescind the Pinelands grant or loan funds pursuant to N.J.A.C. 7:22–6.43 or N.J.A.C. 7:22–6.44; and/or

5. Issue administrative orders of enforcement pursuant to the New Jersey Water Pollution Control Act (N.J.S.A. 58:10A–1 et seq.).

7:22–6.40 Notice of noncompliance

Where the Department determines that the recipient is in noncompliance with any condition or requirement of these rules or with any contract specification or requirement, it shall notify the recipient, its engineer, and/or the contractor of the noncompliance. The Department may require the recipient, its engineer, and/or contractor to take and complete corrective action within 10 working days of receipt of notice. If the recipient, its engineer, and/or contractor fails to take corrective action or if the action taken is inadequate, then the Department may issue a stop-work order or withhold disbursement. The Department may, however, withhold disbursement or issue a stop-work order pursuant to N.J.A.C. 7:22–6.41 and 6.42 without issuing a notice pursuant to this section.

7:22–6.41 Withholding of funds

The Department may withhold, upon written notice to the recipient, a Pinelands grant or loan disbursement or any portion thereof where it determines that a recipient has failed to comply with any grant or loan condition, provision of this subchapter, or contract specification or requirement.

7:22–6.42 Stop-work orders

(a) The Department may order work to be stopped for good cause. Good cause shall include, but not be limited to, default by the recipient or noncompliance with the terms and conditions of the Pinelands grant or loan. The Department shall limit the use of stop-work orders to those situations where it is advisable to suspend work on the project or portion or phase of the project for important program or Department considerations.

(b) Prior to issuance, the Department shall afford the recipient an opportunity to discuss the stop-work order with Department personnel. The Department shall consider such discussions in preparing the order. Stop-work orders shall contain:

1. The reasons for issuance of the stop-work order;

2. A clear description of the work to be suspended;

3. Instructions as to the issuance of further orders by the recipient for materials or services;

4. Guidance as to action being taken on subagreements;

5. Other suggestions to the recipient for minimizing costs.

(c) The Department may, by written order to the recipient (certified mail, return receipt requested), require the recipient to stop all, or any part of, the project work for a period of not more than 45 days after the recipient receives the order, and for any further period to which the parties may agree.

(d) The effects of a stop-work order are as follows:

1. Upon receipt of a stop-work order, the recipient shall immediately comply with the terms thereof and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within the suspension period or within any extension of that period to which the parties shall have agreed, the Department shall either:

i. Rescind the stop-work order, in full or in part;

ii. Terminate the work covered by such order as provided in N.J.A.C. 7:22–6.43; or

iii. Authorize resumption of work.

2. If a stop-work order is cancelled or the period of the order or any extension thereof expires, the recipient shall promptly resume the previously suspended work. An equitable adjustment shall be made in the loan period, and/or the project, and the Pinelands grant or loan agreement shall be modified if necessary. However, additional project costs as a result of this action shall be the responsibility of the recipient.

7:22–6.43 Termination of grants or loans

(a) Termination of Pinelands grants or loans by the Department shall be conducted as follows:

1. The Department may terminate a Pinelands grant or loan in whole or in part for good cause. The term "good cause" shall include but not be limited to:

i. Substantial failure to comply with the terms and conditions of the grant or loan agreement;

ii. Default by the recipient;

iii. A determination that the Pinelands grant or loan was obtained by fraud;

iv. Without good cause therefor, substantial performance of the project work has not occurred;

v. Gross abuse or corrupt practices in the administration of the project have occurred; or

vi. Pinelands Infrastructure Trust moneys have been used for nonallowable costs.

2. The Department shall give written notice to the recipient (certified mail, return receipt requested) of its intent to terminate a Pinelands grant or loan, in whole or in part, at least 30 days prior to the intended date of termination.

3. The Department shall afford the recipient an opportunity for consultation prior to any termination. After such opportunity for consultation, the Department may, in writing (certified mail, return receipt requested), terminate the Pinelands grant or loan in whole or in part.

(b) Project termination by the recipient will be subject to the following:

1. A recipient shall not unilaterally terminate the project work for which a Pinelands grant or loan has been awarded, except for good cause and subject to negotiation and payment of appropriate termination settlement costs. The recipient shall promptly give written notice to the Department of any complete or partial termination of the project work by the recipient or intent thereof.

2. If the Department determines that there is good cause for the termination of all or any portion of a project for which the Pinelands grant or loan has been awarded, the Department may enter into a termination agreement or unilaterally terminate the Pinelands grant or loan effective with the date of cessation of the project work by the recipient. The determination to terminate the Pinelands grant or loan shall be solely within the discretion of the Department. If the Department determines not to terminate, the recipient shall remain bound by the terms and conditions of the Pinelands grant or loan agreement.

3. If the Department determines that a recipient has ceased work on a project without good cause, the Department may unilaterally terminate the Pinelands grant or loan pursuant to this section or rescind the grant or loan pursuant to N.J.A.C. 7:22–6.44.

(c) The Department and recipient may enter into a mutual agreement to terminate at any time pursuant to terms which are consistent with this subchapter. The agreement shall establish the effective date of termination of the project and the schedule for repayment of the Pinelands grant or loan.

(d) Upon termination, the recipient may be required to immediately refund or repay the entire amount of the Pinelands Infrastructure Trust funds received to the State. If a loan is guaranteed by a security/deficiency agreement, such agreement may have to be brought into effect to ensure the entire repayment of the Pinelands loan. The Department may, at its discretion, authorize the immediate repayment of a specific portion of the Pinelands loan and allow the remaining balance to be repaid in accordance with a revised Pinelands loan repayment schedule.

(e) The recipient shall reduce the amount of outstanding commitments insofar as possible and report to the Department the uncommitted balance of Pinelands Infrastructure Trust funds awarded under the Pinelands loan. The recipient shall make no new commitments without the Department's specific approval thereof. The Department shall make the final determination of the allowability of termination costs.

(f) In addition to any termination action, the Department retains the right to pursue other legal remedies as may be available under federal, State and local law as warranted.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Terms "Director" and "Assistant Director" replaced by "Department".

7:22–6.44 Rescission of Pinelands grants

(a) The Department may, in writing, rescind the Pinelands grant if it determines that:

1. Without good cause therefor, substantial performance of the project work has not occurred;

2. The Pinelands grant was obtained by fraud; or

3. Gross abuse or corrupt practices in the administration of the project have occurred.

(b) At least 10 days prior to the intended date of rescission, the Department shall give written notice to the recipient (certified mail, return receipt requested) of intent to rescind the Pinelands grant. The Department shall afford the recipient an opportunity for consultation prior to rescission of the grant or loan. Upon rescission of the Pinelands grant or loan, the recipient shall return all Pinelands grant or loan funds previously paid to the recipient. The Department shall make no further payments to the recipient. In addition, the Department retains the right to pursue such remedies as may be available under Federal, State and local law.

7:22–6.45 Administrative hearings

(a) The Department shall make the initial decision regarding all disputes arising under a Pinelands grant or loan. The recipient shall specifically detail in writing and in detail the basis for its appeal. When a recipient so requests, the Department shall produce a decision in writing and mail or otherwise furnish a copy thereof to the recipient.

(b) If a recipient wishes to appeal the Department's decision under (a) above, the recipient shall request an administrative hearing within 15 calendar days of a decision by the Department. The request for an administrative hearing must specify in detail the basis for the appeal.

(c) Following receipt of a request for a hearing pursuant to (b) above, the Department may attempt to settle the dispute by conducting such proceedings, meetings and conferences as deemed appropriate.

(d) If the recipient raises a substantial and meritorious issue and such efforts at settlement fail, the Department shall file a request for an administrative hearing with the Office of Administrative Law. Administrative hearings shall be conducted in accordance with the provisions of the Administrative Procedure Act (N.J.S.A. 52:14B–1 et seq.), N.J.S.A. 52:14F–1 et seq. and the Uniform Administrative Procedure Rules, N.J.A.C. 1:1–1 et seq. promulgated pursuant to those Acts.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Clarifying language at (a) and (b).

7:22–6.46 Severability

If any section, subsection, provision, clause or portion of this subchapter is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this subchapter shall not be affected thereby.

SUBCHAPTER 7. DETERMINATION OF ALLOWABLE COSTS: PINELANDS

7:22–7.1 Purpose

The rules in this subchapter represents the policies and procedures for determining the allowability of project costs based on Department policy, appropriate State cost principles and reasonableness.

7:22–7.2 Applicability

The cost information contained in this subchapter applies to Pinelands grant and loan assistance awarded on or after the effective date of this subchapter. Project cost determinations are not limited to the items listed in this subchapter. Additional cost determinations based on applicable law and regulations not otherwise addressed herein shall be made on a project-by-project basis. Further, costs that become allowable as a result of adoption after June 30, 1995 of amendments to this subchapter are not allowable costs for a supplemental Pinelands grant or loan if the project sponsor has received final payment under a Pinelands grant or loan agreement prior to the effective date of such amendments.

Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).

7:22–7.3 Definitions

Terms used in this subchapter are defined in accordance with N.J.A.C. 7:22–6.4.

7:22–7.4 Costs related to subagreements

(a) Allowable costs related to subagreements include:

1. For Pinelands grant or loan awards made in State Fiscal Year 1996 and later and for Pinelands grant or loan awards made in State Fiscal Year 1995 and earlier for which final payment has not been received under a Pinelands grant or loan agreement, the costs of subagreements for building the project, which may include a contingency line item of up to five percent of the building costs. The funds allocated in the contingency line item must first be used for allowable change orders associated with building activities. The contingency funds can be used for activities other than building provided the Department approves line item adjustments in accordance with N.J.A.C. 7:22–6.26;

2. The costs for establishing or using liaison services for small business concerns owned and controlled by socially and economically disadvantaged individuals pursuant to N.J.A.C. 7:22–9;

3. The costs of services incurred during the building of a project to ensure that it is built in conformance with the design drawings and specifications;

4. The costs (including legal, technical, and administrative costs) of assessing the merits of or negotiating the

settlement of a claim by or against a recipient under a subagreement, provided that:

i. The claim arises from work within the scope of the Pinelands grant or loan;

ii. Department approval has been received covering the costs before they are incurred;

iii. The costs are not incurred to prepare documentation that should be prepared by the contractor to support a claim against the recipient;

iv. The Department determines that there is a significant State interest in the issues involved in the claim; and

v. Meritorious claims are resolved in an expeditious manner.

5. Change orders for increased costs under subagreements as follows:

i. Change orders provided the costs are:

(1) Within the scope of the project;

(2) Not caused by the recipient's mismanagement;

(3) Not caused by the recipient's vicarious liability for the improper action of others; and

(4) The cost of which when added to the allowable costs due to the final building cost, does not exceed the allowable costs due to the low bid building cost.

ii. Provided the requirements of (a)5i above are met, the following is an example of allowable change orders and contractor claim costs:

(1) Building costs resulting from defects in the plans, design drawings and specifications, or other subagreement documents only to the extent that the costs would have been incurred if the subagreement documents on which the bids were based had been free of the defects, and excluding the costs of any rework, delay, acceleration, or disruption caused by such defects.

iii. Settlements, arbitration awards, and court judgments which resolve contractor claims shall be reviewed by the grant or loan award official and shall be allowable only to the extent that they meet the requirements of paragraph (a)5i, are reasonable, and do not attempt to pass on to the Department the cost of events that were the responsibility of the recipient, the contractor, or others.

6. The costs of the recipient required by N.J.A.C. 7:22-6.30 during the first year following initiation of operation of the project;

7. The cost of development of a plan of operation including an operation and maintenance manual;

8. Start-up services for onsite training of operating personnel in operation and control of specific treatment processes, laboratory procedures, and maintenance and records management.

(b) For Pinelands grant or loan awards made in State Fiscal Year 1996 and later and for loan awards made in State Fiscal Year 1995 and earlier for which final payment has not been received under a Pinelands grant or loan agreement, the actual costs for (a)2 through 8 above will be allowable. For projects which received the Pinelands grant or loan award in State Fiscal Year 1993, 1994 or 1995 and which have received final payment under a Pinelands grant or loan agreement, the sum total of the allowable costs in (a)2 through 8 above, exclusive of building costs, will not exceed 12 percent of the low bid building cost.

(c) Unallowable costs related to subagreements include:

1. Except as provided in (a)5 above, architectural or engineering services or other services necessary to correct defects in a planning document, design drawings and specifications, or other subagreement documents;

2. The costs (including legal, technical and administrative) of defending against a contractor claim for increased costs under a subagreement or of prosecuting a claim to enforce any subagreement unless:

i. The claim arises from work within the scope of the loan;

ii. Department approval has been received covering the costs before they are incurred;

iii. The claim cannot be settled without arbitration or litigation;

iv. The claim does not result from the recipient's mismanagement;

v. The Department determines that there is a significant State interest in the issues involved in the claim; and

vi. In the case of defending against a contractor claim, the claim does not result from the recipient's responsibility for the improper action of others.

3. Bonus payments for completion of building before a contractual completion date;

4. All costs associated with the award of any subagreement for building significant elements of the project more than 12 months after the grant or loan closing, unless an extension is specified in the project schedule approved by the Department.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Revised to limit all costs related to subagreements (except for the subagreement(s) to build the project) to 12 percent of the low bid building cost.
Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).

7:22–7.5 Mitigation

(a) Allowable costs related to mitigation include:

1. Costs for measures necessary to mitigate direct, adverse, physical impacts resulting from building of the wastewater treatment facilities or measures necessary to mitigate indirect impacts of the project as specified in the Pinelands grant or loan agreement as a special condition;

2. The costs of site screening necessary to comply with the provisions of N.J.A.C. 7:22–10, to complete related studies and plans, or necessary to screen adjacent properties;

3. The cost of monitoring facilities necessary to determine the possibility of water quality deterioration or other environmental impacts resulting from building the project as specified in the Pinelands grant or loan agreement as a special condition.

(b) Unallowable costs related to mitigation include:

1. The costs of solutions to aesthetic problems, including design details which require expensive building techniques and architectural features and hardware, that are unreasonable or substantially higher in cost than approvable alternatives and that neither enhance the function or appearance of the wastewater treatment facilities nor reflect regional architectural tradition;

2. The costs of land acquired for the mitigation of adverse environmental effects identified pursuant to an environmental review under the provisions of N.J.A.C. 7:22–10.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Modified to reflect allowability and unallowability of project costs related to the Environmental Assessment Requirements for State Assisted Wastewater Treatment Facilities (N.J.A.C. 7:22–10).
Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).

7:22–7.6 (Reserved)

7:22–7.7 Real property

(a) Allowable costs for land and rights-of-way include:

1. The cost (including associated legal, administrative and engineering costs) of land acquired in fee simple or by lease or easement of sewer right-of-ways, wastewater treatment plant sites, sanitary landfill sites and sludge disposal areas. These costs include:

i. The cost of a reasonable amount of land, considering irregularities in application patterns, and the need for buffer areas, berms, and dikes;

ii. The cost of land acquired for a soil absorption system for a group of two or more homes;

iii. The cost of land acquired for composting or temporary storage of compost residues which result from wastewater treatment;

iv. The cost of land acquired for storage of treated wastewater in land treatment systems before land application. The total land area for construction of a pond for both treatment and storage of wastewater is allowable if the volume necessary for storage is greater than the volume necessary for treatment. Otherwise, the allowable cost will be determined by the ratio of the storage volume to the total volume of the pond.

2. The cost of contracting with another public agency or qualified private contractor for part or all of the required acquisition and/or relocation services;

3. The cost associated with the preparation of the wastewater treatment facilities site before, during and, to the extent agreed on in the Pinelands grant or loan agreement, after building. These costs include:

i. The cost of demolition of existing structures on the wastewater treatment facilities site (including rights-of-way) required based on health, safety, aesthetic reasons or by local code requirements;

ii. The cost (considering such factors as betterment, cost of contracting and useful life) of removal, relocation or replacement of utilities, provided the recipient is legally obligated to pay under State or local law; and

iii. The cost of restoring streets and rights-of-way to their original condition. The need for such restoration must result directly from the construction and is limited to the existing paving width. However, in no case shall the allowable cost exceed two lanes and abutting shoulders.

4. The cost of acquiring all or part of existing publicly or privately owned wastewater treatment facilities provided all the following criteria are met:

i. The acquisition, in and of itself, considered apart from any upgrade, expansion or rehabilitation, provides new pollution control benefits;

ii. The acquired wastewater treatment facilities were not built with previous State, Federal, New Jersey Wastewater Treatment Trust or Pinelands Infrastructure Trust financial assistance;

iii. The primary purpose of the acquisition is not the reduction, elimination, or redistribution of public or private debt; and

iv. The acquisition does not circumvent the requirements of these regulations, or other federal, State or local requirements.

(b) Unallowable costs for land and rights-of-way include:

1. Any amount paid by the recipient for eligible land in excess of just compensation, based on the appraised value, the recipient's record of negotiation or any condemnation proceeding, as determined by the Department;

2. Removal, relocation or replacement of utilities located on land by privilege, such as franchise.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Term "Assistant Director" changed to "Department".
Amended by R.1997 d.346, effective August 18, 1997.
See: 29 N.J.R. 2207(a), 29 N.J.R. 3723(a).
In (a)3i, substituted "required based on health ... code requirements;" for "if buildings cannot be undertaken without such demolition"; and in (a)3iii, substituted "limited to the existing ... abutting shoulders" for "generally limited to repaving the width of trench".

7:22–7.8 Equipment, materials and supplies

(a) Allowable costs of equipment, materials and supplies include:

1. The cost of a reasonable inventory of laboratory chemicals and supplies necessary to initiate plant operations and laboratory items necessary to conduct tests required for plant operation;

2. The costs for purchase and/or transportation of biological seeding materials required for expeditiously initiating the treatment process operation;

3. Cost of shop equipment installed at the wastewater treatment facility necessary to the operation of the facility;

4. The costs of necessary safety equipment, provided the equipment meets applicable federal, State, local or industry safety requirements;

5. A portion of the costs of collection system maintenance equipment. The portion of allowable costs shall be the total equipment cost less the cost attributable to the equipment's anticipated use on existing collection sewers not funded by the Pinelands grant or loan. This calculation shall be based on:

i. The portion of the total collection system paid for by the Pinelands grant or loan;

ii. A demonstrable frequency of need; and

iii. The need for the requirement to preclude the discharge or bypassing of untreated wastewater.

6. The cost of mobile equipment necessary for the operation of the overall wastewater treatment facility, transmission of wastewater or sludge, or for the maintenance of equipment. These items include:

i. Portable stand-by generators;

ii. Large portable emergency pumps to provide "pump-around" capability in the event of pump station failure or pipeline breaks; and

iii. Septage tankers, trailers, and other vehicles having as their sole purpose the transportation of liquid or dewatered wastes from the collector point (including individual or on-site systems) to the treatment facility or disposal site.

7. Replacement parts identified and approved in advance by the Department as necessary to assure uninterrupted operation of the facility, provided they are critical parts or major systems components which are:

i. Not immediately available and/or whose procurement involves an extended "lead-time";

ii. Identified as critical by the equipment supplier(s); or

iii. Critical but not included in the inventory provided by the equipment supplier(s).

(b) Unallowable costs of equipment, materials and supplies include:

1. The costs of equipment or material procured in violation of the procurement requirements;

2. The cost of furnishings including draperies, furniture and office equipment;

3. The cost of ordinary site and building maintenance equipment such as lawnmowers and snowblowers;

4. The cost of vehicles for the transportation of the recipient's employees.

5. Items of routine "programmed" maintenance such as ordinary piping, air filters, couplings, hose, bolts, etc.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Corrections only.

7:22–7.9 Industrial and Federal users

(a) Except as provided in (b)1 below, allowable costs for wastewater treatment facilities serving industrial and Federal facilities include development of a municipal pretreatment program approvable under 40 C.F.R. Part 403 and N.J.S.A. 58:10A–6 et seq. and purchase of monitoring equipment and construction of facilities to be used by the municipal wastewater treatment facilities in the pretreatment program.

(b) Unallowable costs for wastewater treatment facilities serving industrial and Federal facilities include:

1. The cost of developing an approvable municipal pretreatment program when performed solely for the purpose of seeking an allowance for removal of pollutants under 40 C.F.R. Part 403 and N.J.S.A. 58:10A–6 et seq.;

2. The cost of monitoring equipment used by industry for sampling and analysis of industrial discharges to municipal wastewater treatment facilities;

3. All incremental costs for sludge management incurred as a result of the recipient providing removal credits to industrial users beyond those sludge management costs that would otherwise be incurred in the absence of such removal credits.

4. Costs for control or removal of pollutants in wastewater introduced into the wastewater treatment facilities by industrial users, unless the local government unit is required to remove such pollutants introduced from non-industrial users.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Modified to provide additional detail regarding unallowable costs related to industrial and Federal users.

7:22–7.10 Infiltration/inflow and reserve capacity

(a) Allowable costs related to infiltration/inflow and reserve capacity include:

1. The cost of the wastewater treatment facilities capacity adequate to transport and treat nonexcessive infiltration/inflow under N.J.A.C. 7:22–6.35 and reserve capacity in accordance with N.J.A.C. 7:22–6.36.

2. The cost of sewer system rehabilitation necessary to eliminate excessive infiltration/inflow as determined in a sewer system study under N.J.A.C. 7:22–6.35.

(b) Unallowable costs related to infiltration/inflow and reserve capacity include:

1. The incremental cost of wastewater treatment facilities capacity which is more than 20 years reserve capacity using 120 gallons per capita per day for existing flows and flow projections calculated in accordance with N.J.A.C. 7:14A–23.3 or 7:15–5.18.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Amended to reflect the allowability and unallowability of costs related to reserve capacity to clarify operating procedures.
Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).

7:22–7.11 Miscellaneous costs

(a) Allowable miscellaneous costs include:

1. For Pinelands grant or loan awards made in State Fiscal Year 1996 and later and for Pinelands grant or loan awards made in State Fiscal Year 1995 and earlier for which final payment has not been received under a Pinelands grant or loan agreement, the costs of salaries, benefits and expendable materials the recipient incurs for the project. However, the allowable portion of these administrative costs, including the administrative costs listed in (a)3, 4, 5 and 6 below, will be limited to three percent of the low bid building cost. The three percent limit may be exceeded only in instances where the Department approves a greater amount through line item adjustments in accordance with N.J.A.C. 7:22–6.26. For grant or loan awards made prior to State Fiscal Year and for which final payment has been made to the project sponsor, administrative cost funding for this paragraph and (a)3 and 4 below for up to one percent is allowable.

2. The costs of additions to wastewater treatment facilities that were assisted under the Federal Water Pollution Control Act Amendments, the Wastewater Treatment Bond Act, the Trust Act, the Pinelands Infrastructure Trust Bond Act of 1985 (P.L. 1985, c.302) or its amendments, the Green Acres, Clean Water, Farmland and Historic Preservation Bond Act of 1992, or the Stormwater Management and Combined Sewer Overflow Abatement Bond Act and that fails to meet its performance standards provided:

i. The project is identified on the Pinelands Infrastructure Trust Funding List as a project for additions to wastewater treatment facilities that has received previous State or federal funds;

ii. The grant or loan application for the additions includes an analysis of why the wastewater treatment facilities cannot meet its specified performance standards; and

iii. The additions could have been included in the original Federal grant or State assistance award; and

(1) Are the results of one of the following:

(A) A change in the specified performance standards required by the State or the United States Environmental Protection Agency (EPA);

(B) A written understanding between the Regional Administrator of EPA and grantee prior to or included in the original Federal grant award;

(C) A written understanding between the Department and the recipient prior to or included in the original Fund loan award;

(D) A written understanding between the trust and the recipient prior to or included in the original Trust loan award.

(E) A written understanding between the Department and the recipient prior to or included in the original Pinelands grant or loan award:

(F) A written direction by the Regional Administrator of EPA or the Department to delay building part of the wastewater treatment facilities; or

(G) A major change in the wastewater treatment facilities' design criteria that the grantee cannot control; or

(2) Meet all of the following conditions:

(A) The wastewater treatment facilities have not completed its first full year of operation;

(B) The additions are not caused by the recipient's mismanagement or the improper actions of others;

(C) The costs of rework, delay, acceleration or disruption that are a result of building the additions are not included in the grant or loan; and

iv. This provision applies to failures that occur either before or after the initiation of operation. This provision does not cover wastewater treatment facilities that fail at the end of its design life.

3. Costs of royalties for the use of or rights in a patented process or product with the prior approval of the Department.

4. Costs of recipient's employees attending training workshops/seminars that are necessary to provide instruction in administrative, fiscal or contracting procedures required to complete the construction of the wastewater treatment facilities, if approved in advance by the Department.

5. Costs of bond counsel, financial advisor, bond issuance and other expenses incidental to the approval, preparation and sale of bonds, notes or obligations of the local government unit that are required to finance the project and the interest on the bonds, notes or obligations.

6. Costs of fees for permits required for the building of the project.

7. Costs for the construction of that portion of a house connection (service lateral) owned by the local government unit and to which the local government unit has access by easement for maintenance and repair.

(b) Unallowable miscellaneous costs include:

1. Ordinary operating expenses of the recipient including salaries and expenses of elected and appointed officials and preparation of routine financial reports and studies;

2. Preparation of applications and permits required by federal, State or local regulations or procedures;

3. Administrative, engineering and legal activities associated with the establishment of special departments, agencies, commissioners, regions, districts or other units of government;

4. Costs of fees for permits required for the operation of the project, including the NJPDES permit pursuant to N.J.A.C. 7:14A;

5. The costs of replacing, through reconstruction or substitution, wastewater treatment facilities that were assisted under the Federal Water Pollution Control Act Amendments, the Wastewater Treatment Bond Act, the Trust Act, the Pinelands Infrastructure Trust Bond Act of 1985 (P.L. 1985, c.302) or its amendments, the Green Acres, Clean Water, Farmland and Historic Preservation Bond Act of 1992, or the Stormwater Management and Combined Sewer Overflow Abatement Bond Act and that fail to meet its project performance standards. This provision applies to failures that occur either before or after the initiation of operation but does not apply to wastewater treatment facilities that fail at the end of its design life;

6. Personal injury compensation or damages arising out of the project;

7. Fines and penalties due to violations of, or failure to comply with, Federal, State or local laws, regulations or procedures;

8. Costs outside the scope of the approved project;

9. Costs for which grant or loan disbursement has been or will be received from another federal or State agency for the project;

10. Costs of wastewater treatment facilities for control of pollutant discharges from a separate storm sewer system;

11. The cost of wastewater treatment facilities that would provide capacity for new habitation or other establishments to be located on environmentally sensitive land such as wetlands or floodplains;

12. The costs of preparing a corrective action report required by N.J.A.C. 7:22–6.30(b)(1).

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
Revised to clearly identify the policy of limiting the allowable costs for salaries, benefits and expendable materials (including legal, fiscal and administrative costs) to one percent of the low bid building cost has been included in this section.
Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1536(a), 27 N.J.R. 3403(a).
Amended by R.1997 d.346, effective August 18, 1997.
See: 29 N.J.R. 2207(a), 29 N.J.R. 3723(a).
In (a)2 and (b)5, inserted reference to "Green Acres" bonding act.

7:22–7.12 Allowance for planning and design

(a) For projects for which a Level 1 or Level 2 environmental review is required in accordance with N.J.A.C. 7:22–10.4 and 10.5, respectively, this section provides the method the Department will use to determine both the estimated and final allowance under N.J.A.C. 7:22–6.34 planning and design. The Pinelands grant or loan agreement will include an estimate of the allowance.

(b) The Pinelands Infrastructure Trust share of the allowance may be up to 100 percent of the allowance and shall be based upon the percentage of the Pinelands Infrastructure Trust share of the allowable building cost.

(c) The allowance is not intended to reimburse the recipient for costs actually incurred for planning or design. Rather, the allowance is intended to assist in defraying those costs. Under this procedure, questions of equity (that is, reimbursement on a dollar-for-dollar basis) will not be appropriate.

(d) The estimated and final allowance will be determined in accordance with this section and Tables 1 and 2. Table 2 is to be used in the event that the recipient received a federal grant or a Pinelands grant or loan for facilities planning. The amount of the allowance is computed by applying the resulting allowance percentage to the initial allowable building cost.

(e) The initial allowable building cost is the initial allowable cost of erecting, altering, remodeling, improving, or extending wastewater treatment facilities, whether accomplished through subagreement or force account. Specifically, the initial allowable building cost is the allowable cost of the following:

1. The initial award amount of all prime subagreements for building the project;

2. The initial amounts approved for force account work performed in lieu of awarding a subagreement for building the project;

3. The purchase price of eligible real property.

(f) The estimated allowance is to be based on the estimate of the initial allowable building cost.

(g) The final allowance will be determined one time only for each project, based on the initial allowable building cost, and will not be adjusted for subsequent cost increases or decreases.

(h) The recipient may request payment of 50 percent of the Pinelands Infrastructure Trust share of the estimated allowance immediately after the Pinelands Infrastructure Trust loan award. Final payment of the Pinelands Infrastructure Trust share of the allowance may be requested in the first disbursement after the recipient has awarded all prime subagreements for building the project, received the Department's approval for force account work, and completed the acquisition of all eligible real property.

(i) The allowance does not include architect or engineering services provided during the building of the project, e.g., reviewing bids, checking shop drawings, reviewing change orders, making periodic visits to job sites, etc. Architect or engineering services during the building of the project are allowable costs subject to this regulation and the Local Public Contracts Law (N.J.S.A. 40A:11–1 et seq.) or the New Jersey Wastewater Treatment Privatization Act (N.J.S.A. 58:27–1 et seq.).

TABLE 1–ALLOWANCE FOR FACILITIES PLANNING AND DESIGN

Building cost	Allowance as a percentage of building cost †
$100,000 or less	27.5396
120,000	26.8177
150,000	25.9599
175,000	25.3834
200,000	24.8944
250,000	24.0981
300,000	23.4663
350,000	22.9452
400,000	22.5032
500,000	21.7833
600,000	21.2124
700,000	20.7413
800,000	20.3418
900,000	19.9956
1,000,000	19.6910
1,200,000	17.1564
1,500,000	16.6076
1,750,000	16.2389
2,000,000	15.9259
2,500,000	13.6029
3,000,000	13.2464
3,500,000	12.9522
4,000,000	12.7026
5,000,000	12.2963
6,000,000	10.7766
7,000,000	10.5373
8,000,000	10.3343
9,000,000	10.1585
10,000,000	10.0036
12,000,000	8.6591
15,000,000	8.3821
17,500,000	8.1960
20,000,000	8.0381
25,000,000	7.1325
30,000,000	6.9456
35,000,000	6.7913
40,000,000	6.6605
50,000,000	6.4474
60,000,000	6.2785
70,000,000	6.1390
80,000,000	6.0207
90,000,000	5.9183
100,000,000	5.8281
120,000,000	5.4174
150,000,000	5.2441
175,000,000	5.1277
200,000,000 (or more)	5.0289

NOTE: The allowance does not reimburse for costs incurred. Accordingly, the allowance Tables should not be used to determine the compensation for planning or design services. The compensation for planning or design services should be based upon the nature, scope and complexity of the services required by the community.

† Interpolate between values.

TABLE 2–ALLOWANCE FOR DESIGN ONLY

Building cost	Allowance as a percentage of building cost †
$100,000 or less	16.2798
120,000	15.9235
150,000	15.4983
175,000	15.2112
200,000	14.9667
250,000	14.5669
300,000	14.2483
350,000	13.9844
400,000	13.7596
500,000	13.3922
600,000	13.0992
700,000	12.8565

Building cost	Allowance as a percentage of building cost †
800,000	12.6498
900,000	12.4705
1,000,000	12.2170
1,200,000	10.7751
1,500,000	10.4873
1,750,000	10.2930
2,000,000	10.1276
2,500,000	8.6975
3,000,000	8.5071
3,500,000	8.3496
4,000,000	8.2154
5,000,000	7.9959
6,000,000	7.0389
7,000,000	6.9085
8,000,000	6.7975
9,000,000	6.7010
10,000,000	6.6159
12,000,000	5.7522
15,000,000	5.5986
17,500,000	5.4948
20,000,000	5.4065
25,000,000	4.8236
30,000,000	4.7181
35,000,000	4.6307
40,000,000	4.5563
50,000,000	4.4345
60,000,000	4.3375
70,000,000	4.2572
80,000,000	4.1888
90,000,000	4.1294
100,000,000	4.0769
120,000,000	3.8065
150,000,000	3.7048
175,000,000	3.6362
200,000,000 (or more)	3.5778

NOTE: The allowance does not reimburse for costs incurred. Accordingly, the allowance Tables should not be used to determine the compensation for planning or design services. The compensation for planning or design services should be based upon the nature, scope and complexity of the services required by the community.

† Interpolate between values.

Amended by R.1992 d.42, effective January 21, 1992.
See: 23 N.J.R. 3282(a), 24 N.J.R. 246(a).
In (h) "Assistant Director" changed to "Department".
Amended by R.1995 d.494, effective September 5, 1995.
See: 27 N.J.R. 1356(a), 27 N.J.R. 3403(a).
Amended by R.1997 d.346, effective August 18, 1997.
See: 29 N.J.R. 2207(a), 29 N.J.R. 3723(a).
In (a), inserted "For projects for which ... 10.5, respectively,".

7:22–7.13 Planning and design costs for Level 3 projects

For projects for which a Level 3 environmental review is required in accordance with N.J.A.C. 7:22–10.6, the recipient's costs actually incurred for planning and design activities are allowable.

New Rule, R.1997 d.346, effective August 18, 1997.
See: 29 N.J.R. 2207(a), 29 N.J.R. 3723(a).

SUBCHAPTER 8. MINIMUM STANDARDS OF CONDUCT FOR OFFICERS, EMPLOYEES, AGENTS AND MEMBERS OF AUTHORITIES PARTICIPATING IN STATE FINANCIAL ASSISTANCE PROGRAMS FOR ENVIRONMENTAL INFRASTRUCTURE FACILITIES

7:22–8.1 Scope and purpose

This subchapter establishes the minimum standards of conduct for persons participating in any of the State financial assistance programs for environmental infrastructure facilities under N.J.A.C. 7:22–3, 4 and 6 and N.J.A.C. 7:22A–6 and 7.

Amended by R.1998 d.407, effective August 3, 1998.
See: 30 N.J.R. 1144(a), 30 N.J.R. 2863(a).
Rewrote the paragraph.

7:22–8.2 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings unless the context clearly indicates otherwise.

"Agent" means any person hired to act for an Authority in the conduct of its business.

"Associated party" means any employee, officer, agent, or members of an Authority.

"Authority" means a public body or utility created pursuant to New Jersey law that conveys and/or treats sewage or supplies water within the identified territorial boundaries of a service area.

"Employee" means an individual employed on a regular basis by an Authority.

"Governing body" means the governmental unit(s) having the statutory authority and responsibility for the establishment of an Authority and/or the appointment of its members.

"Members" means those individuals appointed by a governing body to an Authority. The powers of an Authority are vested in these individuals.

"Officers" means those individuals selected by the members to serve in official capacities, such as chairman, vice chairman, secretary or treasurer. In some organizations, some full-time employees may be considered officers; for example, the executive director or chief engineer.

"Person" means any individual, association, partnership or corporation.

PINELANDS INFRASTRUCTURE MASTER PLAN

19 DECEMBER 1986

Prepared for

State of New Jersey
Pinelands Commission
New Lisbon, New Jersey

By
ROY F. WESTON, INC.
WEST CHESTER, PENNSYLVANIA

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SECTION 1

INTRODUCTION

1.1 PURPOSE

A number of projects are currently planned to service the existing and future development of the Pinelands. The development stages of each project range from initial planning, feasibility study, and conceptual design to ongoing construction. In the past, sources of funding for the projects included varying levels of contribution by the Federal Construction Grants Program (as ammended), state funds, and local financing. With the passage of the Pinelands Infrastructure Trust Bond Act (PITBA), an additional source of funding is now in existence.

The purpose of the Pinelands Infrastructure Inventory Master Plan is to present a system for prioritizing and managing this project planning process. A data base management system has been developed to provide for ease of management of the projects and the funding process. An integral part of the system is the capability to prioritize the project to establish a list of fundable projects. This system provides sufficient flexibility to permit the inclusion of new projects or initially modifify projects. It also provides for changes in the ranking criteria and their relative importance to reflect changes in strategies and planning policies.

1.2 SCOPE

The Plan includes all 23 of the Pineland Regional Growth Areas (RGA's) and includes all projects that have been identified by municipalities, utility authorities, or county and regional planning agencies. A total of 15 projects were identified, including four projects which were alternatives for other identified projects. The projects would provide services for 12 of the 23 RGA's. The Plan also addressed the unmet needs of all the 23 RGA's, regardless of whether they had a project identified. Possible modifications to identified projects are presented and new approaches to address the needs of RGA's without current projects are outlined.

SECTION 2

PREPARATION OF A CAPITAL PROJECTS INVENTORY

2.1 ACQUISITION OF DATA

WESTON collected data from various sources including the U.S. Enironmental Protection Agency, New Jersey Department of Environmental Protection, county planning agencies and utility authorities, municipalities (engineers and utilities authorities) and the Pinelands Commission. The following sections present an overview of the steps employed by WESTON in collecting the information in the infrastructure inventory.

2.1.1 Incorporation of Readily Available Needs Survey Data for Projects in or Near the Pinelands' RGA's

The first task in preparing the Capitol Projects Inventory was to identify projects that are currently being planned by municipalities within the RGA boundaries of the Pinelands. The initial source of this project information was the EPA's Needs Survey, a national data base of wastewater facility information.

The Needs Survey data base is maintained by the Office of Water at EPA, and contains project cost and technical information for existing and proposed wastewater treatment plants and service areas for every state in the nation. Information for each treatment plant and service area is stored on an individual record in the data base and is identified by a unique authority/facility (A/F) number. In New Jersey these A/F numbers generally represent either sewage treatment plants, sewered areas within a township, or rural nonsewered areas within a township.

WESTON's initial review of the Needs Survey files identified 47 individual A/F numbers which represented service areas within the Pineland boundaries in Atlantic, Burlington, Camden, Gloucester, and Ocean Counties. The contents of each of these files was reviewed, and all available planning information extracted for each file.

Because the Needs Survey represents projects eligible for funding through the Federal government's Construction Grants Program, the file folders generally were found to contain 201 facility plan excerpts and State Priority List Project Summaries. Much of this information reflected planning as of the early 1980's. Subsequent follow-up work revealed that many municipalities were planning local projects outside of the

Construction Grants program, and thus were not part of the Needs Survey files. However, the Needs Survey information was useful in providing an understanding of the planning history for RGA areas, and served as a basis for further investigation through telephone and personal contracts with the municipalities.

2.1.2 Collection and Evaluation of Facilities

Data from the Needs Survey Files were used to develop an initial project inventory. A list of projects provided to WESTON by the Pinelands Commission was added to this inventory which included a brief description of all current projects known within RGA's known to the Pinelands Commission. Using these sources, WESTON prepared two types of letters to agencies which govern all RGA's. The first type of letter was addressed to agencies in which no projects were included within the Needs Survey files or the Pinelands Commission list. This letter stated that WESTON was currently unaware of any projects planned within the agency's jurisdiction, and that if the agency would like a project to be considered for Pinelands funding, the agency should submit a project description, purpose, and preliminary cost estimate. Agencies that received this letter were Berlin Borough, Berlin Township, Shamong Township, Tabernacle Township, Medford Township, Medford Lakes, Berkeley Township, Ocean Township and South Toms River.

The second letter was addressed to all RGA agencies in which WESTON had knowledge of current projects. Included in this letter was a description of each project obtained from WESTON's initial project inventory and a request to verify and update these descriptions. The agency was requested to note any additional projects of which WESTON was unaware. Agencies who received these letters were Southampton Township MUA, Egg Harbor Township MUA, Galloway Township, Hamilton Township MUA, Evesham Township MUA, Pemberton Township MUA, Chesilhurst Borough, Stafford Township MUA, Waterford Township MUA, Winslow Township, Monroe Township, Barnegat Township, Beachwood Borough, Jackson Township, and Manchester Township. Where the engineer of the Township or MUA resided at an address other than that of the Township or MUA,the engineer was also sent a copy of the letter.

In addition, follow-up interviews were immediately scheduled with several RGA contacts. WESTON visited with representatives of Stafford Township, the Ocean County Utilities Authority (OCUA), Hamilton Township, Waterford Township and the Camden County Municipal Utilities Authority (CCMUA). WESTON was also invited to attend a meeting between Winslow Township representatives and the Pinelands Commission. These interviews

provided the means to better understand the projects, to acquire any available information (e.g., planning studies, approvals, drawings, maps, correspondence relating to the projects), and to visit the project site, if possible. These interviews also helped to resolve inconsistencies between different data sources.

In addition to the interviews, WESTON made follow-up phone calls to RGA's with known projects that were not scheduled for visitations. As a result of these conversations, some projects on the initial list were eliminated. For Evesham Township, the Pine Grove Area project was already completed and therefore was not considered. Egg Harbor Township believed that it would be impractical for project funding consideration due to an excessive amount of time needed for the Township to comply with the Pinelands Comprehensive Management Plan. Southampton Township MUA was unaware of any current projects within the Township. The project within the Borough of Beachwood was eliminated due to lengthy delays expected in land acquisition.

Conversely, some RGA's requested that projects not included on the initial inventory list be considered. Berlin Township contacted the Pinelands Commission with a request to consider funding a local interceptor to service the Berlin Township RGA. Galloway Township submitted additional projects for consideredation.

From the data collected by mail, visitations and phone conversations, a final preliminary inventory of proposed projects was developed. This inventory included only basic information of each project. Reported information for each project included data describing project status, project costs, service area and population, and water quality problems associated with the service area. In several cases, this basic information was unavailable. As a result, gaps existed in the inventory which needed to be filled.

2.2 DATA VERIFICATION

Several steps have been taken by WESTON and the Pinelands Commission's staff to ensure that the data in the inventory is as accurate as possible.

2.2.1 Detailed Review of the Preliminary Data with the Pinelands Commission Staff

The final preliminary inventory was submitted to the Pinelands Commission for review. A thorough evaluation of every project was performed by the WESTON Team and the Pinelands Commission staff.

In evaluating the projects, it was found that several of the projects overlapped and needed to be better defined. In Camden County, the Waterford project included only the treatment plant upgrade and expansion and did not include an interceptor to convey flow generated from the Borough of Chesilhurst, even though the treatment plant will be upgraded to handle the Borough's flow. The interceptor and a pump station would be considered as a separate project under the ownership of the CCMUA and as a separate project under the ownership of the Borough of Chesilhurst. The Chesilhurst collection system would be considered as a separate project. In Atlantic County, the ACUA Coastal Interceptor would be considered as a separate project, even though it is designed to accept flow from another proposed project within Hamilton Township.

Projects were also evaluated regarding the degree to which the RGA would be serviced by the project. In some cases, projects were found that did not service RGA's. Several projects submitted by Galloway Township were eliminated from the inventory. Some projects, such as those submitted by Pemberton and Berlin Townships, needed to be scaled down to consider only that portion of a project which services the RGA.

Project costs were broken down whenever possible, and each component was evaluated. Costs were escalated to 1986 dollars, as necessary. Any possible nonfundable project costs, such as financing costs, bonding, etc., were investigated.

Projects were also investigated to ensure that the project's receiving facility has sufficient capacity to handle flows generated by the proposed project. For example, the Monroe Township proposed interceptor discharges to an existing pump station. It was concluded that this pump station has sufficient capacity to accommodate the proposed flow from this interceptor. The proposed ACUA coastal interceptor was determined to have sufficient capacity to handle flow from the proposed Harding Highway project. The existing Route 72 Western Trunk Line was determined to have enough capacity to handle flows from the proposed Stafford Collection System.

The service population of each project was divided into several categories. Those persons serviced by the project inside the RGA were separated from those persons serviced by the project outside the RGA. These two categories were further divided into those persons currently on septic systems and those persons hooked to collection systems. If flows were unavailable, they were estimated based on a per capita generation rate of 225 gallons per capita per day. If only flows were known, populations were estimated based on this per capita rate. The number of persons per household was taken from census data. The service population of a project was compared to the build-out capacity of the service area to determine whether the project has the capacity to service future RGA population.

Water quality problems were also investigated. The NJDEP lists all treatment facilities currently out of compliance with state regulations. Information from the municipalities and local agencies was compared to this list for consistency. On-site system failure reports were also investigated. County representatives were contacted to ensure that each project was consistent with existing 201 and 208 facility plans.

In summary, every data element for every project was investigated. All inconsistencies were noted. All attempts were made to ensure that the data could be verified and that data elements could be fairly compared for different projects.

2.2.2 Follow-up Contact with the Municipalities Which Identified Infrastructure Projects

After several meetings with the Pinelands Commission staff, both representatives of WESTON and the Pinelands Commission contacted the different agencies and municipalities whose projects showed inconsistencies or lacked the necessary data. Most of the problems were resolved in this manner. For example, the ACUA originally estimated a total project cost of $28 million for the proposed coastal interceptor. This cost, however, was higher than cost estimates from other sources of data. It was found that several million dollars had been allocated for financing the project. The Pineland Commission, however, is not permitted to fund any bond council, financing or interest charges of a project. Therefore, these costs were subtracted from the original estimate. The same situaiton currently exists for the Monroe Township project.

A request for additional information for the Berlin Township project revealed that the service area within the RGA was zoned for commercial use. The number of residential households were reduced since only eight residential homes presently exist in this region. The Barnegat Township project scope needed to be changed to reflect recent changes in flow destination from the proposed collection system.

In some cases, however, the data was unattainable. Winslow Township, which submitted three projects, has not been able to supply the necessary data because the projects are not yet in the planning phase and data are not available.

In other cases, inconsistencies were not changed. The Chesilhurst interceptor and pump station total cost varies significantly for two different ownerships. If the Borough of Chesilhurst owns and operates this system, they estimate the total cost to be $513,000. However, the CCMUA estimates a total cost of $2,457,000 if they own and operate the system. Both project costs need to be considered since the ownership of the system has not yet been decided.

2.2.3 Distribution of Project Data to the Municipalities for Their Review and Comment

Once all project data were evaluated and verified and follow-up contacts were made, the project inventory was finalized. Detailed project descriptions were prepared by WESTON for each project. These descriptions explain the data of the projects and present a concise summary of the project, including its purpose, scope, necessity, service area and population, costs, current status, and schedule. These descirptions are included in Subsection 2.5. These descriptions were reviewed by the Pinelands Commission staff, and changes were made wherever necessary. Once these descriptions and the data were finalized, they were sent to the agencies and municipalities responsible for the projects for review and comment along with the list of data elements contained in the developed data base management system.

A meeting was held on 8 December 1986 between representatives of the Pinelands Commission, WESTON, and all the agencies responsible for the projects listed in the final inventory. This meeting provided these agencies the opportunity to change any of the data elements within the data base or to change their project descriptions.

2.3 SERVICE AREA DELINEATIONS

Many of the projects identified in the data collection phase were only conceptual or preliminary in their planning status. Also, many of the projects are designed to service future development. The exact areas to be developed are not known at this time. Therefore, it was difficult to identify the area to be serviced by the projects. However, an attempt was made to delineate the area to be served by the project. In addition, the location of major project components (force mains, treatment plant, and pump stations, etc.) were identified.

Figure 2-1 presents the the best current estimate of the area to be served by each project. It also depicts the RGA's boundaries and the relationship of the service area to the limits of the RGA's.

2.4 CREATION OF THE MICROCOMPUTER DATA BASE MANAGEMENT SYSTEM

To facilitate the storage and retrieval of information relevant to the Pineland's Infrastructure Inventory, WESTON created the Pinelands Infrastructure Inventory Data Management System. The Pineland's system became the central repository for the collected information. It also provided the computerized vehicle for an automated ranking system.

The system is built using DBASE III software. The structure of the data base contains 97 elements for each record. Each project constitutes a record. Most of the data elements can be edited directly in the system. Several of the elements such as the populations and ranking fields are calculated entries and cannot be edited from the system.

The opening menu of the system allows the user to select the standard data functions: display, edit, print, and append. There are also file functions to load or unload the data to diskette. These functions are used to restore and backup the data base. Finally, there are system functions which allow the user to calculate the unmet needs, to perform a ranking, to enter the report generating subsystem, or to exit from the system to DBASE.

When performing a data function, the system allows the user to select a record based on one of several selection criteria. The user can use either project name, project ID number, facility name, county, township, RGA name, or local waterbody name to screen projects. All names can be either full or partial. Partial names can be a single character to a full expression. When a selection is made the system will scroll one at a time through the identification screen for all of the facilities which meet the screening criterion. The user can then select the record he or she wishes to examine.

The file function UNLOAD creates a standard data file (SDF) file containing all the fields for each record. The LOAD function first erases the data base and then reads a SDF file into the system.

The system functions perform numerous tasks. The unmet needs option calculates the data for the unmet needs fields which cannot be edited. The ranking option allows the user to specify weighting factors for the four catagories of ranking criteria. It then calculates a total score for each record and writes it to the database. The reports option allows the user to generate one of five standard reports. The first two reports are for data inventory. The third report lists all the fields associated with the unmet needs calculations. The fourth report sorts the records by their ranking score and reports the pertinent data. The final report option will generate a vertical listing of all data elements for every record. A listing of each of these five reports is included in Appendix A of this report.

2.5 DETAILED PROJECT DESCRIPTIONS

WESTON identified 15 projects to be ranked with the priority rating system. The detailed data for each project is contained in Appendix B. The following is a description of the projects. All sources of data are referenced in these descriptions and a list of these references is included in Subsection 2.6.

PROJECT DESCRIPTIONS - ATLANTIC COUNTY

Regional Growth Area: Galloway Township
Project Name: Galloway Township Interceptors-(Pinehurst)

Galloway Township proposes to construct two interceptors to service that portion of its Regional Growth Area to the north of the White Horse Pike (Route 30) and to the west of the Garden State Parkway. This area will be generally referred to as Pinehurst.

An existing 14-inch sewer line extending north from the White Horse Pike to Stockton State College currently provides service to the college. This line, which runs along Spruce and Filmore Avenues, also has capacity to service the westerly portion of Pinehurst. This service area generally ends at Quince Avenue (1).

The project now proposed includes a 5,000-foot gravity sewer line from Route 30 north along Chris Gaupp Drive to Jimmy Leeds Road. A 12-inch line will extend from Route 30 for approximately 1,300 feet with the remaining section consisting of an 8-inch line. It is estimated that this line has a capacity of 461,000 gpd and will cost $150,000 (1).

Another 12-inch gravity line is proposed for construction from the existing ACUA pump station at McKineley and Genista Avenues in a northerly direction terminating at Jimmy Leeds Road. Although not proposed for funding as part of this project, this line may also be extended east along Jimmy Leeds to the existing wastewater facility serving the Garden State Parkway. The existing flow from this facility is estimated to be 15,000 gpd. It is projected that this line has a capacity of 461,000 gpd and will cost $509,560. The higher costs for this line are attributable to its greater depth and restoration requirements (1).

Since a portion of the Pinehurst RGA currently has access to sewer service, only that portion of Pinehurst north of route 30 and east of Quince Avenue is considered as the potential service area for these two new interceptors. It is estimated that 111 existing unsewered homes are located here and that the build-out capacity is 2,594 additional dwelling units (or 65 percent of the total build-out potential for Pinehurst). The build-out estimate does not reflect nonresidential development which could occur within the professional office zone located along Chris Gaupp Drive. Service for this development would be provided through the proposed line (1).

The projects are in the preliminary engineering phase and could be constructed within 1 year (1).

It should be noted that the ACUA is presently reviewing the capacities of their interceptors and pump stations. This could possibly limit the actual flows which could be accepted from the Pinehurst service area (2).

Regional Growth Area: Hamilton Township
Project Name: Harding Highway and Cologne Avenue Interceptor

Hamilton Township plans to tie into the proposed Atlantic County Utilities Authority's (ACUA) coastal interceptor, which is to extend from Mays Landing in Hamilton Township to the Pleasantville pumping station in Egg Harbor Township (3). The Township proposes to extend an interceptor along Harding Highway (U.S. Route 40) to the Hamilton Township MUA treatment plant. The plant will eventually be converted to a pump station for the proposed ACUA coastal interceptor. The total project cost is $1.425 million (4)(5). This project is needed because of the significant pressures brought about by the existing development approvals that were granted by the local authorities and by the Pinelands Commission. The existing Harding Highway line to the Hamilton sewage treatment plant does not have any remaining capacity to facilitate growth.

The proposed alignment to the Hamilton Township treatment plant may be in conflict with ACUA plans. The ACUA prefers that the Harding Highway line extend down New York Avenue to meet its coastal interceptor, at a point further east along this interceptor. This makes the length of the Harding Highway line considerably shorter and less expensive. The Township, however, would prefer the proposed alignment because it wishes construction of the project to begin immediately because of existing pressures. It is the Township's intention that this project be completed before the coastal interceptor is constructed. Therefore, the HTMUA is proposing to run this local line to the Hamilton Township treatment plant. This treatment plant does not meet the water quality standards established by the Pinelands Commission. The Commission standards require a discharge level of 2 mg/L for nitrate/ nitrogen as well as the recently amended state surface water quality standards. The plant is operating up to current DEP

permit conditions, it must meet the more stringent standards outlined above if it does not connect to the coastal interceptor upon completion. Approval of this project should be given only if the project is consistent with ACUA's plan. Any increased cost due to Hamilton's proposed alignment should be borne by the applicant (6).

The Hamilton Township sewage treatment plant currently operates at an average flow of 600,000 gpd with a capacity of 1.5 mgd. This includes 375,000 gpd from the eastern (Harding Highway) portion of the RGA, 175,000 gpd from the western portion of the RGA, and 55,000 gpd from outside the RGA. The proposed project includes increasing the existing pumping station capacity in the western section from 230,000 gpd to 300,000 gpd. This will provide an increased pumping capacity of 70,000 gpd (1,333 EDU). The additional pump does not have sufficient capacity to support all future growth anticipated by the HTMUA. Additional capacity will be obtained by the construction of a wet well paid for by local developers. The Harding Highway interceptor is designed to accommodate a sewage flow of 2.0 mgd with 681,006 gpd already allocated for approved unbuilt projects (6)(7).

The project is currently in compliance with the 201 plan only in that it ties into the proposed coastal interceptor (8). It is not in compliance if the ACUA coastal interceptor is not implemented, since it would terminate at a treatment plant which will be required to come off-line. The Pinelands Commission should not fund this proposed project unless the coastal interceptor is implemented.

The Township has stated that the project is presently under design and that approval by the Pinelands Commission should take place within 6 months. The Township would receive bids by May, 1987 and could begin construction 1 month later. Construction is estimated to take approximately 9 months to complete (5).

The current user fee for the Township is $110/year/dwelling. It is expected to reach $220/year/dwelling once the hook-up to the proposed coastal interceptor is made (5). However, this fee does not include local debt service for local project operation and maintenance (7).

Regional Growth Area: Hamilton & Egg Harbor Townships
Project Name: Atlantic County Utilities Authority (ACUA) Coastal Interceptor

The proposed ACUA coastal interceptor project, if implemented, will receive flow from regional growth areas in Hamilton and Egg Harbor Townships and convey it to the Pleasantville pump station for treatment at the ACUA sewage treatment plant in Atlantic City (3). The total project cost is expected to be $23 million (9).

The project is needed primarily to handle the expected population growth resulting from the housing demand generated by the casino industry and secondary development in the County. There is also a need to divert flow from the Hamilton Township treatment plant as a result of a NJDEP order to eliminate discharges from the plant (3). Portions of the proposed service areas are reportedly experiencing on-lot septic systems problems which need to be addressed (4)(10). At this time, however, we have found no formal documentation of these problems.

The interceptor project consists of 15 miles of 18-, 20-, 24-, and 36-inch force main (11), which is projected to handle an estimated future flow of 7.0 mgd (9). Approximately half the length of the interceptor runs through Hamilton Township and the remaining portion through Egg Harbor Township. A total of five pumping stations will be included in the project. The existing Hamilton Township treatment plant will be converted to the first of these pump stations (4)(9).

The initial capacity of the pumping station at the terminus of the line in Egg Harbor Township is 1.6 mgd and represents an initial limiting factor. As future growth warrants, the pumping station capacity can be increased to 7.0 mgd. The present project cost includes only the cost of the 1.6 mgd pumping station. Future costs will be absorbed by other sources. The intermediate pumping stations will also be undersized for future capacity flows (9).

Projected population estimates for the Hamilton Township portion of the service are 34,317 people in the year 2000 (13). The actual growth rate of the service areas in the Hamilton Township regional growth area will depend upon the housing demand generated by commercial and industrial projects currently being promoted by the Township. Egg Harbor Township populations serviced by the project are estimated to be 59,015 people. Again, the actual growth is dependent on the commercial and industrial development and the jobs generated by that growth. The total interceptor project will be designed to service a future population of 93,332 (9).

The project is consistent with the 201 Facilities Plan (8). A Wastewater Management Plan Amendment has been proposed for this project. The comment period on that amendment has closed and the ACUA is awaiting formal action on the amendment by the NJDEP. It is currently in the preliminary engineering phase (9).

PROJECT DESCRIPTION - BURLINGTON COUNTY

Regional Growth Area: Pemberton Township
Project Name: Five Extensions to Pemberton Township Sewer Collection System

Pemberton Township MUA plans to extend its sewage collection system to service the following areas of existing development (12)(13):

- Cookstown Road/East Lakeshore Drive
- Bishop Street, Eldridge Street, and North Lakeshore Drive/Goodwater Avenue
- Vine Street/Hanover Boulevard
- Vincetown/Beddtown Road
- Arney's Mount Pemberton Road

These projects will remove the use of on-site septic systems and total flow from the project to the existing 2.5 mgd wastewater treatment plant will be approximately 70,000 gpd. Approximately 288 existing dwelling units will be served by the project (13).

These projects all involve expansion using 8-inch gravity lines at a total estimated construction cost of $1,193,500 (12)(13). Pemberton Township is seeking 75 percent of this cost from the Pinelands Infrastructure Trust Bond Act (14) with a $450 per unit connection fee. Considering 288 existing dwelling units will be served by the project, the Township can presently commit $129,600 from these fees (15). Construction could begin 1 year after assurance of funding and would require approximately 1 year to complete (12).

PROJECT DESCRIPTION - CAMDEN COUNTY

Regional Growth Area: Berlin Township
Project Name: Berlin Township Interceptor

Berlin Township proposes to extend approximately 6,000 linear feet of force main and gravity main along Route 73 within the Berlin Township RGA to a pump station for transport through the Camden County Municipal Utilities Authority (CCMUA) system to Lindenwold. Approximately 2,500 linear feet of dedicated force main is needed through Berlin Borough to accommodate the project. The total project cost is estimated to be $1 million (16)(17).

Berlin Township is currently unsewered. Although we have found no documentation, there have been reports of failing septic systems within the Township (17). The proposed project, however, is only a small portion of a large project currently underway by the CCMUA and the Township. The overall project consists of the sewering of Berlin Township (for which the Township is responsible), the replacement of the existing Berlin Borough Treatment Plant with a pump station (which will eliminate a major source of pollution to the Egg Harbor River), the extension of an interceptor from Berlin Borough to Zulker Avenue in Berlin Township where a proposed pump station would convey the Berlin Township and Berlin Borough wastewater to Lindenwold. From Lindenwold, an existing (almost complete) line would transmit the flow to the CCMUA treatment plant. This plant is to be expanded from its current capacity of 43 mgd to 82 mgd by January 1989 (18).

Although the CCUMUA has requested that the line from Berlin Township to Berlin Borough and then to Lindenwold, the pump station in Berlin Township, and the pump station in Berlin Borough be considered for funding by the Pinelands Commission, only that portion of the project which directly services the Berlin Township RGA will be considered. This includes only the small line along Route 73 outlined in the first paragraph of this Project Description (19).

Based on current zoning maps, the estimated number of existing equivalent dwelling units (EDU's) to be served by the project is 229 EDU's. Since the undeveloped portion of the service area consists of commercially zoned land, the expected future number of EDU's serviced by the project is 552 EDU's (20). (Note that 323 EDU's are listed in the NON-RGA, NON-SEWERED CAPACITY column of the data base system. This is to show a total nonresidential project capacity of 552 EDU's). According to Pinelands Commission Data, of the 55 RGA acres, there is no developable acreage within this RGA for residential use. Therefore, the maximum build-out capacity in residential EDU's for Berlin Township is zero (20).

The project is currently in the preliminary engineering phase. Once funds have been allocated final submittal to the NJDEP would take place and construction would begin. Portions of the larger project outside the RGA are now being constructed. Once money is available, construction could be completed in 1 year (17).

Since the project is part of a large project, there is the risk that this project, if funded and completed before the other phases of the larger project, may stand alone and remain dry until the remaining phases of the overall project are completed.

The project appears to be consistent with the latest Camden County 201 plan (11)(18).

Project Growth Area: Chesilhurst Borough
Project Name: Chesilhurst Collection System

The Borough of Chesilhurst is planning to install a collection system to service the entire Borough. The collection system will feed into a pump station and interceptor which will convey the sewage to Waterford's treatment plant (21). This project is only the collection portion of the system needed to service the Borough. The project is currently in the preliminary engineering phase awaiting a service agreement and is expected to take between 18 months and 2 years to complete (22).

There are potential problems in Chesilhurst with the on-site septic systems. Approximately 60 percent of the soils in the Borough are classified as unsuitable for on-site septic systems, but there is no documented evidence of failures of which we are aware. The possibility of on-site septic system failure coupled with the fact that on-site wells are used for water supply could result in public health problems. The project would provide centralized collection and eliminate the use of on-site systems, thereby reducing the potential for contamination of the drinking water supply by septic system effluent.

The project will be built in two sections, a northerly portion and a southerly portion. The estimated initial flow from existing dwelling units is 71,528 gpd for the northerly portion and 36,878 gpd for the southerly portion. The total initial flow is estimated to be 108,405 gpd, which is approximately 438 dwelling units (EDU's) at 75 gpcd and 3.3 persons per dwelling. The future capacity of the collection system is proposed to be 966,000 gpd, which will service approximately 3903 EDU's at 75 gpcd and 3.3 persons per dwelling (23).

According to Pinelands Commission data, the total build-out capacity of the Chesilhurst Borough is only 2,443 EDU's, which is well below the design service of 3,903 EDU's. This excess design capacity should be evaluated and reduced if anticipated flows from industrial and commercial zones are not expected to equal the balance of 1,460 EDU's. Also, the pumping station at the eastern border of the Borough has an initial design capacity to service the present population of 438 EDU's. The capacity will need to be upgraded to service the build-out capacity.

The total estimated cost of the project is $2,986,824 (21) however, Chesilhurst presently has $2,457,000 in the form of a Farmers Home Administration (FmHA) loan grant (24) which was originally intended to fund the proposed collection system plus a pump station and interceptor to the Waterford Treatment Plant. Therefore, they are only requesting $529,824 from the Pinelands Infrastructure Trust Bond Act funds to fund the collection system. The FmHA grant and loan to the Borough are based upon certain user fee levels being maintained. Thus, user fee estimates will need to be carefully evaluated to determine the impact of different operating alternatives, including the probability of CCMUA ownership of the Waterford STP and the Chesilhurst interceptor.

The project is consistent with the recently proposed wastewater management plan. However, this plan, which includes the upgrade and expansion of the Waterford and Winslow treatment plants, the transmission of Chesilhurst's wastewater to the Waterford Treatment Plant and the ownership and operation of this entire conveyance and treatment system by the CCMUA (25), has not yet been approved. If the flows from Chesilhurst are sent to Waterford, Waterford Township has agreed to initially accept 164,000 gpd of flow from Chesilhurst (26). This would service 663 EDU's.

Project Growth Area: Chesilhurst Borough
Project Name: Chesilhurst Pump Station and Interceptor (Chesilhurst Borough)

The Borough of Chesilhurst is planning to install a collection system to service the entire Borough. The collection system will feed into a proposed pump station and interceptor which will convey the sewage to Waterford's treatment plant (21). This project incorporates only the pump station and force main needed to transport the wastewater to the Waterford STP. The project is currently in the preliminary engineering phase awaiting a service agreement and is expected to take 18 months to 2 years to complete (22).

Potential problems exist in Chesilhurst with the on-site septic systems. Approximately 60 percent of the soils in the Borough are classified as unsuitable for on-site septic systems, but there is no documented evidence of failures of which we are aware. Failing on-site septic system failure coupled with the fact that on-site wells are used for water supply could result in public health problems. The project would make centralized collection possible and eliminate the use of on-site systems, thereby reducing the potential for contamination of the drinking water supply by septic system effluent.

The total initial flow of the collection system is estimated to be 108,405 gpd. This is approximately 438 EDU's at 75 gpcd and 3.3 persons per dwelling. The future capacity of the collection system is proposed to be 966,000 gpd, which will service approximately 3903 EDU's at 75 gpcd and 3.3 persons per dwelling. The pump station and force main are proposed to be designed to convey the 966,000 gpd from Chesilhurst's eastern boundary to the Waterford STP (23).

According to Pinelands Commission data, the total build-out capacity of the Chesilhurst Borough is only 2,443 EDU's, which is well below the design population of 3,903 EDU's. This excess design capacity should be evaluated and reduced if anticipated flows from industrial and commercial zones are not expected to equal the balance of 1,460 EDU's. The proposed pumping station at the eastern border of the Borough will be designed with the flexibility to serve the 108,405 gpd from the 438 EDU's initially and be expanded to handle the 966,000 gpd in the future.

The total estimated cost of the project is $513,000 million (21); however, Chesilhurst presently has $2.457 million from a Farmers Home Administration (FmHA) grant which is to pay for the collection system and the proposed project (24). Since the total cost for the collection system and the project is estimated to cost $3.50 million, the borough is only requesting $1.043 million from the Pinelands Infrastructure Trust Bond Act funds (24) and $513,176 of that amount has been allocated to this project. Estimated user fees are a concern with respect to the FmHA grant and loan; thus, all operational alternatives, including ultimate ownership of the Waterford STP and this interceptor, need to be carefully evaluated:

The project is consistent with the recently proposed wastewater management plan amendment. However, this plan, which includes the upgrade and expansion of the Waterford and Winslow treatment plants, the transmission of Chesilhurst's wastewater to the Waterford Treatment Plant, and the ownership and operation of this entire conveyance and treatment system by the CCMUA (25), has not yet been approved. If the flows from Chesilhurst are sent to Waterford, Waterford Township has agreed to initially accept 164,000 gpd of flow from Chesilhurst (26), thereby servicing 663 EDU's.

Regional Growth Area: Waterford, Chesilhurst & Winslow
Project Name: Waterford STP Upgrade and Expansion

The Waterford Township Municipal Utilities Authority (WTMUA) is planning to upgrade their sewage treatment plant (STP) to comply with their effluent nitrate/nitrogen concentration limit of 2 mg/L. They are presently disposing of effluent through the use of spray irrigation fields a concentration of approximately 2.7 mg/L. In addition, they are proposing to increase the capacity of the plant to accommodate development in their Township and accept more flow from neighboring municipalities, namely Winslow and Chesilhurst (26).

The STP consists of a 3-stage faculative lagoon system connected in series with a chlorination-type disinfection system and a spray irrigation field for land application of the treated effluent. It was permitted by the New Jersey Division of Water Resources (NJDWR) under Permit No. SO-9-77-5791 and 5791B dated 4 December 1979. The STP is currently treating 255,000 gpd based on June through September data. The existing wastewater comes from Waterford (90 percent) and Winslow (10 percent) Townships (26).

The plant is proposed for upgrade and expansion for two reasons. The first reason is that the effluent discharge from the STP is not at a level acceptable to the NJDEP and the Pinelands Commission. Recent groundwater monitoring has indicated that the process does not meet the nitrate/nitrogen standard during certain times of the year (26). The second reason for the proposed project is the development of the Regional Growth Area concept where specific areas have been designated to accept high densities of new growth within the Pinelands area. This designation applies to portions of Waterford and neighboring Winslow and Chesilhurst Townships (27). The expansion of the STP is critical to provide service to these areas if they are expected to develop as planned.

The project is consistent with past 201 and 208 plans.(27). The project is not reflected in the recently proposed wastewater management plan which calls for a 0.75 mgd plant instead of a 1.5 mgd plant. However, the CCMUA has advised that it supports the expansion and will recommend it in the final plan (28). The amendment includes the upgrade and expansion of the Waterford and Winslow treatment plants, the transmission of Chesilhurst's wastewater to the Waterford Treatment Plant and the ownership and operation of this entire conveyance and treatment system by the CCMUA (25). If Waterford accepts sewage from Chesilhurst, the Township has agreed to accept an initial flow of 164,000 gpd (26).

The plant currently has the capacity to treat 0.75 mgd. The following is a distribution of the present flows to the Waterford STP based on existing dwelling units (26).

Existing Flow Projections (gpd)

Type	Waterford	Winslow	Chesilhurst	Total
Existing	229,500	25,500	0	255,000
Approved	69,832	176,570	0	246,402
Proposed	82,885	0	164,000	246,885
Total	382,217	202,070	164,000	748,287

Over the past 4 months, the plant flow has averaged 255,000 gpd. The origin of the flow is presently 90 percent from Waterford and 10 percent from Winslow. Approximately 1,020 EDU's are presently served by the plant, with an additional 931 EDU's approved and 752 EDU's proposed. Included within the 752 proposed EDU's is 164,000 gpd from Chesilhurst, which corresponds to 663 EDU's at a per capita rate of 75 gpcd and 3.3 persons per EDU.

In addition, approximately 750,000 gpd are necessary to serve the future growth based on the capacities of the regional growth areas*. Therefore, the proposed project is calling for an expansion of 750,000 gpd for a total hydraulic capacity of 1.5 mgd which would serve an estimated 6,073 EDU's. The proposed project would include the following (26):

- A new unit to remove the nitrate/nitrogen in the effluent to less than 2 mg/L. The denitrification unit will be sized to accommodate the ultimate proposed capacity (1.5 mgd).

- Additional faculative lagoons to accommodate an additional 750,000 gpd.

- Approximately 125 acres of spray field will be added at a site as yet undetermined.

The approximate cost of the project is as follows (26):

• Denitrification Unit for 1.5 mgd	$1,500,000
• Aerated-faculative lagoon system for 750,000 gpd	$1,500,000
• Acquisition of a 125-acre spray field including spray equipment	$ 650,000
	$3,650,000
• 15 percent contingencies, planning, and design $550,000	
	$4,200 000

The project is currently in the design phase. The design is expected to take between 6 and 9 months. The Township expects the permit to take just one month for approval by the NJDEP, and emplacement and construction would take between 9 months and 1 year. If there is any delay, WTMUA expects that it would be in acquiring the additional land needed for the spray fields (27).

Presently, there is a moratorium on all sewage hook-ups until the treatment plant comes into compliance with the Pinelands effluent regulations.

Regional Growth Area: Winslow Township
Project Name: Winslow to Waterford

Winslow Township has proposed to extend a transmission line from Winslow Township to the Waterford Treatment Plant. The cost of this project is estimated to be between $4 million and $5 million (29).

Winslow Township expects to experience extensive growth within the Township. However, they cannot grow without the proper infrastructure to convey and treat the additional sewage expected to be generated from this growth. They also have reported possible shallow water contamination due to on-site systems failures although we have found no documentation at this time. Assuming that the Waterford Treatment Plant has the available capacity, Winslow would divert its flow to the Waterford Plant (29) only if there was no capacity available in the local collection system in Winslow Township. To the best of our knowledge, this system would only be viable if the Waterford STP had capacity over and above what is now anticipated for Winslow Township.

According to Winslow Township, this project is in the conceptual planning stage (29). To determine the percentage of the service area within the Pinelands RGA this project needs to be more strictly defined. It is only that portion of the project which services a Pinelands RGA that is eligible for funding. The amount and origins of the flow to Waterford are unknown. Also, the scope of the project cost is very unclear.

Waterford Township is presently being considered for Pinelands funding to upgrade and expand their treatment plant to 1.5 mgd. Waterford Township estimates that 15 percent of the total flow to their plant will come from Winslow Township (26). If the wastewater flow specified by this project exceeds 0.2 mgd, then Waterford's plant may be required to be expanded beyond 1.5 mgd to accommodate this additional flow. This issue will also be influenced by other possible projects (Winslow STP expansion and interceptor to Berlin Borough) in terms of the precise area to be serviced by this project.

An amended wastewater management plan for the Atlantic Basin of Camden County has recently been prepared but has not yet been approved. This plan includes the upgrade and expansion of the Waterford and Winslow treatment plants, the transmission of Chesilhurst's wastewater to the Waterford Treatment Plant and the ownership of the entire conveyance and treatment system by the Camden County Municipal Utilities Authority (25). Since additional flow from Winslow to Waterford STP above 0.2 mgd is not envisioned, the proposed project would not be in conformance with that plan.

Regional Growth Area: Winslow Township
Project Name: Winslow Plant Expansion

Winslow Township is planning to expand its existing wastewater treatment plant and accommodating recharge beds to handle the projected year 2005 flow of 1.65 mgd. In addition, the Sicklerville Plant is expected to accept and treat septage waste of 1.27 mgd per year from Winslow Township (29)(30). Expansion of the Sicklervlile Plant and the construction of an interceptor out of New Brooklyn-Cedarbrook Road is estimated to cost between $1.0 million and $1.5 million (29).

Winslow Township expects to experience large growth within the Township. However, they cannot grow without the proper infrastructure to convey and treat the additional sewage expected to be generated from this growth. They also have reported possible shallow water contamination due to on-site system failures. They wish to expand the Sicklerville Plant to accommodate the expected additional growth and also to treat additional sewage generated by those additional households which would convert from on-site systems to centralized collection (29).

This project needs to be strictly defined in order to determine the percentage of the service area within the Pinelands RGA. It is only that portion of the project which services a Pinelands RGA that is eligible for funding.

Again, it would be necessary to determine how much of this capacity would service the Pinelands and how other possible projects (interceptor to Waterford STP and interceptor to Berlin Borough) might affect this proposal.

An amended wastewater management plan for Camden County has recently been amended but has not yet been approved. This plan includes the upgrade and expansion of the Waterford and Winslowtreatment plants, the transmission of Chesilhurst's wastewater to the Waterford Treatment Plant and the ownership of this entire conveyance and treatment system by the Camden County Municipal Utilities Authority (25). If this amendment is approved, the proposed project may be in conformance with the plan, which has not defined precise service areas and has not addressed Winslow STP expansion above 1.65 mgd.

Project Growth Area: Chesilhurst Borough
Project Name: Chesilhurst Interceptor By Camden County Municipal Utilities Authority (CCMUA)

The CCMUA is planning to install an interceptor to convey sewage collected by a proposed Chesilhurst Borough collection system which would be the responsibility of the Borough to the Waterford Sewage Treatment Plant (STP) (18). This project is only the interceptor portion of the system needed to service the Borough. The project is currently in the planning phase and expected to take approximately 2.5 years to complete (28).

There are potential problems in Chesilhurst with the on-site septic systems. Approximately 60 percent of the soils in the Borough are classified as unsuitable for on-site septic systems, but there is no documented evidence of failures of which we are aware. The possibility of on-site septic system failures coupled with the fact that on-site wells are used for water supply could result in public health problems. The project would make centralized collection possible and eliminate the use of on-site systems, thereby reducing the potential for contamination of the drinking water supply by septic system effluent.

The project will consist of a pumping station and force main to the Waterford STP. Since the Borough of Chesilhurst will be responsible for its own collection system, this project is being submitted on behalf of the Borough by the CCMUA which will own and operate the pump station and line. The pump station and force main will be designed to convey an initial flow of 108,405 gpd, which is approximately 438 EDU's at 75 gpcd and 3.3 persons per dwelling. The future capacity of the project is proposed to be 966,000 gpd, which will service approximately 3903 EDU's at 75 gpcd and 3.3 persons per dwelling (23).

According to Pinelands Commission data, the total build-out capacity of Chesilhurst Borough is only 2,443 EDU's, which is well below the design service of 3903 EDU's. This excess design capacity should be evaluated and reduced if anticipated flows from commercial and industrial zones are not expected to equal the balance of 1,460 EDU's. Also, the pumping station at the eastern border of the Borough has an initial design capacity to service the present population of 438 EDU's. This capacity will need to be upgraded to service the build-out capacity.

The total estimated cost of the project is $2.457 million. This total cost includes $1,370,660 for the pumping station and $1,086,238 for the transmission lines to the pumping station and to Waterford (18). The total cost does not include the cost of the collection system which is the responsibility of the Borough. The estimated user charge from the CCMUA is $335 (18).

This would be in addition to the user charge that would be charged by the Borough to install the collection system. The Borough currently has a $2.457 million loan/grant from the Farmers Home Administration which may be withdrawn if the user fees exceed Fmha's level of affordability for Chesilhurst. As a result, the ultimate construction and operation of the entire system, including an interceptor and the Waterford STP, has to be carefully revised.

The project is part of the recently prepared wastewater management plan amendment. However, this plan, which includes the upgrade and expansion of the Waterford and Winslow treatment plants, the transmission of Chesilhurst's wastewater to the Waterford Treatment Plant, and the ownership of this entire conveyance and treatment system by the CCMUA, has not yet been approved (25). If sewage from Chesilhurst is sent to the Waterford STP, Waterford Township has agreed to accept 164,000 gpd from Chesilhurst (26). This would service 663 EDU's assuming 3.3 persons per dwelling and 75 gpcd.

Regional Growth Area: Winslow Township
Project Name: Winslow Interceptor to CCMUA

Winslow Township has proposed to extend an interceptor from the Chesilhurst border to the CCUMA conveyance system at Berlin Borough. The total cost of the project, which includes a pump and trunk main, is estimated to cost between $2 million and $3 million (29). To the best of our knowledge, this interceptor is proposed on the basis that the Waterford STP may be limited to 255,000 gpd and that the Winslow STP cannot fully service the remainder of Winslow's RGA.

Winslow Township expects to experience extensive growth within the Township. However, they cannot grow without the proper infrastructure to convey and treat the additional sewage expected to be generated from this growth. They also have reported possible shallow water contamination due to on-site systems failures. They wish to solve these problems by transporting at least a portion of their sewage to the CCMUA system for treatment. The proposed line would pick up wastewater from Chesilhurst Borough and Winslow Township and convey these flows to Berlin Borough (29). The CCMUA plans to replace the existing Berlin Borough Treatment Plant with a pump station and extend a line from this station to Lindenwold, where the flows would then enter a major interceptor which leads to the CCMUA central treatment plant. This plant is currently being expanded from 40 mgd to approximately 80 mgd (18).

The project needs to be more strictly defined to determine the percentage of the service area within the Pinelands RGA and how this service area relates to other potential projects (expansion of Winslow STP and interceptor to the Waterford STP). It is only that portion of the project which services a Pinelands RGA that is eligible for funding.

An amended wastewater management plan for the Atlantic Basin of Camden County has been prepared but has not yet been approved. This plan includes the upgrade and expansion of the Waterford and Winslow treatment plants, the transmission of Chesilhurst's wastewater and approximately 0.2 mgd from Winslow to the Waterford Treatment Plant, and the ownership of this entire conveyance and treatment system by the CCMUA (25). The proposed project is not in conformance with this amendment.

PROJECT DESCRIPTIONS - GLOUCESTER COUNTY

Regional Growth Area: Monroe Township
Project Name: Monroe Interceptor-Victory Lakes Area Collection

Monroe Township proposes to extend its interceptor system to the Victory Lakes Area. The proposed line will service all of the RGA including the area north of Victory Lakes (31). The development of a collection system within Victory Lakes will also alleviate problems in this area caused by houses relying on on-site septic systems in a shallow well area (31)(32)(33). An extended interceptor will also provide for commercial growth along the Black Horse Pike (32).

The proposed sanitary sewer construction will consist of a collection system for the Victory Lakes Area ($2,760,000), two sewage pumping stations ($300,000), sanitary laterals ($216,000), sewage pumping station-Friendly Village ($240,000), 12" force main along Black Horse Pike from Friendly Village to Malaga Road ($660,000) and a 16" gravity sewer from Black Horse Pike and Malaga Road to the existing pump station connecting to the GCUA interceptor ($450,000). Thus the total estimated construction cost is $4,422,000 including an additional estimate for contingencies, administration, legal, engineering, bond counsel, financing and interest of $1,134,000 of which $552,500 is estimated for bonding and financing costs that are not eligible for PITBA assistance. The total project cost estimate is $5,760,000 however, $5,207,500 is considered eligible for purposes of our evaluation (34)(35)(36).

Monroe Township has a development capacity of 12,328 units (approximately 3.0 mgd), for which the system is designed. The current user fee of $194/year is expected to increase when the project is implemented (31). If this extension is constructed there are mandatory hookup requirements. There are presently approximately 975 dwelling units in the Friendly Village/-Victory Lakes Area (33). The proposed Black Horse Pike force main will have a capacity of 4.0 mgd. The existing pump station to which this system will flow can accommodate 3.0 mgd; however, there is approximately 1.0 mgd being received at the pump station, leaving a reserve capacity of 2.0 mgd. Since the interceptor from the pump station to the Gloucester County Utilities Authority (GCUA) is sized at 4 mgd, consideration must be given to the future upgrading of the pumps to 4 mgd when development pressures occur. Additionally, the GCUA has allocated 3.37 mgd of flow to Monroe Township, requiring an additional 0.63 mgd from the GCUA in the future. All reserve capacity for RGA flow will be reduced if current sewered areas exceed the existing 1 mgd flow.

At present, this project is in the preliminary engineering stage. If sufficient financial assistance is forthcoming, Monroe Township will proceed with detailed planning and the objective of a construction commencement in 6 months (33).

PROJECT DESCRIPTION - OCEAN COUNTY

Regional Growth Area: Manchester and Jackson Townships
Project Name: Ridgeway-Cabin Branch Interceptor

The Ridgeway Interceptor project is being proposed by the OCUA to service Manchester and Jackson Townships. This interceptor was originally proposed in 1976, but due to its predicted environmental impacts and its questionable necessity, it was rejected by NJDEP. After several years of litigation, it has been realigned and is again proposed as a viable project.

The project is needed to serve existing and future development in the two Townships. There have been reports of septic systems failing in the Cedar Glen area of Manchester although these reports are verbal. OCUA has expressed frustration in that development will not occur unless sewers are present, but sewers are not justified unless there is an existing condition that warrants sewering (37). The Authority is restricted by the terms of its service agreements to extending its system only if (1) there is a court order or directive of the DEP, (2) by written consent of participants from whom the Authority receives not less than 51 percent of its revenues, or (3) where the Authority finds that the charges for sewage estimated to be delivered during the first full year of its operation will equal or exceed the estimated costs of operating and maintaining the extension during such year, plus 5 percent of the estimated cost of construction of the extension.

The service area of the Ridgeway-Cabin Branch Interceptor lies within the Manchester and Jackson Township RGA's, with the end of the interceptor extending to the border of the Jackson RGA. The County estimates that there are approximately 1,500 existing EDU's in the Manchester portion with the potential, based on current zoning, for an additional 2,500 EDU's. The County also estimates that the Jackson Township portion includes 9,500 existing and future potential EDU's. The proposed interceptor will be designed to handle the total potential of 13,500 EDU's or, assuming an average of 3.27 persons per EDU, a total of 44,145 persons. At a rate of 75 GPCD , the interceptor would have a capacity of 3.31 mgd (38). The difference between the Pinelands Commission build-out capacity of 15,867 DU's and the actual sewer design may be attributed to the County's view that the total residential build-out capacity will not be reached.

The alignment of the interceptor is as follows:

The upstream end of the Ridgeway-Cabin Branch Interceptor begins at the intersection of Vanhisville-Lakewood Road and Vanhisville-Whitesville Road at the base of the proposed Westlake Village Development in Jackson Township. The alignment consists of an 18-inch line following Vanhisville-Lakewood Road West, approximately 1,000 linear feet to the Toms River Stream Corridor. The alignment then parallels the Toms River Stream Corridor heading south approximately 9,500 to the intersection of Vanhisville-Whiteville Road. An inverted siphon is then required to cross the Toms River with a gravity line to a pump station located on the west side of the Toms River. A force main will follow Vanhisville-Whitesville Road southwest approximately 5,200 linear feet to a high point in the road where a 24-inch gravity line will continue along Vanhisville-Whitesville Road approximately 3,300 linear feet to a tributary stream of the Ridgeway Branch. A 24-inch gravity line parallels the stream corridor to the intersection of Ridgeway Road in Manchester Township. A 30-inch gravity line then parallels the Ridgeway Branch approximately 6,500 linear feet to a connection point on the existing Union Branch Interceptor. The final 6,000 linear feet will follow the original alignment of the proposed Ridgeway Branch Interceptor. The total estimated cost of this alignment is $6,080,000 (38).

The proposed project is consistent with existing 201 and 208 plans, according to the 208 Area-wide Coordinator. It is currently in the planning phase. The timetable for completion extends to approximately 150 weeks. Design would take between 6 and 9 months at a cost of approximately $300,000. The design should consider the Pinelands build-out capacity of 15,867 DU's plus any projected commercial and industrial flows. Construction is estimated to take 12 months (37).

If the Pinelands Infrastructure Trust Bond Act cannot fund the entire project, OCUA would consider extending the interceptor only to the Jackson/Manchester border through Manchester, as they believe they are contractually obligated to extend a pipeline to the Jackson Township border (37).

Regional Growth Area: Stafford Township
Project Name: Stafford Collection System

The Township of Stafford wishes to install a collection system in the Ocean Acres development area, whose boundaries lie within the Stafford and Barnegat Regional Growth Areas. The proposed project includes a collection system which will sewer only that portion of Ocean Acres which lies within the Stafford Township boundaries. Wastewater will be conveyed by the existing Western Trunkline southward along Route 72 to the Manahawkin Interceptor, and then to the Ocean County Utilities Authority (OCUA) treatment plant. The total cost of the project is estimated at $11,801,114 (39).

The Ocean Acres development area is under significant growth pressure. The development has been subdivided into one quarter acre lots. This lot size is far below the minimum requirement for on-site septic systems previously established by the NJDEP. Additionally, development of these lots with septic systems does not meet Pineland Commission water quality standards. As a result, a prohibition on construction of new homes on less than 1-acre lots has been imposed, although no documentation of groundwater contamination has been supplied to date.

The project is presently in the preliminary engineering stage. Stafford Township estimates that the project would take approximately 2 years to complete. If the grant were awarded in January 1987, bid for design would go in April and be completed in September or October 1987. Construction would be completed by January 1989 (40).

The project cost includes only the construction of the sewer system and the connections to the Western Trunk Line. It does not include any planning or design costs. These costs will be funded by excess funds from a previous grant (40). The project also does not include the servicing of the portion of Ocean Acres in Barnegat Township.

As of 1980, there were 1,604 homes in the Ocean Acres area within Stafford Township (39). Some businesses and the Southern Ocean County Hospital near the Manahawkin Interceptor are hooked into the interceptor with small lines. These lines will be replaced with the collection system and by the end of the construction period of the project, a total of 2,500 homes would be tied into the system (41). The entire project is expected to include 4,730 homes (39). User fees are currently $225/year/home. They are expected to increase to $260/year/home once the project is implemented (40).

The projected average wastewater flow from Ocean Acres is 1.36 mgd (39). This total estimated flow is higher than that used in our evaluation due to the Township's estimate of higher unit flows. The Western Trunkline has been designed to handle the future flows. It is 18 inches in diameter from its beginning at Fawn Lakes and increases to 24 inches from Nautilus Road to the Manahawkin Interceptor. It is 24 inches in diameter at the hospital under Route 72. There are three road crossings currently in place. They are at Nautilus Street, Mermaid Street, and Breakers Street (41).

The Township wishes to consider phasing the project in hopes that developers would complete the remaining work. Phase I, which includes the sewering of a commercial and professional area and hospital in Ocean Acres, is desperately needed. If sewered, it is expected that between one-half and two-thirds of Phase I will be under construction within a year (40). (Phase I has been entered as a separate project for consideration.)

Regional Growth Area: Stafford Township
Project Name: Stafford Skeleton System

The Township of Stafford wishes to install a collection system in the Ocean Acres development area. This development area is bounded on the east by the Garden State Parkway and on the south by Route 72, and it extends into Stafford and Barnegat Townships. The proposed project includes a collection system which is a skeleton version of the Stafford Collection System project. The total system consists of separate phases, and the Skeleton System will service only areas within the Stafford Township portion of Ocean Acres that have an immediate need for sewer services in addition to some tentacular extensions into the nearby outer areas within the Development Area. The Township hopes that by laying down this system, developers would complete the remaining portions of the area. The total cost of this Skeleton System is estimated as $4,800,006 (39)(40).

The Ocean Acres development area is under significant growth pressure. The development has been subdivided into 1/4-acre lots. This lot size is below the minimum requirement previously established by the NJDEP for areas without sewage facilities. Additionally, development of these lots with septic systems does not meet Pinelands Commission water quality standards. As a result, a moratorium on construction of new homes has been established although no documentation of groundwater contamination has been supplied to date.

The project is presently in the preliminary engineering stage. It is estimated that the project would take only slightly shorter time than the overall collection system. Construction of the system could be completed in 2 years (40).

The project cost includes only construction of the Phase I portion of the sewer system, which includes the sewering of the southern triangle of Ocean Acres formed by Route 72 and the Garden State Parkway and several lines which extend northerly into other sections of the Development Area. Planning and design costs are not included in the project cost since these costs are expected to be paid by another grant and Stafford Township (39)(40).

Within the Skeleton service area there are presently 760 homes. Some businesses and the Southern Ocean County Hospital near the Manahawkin Interceptor are hooked into this interceptor by small lines. These lines will be replaced with the proposed collection system. The Township estimates that by the end of the construction period, a total of 1,910 homes will be tied into the proposed system (39)(40).

Since the Skeleton System is part of a larger system, the main interceptor, which is the existing Western Trunk Line, has been designed to accommodate both the Skeleton System and the overall system. The projected average wastewater flow for all of Ocean Acres (in Stafford Township) is 1.36 mgd (39). As previously mentioned, this total flow estimate is higher than that used in our evaluation due to the Township's estimate of higher unit flows. The Western Trunkline is 18 inches in diameter from its beginning at Fawn Lakes and increases to 24 inches from Nautilus Road to the Manahawkin Interceptor. It is 24 inches at the hospital under Route 72. There are three road crossings currently in place. (Nautilus Street, at Mermaid Street and Breakers Street) (41).

The Township believes that the Skeleton System, which also includes the sewering of a commercial and professional area and hospital in the center of Ocean Acres, is expected to promote the construction of homes to between one-half and two-thirds of the sewered area. Current user fees are $225/year/dwelling unit (40).

References

(1) Meeting between Alex Churchill, Engineer, Galloway Township, and Pinelands Commission staff, 4 December 1986.

(2) Letter from Alexander Churchill, Engineer, Galloway Township, to John Stokes, 5 December 1986.

(3) Atlantic County Infrastructure Needs Pinelands Region, Atlantic County Department of Regional Planning, January 1986.

(4) Consulting Engineer's Report, Hamilton Township MUA. Water and Sewer Infrastructure Project by Adams, Rehmann and Heggan, July 1986.

(5) Interview with Joseph Pantelone, Director of Hamilton Township MUA and Chris Rehmann, Engineer for Hamilton Township MUA, 15 October 1986.

(6) Phone conversation with Bill Palmer of Pinelands Commission, 19 November 1986.

(7) Meeting between Chris Rehmann, Engineer, Hamilton Township, and Pinelands Commission Staff, 4 December 1986.

(8) Telephone conversation with John Brennan of the Atlantic County Planning Board, 14 November 1986.

(9) Phone conversation between Bill Palmer of the Pinelands Commission and Lee Petty of John G. Reutter Associates, ACUA engineer.

(10) Phone conversation with Gene Doebley, Chairman of Egg Harbor Township Municipal Utilities Authority, 15 October 1986.

(11) Report on Expanded Facilities Planning for the Lower Great Egg Harbor River Region Coastal Alternative, John G. Reutter Associates, May 1981.

(12) Letter from Robert G. Volk, Pemberton Township Municipal Utilities Authority, 10 November 1986.

(13) Preliminary Engineers Report, Sippel and Masteller Associates, Inc. (January 1982, Revised May 1982).

(14) Phone conversation with Robert G. Volk, Pemberton Township MUA, 4 November 1986.

(15) Phone conversation with Robert G. Volk, Pemberton Township MUA, 24 November 1986.

(16) Phone conversation with William Palmer, Pinelands Commission, 16 October 1986.

(17) Phone conversation with James Lowe, Township Engineer for Berlin Township, 5 November 1986.

(18) Interview with Aldo Cevallos, Chief Engineer and Andy Kricun, Engineer, Camden County Municipal Utilities Authority, 6 November 1986.

(19) Phone conversation with William Palmer of the Pinelands Commission, 6 November 1986.

(20) Phone conversation with Bob Fedorka, Engineer, John Reutter Associates, 12 November 1986.

(21) Proposed Sanitary Wastewater Collection System Engineer's Report, Farmers Home Administration. Adams, Rehmann & Heggan, 1 May 1983. NOTE: Costs have been escalated using ratio in Source (24).

(22) Phone conversation with Mike Vena, Engineer, Remington & Vernick, representing Chesilhurst Borough, 5 November 1986.

(23) Proposed Sanitary Wastewater Collection and Conveyance Facilities, Borough of Chesilhurst; Sippel & Masteller Associates, August 1981.

(24) Letter from Edward Vernick, Remington and Vernick, to William Palmer of the Pinelands Commission.

(25) Draft Wastewater Management Plan Amendment for Chesilhurst Borough, Waterford Township, and Winslow Township. Camden County Municipal Utilities Authority, October 1986.

(26) Report in Waterford Township MUA Request for Funding. Greg Boyle of Waterford Township MUA and Chris Rehmann of Adams, Rehmann & Heggan, 9 October 1986.

(27) Interview with Greg Boyle, Superintendent of Waterford Township MUA and Chris Rehmann, MUA Engineer of Adams, Rehmann and Heggan, 15 October 1986.

(28) Letters from Herman Englebert, Executive Director of the Camden County Municipal Utilities Authorities to John Stokes, Pinelands Commission, 5 December 1986.

(29) Meeting with Alex Churchill, Engineer, Winslow Township and Ronald Nunnenkamp, Town Manager, Winslow Township, 7 October 1986.

(30) New Jersey Department of Environmental Protection. Priority List and Project Summary, 1986.

(31) Phone conversation with William Palmer of Pinelands Commission, 28 October 1986.

(32) John McDonough, "Firm has Plan to Build Sewer in Monroe Township," Philadelphia Inquirer, 22 August 1986.

(33) Phone conversation with John Stroka, P.E., Consulting Engineer, 30 October 1986.

(34) Letter from John G. Stroka, P.E., to John Stokes, 3 February 1986.

(35) Letter from John G. Stroka, P.E., to William Palmer, 3 October 1986.

(36) Phone conversation between Bill Palmer of the Pinelands Commission and John Stroka, P.E., Engineer for Monroe Township MUA.

(37) Interview with Alan Avery, Chief Ocean County Planner, William Fine, Engineer, Ocean County Municipal Utilities Authority, 14 October 1986.

(38) Feasibility Study for Sewer Service to Jackson Township and P/O Manchester and Dover Townships, the Ocean County, Waterford Township and Winslow Township. Camden County Municipal Utilities Authority, October 1986.

(39) Feasibility Study, Wastewater Collection System, Ocean Acres, Stafford Township. Fellow, Read & Weber, Inc., 14 August 1980. (Note: Costs have been escalated to 1986 dollars).

(40) Site visit with Bob Sheppard, Executive Director of Stafford Township, 14 October 1986.

(41) Phone conversation with Bob Sheppard, Executive Director of Stafford Township, 20 October 1986.

SECTION 3

ASSESSMENT OF PROJECTS IN TERMS OF REGIONAL GROWTH AREA DEVELOPMENT POTENTIAL

Once a project was identified, WESTON analyzed the ability of that project to serve existing and future development. The reserve capacity was calculated by subtracting the capacity required to meet the needs of the existing population from the total project capacity. It was then compared to the buildout capacity of the Regional Growth Area to determine the amount of development which would not be served by the project. The unmet need is addressed project-by-project in subsection 2.5. Alternatives or project modifications are briefly discussed which could improve the project's ability to serve the unmet needs.

For RGA's where no project has been identified, a more generalized assessment of the reserve capacity of the sewerage system (or absence thereof) which serves the individual municipalities was undertaken. A detailed assessment of capacities with regard to Regional Growth Areas was not possible at this time because most of the facilities serve Pinelands and non-Pinelands areas. Definitive estimates of future Pinelands/non-Pinelands waste flows were not broken out and thus not available. An overall assessment of future needs was made relative to need for interceptors, sewage treatment plant expansion, or need for a collection system, but only as to whether there is or is not a future need.

3.1 DETERMINATION OF UNMET NEEDS

Table 3-1 presents the results of our needs assessment for each RGA proposing a project. The ability of the project to meet the future needs of the RGA is considered in the ranking system. Therefore, a project with a smaller percentage of unmet needs will score better in that portion of the ranking system. The following is a description of the data elements used in the unmet needs calculation:

Table 3-1

Needs Assessment for Municipalities Which Have Proposed Projects

RGA	RGA PDC Capacity (EDU's)	Proposed Project STP	Reserve Capacity (CEDU's) Interceptor	Collection	Future Needs STP	Interceptor	Collection
Monroe	12,328	---	12,054	900[1]	No[2]	No	Yes
Berlin Twp.	0	---	0	---	No	Yes (local)	Yes
Chesilhurst and Waterford	7,008	4,615	2,443+[3]	2,443+[3]	Yes	No	Yes
Winslow*	10,376	800[4]	---	---	Yes	Yes (local or regional)	Yes
Jackson and Manchester	15,861	---	12,000	---	No	No	Yes
Stafford	4,687	---	---	3,126[5]	No	No	No
Hamilton and Egg Harbor Townships	50,390	---	30,476[7]	---	No[6]	Yes(local)	Yes
Galloway	6,527	---	2,594+	---	No[6]	Yes (local)	Yes
Pemberton	10,400	---	---	0	Yes	Yes (local)	Yes

*This represents units to be served by Waterford. Other Winslow needs are shown in Table 3-2 because of their conceptual nature.

[1]The collection system will sewer an additional unspecified number of lots in the Victory Lakes Area.

[2]Although the GCUA STP has capacity current flow allocations to Monroe are less than the project's full capacity.

[3]Chesilhurst interceptor and collection only.

[4]800 DU's from Winslow to go to Waterford.

[5]If the skeleton collection system for Ocean Acres is constructed, the reserve capacity decreases to 1,150 EDU's.

[6]Although the ACUA plant has sufficient capacity, flow allocations to non-RGA portions of the county may require further plant expansion to service the entire region.

[7]A local interceptor (Harding Highway) connecting to the regional interceptor has been proposed by Hamilton Township. The reserve capacity of this interceptor is 9,875 EDU's.

The RGA heading refers to the regional growth/service area of the proposed projects. Where projects/service areas cover more than one municipality, they are combined to determine reserve capacities and future needs. RGA PDC capacity refers to the maximum member of residential dwelling units using Pinelands development credits and represent future residential capacities by project area. These estimates do not reflect flows which might emanate from zoning districts zoned exclusively for commercial or industrial development. Reserve capacity shows the actual number of dwelling units which are either new or presently unserviced in the project service area. Future needs are a qualitative assessment of the need for facilities to attain build-out capacities.

Table 3-2 presents the future needs for communities which have not proposed projects for funding. While Winslow has proposed several projects, at this time they are so conceptual that only this qualitative assessment of needs was possible. The PDC capacities were calculated in the same manner as in Table 3-1. Then, based on information supplied by either the municipalities or their engineers, the assessment was made with regard to existing facilities and future needs to accommodate buildout capacities.

In the case of both Table 3-1 and 3-2, more information in qualitative form is contained in the project narratives and the unmet needs sections.

3.2 GENERAL DISCUSSION OF POSSIBLE MODIFICATION OF PROJECTS IDENTIFIED OR NEW PROJECTS REQUIRED TO MEET FUTURE NEEDS OF THE RGA'S

The following present a discussion of possible modifications to proposed projects and describes new projects which may be needed to meet the future needs of the RGA's. The discussion is intended to help identify planning concepts which may warrant further investigation. Details of the capacities of existing and proposed projects and the cost of modifications is beyond the scope of this plan. The discussion is presented by county and by Regional Growth Area (RGA).

Table 3-2

Future Needs for Municipalities in Which No Projects Have Been Proposed

Municipality	RGA PDC Capacity (EDU's)	Existing Facilities[1]			Future Needs		
		Plant Serving Non-Pinelands	Plant CAP Sufficient for Pinelands RGA	Regional Int. Sufficient for RGA	STP Expansion	Interceptor	Collection
Berlin Boro.	212	N/A	N/A	Yes	No	No	Yes
Barnegat	7,048	N/A	N/A	Yes	No	Yes (local)	Yes
Beachwood	1,639	N/A	N/A	Yes	No	No	Yes
So. Toms River	36	N/A	N/A	Yes	No	No	No
Berkeley	3,592	N/A	N/A	Yes	No	No	No
Southampton	800	No[2]	No[2]	N/A	Yes	Yes	Yes
Evesham	1,879	Yes	Yes	N/A	No	No	Yes
Medford Twp.	3,200	Yes	No	N/A	No	No	No
Medford Lakes	30	No	Yes	N/A	No	No	No
Shamong	1,140	None	None	None	Yes	Yes	Yes
Tabernacle	1,035	None	None	None	Yes	Yes	Yes
Winslow	9,576[3]	Yes	No	No[4]	Yes	Yes (local)	Yes

[1]Where a municipality receives service from a regional treatment facility, the assessment of existing capacity focused on the regional interceptor system.
[2]A privately owned and operated treatment facility exists; however, it is not currently slated to provide general wastewater treatment service for the township.
[3]PDC capacity of 10376 EDU's less 800 EDU's diverted to Waterford.
[4]In addition to the Sicklerville plant, Winslow Township is considering whether regional interceptors to Berlin Borough and/or the Waterford STP are necessary to serve the RGA.

Atlantic County

- Egg Harbor Township RGA - This RGA and the Hamilton Township RGA are to be served by the ACUA Coastal Interceptor, which will convey sewage to the ACUA treatment plant. The project will be capable of handling all but 40 percent of the buildout capacity for the two RGAs. It is impractical and possibly impossible to design a cost effective project which will serve the existing population as well as all of the future capacity. At this time we feel that this project adequately addresses the needs of the RGA is within a reasonable planning horizon. However, Egg harbor Township does have local needs to accommodate future buildout capacities.

  Local sewers currently exist through the Central, North and Northeast sections of Egg Harbor Township and service approximately 1,500 DU's. Sewage currently flows into the Washington Avenue Trunk Line where it travels to the ACUA Pleasantville Pump Station for transport to the main ACUA treatment plant. The Egg Harbor Township MUA Comprehensive Sewerage Master Plan (September 1985) cites eight problem areas in need connection to that line, representing approximately 800 existing and future tie-ins to the line. The engineer for the ACUA reports that these tie-ins are being accomplished by private developers who have applied for connection permits. The engineer also cites a possible future problem where most of the local lines come together near the Garden State Parkway. He reports that when the ACUA Coastal Interceptor comes on line, some of the current flow will have to be diverted to the interceptor or a backup will occur in the local lines. This future need may have to be financed by the local MUA. Additionally, according to The Atlantic County Infrastructure Needs, Pinelands Region report published by the Atlantic County Department of Regional Planning and Development, a local interceptor to the ACUA coastal interceptor is needed to service the southern-central and southwest portions of Egg Harbor Township. This interceptor, known as the Ridge Avenue Line, has been approved by the Pinelands Commission and awaits funding needed for construction. The Pinelands Commission has also approved a sewer extension to Cardiff Estates and Pleasantville Estates which remains unconstructed at this time. While developers may contribute to these projects, it is most likely that this cost will be borne by the Egg Harbor Township MUA. The Atlantic County Needs Report also cites the following projects as being needed in Egg Harbor Township:

- Pump station and force main along English Creek Road.

- Force main along West Jersey Avenue to Ridge Avenue.

- Proposed trailer park pump station at Five Points Road.

- Pump station and force main from the Egg Harbor Township Regional High School to Ridge Avenue.

- Pump station and force main from Crystal Lakes north along Ridge Avenue to the Black Horse Pike.

- Galloway Township RGA - The proposed interceptors to service the Pinehurst area have been determined to have adequate capacity to accommodate the service area buildout capacity of 2,594 EDU's. An existing interceptor services the western third of Pinehurst; thus, the entire buildout of approximately 4,000 EDU's within Pinehurst will be serviced. There will still be a need, however, for collection systems to serve the interceptors which the Township feels that developers will provide.

  Additionally, a second RGA exists which is located in the western section of the Township along U.S. 30. This area is serviced by the existing Aloe Street Interceptor. Since, however, the Aloe Street Intercepter serves several non RGA areas within Galloway and may also provide service to Egg Harbor City, the precise extent to which this line would serve RGA needs is not known. It is our understanding that the ACUA is, at the request of Galloway Township and Egg Harbor City, currently studying these issues. The Township feels that collection systems can be provided by developers.

  It should be noted that the ACUA is studying the capacities of its own interceptors and pump stations. The results of this analysis may also effect the regional system's ability to accept flow from the Township.

- Hamilton Township RGA - This RGA has proposed a local interceptor which will service 57 percent of the RGA. A more detailed description is located in the project percent section, but an interceptor, funded by the Hamilton Township MUA, will have to be built at some point in the future. All collection systems are provided by local developers.

Burlington County

- Evesham Township - Wastewater from areas outside the RGA in Evesham Township presently flows to the Elmwood sewage treatment plant. According to the Evesham MUA personnel planning is now underway to upgrade the Elwood facility to a tertiary level of treatment with nutrient removal. An expansion of the plant to 1.9 mgd has recently been completed.

  The Evesham MUA is seeking permission from the NJDEP to expand to 2.3 mgd. Evesham Township is also negotiating with a private party to take over the Kings Grant STP, which is in the process of being expanded to 0.85 mgd. Any future development within the Evesham Township RGA will send flow to the Elmwood STP since Kings Grant STP is dedicated to that development alone. Presently, there is a reserve capacity of 0.5 mgd at Elmwood. This would accommodate the estimated 0.375 mgd (1,879 EDU's) associated with Pinelands buildout capacities. That would leave an additional .5 mgd for other areas of Evesham in the future. Future collection systems are to be paid for by developers.

- Medford Township RGA - The Medford Township treatment plant was expanded in February of 1986 to a design capacity of 1.75 mgd. With this additional capacity, Medford Township MUA feels that there is adequate capacity at the plant to handle future development in and around the Medford Township RGA. With current flows of 1.3 mgd there is a reserve capacity of 0.45 mgd. The buildout capacity, however, calls for 3,200 new DU's 0.65 mgd leaving an unmet need of at least 1,000 DU's in the future. All collection systems will be paid by developers. The Township MUA is also studying the need to correct inflow problems in the sewer system.

- Medford Lakes RGA - Wastewater from Medford Lakes is treated at the Medford Lakes Borough STP, which has a design capacity of 0.55 mgd. Existing flows into the plant are approximately 0.349 mgd, based upon recent flow measurements. The Medford Lakes area is now almost totally developed according to Carl Goodfellow, the Public Works Superintendent for the Borough. The Borough has received requests from developers outside of the Borough to tie into the Medford Lakes plant. Since Medford Lakes has sufficient capacity for its own growth, these additional requests are now under consideration.

- Pemberton Township RGA - The sewer system extension projects proposed by Pemberton MUA will serve existing housing units only, and do not address needs to satisfy the buildout capacity population. In addition to future interceptor and collection system projects, it is likely that there will be a need to expand the capacity of the Pemberton Township treatment plant from its present design capacity of 2.5 mgd in order to eventually service the entire RGA. The plant is currently operating within standards at a flow of 1.6 to 1.7 mgd, leaving a reserve capacity of approximately 0.8 mgd. The buildout capacity of approximately 10,000 EDU's would require a future additional capacity of approximately 2 mgd. Therefore, an unmet need of approximately 1.2 mgd. (6,000 EDU's) exists. According to Robert Volk, head of the Pemberton MUA, virtually all future capacity will be devoted to the RGA. All collection systems will be financed by developers. Although the Township reports that collection systems will be provided by developers, it is likely that areas which are currently subdivided and under multiple ownership will require publically financed collection systems if service is to be provided.

- Shamong Township RGA - There are reports of on-site system problems in various areas of the township which may be contributing to surface and groundwater contamination problems. To address these problems, a Sludge and Septage Management Plan has been prepared for the Burlington County Board of Chosen Freeholders. The study, completed in January 1986, recommends construction of small cluster systems and rehabilitation of individual on-site systems in problem areas in Shamong as well as Southammpton and Tabernacle Townships. However, recent discussions will NJDEP personnel indicate that there are no plans to initiate these projects in the foreseeable future. These type of projects probably will not be able to handle the buildout capacities predicted for these RGA's. Permitted densities for future development using septic systems will probably continue.

- Southampton Township - One privately owned STP is in operation outside of the RGA but serves Leisuretown and Hampton Lakes within a rural development area. This plant is designed for 0.5 mgd and is operating at 0.25 mgd. The service capacity of 0.25 mgd is already dedicated to these developments. It is unknown whether expansion of this plant is feasible.

- Tabernacle Township RGA - see Shamong Township RGA for future planning details.

Camden County

- Berlin Borough RGA - Berlin Borough is presently sewered. The collection system is connected to an interceptor which conveys wastewater to the Berlin Borough Treatment Plant outside the Pinelands. The plant discharges into the Great Egg Harbor River, and is presently out-of-compliance with its discharge permit. Also, the plant is operating at 25 percent over its capacity. The CCMUA plans to convert this treatment plant to a pump station, to extend an interceptor from this pump station to another pump station at Zulker Avenue in Berlin Township. The Zulker Avenue Pump Station would then connect to an existing interceptor at Lindenwold for transport to the CCMUA treatment plant. This plant is currently being expanded from 43 mgd to 82 mgd. The Zulker Avenue Pump Station will include existing flows from Berlin Borough immediately and from Berlin Township once the Township is sewered. The capacity of the Zulker Avenue Pump station is being designed for 3.3 mgd. The system is being designed to handle the future flows of the Township and the Borough. The future needs of the Berlin Township RGA are expected to be met by this project.

- Berlin Township RGA - The 201 Facility Plan for the CCMUA describes a proposed plan to construct a force main to Berlin Township. This force main project will be designed to handle the future buildout capacity of the RGA. However, there will be a need to construct a collection system within the Berlin Township RGA at some time in the future.

  Berlin Borough's future collection needs in the RGA are anticipated to be provided by local development.

- Chesilhurst Borough RGA - The proposed future design capacity of the Chesilhurst Collection System is significantly greater than the buildout capacity designated by the Pinelands Commission. Therefore, all of this future development potential will be met by the proposed collection system. The proposed pump station and interceptor from Chesilhurst to the Waterford Treatment Plant are also sized well above the designated buildout capacity and therefore will be capable of handling future flows. However, Waterford Township will need to increase the amount of flow set forth in its currently proposed agreement with Chesilhurst Borough. The proposed expansion of the Waterford STP from 0.75 to 1.5 mgd should provide sufficient capacity for most if not all of Chesilhurst's future needs.

- Waterford Township RGA - The upgrade and expansion of the Waterford Treatment Plant will enable the plant to accommodate an additional capacity of 0.75 mgd. This additional capacity will fall short of meeting the total PDC buildout capacities expected for Waterford Township and Chesilhurst Borough. For the Waterford Plant to accommodate the total PDC buildout capacity, the plant will need to be expanded unless flows are diverted elsewhere.

- Winslow Township RGA - It is not known if the proposed Sicklerville Treatment Plant expansion will accommodate all of the flows generated by the PDC buildout capacity of 10,376 EDU's within the Winslow Township RGA or if this is the intended plan. Also, the Berlin Borough Pumping Station is being designed at 3.3 mgd but this capacity may not be adequate to handle flows from Berlin Borough, Berlin Township and all of Winslow Township. Furthermore, Waterford Township has allocated only 0.2 mgd for Winslow wastewater in their plant expansion. This is approximately 800 EDU's; far less than the PDC buildout capacity of Winslow Township. Current thinking by the Township is to split the flows so that the northern portion of the RGA will divert flow to the Berlin Borough Pumping Station, the central portion of the RGA will send flow to the Waterford Treatment Plan, and the southern portion of the RGA will convey flow to the Sicklerville Plant. The projected wastewater flows and the capacities of the existing and proposed facilities will need to be evaluated to determine the feasibility of these projects.

Gloucester County

- Monroe Township RGA - The proposed Monroe Interceptor/Collection project to the Victory Lakes area is the first step toward sewering all of the Monroe Township RGA. While the interceptor is to be sized for 3 mgd (buildout capacity), the pumping station to which this flow will travel is currently sized at 3 mgd with an existing flow of 1 mgd. Thus, the size of the pumps will have to be increased to accommodate an additional 1 mgd of buildout capacity flow. The Township's service agreement with the GCUA currently limits flows to 3.37 mgd. In the future, the Township would have to receive an increased flow allocation from the GCUA to accommodate the buildout capacity flow. It is uncertain whether the GCUA would be able to allocate this additional flow from the plant's remaining capacity or expand the plant if all of the remaining capacity was firmly committed to other municipalities.

  Aside from the Victory Lakes area, the MMUA anticipates that other collection system needs will be provided by developers.

Ocean County

- Barnegat Township - At present, none of the existing homes in the Barnegat RGA are sewered. The Ocean Acres Development Area, which lies in Stafford and Barnegat Townships, makes up between 20 and 25 percent of the total area of the Barnegat RGA. It was originally intended that all flow from Ocean Acres would be diverted to the Stafford Township Western Trunkline along Route 72, however, it has since been decided that all future flows from Barnegat Township, including Barnegat Township's portion of Ocean Acres, will be sent to the OCUA Central Treatment Plant in Berkeley Township. This plant has additional capacity to treat 8.0 mgd. Remaining plant capacity would be adequate to handle the buildout capacity of the Barnegat RGA. The existing South Bayshore Interceptor, which extends from the Timbers Pumping Station in Barnegat Township to the Central Treatment Plant, will receive flows generated by Barnegat Township. However, before this is accomplished, at least a skeleton collection system would have to be installed in Ocean Acres and a local interceptor built to reach the Timbers Pumping Station. It is unlikely that this could be privately financed in total. A recent study has indicated that there may eventually be insufficient capacity within this interceptor between its upstream terminus and New Road to handle future flows from Barnegat Township. Already there is a preliminary application before the Pinelands Commission for a 2,200-unit housing development. If this does occur, Barnegat Township must divert flow from the Timbers Pump Station at their own expense.* In all likelihood a new interceptor will have to be built by Barnegat Township for a tie-in with the OCUA.

- Beachwood Borough - The OCUA Central Treatment Facility presently receives flow from Beachwood Borough via the Jakes Branch interceptor. If future development does occur in the RGA, it is likely that the new sewer lines will connect to the Jakes Branch interceptor. It is not clear at this time whether or not the interceptor will have sufficient capacity to handle this flow. Currently, large tracts of land are being assembled by the Township. These tracts will be sold to developers who will probably be responsible for installation of collection systems.

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* Evaluation of Realigning CSA/SSA Service Area Boundary between Barnegat Township and Stafford Townships. Ocean County Utilities Authority, 17 June 1986.

- Berkeley Township RGA - The OCUA Central Treatment Facility presently receives flow from Berkeley Township via the Butler Boulevard interceptor. Because the Central Treatment Facility has excess capacity it is likely that flow from future development in the Township will also go to the OCUA Central Treatment System, possibly via the Butler Boulevard Interceptor. A proposal to provide a collection system for the already developed area of Manitou Park, just west of the Parkway, is currently under consideration. Other major flows from the Township are accommodated by the Crestwood Interceptor.

- Jackson/Manchester Township RGAs - The proposed Ridgeway-Cabin Branch Interceptor will meet all but 17 percent of the buildout capacity for the two RGA's. It is possible that there will be a need to increase the capacity of pumping stations along the proposed interceptor if the buildout capacity is reached. However, it is unlikely that the maximum buildout capacity will be reached and the project as it is now planned should be adequate to meet the needs of the RGA. It is also assumed that the OCUA Central Treatment Facility will have sufficient capacity to handle flows from these RGAs when buildout capacity is reached and that developers will provide local collection systems.

- South Toms River RGA - Flow from the South Toms River area presently flows to the OCUA Central Treatment Facility. It is likely that flows from any future development in the area will also be sent to the Central Treatment Facility, which has sufficient excess capacity. All collection systems are in place since South Toms River is largely developed.

- Stafford Township - The PDC buildout capacity for Stafford's entire RGA is estimated at approximately 4,700 EDU's of which slightly more than 3,126 would be served by the proposed Ocean Acres collection system. Except for an extremely small section of the RGA adjacent to the Garden State Parkway, the remaining RGA is currently sewered as part of a development project.

SECTION 4

DEVELOPMENT OF A RANKING SYSTEM

This report describes the ranking system developed by the WESTON Team. It includes the rationale used to select and weight the ranking criteria and the process by which the system was developed in consultation with the Pinelands Commission staff.

4.1 CRITERIA DEVELOPMENT PROCESS

On 24 October 1986, WESTON met with the Pinelands Commission (Technical Advisory Subcommittee and Economic Development Subcommittee) and presented preliminary ideas and concepts to establish a rating system. Table 4-1 presents the draft ranking criteria discussed at that meeting. Feedback received from these discussions indicated that the ideas and concepts were generally appropriate. The WESTON Team then refined and reformatted the proposed criteria to provide objective and easily quantifiable measures relevant to the overall Pinelands Comprehensive Management Plan (CMP) and the implementation of the Pinelands Infrastructure Trust Bond Act (PITBA). This analysis resulted in a preliminary draft system containing the proposed ranking criteria and a relative weighting for each. The draft system was presented to the Commission staff on 3 November 1986 and was subsequently revised to reflect staff comments. During this phase of the project, the WESTON Team did not attempt to use the system to actually rank projects. Instead, the effort was focused on developing a set of objective criteria that would best represent the key decision factors which need to be considered by the Commission.

4.1.1 Categories of Criteria

The general approach used by the WESTON Team in developing the ranking criteria was to select criteria that reflect the significant economic and environmental goals of the Pinelands Comprehensive Plan and the Infrastructure Trust Bond Act. Four general categories of criteria were identified:

- Public Health Protection/Environmental Quality - In this category, priority was given to projects which would serve an area with existing or potential on-site well or septic system problems that could result in human health problems. This category also relates the potential adverse environmental impact associated with

Table 4-1

Draft Ranking Criteria

Description of Ranking Criteria	Data Element
Growth Pressure	
Land available for development	DEVAREA
Capacity with and without PDC's	CAPACITY
Population growth 1960 to present	POPGROW
Percent of total area developable	PCTDEV
Percent of the RGA served by the project	PCTRGA
Environmental Quality	
Failing septic systems	SSFAIL
Effluent recharge bed performance	RCHGBED
Spray irrigation field performance	SPRAYFLD
Designated stream use	STRUSE
Stream WQ criteria exceeded	MEETDO MEETNH3
Compliance with NPDES permit	EBOD>DBOD---, ESS>DSS > Y EPHOS>DPHOS-' Else - N
Ability to Meet RGA's Needs	
Does project serve more than one RGA?	MULTRGA
Is the project dependent on another project?	DEPEND1 DEPEND2 DEPEND3
What will the unmet needs be in the RGA if project is funded?	UNMET

TABLE 4-1
(continued)

Description of Ranking Criteria	Data Element
Cost Effectiveness	
Number of new users	FUTPOPC FUTPOPT
New users/population needing service a maximum capacity	FUTPOPC/PDCAPACITY FUTPOPT/PDCAPACITY
Present user cost	USERFEEP
Future user cost	USERFEEF
Percent loan or grant	FUNDPER
Total cost of project	PROJCOST
Total cost of this project and all projects which must be built to serve this project	Sum of all PROJCOST for this project and for DEPEND1, 2, and 3
Project planning status	PROJSTAT

sewage treatment plant discharges that are not in compliance with NPDES requirements. It was assumed that point source discharges not in compliance would adversely affect groundwater or stream water quality in downstream receiving waters.

- Status of Planning - This category was identified because of the importance to initiate projects in the near future so that the overall goals of the PMP can be realized. It also reflects the fact that the need for certain projects has been recognized for some time. As a result, planning and design requirements for these projects have already been determined. Such projects could be quickly implemented.

- Potential for Meeting RGA Needs - This category reflects the goals of the CMP and PITBA to encourage new growth in the RGA's so that the overall pattern of development planned for the Pinelands Region can be attained.

- Cost - This category is used to show the relative cost-effectiveness of various projects. Per capita cost was used as the measure of cost-effectiveness.

Once the WESTON Team reached agreement on the desirability of these general ranking categories, efforts were then shifted to determine which criteria were the best indicators for each category.

It should be noted that the WESTON Team made certain assumptions in delineating these ranking categories. It was assumed that infrastructure projects are desired in the RGA's to help stimulate and accommodate development in these areas, as opposed to other environmentally sensitive portions of the Pinelands Region. Therefore, no attempt was made to quantify the environmental sensitivity of the RGA's to the secondary impacts of infrastructure projects.

4.1.2 Ranking Criteria

The following sections provide a description of the ranking categories and criteria along with an explanation of how they are assigned a score to achieve a ranking. The categories were then weighted based on their relative importance, as identified in the CMP and PITBA. Table 4-2 provides a detailed list of categories and criteria which lists the appropriate point totals.

Table 4-2

Final Ranking Criteria With Initial Point Values

Ranking Categories	Category Value	Maximum Value	Weighting Factor
Public Health/Environmental Quality		10.0	3
Well and septic system problems or noncompliant STP:			
Documented well problems and failing septic systems or noncompliant STP's		5.0	
Documented well problem or failing septic systems		2.5	
No documented problems		0.0	
Number of existing EDU's in the RGA served (unsewered only for projects not affecting a discharge):			
Greater than 1,600		5.0	
1,200 - 1,600		4.0	
800 - 1,200		3.0	
400 - 800		2.0	
1 - 400		1.0	
0		0.0	
Status of Planning		10.0	1
Concept completed		0.0	
Preliminary planning completed		2.0	
Water quality plan consistency determination		2.0	

TABLE 4-2
(continued)

Ranking Categories	Category Value	Maximum Value	Weighting Factor
Preliminary engineering completed		2.0	
Final engineering completed		2.0	
All permits obtained		2.0	
		10.0	
Potential of Project to Meet RGA's Needs		10.0	4
Percent of needs for RGA unmet by project:			
0 - 10%		5.0	
10 - 20%		4.5	
20 - 30%		4.0	
30 - 40%		3.5	
40 - 50%		3.0	
50 - 60%		2.5	
60 - 70%		2.0	
70 - 80%		1.5	
80 - 90%		1.0	
90 - 99%		0.5	
100%		0.0	

Table 4-2
(continued)

Ranking Categories	Category Value	Maximum Value	Weighting Factor
Number of new EDU's served by the project:			
Greater than 9,000		5.0	
8,000 - 9,000		4.5	
7,000 - 8,000		4.0	
6,000 - 7,000		3.5	
5,000 - 6,000		3.0	
4,000 - 5,000		2.5	
3,000 - 4,000		2.0	
2,000 - 3,000		1.5	
1,000 - 2,000		1.0	
1 - 1,000		0.5	
0		0.0	
Cost		10.0	2
Per capita costs*:			
<30% national mean		10.0	
30% - 60% national mean		8.0	
60% - 90% national mean		6.0	
90% - 120% national mean		4.0	
120% - 150% national mean		2.0	
>150% national mean		0.0	

TABLE 4-2
(continued)

Ranking Categories	Category Value	Maximum Value	Weighting Factor
Total Score		40.0	
Total Weighted Score		100	

*Based on mean cost for collection, interceptor, and treatment costs from the U.S. EPA data.

Collection - $325

Interceptor - $465

Treatment (expansion and upgrade) - $1,085

Treatment (expansion only) - $875

- Public Health and Environmental Quality - This category is used to represent the improvement in environmental and public health conditions that could result from completion of a project. The first criterion keys on projects which provide collection, conveyance, or treatment to dwelling units currently using on-site systems or which will result in meeting their NJPDES permit.

  A maximum of five points is given for projects which have documented, through a comprehensive area-wide survey, more than isolated cases of septic and/or well failure. This information was obtained from New Jersey Department of Environmental Protection (NJDEP) and was also provided by the local agency or engineer. Projects that would resolve this situation are given a maximum of five points. The points are halved for those projects where only one of these conditions (e.g., well problems or septic failures) exist. No points are given if currently available information does not indicate either situation.

  In addition, the maximum number of points are awarded to noncompliant projects that will be brought into compliance as a result of the project, or where upgrades will be required to meet permit conditions in the next few years. For example, the Waterford STP is currently out-of-compliance for nitrate/nitrogen. The construction of a denitrification unit at this STP would result in permit compliance. Five points are given for upgrading this out-of-compliance facility. No points are given to facilities that are in compliance.

  A second criterion is used to provide an indication of the potential magnitude of septic tanks problems that might be addressed by the proposed project. The number of existing on-site dwelling units (EDU's) in the RGA to be served by the proposed project is the ranking system indicator of the potential magnitude of septic system problems. This criterion provides a broad indication of the extent of a potential problem that might be improved by the project.

  A further enhancement of this ranking criterion would involve the assessment of the number of actual on-site system failures, should this information become available on a project-by-project basis. The typical source of information on septic system failures includes detailed sanitary surveys, soils analysis, and other site-specific investigations.

- Status of Planning - The need to manage water quality, allow for growth in RGA's, and distribute PITBA monies in a timely fashion provides the rationale for this criterion. The status of planning for a project is a function of the past effort that has been expended. Highest points are given for those projects in the most advanced stage of planning.

  The following are the six preconstruction project levels:

  - Conceptual planning.
  - Preliminary planning.
  - Water quality plan consistency determination.
  - Preliminary engineering.
  - Final engineering.
  - Obtaining all necessary permits obtained.

  The system assigns no points for a completed conceptual plan, since that is the minimum requirement for consideration as a project. Each additional completed stage is assigned a score of two points. The points are cumulative for each stage completed. For example, a project with a completed conceptual plan, water quality plan, and preliminary engineering would receive four points (0 + 2 + 2 = 4).

- Potential Of Projects To Meet RGA Needs - The objective of this category is to enable the ranking of projects for their ability to accommodate development in the regional growth areas defined in the Comprehensive Management Plan. This category addresses the ability of the project to support development as planned. RGA development capacities with and without the use of Pinelands development credits have been calculated by the Commission. Thus, if the future development capacity of the project and existing development requirements are known, the difference between that demand and the project capacity can be determined. Any development which cannot be serviced by the reserve capacity is the unmet needs. If it is a goal of the PITBA to accommodate development, then the extent to which a given infrastructure project fulfills unmet needs in an RGA would be an appropriate measure of its desirability for funding.

Therefore, in the first criterion in this category, projects that are designed to satisfy RGA needs (e.g., to service the total capacity with Pinelands Development Credits (PDC's) receive the highest ranking. Projects that show the higher percentage of "unmet" needs remaining receive lower scores.

A second criterion which indicates the ability of the project to meet the future growth is total number of future equivalent dwelling units (EDU's) served by the project. This indicator reflects the relative scale of a project; the larger number of EDU's served, the higher the point score received.

The net effect of the two criteria in this category is to balance the absolute size of a project with its ability to fulfill the net development capacity of an RGA.

- Cost - Per capita costs are estimated based upon the best available cost estimate for the project. This cost estimate reflects the total project cost even if the project extends beyond the RGA boundaries. This estimate is divided by the maximum number of individuals projected to receive service at the completion of the project. The Pinelands Commission is interested in funding cost-effective projects to provide assistance to as many projects as possible.

  The national mean per capita cost used as a basis of comparison is taken form the U.S. Environmental Protection Agency's data on construction costs for wastewater projects:

-	Collection	$ 325
-	Interceptor	$ 465
-	Treatment (expansion and upgrade)	$1,085
-	Treatment (expansion only)	$ 875

  Typically, the costs of different types of projects vary (collection, interceptor, and wastewater treatment). Therefore, separate per capita costs were established for each project type. The same total number of points can potentially be assigned to each type of project.

4.2 ASSIGNMENT OF WEIGHTING FACTORS

Within the ranking system, the four categories were originally weighted the same. However, by varying the amount of points possible for the different categories, more weight could be placed on the categories which more closely reflect the goals of the Pinelands' Infrastructure Trust Bond Act and the Comprehensive Management Plan (CMP).

The PITBA emphasizes the needs to provide the necessary infrastructure to support future development. In addition, it suggests that the infrastructure should be capable of serving as much of the build-out capacity using Pinelands Development Credits (PDC) that it possibly can. It would be reasonable then to assign more weight to the category which quantifies the amount of future development which can be served by the project. The final score assigned to this category was 40 points.

The major goals of the Pinelands CMP are to protect the environment and provide for a safe, well-managed development. Eliminating existing public health problems or preventing future problems is an essential part of the objectives of planned growth. This category was given a total possible score of 30 points.

Since the PITBA has provided only a limited amount of funds, it is important to spend the funds on projects which are the most cost-effective. Therefore, the per capita cost category was given a score of 20 points.

The last category, planning status, was given only the original score of 10 points. This category was considered the least important. It reflects the level of effort that has been expended to date. Projects without previously completed planning steps could probably do so in a relatively short period of time, therefore, less significance is placed on the steps that are complete.

As a result of the weighting of the categories, the total possible score is now 100 points. The following table presents the final point score after the weighting and the relative score of each category.

Category 1 - Ability of project to meet RGA needs

Unmet needs	20 Points
Project capacity	20 Points
	40 Points

Category 2 - Public health/environmental quality

Known problems	15 Points
Potential problems	15 Points
	30 Points

Category 3 - Project cost

Per capita cost of project in comparison to national averages	20 Points

Category 4 - Project status

Progress made toward construction	10 Points
TOTAL	100 Points

4.3 INCORPORATION OF THE RANKING SYSTEM INTO THE MICROCOMPUTER DATA BASE MANAGEMENT SYSTEM

This subsection presents the program documentation for the ranking system developed using the data base management software dBASE III. The ranking system is part of the overall Infrastructure Inventory Data Base System developed by WESTON. The source code for the program which performs the ranking is included in Appendix B.

4.3.1 Public Health/Environmental Quality

The first ranking category evaluates the public health/environmental benefits of the project. The ONSITE data element is used to identify whether the RGA is currently experiencing this sort of problem. This data was identified from reports provided by the NJDEP or provided by the Township. In addition, treatment plant projects are evaluated on whether they are in compliance with their permit. The public health/environmental quality score is contained in QUALSCOR.

- ONSITE (on-site problems)

  An indicator of problems for on-site wells or septic systems in the RGA.

  - "P" - Well and septic problems.
  - "L" - Well or septic problems.
  - "N" - No on-site problems

- PROJCODE (project code)

  A numeric code is used to describe the general type ofproposed project. New codes will be added as necessary to accommodate different types of project descriptions. The following is a listing of the codes as they currently exist:

  01 Treatment Plant (expansion)
  02 Treatment Plan (upgrade)
  03 Treatment Plant (other)
  04 New Collection system
  05 New Interceptor system
  06 On-Site System upgrades

- WQ PROBLEM (effluent quality problem)

  An indicator of effluent quality problems for the project or the facility being upgraded or replaced (Y/N).

- QUALSCOR (public health/environmental quality score).

  The public health/environmental quality score for the proposed project.

The number of unsewered dwelling units (HOUSNPRES) in the RGA is used to quantify the magnitude of the potential (future or undocumented) on-site problems that may be corrected by the project. The total number of existing dwelling units in the RGA (HOUSNPRES and HOUSPRES) is used to quantify the magnitude of the discharge problem for discharging projects. The score for number of existing unsewered dwelling units is contained in EXISCOR.

- HOUSNPRES (present number of unsewered dwelling units to be initially served by the project).

  An estimate of the present number of dwelling units in the RGA unsewered expected to be initially served by the project.

- HOUSPRES (present number of sewered dwelling units to be initially served by the project).

  An estimate of the present number of dwelling units in the RGA on sewers expected to be initially served by the project.

- EXISCOR (existing unsewered dwelling units served score).

  The score associated with the number of existing unsewered dwelling units that will be served by the project.

4.3.2 Project Status

The following data elements are used to evaluate project planning status. The more stages that the project has completed the better the project is going to score in this category. This score is contained in STATSCOR.

- CONCEPT (conceptual planning)

  Conceptual planning completed (Y/N).

- PREPLAN (preliminary planning)

  Preliminary planning completed (Y/N).

- WQPLAN (water quality planning)

  Water Quality Plan consistency determination (Y/N).

- PREENG (preliminary engineering)

  Preliminary engineering completed (Y/N).

- FINENG (final engineering)

  Final engineering completed (Y/N).

- PERMITS (permits obtained)

  All necessary permits obtained (Y/N).

- STATSCOR (project status score)

  The score associated with the status of the project and the planning necessary to construct the project.

4.3.3 Ability to Meet Needs of RGA

As part of the determination of the build-out capacity which will remain unmet by the project, the following data elements are used. The total capacity of the project (HOUSCAP) in equivalent dwelling units is reduced by the number of dwelling units (HOUSPRES, HOUSNPRES, HOUSNRGA, and HOUSNNRGA) that currently exist and will be initially connected to the system. The remaining capacity (RESCAP) is available to be applied to the capacity needed for future growth to the build-out level with PDC's (PDCCAP). The percent remaining unmet (PCTUNMET) by the project is calculated (RESCAP divided by PDCCAP times 100). PCTUNMET is used in the ranking system, the larger the

remaining unmet need the lower the project scores. The project is also ranked on the number future EDU's (RESCAP) served by the project. The score associated with the percent remaining unmet is contained in POTSCOR and the score associated with the number of future EDU's served by the project is contained in EDUSCORE.

- HOUSCAP (total capacity of the project in terms of number of equivalent dwelling units).

  The maximum number of equivalent dwelling units projected to be served by the project.

- HOUSPRES (present number of sewered dwelling units to be initially served by the project).

  An estimate of the present number of dwelling units in the RGA on sewers expected to be initially served by the project.

- HOUSNPRES (present number of un-sewered dwelling units to be served by the project initially).

  An estimate of the present number of dwelling units in the RGA un-sewered expected to be served by the project initially.

- HOUSNRGA (present number of sewered dwelling units not in the RGA to be initially served by the project).

  An estimate of the present number of sewered dwelling units not in the RGA to be initially served by the project.

- HOUSNNRGA (present number of unsewered dwelling units not in the RGA to be initially served by the project).

  An estimate of the present number of unsewered dwelling units not in the RGA to be initially served by the project.

- RESCAP (reserve capacity).

  The reserve capacity of the project in EDU's.

- PDCCAP (build-out capacity with PDC's).

  The capacity of the RGA or RGA's in EDU's available for development.

- PCTUNMET (percent unmet needs).

  The percent of PDCCAP which is unmet.

- POTSCOR (unmet build-out need score).

  The score associated with the percent of the build-out capacity of the RGA which will remain unmet after completion of the project.

- EDUSCORE (future equivalent dwelling units served score).

  The score associated with the serving of "X" number of future equivalent dwelling units.

4.3.4 Cost

The cost-effectiveness of the project is ranked by comparing the per capita cost (PROJCOST/POPCAP) of the project to a national average for that type of project (PROJCODE). The cost effectiveness score is contained in the data element PCAPSCOR.

- PROJCOST (project cost).

  The best available cost estimate for the project. This cost estimate reflects the total project cost elegible for funding under the PITBA. If the project extends beyond the RGA boundaries, the cost would include the those portions as well as those serving the RGA.

- POPCAP (project capacity in terms of population).

  The maximum number of individuals projects to receive service by the project.

- PROJCODE (project code).

  A numeric code is used to describe the general type of proposed project. New codes will be added as necessary to accommodate different types of project descriptions. The following is a listing of the codes as they currently exist:

  01 Treatment Plant (expansion)
  02 Treatment Plan (upgrade)
  03 Treatment Plant (other)
  04 New Collection system
  05 New Interceptor system
  06 On-Site System upgrades

- PCAPSCOR (per capita cost score). The score associated with the percent above or below the national mean per capita cost for that type of project.

4.3.5 Final Ranking Score

The total ranking score (SCORE) is the sum of QUALSCOR, EXISCOR, STATSCOR, POTSCOR, EDUSCORE, and PCAPSCOR.

- SCORE (ranking score). Final ranking score for the proposed project.

SECTION 5

RANKING OF THE PINELANDS INFRASTRUCTURE PROJECTS

5.1 RESULTS OF THE PROJECT RANKING

Table 5-1 presents the results of the project ranking listed in priority order based on total score. It also presents the score each project received for each of the ranking crterion and the cummulative score for all criteria.

5.2 EVALUATION OF THE RANKING RESULTS

The ranking assigned scores to the projects with enough definition to avoid duplicate scores. The priority list groups projects based on three factors:

- The top priority projects score relatively well in all categories.
- The middle group of projects scored well in some categories, but failed to score at all or scored very poorly in others.
- The bottom priority projects scored poorly in all categories.

Generally, the top priority projects represent the projects with the most planning completed to date; the bottom projects represent projects with only conceptual planning completed at this time.

The Chesilhurst Interceptor by CCMUA project should not be considered in the final list of projects eligible for funding since it represents an alternative to the interceptor by the Borough which ranks higher on the list. The same applies to the Stafford Skeleton project, since the Stafford Collection project scored higher. However, due to limited funds, only a portion of the Stafford Collection system may receive funding. Therefore, the Township may wish to substitute the Skeleton project for the collection project for funding.

The Winslow Township projects were only conceptual at the time of the preparation of the plan. As a result, they did not provide necessary information for the ranking system. It is our recommendation that these projects be considered for planning grants and not be evaluated for construction funding.

Table 5-1

Project	RGS Needs		Health/Environment				
	Unmet	Future Devel.	Known Problem	Potential Problem	Cost	Status	Final Score
Monroe to Vict. Lake Coll	20.00	20.00	15.00	9.00	16.00	4.00	84.00
ACUA Coastal Interceptor	12.00	20.00	15.00	15.00	16.00	4.00	82.00
Waterford STP (Denit.)	12.00	10.00	15.00	12.00	20.00	2.00	71.00
Ridgeway-Cabin Branch Int	16.00	20.00	0.00	12.00	20.00	2.00	70.00
Chesilhurst Interceptor	20.00	8.00	0.00	6.00	20.00	4.00	58.00
Harding Hwy. Int. Project	12.00	20.00	0.00	0.00	20.00	4.00	56.00
Chesilhurst Int. By CCMU	20.00	8.00	0.00	6.00	16.00	2.00	52.00
Chesilhurst Collection	20.00	8.00	0.00	6.00	12.00	4.00	50.00
Galloway Sewer	12.00	8.00	0.00	3.00	20.00	4.00	47.00
Stafford Collection	16.00	8.00	0.00	15.00	0.00	4.00	43.00
Stafford Skeleton	6.00	4.00	0.00	6.00	0.00	4.00	20.00
Berlin Twp. Interceptor	0.00	0.00	0.00	3.00	8.00	4.00	15.00
Five Coll. Systems	0.00	0.00	0.00	3.00	8.00	2.00	13.00
Winslow Plant Expansion	0.00	0.00	0.00	0.00	0.00	4.00	4.00
Winslow to Waterford	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Winslow Inter. To CCMUA	0.00	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX A

LISTING OF REPORTS

GENERATED BY DATABASE MANAGEMENT SYSTEM

INVENTORY MANAGEMENT DATA I

REGIONAL GROWTH AREA	PROJECT NAME	EXISTING SEWERED RGA POP SERVED	EXISTING SEWERED NONRGA POP SERVED	FUTURE POP SERVED	CURRENT USER CHARGE ($)	FUTURE USER CHARGE ($)	TYPE OF WATER QUALITY PLANNING	CONFORMANCE WITH PLANNING	DEVELOPABLE AREA	PROJECT SERVICE AREA	BUILDOUT CAPACITY W/ PDC'S (EDU'S)	COMMENT
MONROE TWP.	MONROE TO VICT. LAKE COLL	0	0	39999	194.00	0.00	201/208	Y	3950	-98	12328	
BERLIN TOWNSHIP	BERLIN TWP. INTERCEPTOR	0	0	1794	0.00	335.00	201 FF	Y	0	55	0	APPROX. 6000' FORCE
CHESILHURST	CHESILHURST INTERCEPTOR	0	0	12880	0.00	N/I	CC208	N	633	633	2443	WAITING FOR WATERFORD
WINSLOW TWP.	WINSLOW INTER. TO CCMUA	0	0	0	N/I	N/I	CC208	N	3333	-98	9576	SERVICE AREA UNDEFINED
WINSLOW TWP.	WINSLOW TO WATERFORD	0	0	0	0.00	0.00	CC201/208	N	3333	0	9576	VERY CONCEPTUAL
WINSLOW TWP.	WINSLOW PLANT EXPANSION	0	0	0	0.00	0.00	CC201/208	Y	3333	0	9576	EXPAN. & SER. AREAS UNDEF
WATERFORD TWP.	WATERFORD STP (DENIT.)	3295	0	19616	260.00	330.00	CC201/208	Y	4921	0	7808	SERVES WA. CH. & WIN. RGA
JACKSON / MANCHESTER	RIDGEWAY-CABIN BRANCH INT	0	0	44145	0.00	0.00	201/208	Y	3575	0	15861	NONE
STAFFORD TWP.	STAFFORD SKELETON	0	0	5233	0.00	0.00	201/208	Y	1500	0	4032	OCEAN ACRES,STAFFORD PORT
STAFFORD TWP.	STAFFORD COLLECTION	0	0	12960	0.00	0.00	201/208	Y	1500	0	4032	ENTIRE COLL.SYS. OCEAN AC
HAMILTON TWP	HARDING HWY. INT. PROJECT	0	0	27600	110.00	0.00	201/208	Y	3311	0	17424	NONE
EGG HARBOR / HAMILTON	ACUA COASTAL INTERCEPTOR	7266	734	93332	0.00	0.00	201/208	Y	9639	0	50390	SERVES HAMIL. & EGG HAR.
GALLOWAY TWP.	GALLOWAY SEWER	0	202	12295	0.00	0.00	201/208	N	1737	0	6527	NONE
PEMBERTON MUA.	FIVE COLL. SYSTEMS	0	0	942	0.00	0.00	201/208	Y	2450	0	10400	NONE
CHESILHURST	CHESILHURST INT. BY CCMUA	0	0	12880	0.00	0.00	CC208	Y	633	633	2443	ASSUMES CCMUA BUILDS INT.
CHESILHURST	CHESILHURST COLLECTION	0	0	12880	0.00	0.00	CC208	Y	633	633	2443	WAITING FOR WATERFORD

INVENTORY MANAGEMENT DATA II

REGIONAL GROWTH AREA	PROJECT NAME	TOWNSHIP	COUNTY	AGENCY/APPLICANT CONTACT	AGENCY/APPLICANT STREET ADDRESS	AGENCY/ APPLICANT PHONE NUMBER	BRIEF PROJECT DESCRIPTION	TOTAL FUNDING PROJECT COST	SOURCE #1	% OF TOT FUND BY #1	SOURCE #2	% OF TOT FUND BY #2	APPROX. START DATE	APPROX. COMPLETE DATE
MONROE TWP.	MONROE TO VICT. LAKE COLL	MONROE	GLOUCESTER	JACQUELINE SCHOENEWALD	372 SOUTH MAIN STREET	609-629-1444	INT. VICT. LAKES, COLL. S	5207500	PITBA	50	LOAN	50	/ /	/ /
BERLIN TOWNSHIP	BERLIN TWP. INTERCEPTOR	BERLIN	CAMDEN	LEONA CLYDE , TWP. CLERK	BATE AVE		NEW INTERCEPTOR - RT. 73	1000000	PITBA	99		0	/ /	/ /
CHESILHURST	CHESILHURST INTERCEPTOR	CHESILHURST	CAMDEN	MAYOR EDWARD WANZER	SECOND & GRAND AVE		INTERCEPTOR TO WATERFORD	513176	PITBA	99		0	/ /	/ /
WINSLOW TWP.	WINSLOW INTER. TO CCMUA	WINSLOW	CAMDEN	RONALD NUNNENKAMP	ROUTE 73		NEW INTER. TO CCMUA	-98	PITBA	99		0	/ /	/ /
WINSLOW TWP.	WINSLOW TO WATERFORD	WINSLOW	CAMDEN	RONALD NUNNENKAMP	ROUTE 73		INT. FROM WINSLOW TO WAT.	5000000	PITBA	99		0	/ /	/ /
WINSLOW TWP.	WINSLOW PLANT EXPANSION	WINSLOW	CAMDEN	RONALD NUNNENKAMP	ROUTE 73		EXPAND TREATMENT PLANT	1500000	PITBA	99		0	/ /	/ /
WATERFORD TWP.	WATERFORD STP (DENIT.)	WATERFORD	CAMDEN	GREG BOYLE	WATERFORD MUA PO BOX 158	609-768-2330	STP UPGR./EXP., DENIT.	4200000	PITBA	99		0	/ /	/ /
JACKSON / MANCHESTER	RIDGEWAY-CABIN BRANCH INT	JACKSON/MANCHES	OCEAN	BILL FINE	OCUA/501 HICKORY LN	201-269-4500	NEW INTERCEPTOR	6080000	PITBA	99		0	/ /	/ /
STAFFORD TWP.	STAFFORD SKELETON	STAFFORD	OCEAN	ROBERT SHEPPARD EX.DIR	25 PINE STREET	609-597-7468	OCEAN ACRES SKEL. COL. SY	4800006	PITBA	99		0	/ /	/ /
STAFFORD TWP.	STAFFORD COLLECTION	STAFFORD	OCEAN	ROBERT SHEPPARD EX.DIR	25 PINE STREET	609-597-7468	OCEAN ACRES COLL. SYS.	11801114	PITBA	99		0	/ /	/ /
HAMILTON TWP	HARDING HWY. INT. PROJECT	HAMILTON	ATLANTIC	JOSEPH PANTELONE	HMUA/N.CAPE MAY AVE.	609-625-1872	LOCAL INTERCEPTOR	1425000	PITBA	99		0	/ /	/ /
EGG HARBOR / HAMILTON	ACUA COASTAL INTERCEPTOR	EGG HAR/HAMILTO	ATLANTIC	HOWARD HANEMAN,PRES. ACUA	ACUA/	609-927-2303	REG. INTECEPTOR & P. STAS	23000000	PITBA	50	LOCAL	50	/ /	/ /
GALLOWAY TWP.	GALLOWAY SEWER	GALLOWAY TWP.	ATLANTIC	CHARLES MELCHIOR, MNGER.	MUNICIPAL BUILDING	609-767-6901	SEWER ALONG CHRIS GAUP DR	659560	PITBA	99		0	/ /	/ /
PEMBERTON MUA.	FIVE COLL. SYSTEMS	PEMBERTON	BURLINGTON	ROBERT VOLK, DIRECTOR	TWP. MUA P.O. BOX 247	609-894-4873	FIVE COLL. SYSTEMS	1193500	PITBA	75	CON.FEE	11	/ /	/ /
CHESILHURST	CHESILHURST INT. BY CCMUA	CHESILHURST	CAMDEN	ALDO CEVALLOS, CHIEF ENG.	CCMUA/FERRY AVE.		CHESILHURST INT. BY CCMUA	2456898	PITBA	99		0	/ /	/ /
CHESILHURST	CHESILHURST COLLECTION	CHESILHURST	CAMDEN	MAYOR EDWARD WANZER	SECOND & GRAND AVE		CHESILHURST COLL. SYSTEM	2986824	PITBA	18	FMHA	82	/ /	/ /

REFORT ON UNMET NEEDS

REGIONAL GROWTH AREA	FERSONS FER EDU	PDC CAFACITY (EDUs)	PDC CAFACITY (MGD)	FROJECT CAFACITY (EDUs)	FROJECT CAFACITY (MGD)	RGA SEWERED CAFACITY (EDUs)	RGA SEWERED CAFACITY (MGD)	RGA NON-SEW. CAFACITY (EDUs)	RGA NON-SEW. CAPACITY (MGD)	NON-RGA SEWERED CAFACITY (EDUs)	NON-RGA SEWERED CAPACITY (MGD)	NON-RGA NON-SEW. CAFACITY (EDUs)	NON-RGA NON-SEW. CAPACITY (MGD)	RESERVE CAFACITY (EDUs)	RESERVE CAPACITY (MGD)	UNMET NEEDS (EDUs)	UNMET NEEDS (MGD)	PERCENT UNMET
MONROE TWP.	3.07	12328	2.84	13029	3.00	0	0.00	975	0.22	0	0.00	0	0.00	12054	2.78	274	0	2
BERLIN TOWNSHIF	3.25	0	0.00	552	0.13	0	0.00	229	0.06	0	0.00	323	0.08	0	-0.01	0	0	100
CHESILHURST	3.30	2443	0.60	3903	0.97	0	0.00	438	0.11	0	0.00	0	0.00	3465	0.86	0	0	0
WINSLOW TWP.	3.16	9576	2.27	-98	0.00	-98	0.00	0	0.00	-98	0.00	0	0.00	0	0.00	9576	2	100
WINSLOW TWP.	3.16	9576	2.27	-98	0.00	-98	0.00	0	0.00	-98	0.00	0	0.00	0	0.00	9576	2	100
WINSLOW TWF.	3.16	9576	2.27	-98	0.00	-98	0.00	0	0.00	-98	0.00	0	0.00	0	0.00	9576	2	100
WATERFORD TWF.	3.23	7808	1.89	6073	1.47	1020	0.25	438	0.11	0	0.00	0	0.00	4615	1.11	3193	1	41
JACKSON / MANCHESTER	3.27	15861	3.89	13500	3.31	0	0.00	1500	0.37	0	0.00	0	0.00	12000	2.94	3861	1	24
STAFFORD TWF.	2.74	4032	0.83	1910	0.39	0	0.00	760	0.16	0	0.00	0	0.00	1150	0.23	2882	1	71
STAFFORD TWP.	2.74	4032	0.83	4730	0.97	0	0.00	1604	0.33	0	0.00	0	0.00	3126	0.64	906	0	22
HAMILTON TWP	2.80	17424	3.66	9857	2.07	0	0.00	0	0.00	0	0.00	0	0.00	9857	2.07	7567	2	43
EGG HARBOR / HAMILTON	2.80	50390	10.58	33333	7.00	2595	0.54	0	0.00	262	0.06	0	0.00	30476	6.40	19914	4	40
GALLOWAY TWP.	3.10	6527	1.52	3966	0.92	0	0.00	111	0.03	65	0.02	0	0.00	3790	0.87	2737	1	42
FEMBERTON MUA.	3.27	10400	2.55	288	0.07	0	0.00	288	0.07	0	0.00	0	0.00	0	0.00	10400	3	100
CHESILHURST	3.30	2443	0.60	3903	0.97	0	0.00	438	0.11	0	0.00	0	0.00	3465	0.86	0	0	0
CHESILHURST	3.30	2443	0.60	3903	0.97	0	0.00	438	0.11	0	0.00	0	0.00	3465	0.86	0	0	0

TABLE 3 - RANKING DATA FOR INDIVIDUAL PROJECTS

PROJECT NAME	ONSITE	WQFRDB	RGA SEWERED DWELLING UNITS	RGA NON SEWERED DWELLING UNITS	NON-RGA SEWERED DWELLING UNITS	NON-RGA NON-SEW. DWELLING UNITS	CONCEPT	PREPLAN	WQPLAN	PREENG	FIHENG	PERMITS	PERCENT UNMET NEEDS	PROJECT CAPACITY (EDUs)	PROJECT CAPACITY (PEOPLE)	TOTAL PROJECT COST	PUBLIC HEALTH/ ENVIRON SCORE	EXISTING EDU S SERVED SCORE	PROJECT STATUS SCORE	POTENT. TO MEET NEEDS SCORE	FUTURE EDU S SERVED SCORE	PER CAP. COST SCORE	FINAL SCORE
MONROE TO VICT. LAKE COLL	P	N	0	975	0	0	Y	Y	N	Y	N	N	2	13029	39999	5207500	15.00	9.00	4.00	20.00	20.00	16.00	84.00
ACUA COASTAL INTERCEPTOR	N	Y	2595	0	262	0	Y	Y	N	Y	N	N	40	33333	93332	23000000	15.00	15.00	4.00	12.00	20.00	16.00	82.00
WATERFORD STP (DENIT.)	N	Y	1020	438	0	0	Y	Y	N	N	N	N	41	6073	19616	4200000	15.00	12.00	2.00	12.00	10.00	20.00	71.00
RIDGEWAY-CABIN BRANCH INT	N	N	0	1500	0	0	Y	Y	N	N	N	N	24	13500	44145	6080000	0.00	12.00	2.00	16.00	20.00	20.00	70.00
CHESILHURST INTERCEPTOR	N	N	0	438	0	0	Y	Y	N	Y	N	N	0	3903	12880	513176	0.00	6.00	4.00	20.00	8.00	20.00	58.00
HARDING HWY. INT. PROJECT	N	N	0	0	0	0	Y	Y	N	Y	N	N	43	9857	27600	1425000	0.00	0.00	4.00	12.00	20.00	20.00	56.00
CHESILHURST INT. BY CCMUA	N	N	0	438	0	0	Y	Y	N	N	N	N	0	3903	12880	2456898	0.00	6.00	2.00	20.00	8.00	16.00	52.00
CHESILHURST COLLECTION	N	N	0	438	0	0	Y	Y	N	Y	N	N	0	3903	12880	2986824	0.00	6.00	4.00	20.00	8.00	12.00	50.00
GALLOWAY SEWER	N	N	0	111	65	0	Y	Y	N	Y	N	N	42	3966	12295	659560	0.00	3.00	4.00	12.00	8.00	20.00	47.00
STAFFORD COLLECTION	N	N	0	1604	0	0	Y	Y	N	Y	N	N	22	4730	12960	11801114	0.00	15.00	4.00	16.00	8.00	0.00	43.00
STAFFORD SKELETON	N	N	0	760	0	0	Y	Y	N	Y	N	N	71	1910	5233	4800006	0.00	6.00	4.00	6.00	4.00	0.00	20.00
BERLIN TWP. INTERCEPTOR	N	N	0	229	0	323	Y	Y	N	Y	N	N	100	552	1794	1000000	0.00	3.00	4.00	0.00	0.00	8.00	15.00
FIVE COLL. SYSTEMS	N	N	0	288	0	0	Y	Y	N	N	N	N	100	288	942	1193500	0.00	3.00	2.00	0.00	0.00	8.00	13.00
WINSLOW PLANT EXPANSION	N	N	-98	0	-98	0	Y	Y	N	Y	N	N	100	-98	0	1500000	0.00	0.00	4.00	0.00	0.00	0.00	4.00
WINSLOW TO WATERFORD	N	N	-98	0	-98	0	Y	N	N	N	N	N	100	-98	0	5000000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WINSLOW INTER. TO CCMUA	N	N	-98	0	-98	0	Y	N	N	N	N	N	100	-98	0	-98	0.00	0.00	0.00	0.00	0.00	0.00	0.00

DATA INVENTORY FOR GALLOWAY SEWER

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	11
PROJECT NAME	GALLOWAY SEWER
FACILITY NAME	
AGENCY/APPLICANT CONTACT	CHARLES MELCHIOR, MNGER.
AGENCY/APPLICANT STREET ADDRESS	MUNICIPAL BUILDING
AGENCY/APPLICANT CITY, STATE, ZIP CODE	COLOGNE, NJ 08213
AGENCY/APPLICANT PHONE NUMBER	609-767-6901
COUNTY	ATLANTIC
TOWNSHIP	GALLOWAY TWP.
REGIONAL GROWTH AREA	GALLOWAY TWP.
BRIEF PROJECT DESCRIPTION	SEWER ALONG CHRIS GAUP DR
PROJECT COST	659560
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	111
FLOW FROM PRESENT UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.03
PRESENT UN-SEWERED POPULATION TO BE SERVED BY THE PROJECT	344
PRESENT SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	65
FLOW FROM PRESENT SEWERED DUs NOT IN RGA SERVED BY PROJ. INITIALLY	0.02
PRESENT SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	202
PRESENT UN-SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE SERVED BY THE PROJECT	3966
FLOW FROM THE FUTURE EDUs TO BE SERVED BY THE PROJECT	0.92
FUTURE POPULATION	12295
PERSONS PER EDU	3.10
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	0.00

COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	201/208
CONFORMANCE WITH PLANNING	N
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	N
REACH NAME	N/A
DISSOLVED OXYGEN STANDARD (mg/l)	N/A
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	N/A
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	N/A
LOW FLOW	N/A
COMMENT	NONE
DEVELOPABLE AREA	1737
SERVICE AREA	0
PDC CAPACITY (EDUs)	6527
PDC CAPACITY (MGD)	1.52
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	2737
UNMET NEEDS (MGD)	1
PER CENT UNMET NEEDS	42
RESERVE CAPACITY (EDUs)	3790
RESERVE CAPACITY OF (MGD)	0.87
RANKING SCORE	47.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	Y
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	3.00
PROJECT STATUS SCORE	4.00
UNMET BUILD-OUT NEED SCORE	12.00
FUTURE EDUs SERVED SCORE	8.00
PER CAPITA COST SCORE	20.00

DATA INVENTORY FOR HARDING HWY. INT. PROJECT

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	15
PROJECT NAME	HARDING HWY. INT. PROJECT
FACILITY NAME	
AGENCY/APPLICANT CONTACT	JOSEPH PANTELONE
AGENCY/APPLICANT STREET ADDRESS	HMUA/N.CAPE MAY AVE.
AGENCY/APPLICANT CITY, STATE, ZIP CODE	
AGENCY/APPLICANT PHONE NUMBER	609-625-1872
COUNTY	ATLANTIC
TOWNSHIP	HAMILTON
REGIONAL GROWTH AREA	HAMILTON TWP
BRIEF PROJECT DESCRIPTION	LOCAL INTERCEPTOR
PROJECT COST	1425000
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION	
TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.00
PRESENT UN-SEWERED POPULATION	
TO BE SERVED BY THE PROJECT	0
PRESENT SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT	
IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA	
TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs	
NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN	
RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE	
SERVED BY THE PROJECT	9857
FLOW FROM THE FUTURE EDUs TO BE	
SERVED BY THE PROJECT	2.07
FUTURE POPULATION	27600
PERSONS PER EDU	2.80
PRESENT USER CHARGE ($)	110.00
FUTURE USER CHARGE ($)	0.00

COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	201/208
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	N
REACH NAME	BABCOCK CREEK
DISSOLVED OXYGEN STANDARD (mg/l)	5.0
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	0.05
MEETING AMMONIA STANDARD? (Y/N)	N
STREAM USE	FW2-NT
LOW FLOW	5.0
COMMENT	NONE
DEVELOPABLE AREA	3311
SERVICE AREA	0
PDC CAPACITY (EDUs)	17424
PDC CAPACITY (MGD)	3.66
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	7567
UNMET NEEDS (MGD)	2
PER CENT UNMET NEEDS	43
RESERVE CAPACITY (EDUs)	9857
RESERVE CAPACITY OF (MGD)	2.07
RANKING SCORE	56.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	Y
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	0.00
PROJECT STATUS SCORE	4.00
UNMET BUILD-OUT NEED SCORE	12.00
FUTURE EDUs SERVED SCORE	20.00
PER CAPITA COST SCORE	20.00

DATA INVENTORY FOR ACUA COASTAL INTERCEPTOR

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	10
PROJECT NAME	ACUA COASTAL INTERCEPTOR
FACILITY NAME	
AGENCY/APPLICANT CONTACT	HOWARD HANEMAN,PRES. ACUA
AGENCY/APPLICANT STREET ADDRESS	ACUA/
AGENCY/APPLICANT CITY, STATE, ZIP CODE	ATLANTIC CITY, NJ
AGENCY/APPLICANT PHONE NUMBER	609-927-2303
COUNTY	ATLANTIC
TOWNSHIP	EGG HAR/HAMILTO
REGIONAL GROWTH AREA	EGG HARBOR / HAMILTON
BRIEF PROJECT DESCRIPTION	REG. INTECEPTOR & P. STAS
PROJECT COST	23000000
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	LOCAL
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #1	50
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #2	50
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	2595
FLOW FROM PRESENT SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.54
PRESENT SEWERED POPULATION	
TO BE THE SERVED BY THE PROJECT	7266
PRESENT NUMBER OF UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.00
PRESENT UN-SEWERED POPULATION	
TO BE SERVED BY THE PROJECT	0
PRESENT SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	262
FLOW FROM PRESENT SEWERED DUs NOT	
IN RGA SERVED BY PROJ. INITIALLY	0.06
PRESENT SEWERED POP. NOT IN RGA	
TO BE SERVED BY THE PROJECT	734
PRESENT UN-SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs	
NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN	
RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE	
SERVED BY THE PROJECT	33333
FLOW FROM THE FUTURE EDUs TO BE	
SERVED BY THE PROJECT	7.00
FUTURE POPULATION	93332
PERSONS PER EDU	2.80
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	0.00

COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	201/208
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	Y
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	N
REACH NAME	GREAT EGG HARBOR RIVER
DISSOLVED OXYGEN STANDARD (mg/l)	5.0
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	0.00
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	FW2-NT
LOW FLOW	60.4
COMMENT	SERVES HAMIL. & EGG HAR.
DEVELOPABLE AREA	9639
SERVICE AREA	0
PDC CAPACITY (EDUs)	50390
PDC CAPACITY (MGD)	10.58
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	19914
UNMET NEEDS (MGD)	4
PER CENT UNMET NEEDS	40
RESERVE CAPACITY (EDUs)	30476
RESERVE CAPACITY OF (MGD)	6.40
RANKING SCORE	82.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	Y
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	15.00
EXISTING UNSEWERED DUs SERVED SCORE	15.00
PROJECT STATUS SCORE	4.00
UNMET BUILD-OUT NEED SCORE	12.00
FUTURE EDUs SERVED SCORE	20.00
PER CAPITA COST SCORE	16.00

DATA INVENTORY FOR FIVE COLL. SYSTEMS

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	13
PROJECT NAME	FIVE COLL. SYSTEMS
FACILITY NAME	
AGENCY/APPLICANT CONTACT	ROBERT VOLK, DIRECTOR
AGENCY/APPLICANT STREET ADDRESS	TWP. MUA P.O. BOX 247
AGENCY/APPLICANT CITY, STATE, ZIP CODE	PEMBERTON, NJ
AGENCY/APPLICANT PHONE NUMBER	609-894-4873
COUNTY	BURLINGTON
TOWNSHIP	PEMBERTON
REGIONAL GROWTH AREA	PEMBERTON MUA.
BRIEF PROJECT DESCRIPTION	FIVE COLL. SYSTEMS
PROJECT COST	1193500
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	CON.FEE
ANTICIPATED FUNDING SOURCE #3	OTHER
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #1	75
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #2	11
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #3	14
PRESENT NUMBER OF SEWERED DUs SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	288
FLOW FROM PRESENT UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.07
PRESENT UN-SEWERED POPULATION TO BE SERVED BY THE PROJECT	942
PRESENT SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE SERVED BY THE PROJECT	288
FLOW FROM THE FUTURE EDUs TO BE SERVED BY THE PROJECT	0.07
FUTURE POPULATION	942
PERSONS PER EDU	3.27
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	0.00

START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	201/208
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	Y
REACH NAME	RANCOCAS CK.-NORTH BRANCH
DISSOLVED OXYGEN STANDARD (mg/l)	5.0
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	N
AMMONIA STANDARD (mg/l)	0.00
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	FW2-NT
LOW FLOW	37.1
COMMENT	NONE
DEVELOPABLE AREA	2450
SERVICE AREA	0
PDC CAPACITY (EDUs)	10400
PDC CAPACITY (MGD)	2.55
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	10400
UNMET NEEDS (MGD)	3
PER CENT UNMET NEEDS	100
RESERVE CAPACITY (EDUs)	0
RESERVE CAPACITY OF (MGD)	0.00
RANKING SCORE	13.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	N
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	3.00
PROJECT STATUS SCORE	2.00
UNMET BUILD-OUT NEED SCORE	0.00
FUTURE EDUs SERVED SCORE	0.00
PER CAPITA COST SCORE	8.00

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DATA INVENTORY FOR BERLIN TWP. INTERCEPTOR

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	2
PROJECT NAME	BERLIN TWP. INTERCEPTOR
FACILITY NAME	
AGENCY/APPLICANT CONTACT	LEONA CLYDE , TWP. CLERK
AGENCY/APPLICANT STREET ADDRESS	BATE AVE
AGENCY/APPLICANT CITY, STATE, ZIP CODE	WEST BERLIN NJ
AGENCY/APPLICANT PHONE NUMBER	
COUNTY	CAMDEN
TOWNSHIP	BERLIN
REGIONAL GROWTH AREA	BERLIN TOWNSHIP
BRIEF PROJECT DESCRIPTION	NEW INTERCEPTOR - RT. 73
PROJECT COST	1000000
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	229
FLOW FROM PRESENT UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.06
PRESENT UN-SEWERED POPULATION TO BE SERVED BY THE PROJECT	744
PRESENT SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	323
FLOW FROM PRESENT UN-SEWERED DUs NOT IN RGA SERVED INITIALLY	0.08
PRESENT UN-SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	1050
FUTURE NUMBER OF EDUs TO BE SERVED BY THE PROJECT	552
FLOW FROM THE FUTURE EDUs TO BE SERVED BY THE PROJECT	0.13
FUTURE POPULATION	1794
PERSONS PER EDU	3.25
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	335.00

START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	201 FP
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	N
REACH NAME	MULLICA RIVER
DISSOLVED OXYGEN STANDARD (mg/l)	N/A
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	N/A
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	N/A
LOW FLOW	0.0
COMMENT	APPROX. 6000' FORCE
DEVELOPABLE AREA	0
SERVICE AREA	55
PDC CAPACITY (EDUs)	0
PDC CAPACITY (MGD)	0.00
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	0
UNMET NEEDS (MGD)	0
PER CENT UNMET NEEDS	100
RESERVE CAPACITY (EDUs)	0
RESERVE CAPACITY OF (MGD)	-0.01
RANKING SCORE	15.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	Y
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	3.00
PROJECT STATUS SCORE	4.00
UNMET BUILD-OUT NEED SCORE	0.00
FUTURE EDUs SERVED SCORE	0.00
PER CAPITA COST SCORE	8.00

DATA INVENTORY FOR CHESILHURST COLLECTION

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	17
PROJECT NAME	CHESILHURST COLLECTION
FACILITY NAME	
AGENCY/APPLICANT CONTACT	MAYOR EDWARD WANZER
AGENCY/APPLICANT STREET ADDRESS	SECOND & GRAND AVE
AGENCY/APPLICANT CITY, STATE, ZIP CODE	CHESILHURST, NJ 08089
AGENCY/APPLICANT PHONE NUMBER	
COUNTY	CAMDEN
TOWNSHIP	CHESILHURST
REGIONAL GROWTH AREA	CHESILHURST
BRIEF PROJECT DESCRIPTION	CHESILHURST COLL. SYSTEM
PROJECT COST	2986824
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	FMHA
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #1	18
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #2	82
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION	
TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	438
FLOW FROM PRESENT UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.11
PRESENT UN-SEWERED POPULATION	
TO BE SERVED BY THE PROJECT	1445
PRESENT SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT	
IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA	
TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs	
NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN	
RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE	
SERVED BY THE PROJECT	3903
FLOW FROM THE FUTURE EDUs TO BE	
SERVED BY THE PROJECT	0.97
FUTURE POPULATION	12880
PERSONS PER EDU	3.30
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	0.00

START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	CC208
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	-99.00
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	-99.00
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	-99.00
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	Y
REACH NAME	N/A
DISSOLVED OXYGEN STANDARD (mg/l)	N/A
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	N/A
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	N/A
LOW FLOW	N/A
COMMENT	WAITING FOR WATERFORD
DEVELOPABLE AREA	633
SERVICE AREA	633
PDC CAPACITY (EDUs)	2443
PDC CAPACITY (MGD)	0.60
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	0
UNMET NEEDS (MGD)	0
PER CENT UNMET NEEDS	0
RESERVE CAPACITY (EDUs)	3465
RESERVE CAPACITY OF (MGD)	0.86
RANKING SCORE	50.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	Y
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	6.00
PROJECT STATUS SCORE	4.00
UNMET BUILD-OUT NEED SCORE	20.00
FUTURE EDUs SERVED SCORE	8.00
PER CAPITA COST SCORE	12.00

DATA INVENTORY FOR CHESILHURST INTERCEPTOR

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	3
PROJECT NAME	CHESILHURST INTERCEPTOR
FACILITY NAME	
AGENCY/APPLICANT CONTACT	MAYOR EDWARD WANZER
AGENCY/APPLICANT STREET ADDRESS	SECOND & GRAND AVE
AGENCY/APPLICANT CITY, STATE, ZIP CODE	CHESILHURST,NJ 08089
AGENCY/APPLICANT PHONE NUMBER	
COUNTY	CAMDEN
TOWNSHIP	CHESILHURST
REGIONAL GROWTH AREA	CHESILHURST
BRIEF PROJECT DESCRIPTION	INTERCEPTOR TO WATERFORD
PROJECT COST	513176
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	438
FLOW FROM PRESENT UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.11
PRESENT UN-SEWERED POPULATION TO BE SERVED BY THE PROJECT	1445
PRESENT SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE SERVED BY THE PROJECT	3903
FLOW FROM THE FUTURE EDUs TO BE SERVED BY THE PROJECT	0.97
FUTURE POPULATION	12880
PERSONS PER EDU	3.30
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	N/I

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START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	CC208
CONFORMANCE WITH PLANNING	N
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	Y
REACH NAME	N/A
DISSOLVED OXYGEN STANDARD (mg/l)	N/A
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	N/A
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	N/A
LOW FLOW	N/A
COMMENT	WAITING FOR WATERFORD
DEVELOPABLE AREA	633
SERVICE AREA	633
PDC CAPACITY (EDUs)	2443
PDC CAPACITY (MGD)	0.60
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	0
UNMET NEEDS (MGD)	0
PER CENT UNMET NEEDS	0
RESERVE CAPACITY (EDUs)	3465
RESERVE CAPACITY OF (MGD)	0.86
RANKING SCORE	58.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	Y
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	6.00
PROJECT STATUS SCORE	4.00
UNMET BUILD-OUT NEED SCORE	20.00
FUTURE EDUs SERVED SCORE	8.00
PER CAPITA COST SCORE	20.00

DATA INVENTORY FOR WATERFORD STP (DENIT.)

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	17
PROJECT NAME	WATERFORD STP (DENIT.)
FACILITY NAME	
AGENCY/APPLICANT CONTACT	GREG BOYLE
AGENCY/APPLICANT STREET ADDRESS	WATERFORD MUA PO BOX 158
AGENCY/APPLICANT CITY, STATE, ZIP CODE	ATCO, NJ 08004
AGENCY/APPLICANT PHONE NUMBER	609-768-2330
COUNTY	CAMDEN
TOWNSHIP	WATERFORD
REGIONAL GROWTH AREA	WATERFORD TWP.
BRIEF PROJECT DESCRIPTION	STP UPGR./EXP., DENIT.
PROJECT COST	4200000
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs SERVED BY THE PROJECT INITIALLY	1020
FLOW FROM PRESENT SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.25
PRESENT SEWERED POPULATION TO BE THE SERVED BY THE PROJECT	3295
PRESENT NUMBER OF UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	438
FLOW FROM PRESENT UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.11
PRESENT UN-SEWERED POPULATION TO BE SERVED BY THE PROJECT	1415
PRESENT SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE SERVED BY THE PROJECT	6073
FLOW FROM THE FUTURE EDUs TO BE SERVED BY THE PROJECT	1.47
FUTURE POPULATION	19616
PERSONS PER EDU	3.23
PRESENT USER CHARGE ($)	260.00
FUTURE USER CHARGE ($)	330.00

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START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	CC201/208
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	Y
EXISTING FLOW OF SEWAGE TREATMENT PLANT	0.26
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	0.75
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	1.50
EXISTING GALLONS PER CAPITA PER DAY	250.00
DESIGN GALLONS PER CAPITA PER DAY	75.00
FUTURE GALLONS PER CAPITA PER DAY	75.00
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/I
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/I
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/I
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/I
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/I
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/I
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/I
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/I
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/I
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	2.7
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	2.0
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	2.0
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	Y
REACH NAME	SLEEPER BRANCH
DISSOLVED OXYGEN STANDARD (mg/l)	N/I
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	N/I
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	N/A
LOW FLOW	N/I
COMMENT	SERVES WA. CH. & WIN. RGA
DEVELOPABLE AREA	4921
SERVICE AREA	0
PDC CAPACITY (EDUs)	7808
PDC CAPACITY (MGD)	1.89
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	3193
UNMET NEEDS (MGD)	1
PER CENT UNMET NEEDS	41
RESERVE CAPACITY (EDUs)	4615
RESERVE CAPACITY OF (MGD)	1.11
RANKING SCORE	71.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	N
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	15.00
EXISTING UNSEWERED DUs SERVED SCORE	12.00
PROJECT STATUS SCORE	2.00
UNMET BUILD-OUT NEED SCORE	12.00
FUTURE EDUs SERVED SCORE	10.00
PER CAPITA COST SCORE	20.00

DATA INVENTORY FOR WINSLOW TO WATERFORD

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	16
PROJECT NAME	WINSLOW TO WATERFORD
FACILITY NAME	
AGENCY/APPLICANT CONTACT	RONALD NUNNENKAMP
AGENCY/APPLICANT STREET ADDRESS	ROUTE 73
AGENCY/APPLICANT CITY, STATE, ZIP CODE	BRADDOCK, NJ 08037
AGENCY/APPLICANT PHONE NUMBER	
COUNTY	CAMDEN
TOWNSHIP	WINSLOW
REGIONAL GROWTH AREA	WINSLOW TWP.
BRIEF PROJECT DESCRIPTION	INT. FROM WINSLOW TO WAT.
PROJECT COST	5000000
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs SERVED BY THE PROJECT INITIALLY	-98
FLOW FROM PRESENT SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT UN-SEWERED POPULATION TO BE SERVED BY THE PROJECT	0
PRESENT SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	-98
FLOW FROM PRESENT SEWERED DUs NOT IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE SERVED BY THE PROJECT	-98
FLOW FROM THE FUTURE EDUs TO BE SERVED BY THE PROJECT	0.00
FUTURE POPULATION	0
PERSONS PER EDU	3.16
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	0.00

START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	CC201/208
CONFORMANCE WITH PLANNING	N
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	Y
REACH NAME	N/A
DISSOLVED OXYGEN STANDARD (mg/l)	N/A
MEETING DISSOLVED OXYGEN STANDARD? (Y/N) AMMONIA STANDARD (mg/l)	N/A
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	N/A
LOW FLOW	N/A
COMMENT	VERY CONCEPTUAL
DEVELOPABLE AREA	3333
SERVICE AREA	0
PDC CAPACITY (EDUs)	9576
PDC CAPACITY (MGD)	2.27
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	9576
UNMET NEEDS (MGD)	2
PER CENT UNMET NEEDS	100
RESERVE CAPACITY (EDUs)	0
RESERVE CAPACITY OF (MGD)	0.00
RANKING SCORE	0.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	N
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	N
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	0.00
PROJECT STATUS SCORE	0.00
UNMET BUILD-OUT NEED SCORE	0.00
FUTURE EDUs SERVED SCORE	0.00
PER CAPITA COST SCORE	0.00

DATA INVENTORY FOR WINSLOW PLANT EXPANSION

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	5
PROJECT NAME	WINSLOW PLANT EXPANSION
FACILITY NAME	
AGENCY/APPLICANT CONTACT	RONALD NUNNENKAMP
AGENCY/APPLICANT STREET ADDRESS	ROUTE 73
AGENCY/APPLICANT CITY, STATE, ZIP CODE	BRADDOCK, NJ 08037
AGENCY/APPLICANT PHONE NUMBER	
COUNTY	CAMDEN
TOWNSHIP	WINSLOW
REGIONAL GROWTH AREA	WINSLOW TWP.
BRIEF PROJECT DESCRIPTION	EXPAND TREATMENT PLANT
PROJECT COST	1500000
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs SERVED BY THE PROJECT INITIALLY	-98
FLOW FROM PRESENT SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT UN-SEWERED POPULATION TO BE SERVED BY THE PROJECT	0
PRESENT SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	-98
FLOW FROM PRESENT SEWERED DUs NOT IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE SERVED BY THE PROJECT	-98
FLOW FROM THE FUTURE EDUs TO BE SERVED BY THE PROJECT	0.00
FUTURE POPULATION	0
PERSONS PER EDU	3.16
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	0.00

START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	CC201/208
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	0.70
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	0.70
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	1.65
EXISTING GALLONS PER CAPITA PER DAY	N/I
DESIGN GALLONS PER CAPITA PER DAY	N/I
FUTURE GALLONS PER CAPITA PER DAY	N/I
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/I
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/I
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/I
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/I
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/I
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/I
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/I
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/I
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/I
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/I
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/I
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/I
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	N
REACH NAME	SLEEPER BRANCH
DISSOLVED OXYGEN STANDARD (mg/l)	5.0
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	Y
AMMONIA STANDARD (mg/l)	0.00
MEETING AMMONIA STANDARD? (Y/N)	Y
STREAM USE	FW-CPB
LOW FLOW	6.0
COMMENT	EXPAN. & SER. AREAS UNDEF
DEVELOPABLE AREA	3333
SERVICE AREA	0
PDC CAPACITY (EDUs)	9576
PDC CAPACITY (MGD)	2.27
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	9576
UNMET NEEDS (MGD)	2
PER CENT UNMET NEEDS	100
RESERVE CAPACITY (EDUs)	0
RESERVE CAPACITY OF (MGD)	0.00
RANKING SCORE	4.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	Y
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	0.00
PROJECT STATUS SCORE	4.00
UNMET BUILD-OUT NEED SCORE	0.00
FUTURE EDUs SERVED SCORE	0.00
PER CAPITA COST SCORE	0.00

DATA INVENTORY FOR CHESILHURST INT. BY CCMUA

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	12
PROJECT NAME	CHESILHURST INT. BY CCMUA
FACILITY NAME	
AGENCY/APPLICANT CONTACT	ALDO CEVALLOS, CHIEF ENG.
AGENCY/APPLICANT STREET ADDRESS	CCMUA/FERRY AVE.
AGENCY/APPLICANT CITY, STATE, ZIP CODE	CAMDEN, NJ 08101
AGENCY/APPLICANT PHONE NUMBER	
COUNTY	CAMDEN
TOWNSHIP	CHESILHURST
REGIONAL GROWTH AREA	CHESILHURST
BRIEF PROJECT DESCRIPTION	CHESILHURST INT. BY CCMUA
PROJECT COST	2456898
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION	
TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	438
FLOW FROM PRESENT UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.11
PRESENT UN-SEWERED POPULATION	
TO BE SERVED BY THE PROJECT	1445
PRESENT SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT	
IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA	
TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs	
NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN	
RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE	
SERVED BY THE PROJECT	3903
FLOW FROM THE FUTURE EDUs TO BE	
SERVED BY THE PROJECT	0.97
FUTURE POPULATION	12880
PERSONS PER EDU	3.30
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	0.00

(N)

COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	CC208
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	-99.00
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	-99.00
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	-99.00
EXISTING GALLONS PER CAPITA PER DAY	-99.00
DESIGN GALLONS PER CAPITA PER DAY	-99.00
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	Y
REACH NAME	N/A
DISSOLVED OXYGEN STANDARD (mg/l)	N/A
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	N/A
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	N/A
LOW FLOW	N/A
COMMENT	ASSUMES CCMUA BUILDS INT.
DEVELOPABLE AREA	633
SERVICE AREA	633
PDC CAPACITY (EDUs)	2443
PDC CAPACITY (MGD)	0.60
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	0
UNMET NEEDS (MGD)	0
PER CENT UNMET NEEDS	0
RESERVE CAPACITY (EDUs)	3465
RESERVE CAPACITY OF (MGD)	0.86
RANKING SCORE	52.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	N
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	6.00
PROJECT STATUS SCORE	2.00
UNMET BUILD-OUT NEED SCORE	20.00
FUTURE EDUs SERVED SCORE	8.00
PER CAPITA COST SCORE	16.00

(N)

DATA INVENTORY FOR WINSLOW INTER. TO CCMUA

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	4
PROJECT NAME	WINSLOW INTER. TO CCMUA
FACILITY NAME	
AGENCY/APPLICANT CONTACT	RONALD NUNNENKAMP
AGENCY/APPLICANT STREET ADDRESS	ROUTE 73
AGENCY/APPLICANT CITY, STATE, ZIP CODE	BRADDOCK, NJ 08037
AGENCY/APPLICANT PHONE NUMBER	
COUNTY	CAMDEN
TOWNSHIP	WINSLOW
REGIONAL GROWTH AREA	WINSLOW TWP.
BRIEF PROJECT DESCRIPTION	NEW INTER. TO CCMUA
PROJECT COST	-98
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs SERVED BY THE PROJECT INITIALLY	-98
FLOW FROM PRESENT SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT UN-SEWERED POPULATION TO BE SERVED BY THE PROJECT	0
PRESENT SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	-98
FLOW FROM PRESENT SEWERED DUs NOT IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE SERVED BY THE PROJECT	-98
FLOW FROM THE FUTURE EDUs TO BE SERVED BY THE PROJECT	0.00
FUTURE POPULATION	0
PERSONS PER EDU	3.16
PRESENT USER CHARGE ($)	N/I
FUTURE USER CHARGE ($)	N/I

START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	CC208
CONFORMANCE WITH PLANNING	N
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	N
REACH NAME	N/A
DISSOLVED OXYGEN STANDARD (mg/l)	N/A
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	N/A
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	N/A
LOW FLOW	N/A
COMMENT	SERVICE AREA UNDEFINED
DEVELOPABLE AREA	3333
SERVICE AREA	-98
PDC CAPACITY (EDUs)	9576
PDC CAPACITY (MGD)	2.27
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	9576
UNMET NEEDS (MGD)	2
PER CENT UNMET NEEDS	100
RESERVE CAPACITY (EDUs)	0
RESERVE CAPACITY OF (MGD)	0.00
RANKING SCORE	0.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	N
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	N
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	0.00
PROJECT STATUS SCORE	0.00
UNMET BUILD-OUT NEED SCORE	0.00
FUTURE EDUs SERVED SCORE	0.00
PER CAPITA COST SCORE	0.00

DATA INVENTORY FOR MONROE TO VICT. LAKE COLL

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	1
PROJECT NAME	MONROE TO VICT. LAKE COLL
FACILITY NAME	
AGENCY/APPLICANT CONTACT	JACQUELINE SCHOENEWALD
AGENCY/APPLICANT STREET ADDRESS	372 SOUTH MAIN STREET
AGENCY/APPLICANT CITY, STATE, ZIP CODE	WILLIAMSTOWN,NJ 08094
AGENCY/APPLICANT PHONE NUMBER	609-629-1444
COUNTY	GLOUCESTER
TOWNSHIP	MONROE
REGIONAL GROWTH AREA	MONROE TWP.
BRIEF PROJECT DESCRIPTION	INT. VICT. LAKES, COLL. S
PROJECT COST	5207500
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	LOAN
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #1	50
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #2	50
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION	
TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	975
FLOW FROM PRESENT UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.22
PRESENT UN-SEWERED POPULATION	
TO BE SERVED BY THE PROJECT	2993
PRESENT SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT	
IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA	
TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs	
NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN	
RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE	
SERVED BY THE PROJECT	13029
FLOW FROM THE FUTURE EDUs TO BE	
SERVED BY THE PROJECT	3.00
FUTURE POPULATION	39999
PERSONS PER EDU	3.07
PRESENT USER CHARGE ($)	194.00
FUTURE USER CHARGE ($)	0.00

START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	201/208
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	N
REACH NAME	GREAT EGG HARBOR RIVER
DISSOLVED OXYGEN STANDARD (mg/l)	5.0
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	0.04
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	FW2-NT
LOW FLOW	8.4
COMMENT	
DEVELOPABLE AREA	3950
SERVICE AREA	-98
PDC CAPACITY (EDUs)	12328
PDC CAPACITY (MGD)	2.84
ONSITE PROBLEMS (P,L,N)	P
UNMET NEEDS (EDUs)	274
UNMET NEEDS (MGD)	0
PER CENT UNMET NEEDS	2
RESERVE CAPACITY (EDUs)	12054
RESERVE CAPACITY OF (MGD)	2.78
RANKING SCORE	84.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	Y
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	15.00
EXISTING UNSEWERED DUs SERVED SCORE	9.00
PROJECT STATUS SCORE	4.00
UNMET BUILD-OUT NEED SCORE	20.00
FUTURE EDUs SERVED SCORE	20.00
PER CAPITA COST SCORE	16.00

DATA INVENTORY FOR MONROE TO VICT. LAKE COLL

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	1
PROJECT NAME	MONROE TO VICT. LAKE COLL
FACILITY NAME	
AGENCY/APPLICANT CONTACT	JACQUELINE SCHOENEWALD
AGENCY/APPLICANT STREET ADDRESS	372 SOUTH MAIN STREET
AGENCY/APPLICANT CITY, STATE, ZIP CODE	WILLIAMSTOWN,NJ 08094
AGENCY/APPLICANT PHONE NUMBER	609-629-1444
COUNTY	GLOUCESTER
TOWNSHIP	MONROE
REGIONAL GROWTH AREA	MONROE TWP.
BRIEF PROJECT DESCRIPTION	INT. VICT. LAKES, COLL. S
PROJECT COST	5207500
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	LOAN
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #1	50
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #2	50
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION	
TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	975
FLOW FROM PRESENT UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.22
PRESENT UN-SEWERED POPULATION	
TO BE SERVED BY THE PROJECT	2993
PRESENT SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT	
IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA	
TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs	
NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN	
RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE	
SERVED BY THE PROJECT	13029
FLOW FROM THE FUTURE EDUs TO BE	
SERVED BY THE PROJECT	3.00
FUTURE POPULATION	39999
PERSONS PER EDU	3.07
PRESENT USER CHARGE ($)	194.00
FUTURE USER CHARGE ($)	0.00

DATA INVENTORY FOR RIDGEWAY-CABIN BRANCH INT

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	7
PROJECT NAME	RIDGEWAY-CABIN BRANCH INT
FACILITY NAME	
AGENCY/APPLICANT CONTACT	BILL FINE
AGENCY/APPLICANT STREET ADDRESS	OCUA/501 HICKORY LN
AGENCY/APPLICANT CITY, STATE, ZIP CODE	BAYVILLE, NJ 08721
AGENCY/APPLICANT PHONE NUMBER	201-269-4500
COUNTY	OCEAN
TOWNSHIP	JACKSON/MANCHES
REGIONAL GROWTH AREA	JACKSON / MANCHESTER
BRIEF PROJECT DESCRIPTION	NEW INTERCEPTOR
PROJECT COST	6080000
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE	
COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION	
TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	1500
FLOW FROM PRESENT UN-SEWERED DUs	
SERVED BY THE PROJECT INITIALLY	0.37
PRESENT UN-SEWERED POPULATION	
TO BE SERVED BY THE PROJECT	4905
PRESENT SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT	
IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA	
TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA	
SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs	
NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN	
RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE	
SERVED BY THE PROJECT	13500
FLOW FROM THE FUTURE EDUs TO BE	
SERVED BY THE PROJECT	3.31
FUTURE POPULATION	44145
PERSONS PER EDU	3.27
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	0.00

(14)

START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	201/208
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	N
REACH NAME	TOMS RIVER
DISSOLVED OXYGEN STANDARD (mg/l)	6.0
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	0.02
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	FW2-TM
LOW FLOW	37.0
COMMENT	NONE
DEVELOPABLE AREA	3575
SERVICE AREA	0
PDC CAPACITY (EDUs)	15861
PDC CAPACITY (MGD)	3.89
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	3861
UNMET NEEDS (MGD)	1
PER CENT UNMET NEEDS	24
RESERVE CAPACITY (EDUs)	12000
RESERVE CAPACITY OF (MGD)	2.94
RANKING SCORE	70.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	N
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	12.00
PROJECT STATUS SCORE	2.00
UNMET BUILD-OUT NEED SCORE	16.00
FUTURE EDUs SERVED SCORE	20.00
PER CAPITA COST SCORE	20.00

DATA INVENTORY FOR STAFFORD COLLECTION

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	9
PROJECT NAME	STAFFORD COLLECTION
FACILITY NAME	
AGENCY/APPLICANT CONTACT	ROBERT SHEPPARD EX.DIR
AGENCY/APPLICANT STREET ADDRESS	25 PINE STREET
AGENCY/APPLICANT CITY, STATE, ZIP CODE	MANAHAWKIN, NJ 08050
AGENCY/APPLICANT PHONE NUMBER	609-597-7468
COUNTY	OCEAN
TOWNSHIP	STAFFORD
REGIONAL GROWTH AREA	STAFFORD TWP.
BRIEF PROJECT DESCRIPTION	OCEAN ACRES COLL. SYS.
PROJECT COST	11801114
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	1604
FLOW FROM PRESENT UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.33
PRESENT UN-SEWERED POPULATION TO BE SERVED BY THE PROJECT	4395
PRESENT SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE SERVED BY THE PROJECT	4730
FLOW FROM THE FUTURE EDUs TO BE SERVED BY THE PROJECT	0.97
FUTURE POPULATION	12960
PERSONS PER EDU	2.74
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	0.00

START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	201/208
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT	
INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	N
REACH NAME	MILL CREEK
DISSOLVED OXYGEN STANDARD (mg/l)	5.0
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	0.00
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	FW-CPB
LOW FLOW	4.0
COMMENT	ENTIRE COLL.SYS. OCEAN AC
DEVELOPABLE AREA	1500
SERVICE AREA	0
PDC CAPACITY (EDUs)	4032
PDC CAPACITY (MGD)	0.83
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	906
UNMET NEEDS (MGD)	0
PER CENT UNMET NEEDS	22
RESERVE CAPACITY (EDUs)	3126
RESERVE CAPACITY OF (MGD)	0.64
RANKING SCORE	43.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	Y
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	15.00
PROJECT STATUS SCORE	4.00
UNMET BUILD-OUT NEED SCORE	16.00
FUTURE EDUs SERVED SCORE	8.00
PER CAPITA COST SCORE	0.00

DATA INVENTORY FOR STAFFORD SKELETON

VARIABLE NAME	PROJECT DATA
PROJECT IDENTIFICATION NUMBER	8
PROJECT NAME	STAFFORD SKELETON
FACILITY NAME	
AGENCY/APPLICANT CONTACT	ROBERT SHEPPARD EX.DIR
AGENCY/APPLICANT STREET ADDRESS	25 PINE STREET
AGENCY/APPLICANT CITY, STATE, ZIP CODE	MANAHAWKIN,NJ 08050
AGENCY/APPLICANT PHONE NUMBER	609-597-7468
COUNTY	OCEAN
TOWNSHIP	STAFFORD
REGIONAL GROWTH AREA	STAFFORD TWP.
BRIEF PROJECT DESCRIPTION	OCEAN ACRES SKEL. COL. SY
PROJECT COST	4800006
ANTICIPATED FUNDING SOURCE #1	PITBA
ANTICIPATED FUNDING SOURCE #2	
ANTICIPATED FUNDING SOURCE #3	
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #1	99
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #2	0
ANTICIPATED PERCENTAGE COVERED BY FUNDING SOURCE #3	0
PRESENT NUMBER OF SEWERED DUs SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.00
PRESENT SEWERED POPULATION TO BE THE SERVED BY THE PROJECT	0
PRESENT NUMBER OF UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	760
FLOW FROM PRESENT UN-SEWERED DUs SERVED BY THE PROJECT INITIALLY	0.16
PRESENT UN-SEWERED POPULATION TO BE SERVED BY THE PROJECT	2082
PRESENT SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT SEWERED DUs NOT IN RGA SERVED BY PROJ. INITIALLY	0.00
PRESENT SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
PRESENT UN-SEWERED DUs NOT IN RGA SERVED BY THE PROJECT INITIALLY	0
FLOW FROM PRESENT UN-SEWERED DUs NOT IN RGA SERVED INITIALLY	0.00
PRESENT UN-SEWERED POP. NOT IN RGA TO BE SERVED BY THE PROJECT	0
FUTURE NUMBER OF EDUs TO BE SERVED BY THE PROJECT	1910
FLOW FROM THE FUTURE EDUs TO BE SERVED BY THE PROJECT	0.39
FUTURE POPULATION	5233
PERSONS PER EDU	2.74
PRESENT USER CHARGE ($)	0.00
FUTURE USER CHARGE ($)	0.00

START DATE	/ /
COMPLETION DATE	/ /
TYPE OF WATER QUALITY PLANNING	201/208
CONFORMANCE WITH PLANNING	Y
WATER QUALITY PROBLEM	N
EXISTING FLOW OF SEWAGE TREATMENT PLANT	N/A
PRESENT DESIGN OF SEWAGE TREATMENT PLANT	N/A
PROJECTED DESIGN OF SEWAGE TREATMENT PLANT	N/A
EXISTING GALLONS PER CAPITA PER DAY	N/A
DESIGN GALLONS PER CAPITA PER DAY	N/A
FUTURE GALLONS PER CAPITA PER DAY	N/A
PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT SUSPENDED SOLIDS CONCENTRATION (mg/l)	N/A
PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)	N/A
PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)	N/A
FACILITY RECEIVING FLOW FROM THE PROJECT INDICATION OF ABILITY OF RECEIVING STREAM TO HANDLE THE PROJECT FLOW	0.00
INDICATION OF WATER QUALITY PROBLEM AT THE RECEIVING FACILITY (Y/N)	N
REACH NAME	MILL CREEK
DISSOLVED OXYGEN STANDARD (mg/l)	5.0
MEETING DISSOLVED OXYGEN STANDARD? (Y/N)	
AMMONIA STANDARD (mg/l)	0.00
MEETING AMMONIA STANDARD? (Y/N)	
STREAM USE	FW-CPB
LOW FLOW	4.0
COMMENT	OCEAN ACRES,STAFFORD PORT
DEVELOPABLE AREA	1500
SERVICE AREA	0
PDC CAPACITY (EDUs)	4032
PDC CAPACITY (MGD)	0.83
ONSITE PROBLEMS (P,L,N)	N
UNMET NEEDS (EDUs)	2882
UNMET NEEDS (MGD)	1
PER CENT UNMET NEEDS	71
RESERVE CAPACITY (EDUs)	1150
RESERVE CAPACITY OF (MGD)	0.23
RANKING SCORE	20.00
CONCEPTUAL PLANNING (Y/N)	Y
PRELIMINARY PLANNING (Y/N)	Y
WATER QUALITY PLANNING (Y/N)	N
PRELIMINARY ENGINEERING (Y/N)	Y
FINAL ENGINEERING (Y/N)	N
PERMITS OBTAINED (Y/N)	N
PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE	0.00
EXISTING UNSEWERED DUs SERVED SCORE	6.00
PROJECT STATUS SCORE	4.00
UNMET BUILD-OUT NEED SCORE	6.00
FUTURE EDUs SERVED SCORE	4.00
PER CAPITA COST SCORE	0.00

APPENDIX B: SOFTWARE DOCUMENTATION AND SOURCE LISTINGS

This appendix contains the DBASE source code and a description of the programs involved in the Pinelands Data Management System. It should be noted that no code is listed for the four (4) report forms (*.FRM) contained in the system as they are stored internally in a non-readable fashion. These four files are necessary for a fully functional system.

The following program brings the user into the database system with the START command. It also paints the initial screen and closes all files after a database function is performed. It is called START.PRG.

```
* START.PRG
SET COLOR TO GR+/ ,W/R,W
CLEAR
@ 1,35 SAY "WELCOME"
@ 2,37 SAY "to"
@ 3,13 SAY "THE PINELANDS DATA MANAGEMENT AND EVALUATION SYSTEM"
SET COLOR TO W/B
@ 5,24 SAY ")  )"
SET COLOR TO G/
@ 5,50 SAY "*"
SET COLOR TO W/B
@ 6,25 SAY ")  )"
SET COLOR TO G/
@ 6,37 SAY "*           ***"
@ 7,16 SAY "*"
SET COLOR TO W/B
@ 7,26 SAY ") "
SET COLOR TO G/
@ 7,28 SAY "*"
SET COLOR TO W/B
@ 7,29 SAY " )"
SET COLOR TO G/
@ 7,36 SAY "***         *****"
@ 8,15 SAY "***"
SET COLOR TO G/
@ 8,27 SAY "***"
SET COLOR TO W/B
@ 8,30 SAY "  )"
SET COLOR TO G/
@ 8,35 SAY "*****       *******       *"
@ 9,14 SAY "*****       *****"
SET COLOR TO W/B
@ 9,31 SAY "  )"
SET COLOR TO G/
@ 9,34 SAY "*******     *********     ***"
@ 10,13 SAY "*******     *******"
SET COLOR TO W/B
@ 10,32 SAY " "
SET COLOR TO G/
```

```
@ 10,33 SAY "*********         *         *****"
@ 11,12 SAY "*********        *    ***********       *    *    *******"
@ 12,11 SAY "***********    *   *"
SET COLOR TO W/B
@ 12,36 SAY ")"
SET COLOR TO G/
@ 12,37 SAY "*"
SET COLOR TO W/B
@ 12,38 SAY "      )"
SET COLOR TO G/
@ 12,50 SAY "*  *** *********"
@ 13,16 SAY "*        ***           *"
SET COLOR TO W/B
@ 13,38 SAY "        )"
SET COLOR TO G/
@ 13,52 SAY "*****     *"
@ 14,16 SAY "*       *****          *"
SET COLOR TO W/B
@ 14,38 SAY ")         )"
SET COLOR TO G/
@ 14,51 SAY "*******    *"
@ 15,25 SAY "*             *"
SET COLOR TO W/B
@ 15,39 SAY ")          )"
SET COLOR TO G/
@ 15,54 SAY "*       *"
SET COLOR TO W/B
@ 16,40 SAY ")           )"
SET COLOR TO G/
@ 16,54 SAY "*"
SET COLOR TO G+
@ 18,26 SAY "DESIGNED AND DEVELOPED BY"
@ 19,29 SAY "ROY F. WESTON INC."
@ 21,26 SAY "press any key to continue"
WAIT "" TO PAUSE
PUBLIC
STORE " " TO DEST
DO WHILE UPPER(DEST) <> 'Q'
DO WHILE UPPER(DEST) <> 'Q'
   CLOSE FORMAT
   CLOSE PROCEDURE
   CLOSE DATABASES
   SET COLOR TO W+/B,W/R,W+
   CLEAR
   DO MENU
   EXIT
ENDDO
ENDDO
CLOSE PROCEDURE
RETURN
```

The following is called by all of the data function program and is used to paint the appropiate display screens. It also routes the screens to the printer if the user specifies it. It is

called DISPLAY.PRG. This file functions as a DBASE procedure file.

```
PROCEDURE POPOUT * A:POPOUT.PRG
CLEAR
IF UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'A'
   @ 12,22 SAY "PRINTING POPULATION/NEEDS DATA"
   SET DEVICE TO PRINT
   EJECT
ENDIF
@ 1,26 SAY "-------------------------"
@ 2,26 SAY "FUNDING/POPULATION SCREEN"
@ 3,26 SAY "-------------------------"
@ 5,2 SAY "PROJECT NAME -"
@ 5,18 SAY projname
@ 5,47 SAY "DEVELOPABLE LAND   -"
@ 5,69 SAY devarea
@ 6,2 SAY "RGA      -"
@ 6,14 SAY rga
@ 6,47 SAY "SERVICE AREA       -"
@ 6,69 SAY serarea
@ 7,2 SAY "COUNTY   -"
@ 7,14 SAY county
@ 7,47 SAY "PDC CAPACITY (DUs) -"
@ 7,69 SAY pdccap
@ 8,2 SAY "TOWNSHIP -"
@ 8,14 SAY township
@ 8,47 SAY "UNMET NEEDS (EDUs) -"
@ 8,69 SAY unmet
@ 9,47 SAY "UNMET NEEDS  (MGD) -"
@ 9,69 SAY unmetf
@ 10,1 SAY "TOTAL PROJECT COST ($) -"
@ 10,26 SAY projcost
@ 10,47 SAY "% UNMET EDUs       -"
@ 10,69 SAY pctunmet
@ 11,1 SAY "PRESENT USER CHARGE    -"
@ 11,26 SAY puserchar
@ 12,1 SAY "PROJECTED USER CHARGE  -"
@ 12,26 SAY fuserchar
@ 12,47 SAY "PERSONS PER EDU    -"
@ 12,70 SAY ppedu
@ 14,5 SAY "FUNDING     PERCENT                                  EDUs"
@ 14,68 SAY "FLOW"
@ 15,5 SAY "SOURCES     FUNDING         PROJECT CAPACITY -"
@ 15,52 SAY housfut
@ 15,64 SAY housfutf
@ 16,5 SAY "-------     -------"
@ 17,1 SAY "1)"
@ 17,5 SAY fundsrc1
@ 17,19 SAY fundper1
@ 17,44 SAY "EXISTING CAPACITY DATA"
@ 18,1 SAY "2)"
@ 18,5 SAY fundsrc2
@ 18,19 SAY fundper2
@ 18,44 SAY "----------------------"
```

```
@ 19,1 SAY "3)"
@ 19,5 SAY fundsrc3
@ 19,19 SAY fundper3
@ 19,36 SAY "RGA          RGA        NON-RGA      NON-RGA"
@ 20,34 SAY "SEWERED   NON-SEWERED   SEWERED   NON-SEWERED"
@ 21,28 SAY "EDUs"
@ 21,34 SAY houspres
@ 21,46 SAY housnpres
@ 21,58 SAY housnrga
@ 21,70 SAY housnnrga
@ 22,27 SAY "PEOPLE"
@ 22,33 SAY prespop
@ 22,45 SAY nprespop
@ 22,57 SAY nrgapop
@ 22,69 SAY nnrgapop
IF .NOT. EOF()
   SKIP 1
ENDIF
SET DEVICE TO SCREEN
RETURN
PROCEDURE EFFLUOUT * A:EFFLUOUT.PRG
CLEAR
IF UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'A'
   @ 12,22 SAY "PRINTING PROJECT TECHNICAL DATA"
   SET DEVICE TO PRINT
   EJECT
ENDIF
@ 1,25 SAY "----------------------------"
@ 2,25 SAY "ENVIRO-TECHNICAL DATA SCREEN"
@ 3,25 SAY "----------------------------"
@ 5,1 SAY "PROJECT ID    -"
@ 5,17 SAY projid
@ 5,47 SAY "LOCAL W.Q. PROBLEMS  - "
@ 5,70 SAY wqproblem
@ 6,1 SAY "PROJECT NAME -"
@ 6,17 SAY projname
@ 6,47 SAY "RECEIVING WQ PROBLEM - "
@ 6,70 SAY rcvwqprob
@ 7,1 SAY "RGA       -"
@ 7,13 SAY rga
@ 7,47 SAY "ONSITE W.Q. PROBLEMS - "
@ 7,70 SAY onsite
@ 8,1 SAY "COUNTY    -"
@ 8,13 SAY county
@ 9,1 SAY "TOWNSHIP -"
@ 9,13 SAY township
@ 9,54 SAY "CONCEPT       - "
@ 9,70 SAY concept
@ 10,54 SAY "PRE-PLANNING - "
@ 10,70 SAY preplan
@ 11,1 SAY "FACILITY RECEIVING FLOW - "
@ 11,28 SAY rcvfac
@ 11,54 SAY "W.Q.PLANNING - "
@ 11,70 SAY wqplan
@ 12,1 SAY "FACILITY FLOW RECEIVED  - "
```

```
@ 12,28 SAY rcvfaccap
@ 12,54 SAY "PRELIM. ENG. - "
@ 12,70 SAY preeng
@ 13,54 SAY "FINAL ENG.   - "
@ 13,70 SAY fineng
@ 14,54 SAY "PERMITS      - "
@ 14,70 SAY permits
@ 16,10 SAY "PARAMETER        EXISTING          DESIGN          FUTU"
@ 16,65 SAY "RE"
@ 17,12 SAY "FLOW"
@ 17,27 SAY existqt
@ 17,44 SAY designqt
@ 17,59 SAY futureqt
@ 18,12 SAY "GPCD"
@ 18,28 SAY egpcd
@ 18,45 SAY dgpcd
@ 18,60 SAY fgpcd
@ 19,12 SAY "BOD5"
@ 19,29 SAY ebod
@ 19,46 SAY dbod
@ 19,61 SAY fbod
@ 20,13 SAY "SS"
@ 20,29 SAY ess
@ 20,46 SAY dss
@ 20,61 SAY fss
@ 21,9 SAY "PHOSPHOROUS"
@ 21,29 SAY ephos
@ 21,46 SAY dphos
@ 21,61 SAY fphos
@ 22,13 SAY "NH3"
@ 22,29 SAY enh3
@ 22,46 SAY dnh3
@ 22,61 SAY fnh3
IF .NOT. EOF()
   SKIP 1
ENDIF
SET DEVICE TO SCREEN
RETURN
PROCEDURE LOCATOUT * A:LOCATOUT.PRG
CLEAR
IF UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'A'
   @ 12,19 SAY "PRINTING FACILITY IDENTIFICATION DATA"
   SET DEVICE TO PRINT
   EJECT
ENDIF
@ 1,24 SAY "----------------------------"
@ 2,24 SAY "PROJECT IDENTIFICATION SCREEN"
@ 3,24 SAY "----------------------------"
@ 4,1 SAY "PROJECT ID     -"
@ 4,18 SAY projid
@ 4,44 SAY "CONTACT -"
@ 4,55 SAY agcontact
@ 5,1 SAY "PROJECT NAME  -"
@ 5,18 SAY projname
@ 5,44 SAY "ADDRESS -"
```

```
@ 5,55 SAY agaddress
@ 6,1 SAY "FACILITY NAME -"
@ 6,18 SAY facname
@ 6,52 SAY "-"
@ 6,55 SAY agaddres2
@ 7,1 SAY "COUNTY         -"
@ 7,18 SAY county
@ 7,44 SAY "PHONE    -"
@ 7,55 SAY agphone
@ 8,1 SAY "TOWNSHIP       -"
@ 8,18 SAY township
@ 9,1 SAY "PROJECT CODE  -"
@ 9,18 SAY projcode
@ 9,52 SAY "START  DATE    -"
@ 9,69 SAY stardate
@ 10,1 SAY "PROJECT DESCRIPTION    -"
@ 10,26 SAY projdesc
@ 10,52 SAY "FINISH DATE    -"
@ 10,69 SAY compdate
@ 11,1 SAY "REGIONAL GROWTH AREA  -"
@ 11,26 SAY rga
@ 11,52 SAY "AREA PLANNING -"
@ 11,69 SAY areaplan1
@ 12,52 SAY "PLANNING TYPE -"
@ 12,69 SAY plantype1
@ 13,1 SAY "COMMENT -"
@ 13,11 SAY comment
@ 13,52 SAY "PLANNING CONF -"
@ 13,69 SAY planconf1
@ 15,27 SAY "LOCAL WATERBODY DATA"
@ 16,27 SAY "--------------------"
@ 17,1 SAY "REACH NAME       -"
@ 17,20 SAY reachnam
@ 17,51 SAY "D.O. STANDARD  -"
@ 17,69 SAY dostd
@ 18,1 SAY "LOW FLOW         -"
@ 18,20 SAY lowq
@ 18,51 SAY "STANDARD MEET  -"
@ 18,69 SAY meetdo
@ 19,1 SAY "STREAM USE CODE -"
@ 19,20 SAY struse
@ 19,51 SAY "NH3 STANDARD    -"
@ 19,69 SAY nh3std
@ 20,51 SAY "STANDARD MEET  -"
@ 20,69 SAY meetnh3
IF .NOT. EOF()
   SKIP 1
ENDIF
SET DEVICE TO SCREEN
RETURN
```

The following program is the core of the database system. It creates most of the menus (especially the opening and selection criteria menus) and calls the appropiate program. It is also

responsible for prompting the user to enter the screening variable and passing that variable on to the next program. This program is automatically called by START.PRG. This program is listed as MENU.PRG.

```
*A:MENU.PRG
SET ECHO OFF
SET TALK OFF
RELEASE ALL
CLEAR
PUBLIC
@ 2,31 SAY "** OPENING MENU **"
@ 5,14 SAY "ENTER THE CORRESPONDING LETTER OF THE DESIRED FUNCTION"
@ 8,13 SAY "DATA FUNCTIONS                          FILE FUNCTIONS"
@ 9,12 SAY "-----------------                      -------------------------"
@ 10,13 SAY "A. APPEND DATA                        L. LOAD DATA FROM DISKETTE"
@ 11,13 SAY "D. DISPLAY DATA                       U. UNLOAD DATA TO DISKETTE"
@ 12,13 SAY "E. EDIT DATA"
@ 13,13 SAY "P. PRINT DATA"
@ 15,28 SAY "SYSTEM FUNCTIONS"
@ 16,20 SAY "-------------------------------------"
@ 17,21 SAY "C. UNMET NEEDS CALCULATION SUBSYSTEM"
@ 18,21 SAY "R. RANKING SUBSYSTEM"
@ 19,21 SAY "G. REPORTS GENERATION SUBSYSTEM"
@ 20,21 SAY "Q. QUIT TO DBASE III"
@ 21,32 SAY " "
WAIT "                                  CHOICE = " TO DEST
STORE 'X' TO MPRINT
   IF UPPER(DEST) = 'A'
      SET COLOR TO GR/B,W/R,BR
      CLEAR
      USE PINELAND
      SET FORMAT TO LOCATEIN
      APPEND BLANK
      GOTO BOTTOM
      CHANGE NEXT 1
      @ 21,1 SAY ""
@ 23,7 SAY "ADDITIONAL DATA ELEMENTS CAN NOW BE ADDED WITH THE EDIT FUNCTION"
      WAIT "                                press any key" TO PAUSE
      RETURN
   ENDIF
   IF UPPER(DEST) = 'P'
        SET COLOR TO GR/B,W/R,
        CLEAR
        @ 5,7 SAY "ENTER THE CORRESPONDING LETTER FOR THE APPROPIATE DATA"
        @ 5,62 SAY "DESTINATION"
        @ 9,32 SAY "A: PRINTER"
        @ 10,32 SAY "B: DISKETTE"
        @ 11,1 SAY " "
        WAIT "                                    CHOICE = " TO MPRINT
        DO CASE
           CASE UPPER(MPRINT) = 'A'
             CLEAR
           CASE UPPER(MPRINT) = 'B'
             @ 16,1 SAY " "
```

```
  WAIT "                                DISK DRIVE (A,B,C) = " TO MDRIVE
            STORE UPPER(MDRIVE) TO MDRIVE
            IF MDRIVE <> 'A' .AND. MDRIVE <> 'B' .AND. MDRIVE <> 'C'
               @ 19,20 SAY "DRIVE MUST BE A,B,C - PRESS ANY KEY"
               WAIT "" TO PAUSE
               RETURN
            ENDIF
            @ 18,1 SAY " "
  ACCEPT "                            FILENAME (8 CHARACTERS MAX.) = " TO MFILE
            IF LEN(MFILE) = 0 .OR. LEN(MFILE) > 8
               @ 22,22 SAY "ILLEGAL FILENAME - PRESS ANY KEY"
               WAIT "" TO PAUSE
               RETURN
            ENDIF
            SET ALTERNATE TO &MDRIVE:&MFILE
          OTHERWISE
            RETURN
       ENDCASE
ENDIF
CLEAR
STORE UPPER(DEST) TO DEST
IF DEST = 'D' .OR. DEST = 'E' .OR. DEST = 'P'
   SET COLOR TO W/B,W/R,W
   CLEAR
   @ 2,23 SAY "** SELECTION CRITERIA MENU **"
   @ 4,6 SAY "ENTER THE CORRESPONDING LETTER FOR THE DESIRED SCREENIN"
   @ 4,61 SAY "G CRITERION"
   @ 7,6 SAY "SCREEN BY FACILITY DATA                SCREEN BY GEOGRA"
   @ 7,61 SAY "PHICAL DATA"
   @ 8,5 SAY "------------------------               ----------------"
   @ 8,60 SAY "-------------"
   @ 9,5 SAY "A) PROJECT IDENTIFICATION NUMBER        E) TOWNSHIP "
   @ 10,5 SAY "B) PROJECT NAME                         F) COUNTY"
   @ 11,5 SAY "C) FACILITY NAME                        G) REGIONAL GRO"
   @ 11,60 SAY "WTH AREA"
   @ 12,5 SAY "D) PROJECT CODE"
   @ 15,27 SAY "SCREEN BY LOCAL WATERBODY"
   @ 16,26 SAY "--------------------------"
   @ 17,27 SAY "H) REACH NAME"
   @ 19,27 SAY "Z) RETURN TO OPENING MENU"
   @ 21,29 SAY " "
   WAIT "                                  CHOICE = " TO SELECT
   DO CASE
      CASE UPPER(SELECT) = 'A'
        SET COLOR TO GR/B,W/R,GR+
        CLEAR
        @ 11,19 SAY "   ENTER PROJECT IDENTIFICATION NUMBER:    "
        @ 12,13 SAY " "
        INPUT "                                    " TO STPROJID
        DO PROJID
      CASE UPPER(SELECT) = 'B'
        SET COLOR TO GR/B,W/R,GR+
        CLEAR
        @ 11,14 SAY "       ENTER PROJECT NAME (full/partial name): "
        @ 12,13 say " "
```

```
      ACCEPT "                                        " TO STPROJN
      DO PROJNAME
    CASE UPPER(SELECT) = 'C'
      SET COLOR TO GR/B,W/R,GR+
      CLEAR
      @ 11,14 SAY " ENTER MUNICIPAL FACILITY NAME (full/partial name):"
      ACCEPT "                                    " TO STPNAME
      DO POTWNAME
    CASE UPPER(SELECT) = 'D'
      SET COLOR TO GR/B,W/R,GR+
      CLEAR
      @ 3,12 SAY "ENTER THE APPROPIATE PROJECT CODE FROM THE "
      @ 3,56 SAY "FOLLOWING LIST"
      @ 7,24 SAY "1)     TREATMENT PLANT (EXPANSION)"
      @ 8,24 SAY "2)     TREATMENT PLANT (UPGRADE)"
      @ 9,24 SAY "3)     TREATMENT PLANT (OTHER)"
      @ 10,24 SAY "4)     NEW COLLECTION SYSTEM"
      @ 11,24 SAY "5)     NEW INTERCEPTOR SYSTEM"
      @ 12,24 SAY "6)     ON-SITE SYSTEM UPGRADE"
      @ 15,32 SAY " "
      INPUT "                                      CHOICE = " TO STPROJC
      DO PROJCODE
    CASE UPPER(SELECT) = 'E'
      SET COLOR TO GR/B,W/R,GR+
      CLEAR
      @ 11,18 SAY " ENTER TOWNSHIP NAME (full/partial name):"
      @ 12,13 SAY " "
      ACCEPT "                                  " TO STTOWN
      DO TOWNSHIP
    CASE UPPER(SELECT) = 'F'
      SET COLOR TO GR/B,W/R,GR+
      CLEAR
      @ 11,20 SAY " ENTER COUNTY NAME (full/partial name):"
      @ 12,13 SAY " "
      ACCEPT "                                  " TO STCOUNTY
      DO COUNTY
    CASE UPPER(SELECT) = 'G'
      SET COLOR TO GR/B,W/R,GR+
      CLEAR
      @ 11,13 SAY " ENTER REGIONAL GROWTH AREA NAME (full/partial name):"
      @ 12,13 SAY " "
      ACCEPT "                                  " TO STRGA
      DO RGA
    CASE UPPER(SELECT) = 'H'
      SET COLOR TO GR/B,W/R,GR+
      CLEAR
      @ 11,23 SAY " ENTER REACH NAME (full/partial name):"
      @ 12,13 SAY " "
      ACCEPT "                                   " TO STRNAME
      DO REACHNAM
    OTHERWISE
      RETURN
ENDCASE
IF DEST = 'E'
   SET COLOR TO GR/B,W/R,RB
```

```
      CLEAR
      @ 11,16 SAY  "IT IS RECOMMENDED THAT UNMET NEEDS BE RECALCULATED"
      @ 13,30 SAY "RECALCULATE ? (Y/N)"
      WAIT "" TO PAUSE
      IF UPPER(PAUSE) <> 'Y'
         RETURN
      ENDIF
      DO UNMET
   ENDIF
   RETURN
ENDIF
IF UPPER(DEST) = 'C'
   DO UNMET
   RETURN
ENDIF
IF UPPER(DEST) = 'L' .OR. UPPER(DEST) = 'U'
   SET COLOR TO GR/B,W/R,RB
   IF UPPER(DEST) = 'U'
      CLEAR
      @ 6,21 SAY "INSERT DESTINATION DISKETTE IN DRIVE:A"
      @ 10,29 SAY "PRESS 'C' TO CONTINUE"
      @ 13,26 SAY "PRESS ANY OTHER KEY TO ABORT"
      ?
      ?
      WAIT "" TO PAUSE
      IF UPPER(PAUSE) <> 'C'
         RETURN
      ENDIF
      @ 15,1 CLEAR
ACCEPT "         ENTER DESTINATION FILE NAME (INCLUDE EXTENSION):" TO MFILE
      CLEAR
      @ 12,27 SAY "UNLOADING PINELANDS DATABASE"
      USE PINELAND
      COPY TO A:&MFILE SDF
      RETURN
      ENDIF
      IF UPPER(DEST) = 'L'
         SET COLOR TO  /+GR,W/R,*R
         CLEAR
         @ 6,32 SAY "***  WARNING  ***"
   @ 10,12 SAY "ALL ENTRIES PRESENTLY IN THE DATABASE WILL BE REPLACED"
   @ 15,11 SAY "INSERT DATA DISKETTE IN DRIVE:A AND PRESS 'C' TO CONTINUE"
   @ 18,26 SAY "PRESS ANY OTHER KEY TO ABORT"
         ?
         WAIT "" TO PAUSE
         IF UPPER(PAUSE) <> 'C'
            SET COLOR TO GR/B,W/R,G
            RETURN
         ENDIF
         @ 19,1 CLEAR
ACCEPT "           ENTER DATA FILE NAME (INCLUDE EXTENSION): " TO  MFILE
         SET COLOR TO GR/B,W/R,G
         CLEAR
         @ 12,27 SAY "LOADING PINELANDS DATABASE"
         USE PINELAND
```

```
         SET SAFETY OFF
         ZAP
         APPEND FROM A:&MFILE SDF
      ENDIF
   ENDIF
   IF UPPER(DEST) = 'R'
      SET COLOR TO GR/B,W/R,GR+
      CLEAR
      DO RANKING
      RETURN
   ENDIF
   IF UPPER(DEST) = 'G'
      SET COLOR TO GR/B,W/R,GR+
      CLEAR
      DO REPORT
      RETURN
   ENDIF
return
```

This program, REPORT.PRG, is called from MENU.PRG when the user selects to enter the report generating subsystem. It prompts the user for which of the five standard reports he would like to generate and if the report should be sent to the printer or to a disk file. If the user selects the ranking report the program creates another database, sorted by the variable SCORE, and writes the report from that database. If the user selects to print the datasheets, this programs calls PINEDATA.PRG.

```
* REPORT.PRG
STORE "Y" TO AGAIN
DO WHILE AGAIN <> "N"
   CLEAR
   @ 2,29 SAY "REPORTS SUBSYSTEM"
   @ 3,29 SAY "-----------------"
   @ 5,4 SAY "ENTER THE APPROPIATE LETTER FOR THE INFORMATION YOU WOU"
   @ 5,59 SAY "LD LIKE REPORTED"
   @ 8,17 SAY "A. INVENTORY MANAGEMENT REPORT (PART 1) "
   @ 10,17 SAY "B. INVENTORY MANAGEMENT REPORT (PART 2) "
   @ 12,17 SAY "C. REPORT ON RANKING SCORES FOR EACH PROJECT "
   @ 14,17 SAY "D. REPORT ON UNMET NEEDS "
   @ 16,17 SAY "E. PRINT DATASHEETS FOR ALL PROJECTS"
   @ 18,32 SAY " "
   WAIT "                                CHOICE = " TO REPORTS
   STORE UPPER(REPORTS) TO REPORTS
   IF ASC(REPORTS) > 69 .OR. ASC(REPORTS) < 65
      @ 22,22 SAY "ILLEGAL REPORT - PRESS ANY KEY "
      WAIT "" TO PAUSE
      RETURN
   ENDIF
   STORE 'P' TO MPRINT
   IF REPORTS <> 'E'
      SET COLOR TO GR/B,W/R,W
      CLEAR
      @ 6,9 SAY "WOULD YOU LIKE THE REPORT SENT TO THE PRINTER OR TO DIS"
```

```
   @ 6,64 SAY "KETTE ?"
   @ 8,32 SAY "D. DISKETTE"
   @ 9,32 SAY "P. PRINTER"
   @ 11,32 SAY " "
   WAIT "                                    CHOICE = " TO MPRINT
ENDIF
USE PINELAND
DO CASE
   CASE UPPER(MPRINT) = 'P'
        CLEAR
        DO CASE
           CASE REPORTS = 'A'
                REPORT FORM DATAI TO PRINT
           CASE REPORTS = 'B'
                REPORT FORM DATAII TO PRINT
           CASE REPORTS = 'C'
                @ 12,22 SAY "*** SORTING DATA BY FINAL SCORE ***"
                SET FILTER TO PROJID > 0
                SORT ALL TO SORTED ON SCORE /D,PROJID /D
                USE SORTED
                REPORT FORM RANK TO PRINT
                USE PINELAND
                ERASE SORTED.DBF
           CASE REPORTS = 'D'
                REPORT FORM UNMET TO PRINT
           CASE REPORTS = 'E'
                DO PINEDATA
           OTHERWISE
                RETURN
        ENDCASE
   CASE UPPER(MPRINT) = 'D'
   @ 16,1 SAY " "
   WAIT "                          DISK DRIVE (A,B,C) =  " TO MDRIVE
   STORE UPPER(MDRIVE) TO MDRIVE
   IF MDRIVE <> 'A' .AND. MDRIVE <> 'B' .AND. MDRIVE <> 'C'
      @ 19,20 SAY "DRIVE MUST BE A,B,C - PRESS ANY KEY"
      WAIT "" TO PAUSE
      RETURN
   ENDIF
   @ 18,1 SAY " "
   ACCEPT "                             FILENAME (8 CHARACTERS MAX.) = " TO MFILE
   IF LEN(MFILE) = 0 .OR. LEN(MFILE) > 8
      @ 22,22 SAY "ILLEGAL FILENAME - PRESS ANY KEY"
      WAIT "" TO PAUSE
      RETURN
   ENDIF
   SET ALTERNATE TO &MDRIVE:&MFILE
   DO CASE
      CASE REPORTS = 'A'
           SET ALTERNATE ON
           REPORT FORM DATAI
           SET ALTERNATE OFF
      CASE REPORTS = 'B'
           SET ALTERNATE ON
           REPORT FORM DATAII
```

```
            SET ALTERNATE OFF
        CASE REPORTS = 'C'
            CLEAR
            @ 12,22 SAY "*** SORTING DATA BY FINAL SCORE ***"
            SET FILTER TO PROJID > 0
            SORT ALL TO SORTED ON SCORE /D,PROJID /D
            USE SORTED
            SET ALTERNATE ON
            REPORT FORM RANK
            SET ALTERNATE OFF
            USE PINELAND
            ERASE SORTED.DBF
        CASE REPORTS = 'D'
            SET ALTERNATE ON
            REPORT FORM UNMET
            SET ALTERNATE OFF
        OTHERWISE
            SET ALTERNATE OFF
            RETURN
      ENDCASE
    OTHERWISE
        RETURN
    ENDCASE
    SET FILTER TO
    CLEAR
    @ 12,16 SAY "WOULD YOU LIKE TO GENERATE ANOTHER REPORT (Y/N) ? "
    WAIT "" TO AGAIN
    STORE UPPER(AGAIN) TO AGAIN
ENDDO
    RETURN
```

This program, PINEDATA.PRG, is called from the program REPORT.PRG and will print a vertical listing of all data elements for all facilities with a brief data element description.

```
* PINEDATA.PRG
USE PINELAND
SET COLOR TO GR/B,W/R,BG
CLEAR
@ 12,24 SAY "PRINTING PINELANDS DATA SHEETS"
GO TOP
SET DEVICE TO PRINT
DO WHILE .NOT. EOF()
    EJECT
    @ 1,6 SAY "DATA INVENTORY FOR"
    @ 1,26 SAY PROJNAME
    @ 4,11 SAY "VARIABLE                                    PROJECT"
    @ 5,13 SAY "NAME                                       DATA"
    @ 6,11 SAY "________                                    ________"
    @ 8,1 SAY "PROJECT IDENTIFICATION NUMBER"
    @ 8,51 SAY PROJID
    @ 9,1 SAY "PROJECT NAME"
    @ 9,51 SAY PROJNAME
    @ 10,1 SAY "FACILITY NAME"
```

```
@ 10,51 SAY FACNAME
@ 11,1 SAY "AGENCY/APPLICANT CONTACT"
@ 11,51 SAY AGCONTACT
@ 12,1 SAY "AGENCY/APPLICANT STREET ADDRESS"
@ 12,51 SAY AGADDRESS
@ 13,1 SAY "AGENCY/APPLICANT CITY, STATE, ZIP CODE"
@ 13,51 SAY AGADDRES2
@ 14,1 SAY "AGENCY/APPLICANT PHONE NUMBER"
@ 14,51 SAY AGPHONE
@ 15,1 SAY "COUNTY"
@ 15,51 SAY COUNTY
@ 16,1 SAY "TOWNSHIP"
@ 16,51 SAY TOWNSHIP
@ 17,1 SAY "REGIONAL GROWTH AREA"
@ 17,51 SAY RGA
@ 18,1 SAY "BRIEF PROJECT DESCRIPTION"
@ 18,51 SAY PROJDESC
@ 19,1 SAY "PROJECT COST"
@ 19,51 SAY PROJCOST
@ 20,1 SAY "ANTICIPATED FUNDING SOURCE #1"
@ 20,51 SAY FUNDSRC1
@ 21,1 SAY "ANTICIPATED FUNDING SOURCE #2"
@ 21,51 SAY FUNDSRC2
@ 22,1 SAY "ANTICIPATED FUNDING SOURCE #3"
@ 22,51 SAY FUNDSRC3
@ 23,1 SAY "ANTICIPATED PERCENTAGE"
@ 24,1 SAY "COVERED BY FUNDING SOURCE #1"
@ 24,51 SAY FUNDPER1
@ 25,1 SAY "ANTICIPATED PERCENTAGE"
@ 26,1 SAY "COVERED BY FUNDING SOURCE #2"
@ 26,51 SAY FUNDPER2
@ 27,1 SAY "ANTICIPATED PERCENTAGE"
@ 28,1 SAY "COVERED BY FUNDING SOURCE #3"
@ 28,51 SAY FUNDPER3
@ 29,1 SAY "PRESENT NUMBER OF SEWERED DUs"
@ 30,1 SAY "SERVED BY THE PROJECT INITIALLY"
@ 30,51 SAY HOUSPRES
@ 31,1 SAY "FLOW FROM PRESENT SEWERED DUs"
@ 32,1 SAY "SERVED BY THE PROJECT INITIALLY"
@ 32,51 SAY HOUSPRESF
@ 33,1 SAY "PRESENT SEWERED POPULATION"
@ 34,1 SAY "TO BE THE SERVED BY THE PROJECT"
@ 34,51 SAY PRESPOP
@ 35,1 SAY "PRESENT NUMBER OF UN-SEWERED DUs"
@ 36,1 SAY "SERVED BY THE PROJECT INITIALLY"
@ 36,51 SAY HOUSNPRES
@ 37,1 SAY "FLOW FROM PRESENT UN-SEWERED DUs"
@ 38,1 SAY "SERVED BY THE PROJECT INITIALLY"
@ 38,51 SAY HOUSNPRESF
@ 39,1 SAY "PRESENT UN-SEWERED POPULATION"
@ 40,1 SAY "TO BE SERVED BY THE PROJECT"
@ 40,51 SAY NPRESPOP
@ 41,1 SAY "PRESENT SEWERED DUs NOT IN RGA"
@ 42,1 SAY "SERVED BY THE PROJECT INITIALLY"
@ 42,51 SAY HOUSNRGA
```

```
@ 43,1 SAY "FLOW FROM PRESENT SEWERED DUs NOT"
@ 44,1 SAY "IN RGA SERVED BY PROJ. INITIALLY"
@ 44,51 SAY NRGAF
@ 45,1 SAY "PRESENT SEWERED POP. NOT IN RGA"
@ 46,1 SAY "TO BE SERVED BY THE PROJECT"
@ 46,51 SAY NPRESPOP
@ 47,1 SAY "PRESENT UN-SEWERED DUs NOT IN RGA"
@ 48,1 SAY "SERVED BY THE PROJECT INITIALLY"
@ 48,51 SAY HOUSNNRGA
@ 49,1 SAY "FLOW FROM PRESENT UN-SEWERED DUs"
@ 50,1 SAY "NOT IN RGA SERVED INITIALLY"
@ 50,51 SAY NNRGAF
@ 51,1 SAY "PRESENT UN-SEWERED POP. NOT IN"
@ 52,1 SAY "RGA TO BE SERVED BY THE PROJECT"
@ 52,51 SAY NNRGAPOP
@ 53,1 SAY "FUTURE NUMBER OF EDUs TO BE"
@ 54,1 SAY "SERVED BY THE PROJECT"
@ 54,51 SAY HOUSFUT
@ 55,1 SAY "FLOW FROM THE FUTURE EDUs TO BE"
@ 56,1 SAY "SERVED BY THE PROJECT"
@ 56,51 SAY HOUSFUTF
@ 57,1 SAY "FUTURE POPULATION"
@ 57,51 SAY FUTPOP
@ 58,1 SAY "PERSONS PER EDU"
@ 58,51 SAY PPEDU
@ 59,1 SAY "PRESENT USER CHARGE ($)"
@ 59,51 SAY PUSERCHAR
@ 60,1 SAY "FUTURE USER CHARGE ($)"
@ 60,51 SAY FUSERCHAR
@ 66,1 SAY "START DATE"
@ 66,51 SAY STARDATE
@ 67,1 SAY "COMPLETION DATE"
@ 67,51 SAY COMPDATE
@ 68,1 SAY "TYPE OF WATER QUALITY PLANNING"
@ 68,51 SAY PLANTYPE1
@ 69,1 SAY "CONFORMANCE WITH PLANNING"
@ 69,51 SAY PLANCONF1
@ 70,1 SAY "WATER QUALITY PROBLEM"
@ 70,51 SAY WQPROBLEM
@ 71,1 SAY "EXISTING FLOW OF SEWAGE TREATMENT PLANT"
@ 71,51 SAY EXISTQT
@ 72,1 SAY "PRESENT DESIGN OF SEWAGE TREATMENT PLANT"
@ 72,51 SAY DESIGNQT
@ 73,1 SAY "PROJECTED DESIGN OF SEWAGE TREATMENT PLANT"
@ 73,51 SAY FUTUREQT
@ 74,1 SAY "EXISTING GALLONS PER CAPITA PER DAY"
@ 74,51 SAY EGPCD
@ 75,1 SAY "DESIGN GALLONS PER CAPITA PER DAY"
@ 75,51 SAY DGPCD
@ 76,1 SAY "FUTURE GALLONS PER CAPITA PER DAY"
@ 76,51 SAY FGPCD
@ 77,1 SAY "PRESENT EFFLUENT BOD5 CONCENTRATION (mg/l)"
@ 77,51 SAY EBOD
@ 78,1 SAY "DESIGN EFFLUENT BOD5 CONCENTRATION (mg/l)"
@ 78,51 SAY DBOD
```

```
@ 79,1 SAY "FUTURE EFFLUENT BOD5 CONCENTRATION (mg/l)"
@ 79,51 SAY FBOD
@ 80,1 SAY "PRESENT EFFLUENT SUSPENDED SOLIDS"
@ 81,1 SAY "CONCENTRATION (mg/l)"
@ 81,51 SAY ESS
@ 82,1 SAY "DESIGN EFFLUENT SUSPENDED SOLIDS"
@ 83,1 SAY "CONCENTRATION (mg/l)"
@ 83,51 SAY DSS
@ 84,1 SAY "FUTURE EFFLUENT SUSPENDED SOLIDS"
@ 85,1 SAY "CONCENTRATION (mg/l)"
@ 85,51 SAY FSS
@ 86,1 SAY "PRESENT EFFLUENT PHOSPHORUS CONC. (mg/l)"
@ 86,51 SAY EPHOS
@ 87,1 SAY "DESIGN EFFLUENT PHOSPHORUS CONC. (mg/l)"
@ 87,51 SAY DPHOS
@ 88,1 SAY "FUTURE EFFLUENT PHOSPHORUS CONC. (mg/l)"
@ 88,51 SAY FPHOS
@ 89,1 SAY "PRESENT EFFLUENT NH3 CONCENTRATION (mg/l)"
@ 89,51 SAY ENH3
@ 90,1 SAY "DESIGN EFFLUENT NH3 CONCENTRATION (mg/l)"
@ 90,51 SAY DNH3
@ 91,1 SAY "FUTURE EFFLUENT NH3 CONCENTRATION (mg/l)"
@ 91,51 SAY FNH3
@ 92,1 SAY "FACILITY RECEIVING FLOW FROM THE PROJECT"
@ 92,51 SAY RCVFAC
@ 93,1 SAY "INDICATION OF ABILITY OF RECEIVING STREAM"
@ 94,1 SAY " TO HANDLE THE PROJECT FLOW"
@ 94,51 SAY RCVFACCAP
@ 95,1 SAY "INDICATION OF WATER QUALITY PROBLEM AT"
@ 96,1 SAY "THE RECEIVING FACILITY (Y/N)"
@ 96,51 SAY RCVWQPROB
@ 97,1 SAY "REACH NAME"
@ 97,51 SAY REACHNAM
@ 98,1 SAY "DISSOLVED OXYGEN STANDARD (mg/l)"
@ 98,51 SAY DOSTD
@ 99,1 SAY "MEETING DISSOLVED OXYGEN STANDARD? (Y/N)"
@ 99,51 SAY MEETDO
@ 100,1 SAY "AMMONIA STANDARD (mg/l)"
@ 100,51 SAY NH3STD
@ 101,1 SAY "MEETING AMMONIA STANDARD? (Y/N)"
@ 101,51 SAY MEETNH3
@ 102,1 SAY "STREAM USE"
@ 102,51 SAY STRUSE
@ 103,1 SAY "LOW FLOW"
@ 103,51 SAY LOWQ
@ 104,1 SAY "COMMENT"
@ 104,51 SAY COMMENT
@ 105,1 SAY "DEVELOPABLE AREA"
@ 105,51 SAY DEVAREA
@ 106,1 SAY "SERVICE AREA"
@ 106,51 SAY SERAREA
@ 107,1 SAY "PDC CAPACITY (EDUs)"
@ 107,51 SAY PDCCAP
@ 108,1 SAY "PDC CAPACITY (MGD)"
@ 108,51 SAY PDCCAPF
```

```
    @ 109,1 SAY "ONSITE PROBLEMS (P,L,N)"
    @ 109,51 SAY ONSITE
    @ 110,1 SAY "UNMET NEEDS (EDUs)"
    @ 110,51 SAY UNMET
    @ 111,1 SAY "UNMET NEEDS (MGD)"
    @ 111,51 SAY UNMETF
    @ 112,1 SAY "PER CENT UNMET NEEDS"
    @ 112,51 SAY PCTUNMET
    @ 113,1 SAY "RESERVE CAPACITY (EDUs)"
    @ 113,51 SAY RESCAP
    @ 114,1 SAY "RESERVE CAPACITY OF (MGD)"
    @ 114,51 SAY RESCAPF
    @ 115,1 SAY "RANKING SCORE"
    @ 115,51 SAY SCORE
    @ 116,1 SAY "CONCEPTUAL PLANNING (Y/N)"
    @ 116,51 SAY CONCEPT
    @ 117,1 SAY "PRELIMINARY PLANNING (Y/N)"
    @ 117,51 SAY PREPLAN
    @ 118,1 SAY "WATER QUALITY PLANNING (Y/N)"
    @ 118,51 SAY WQPLAN
    @ 119,1 SAY "PRELIMINARY ENGINEERING (Y/N)"
    @ 119,51 SAY PREENG
    @ 120,1 SAY "FINAL ENGINEERING (Y/N)"
    @ 120,51 SAY FINENG
    @ 121,1 SAY "PERMITS OBTAINED (Y/N)"
    @ 121,51 SAY PERMITS
    @ 122,1 SAY "PUBLIC HEALTH/ENVIRONMENTAL QUALITY SCORE"
    @ 122,51 SAY QUALSCOR
    @ 123,1 SAY "EXISTING UNSEWERED DUs SERVED SCORE"
    @ 123,51 SAY EXISCOR
    @ 124,1 SAY "PROJECT STATUS SCORE"
    @ 124,51 SAY STATSCOR
    @ 125,1 SAY "UNMET BUILD-OUT NEED SCORE"
    @ 125,51 SAY PERSCOR
    @ 126,1 SAY "FUTURE EDUs SERVED SCORE"
    @ 126,51 SAY EDUSCOR
    @ 127,1 SAY "PER CAPITA COST SCORE"
    @ 127,51 SAY PCAPSCOR
    SKIP 1
ENDDO
SET DEVICE TO SCREEN
RETURN
```

This program, UNMET.PRG, is called from MENU.PRG in two ways. The first way is when the user selects the option directly from the opening menu. The option to run this program is also given to the user after each record edit. This program calculates unmet needs and also converts dwelling units to populations and flows.

```
*UNMET.PRG
SET COLOR TO GR/B,W/R,W
CLEAR
@ 11,23 SAY "*** RECALCULATING UNMET NEEDS *** "
```

```
USE PINELAND
GO TOP
DO WHILE .NOT. EOF()
   HOLDER = (PDCCAP * PPEDU * 75) /1000000
   IF HOLDER > 0
      REPLACE PDCCAPF WITH HOLDER
   ELSE
      REPLACE PDCCAPF WITH 0
   ENDIF
   HOLDER = (HOUSFUT * PPEDU * 75) / 1000000
   IF HOLDER > 0
      REPLACE HOUSFUTF WITH HOLDER
   ELSE
      REPLACE HOUSFUTF WITH 0
   ENDIF
   HOLDER = (HOUSPRES * PPEDU * 75) / 1000000
   IF HOLDER > 0
      REPLACE HOUSPRESF WITH HOLDER
   ELSE
      REPLACE HOUSPRESF WITH 0
   ENDIF
   HOLDER = (HOUSNRGA * PPEDU * 75) / 1000000
   IF HOLDER > 0
      REPLACE NRGAF WITH HOLDER
   ELSE
      REPLACE NRGAF WITH 0
   ENDIF
   HOLDER = (HOUSNPRES * PPEDU * 75) / 1000000
   IF HOLDER > 0
      REPLACE HOUSNPRESF WITH HOLDER
   ELSE
      REPLACE HOUSNPRESF WITH 0
   ENDIF
   HOLDER = (HOUSNNRGA * PPEDU * 75) / 1000000
   IF HOLDER > 0
      REPLACE NNRGAF WITH HOLDER
   ELSE
      REPLACE NNRGAF WITH 0
   ENDIF
   HOLDER = HOUSPRES * PPEDU
   IF HOLDER > 0
      REPLACE PRESPOP WITH HOLDER
   ELSE
      REPLACE PRESPOP WITH 0
   ENDIF
   HOLDER = HOUSFUT * PPEDU
   IF HOLDER > 0
      REPLACE FUTPOP WITH HOLDER
   ELSE
      REPLACE FUTPOP WITH 0
   ENDIF
   HOLDER = HOUSNRGA * PPEDU
   IF HOLDER > 0
      REPLACE NRGAPOP WITH HOLDER
   ELSE
```

```
         REPLACE NRGAPOP WITH 0
      ENDIF
      HOLDER = HOUSNPRES * PPEDU
      IF HOLDER > 0
         REPLACE NPRESPOP WITH HOLDER
      ELSE
         REPLACE NPRESPOP WITH 0
      ENDIF
      HOLDER = HOUSNNRGA * PPEDU
      IF HOLDER > 0
         REPLACE NNRGAPOP WITH HOLDER
      ELSE
         REPLACE NNRGAPOP WITH 0
      ENDIF
      HOLDER = HOUSFUT - (HOUSPRES + HOUSNPRES) - (HOUSNRGA + HOUSNNRGA)
      IF HOLDER > 0
         REPLACE RESCAP WITH HOLDER
      ELSE
         REPLACE RESCAP WITH 0
      ENDIF
      IF HOUSFUT < 0
         REPLACE RESCAP WITH 0
      ENDIF
      HOLDER = HOUSFUTF - (HOUSPRESF + HOUSNPRESF) - (NRGAF + NNRGAF)
      IF HOLDER > 0
         REPLACE RESCAPF WITH HOLDER
      ELSE
         REPLACE RESCAPF WITH HOLDER
      ENDIF
      HOLDER = PDCCAP - RESCAP
      IF HOLDER > 0
         REPLACE UNMET WITH HOLDER
      ELSE
         REPLACE UNMET WITH 0
      ENDIF
      HOLDER = PDCCAPF - RESCAPF
      IF HOLDER > 0
         REPLACE UNMETF WITH HOLDER
      ELSE
         REPLACE UNMETF WITH 0
      ENDIF
      DO CASE
         CASE PDCCAP = 0
              REPLACE PCTUNMET WITH 100
         OTHERWISE
              HOLDER = (UNMET / PDCCAP) * 100
              IF HOLDER > 0
                 REPLACE PCTUNMET WITH HOLDER
              ELSE
                 REPLACE PCTUNMET WITH 0
              ENDIF
      ENDCASE
      SKIP 1
   ENDDO
RETURN
```

The following program, COUNTY.PRG, is called from MENU.PRG when the user specifies screening by county. It automatically scrolls through all of the records which match the screening criterion and allows the user to select the record he wishes to examine.

```
  SET PROCEDURE TO DISPLAY
  USE PINELAND
  SET EXACT OFF
  LOCATE FOR COUNTY = STCOUNTY
  IF EOF()
     SET COLOR TO GR/B,W/R,R
     CLEAR
     @ 12,25 SAY "* COUNTY NOT FOUND IN DATABASE *"
     @ 22,33 SAY "press any key"
     WAIT "" TO PAUSE
     RETURN
  ENDIF
  SET FILTER TO COUNTY = STCOUNTY
  DO WHILE UPPER(DEST) <> 'Q'
     SET COLOR TO GR/B,W/R,GR
     GO TOP
     DO WHILE .NOT. EOF()
        TEMP = '&MPRINT'
        STORE "X" TO MPRINT
        DO LOCATOUT
        MPRINT = '&TEMP'
        @ 23,5 SAY " -N- REVIEW OTHER PROJECTS ; -S- EXAMINE
DISPLAYED PROJECT COMPLETELY "
        WAIT "                              -Z- RETURN TO OPENING MENU " TO PAUSE
        IF UPPER(PAUSE) = 'Z'
           SET FILTER TO
           RETURN
        ENDIF
        IF UPPER(PAUSE) = 'S'
           SKIP -1
           STORE COUNTY TO STCOUNTY
           DO WHILE UPPER(PAUSE) = 'S'
              IF UPPER(DEST) = 'E'
                 SET FORMAT TO POPIN
              ENDIF
              DO CASE
                 CASE UPPER(DEST) = 'E'
                   CHANGE NEXT 1
                 CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                   CLEAR
                   @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                   ?
                   SET ALTERNATE ON
                   DISPLAY
                   SET ALTERNATE OFF
                 OTHERWISE
                   DO POPOUT
              ENDCASE
```

```
            @ 23,1 SAY " "
            WAIT "                          -S- TO SCROLL:-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SKIP -1
            IF UPPER(DEST) = 'E'
               SET FORMAT TO EFFLUIN
            ENDIF
            SET COLOR TO GR/B,W/R,GR
            DO CASE
               CASE UPPER(DEST) = 'E'
                 CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                 CLEAR
                 @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                 ?
                 SET ALTERNATE ON
                 DISPLAY
                 SET ALTERNATE OFF
               OTHERWISE
                 DO EFFLUOUT
            ENDCASE
            @ 23,1 SAY " "
            WAIT "                          -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SET COLOR TO GR/B,W/R,GR
            SKIP -1
            IF UPPER(DEST) = 'E'
               SET FORMAT TO LOCATEIN
            ENDIF
            DO CASE
               CASE UPPER(DEST) = 'E'
                    CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                    CLEAR
                    @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                    ?
                    SET ALTERNATE ON
                    DISPLAY
                    SET ALTERNATE OFF
               OTHERWISE
               DO LOCATOUT
            ENDCASE
            @ 22,1 SAY " "
            WAIT "                          -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
```

```
               RETURN
            ENDIF
            SKIP -1
         ENDDO
         SET FILTER TO
         CLOSE FORMAT
         CLOSE DATABASES
         RETURN
      ENDIF
   ENDDO
   SET COLOR TO GR/B,W/R,R
   CLEAR
   @ 12,11 SAY "* NO ADDITIONAL PROJECTS IN DATABASE IN
SPECIFIED COUNTY *"
   @ 21,1 SAY " "
   WAIT "              -S- TO RECYCLE PROJECTS;-Z- RETURN TO
OPENING MENU " TO PAUSE
   IF UPPER(PAUSE) = 'Z'
      SET FILTER TO
      RETURN
   ENDIF
 ENDDO
SET FILTER TO
RETURN
```

The following program, PROJNAME.PRG, is called from MENU.PRG when the user specifies screening by project name. It automatically scrolls through all of the records which match the screening criterion and allows the user to select the record he wishes to examine.

```
 SET PROCEDURE TO DISPLAY
 USE PINELAND
 SET EXACT OFF
 LOCATE FOR PROJNAME = STPROJN
 IF EOF()
    SET COLOR TO GR/B,W/R,R
    CLEAR
    @ 12,22 SAY "* PROJECT NAME NOT FOUND IN DATABASE *"
    @ 22,33 SAY "press any key"
    WAIT "" TO PAUSE
    RETURN
 ENDIF
 SET FILTER TO PROJNAME = STPROJN
 DO WHILE UPPER(DEST) <> 'Q'
    SET COLOR TO GR/B,W/R,G
    GO TOP
    DO WHILE .NOT. EOF()
       TEMP = '&MPRINT'
       STORE "X" TO MPRINT
       DO LOCATOUT
       MPRINT = '&TEMP'
       @ 23,5 SAY " -N- REVIEW OTHER PROJECTS ; -S- EXAMINE
DISPLAYED PROJECT COMPLETELY "
```

```
        WAIT "                              -Z- RETURN TO OPENING MENU " TO PAUSE
        IF UPPER(PAUSE) = 'Z'
           SET FILTER TO
           RETURN
        ENDIF
        IF UPPER(PAUSE) = 'S'
           SKIP -1
           STORE PROJNAME TO STPROJN
           DO WHILE UPPER(PAUSE) = 'S'
              IF UPPER(DEST) = 'E'
                 SET FORMAT TO POPIN
              ENDIF
              DO CASE
                 CASE UPPER(DEST) = 'E'
                   CHANGE NEXT 1
                 CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                   CLEAR
                   @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                   ?
                   SET ALTERNATE ON
                   DISPLAY
                   SET ALTERNATE OFF
                 OTHERWISE
                   DO POPOUT
              ENDCASE
              @ 23,1 SAY " "
              WAIT "                        -S- TO SCROLL:-Z- RETURN TO OPENING
MENU " TO PAUSE
              IF UPPER(PAUSE) = 'Z'
                 SET FILTER TO
                 RETURN
              ENDIF
              SKIP -1
              IF UPPER(DEST) = 'E'
                 SET FORMAT TO EFFLUIN
              ENDIF
              SET COLOR TO GR/B,W/R,G
              DO CASE
                 CASE UPPER(DEST) = 'E'
                   CHANGE NEXT 1
                 CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                   CLEAR
                   @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                   ?
                   SET ALTERNATE ON
                   DISPLAY
                   SET ALTERNATE OFF
                 OTHERWISE
                   DO EFFLUOUT
              ENDCASE
              @ 23,1 SAY " "
              WAIT "                        -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
              IF UPPER(PAUSE) = 'Z'
                 SET FILTER TO
```

```
               RETURN
            ENDIF
            SET COLOR TO GR/B,W/R,G
            SKIP -1
            IF UPPER(DEST) = 'E'
               SET FORMAT TO LOCATEIN
            ENDIF
            DO CASE
               CASE UPPER(DEST) = 'E'
                    CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                    CLEAR
                    @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                    ?
                    SET ALTERNATE ON
                    DISPLAY
                    SET ALTERNATE OFF
               OTHERWISE
               DO LOCATOUT
            ENDCASE
            @ 22,1 SAY " "
            WAIT "                        -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SKIP -1
         ENDDO
         SET FILTER TO
         CLOSE FORMAT
         CLOSE DATABASES
         RETURN
      ENDIF
   ENDDO
   SET COLOR TO GR/B,W/R,R
   CLEAR
   @ 12,7 SAY "* NO ADDITIONAL PROJECTS IN DATABASE WITH
SPECIFIED PROJECT NAME *"
   @ 21,1 SAY " "
   WAIT "              -S- TO RECYCLE PROJECTS;-Z- RETURN TO
OPENING MENU " TO PAUSE
   IF UPPER(PAUSE) = 'Z'
      SET FILTER TO
      RETURN
   ENDIF
 ENDDO
SET FILTER TO
RETURN
```

The following program, RGA.PRG, is called from MENU.PRG when the user specifies screening by RGA name. It automatically scrolls through all of the records which match the screening criterion and allows the user to select the record he wishes to examine.

```
  SET PROCEDURE TO DISPLAY
  USE PINELAND
  SET EXACT OFF
  LOCATE FOR RGA = STRGA
  IF EOF()
     SET COLOR TO GR/B,W/R,R
     CLEAR
     @ 12,27 SAY "* RGA NOT FOUND IN DATABASE *"
     @ 22,33 SAY "press any key"
     WAIT "" TO PAUSE
     RETURN
  ENDIF
  SET FILTER TO RGA = STRGA
  DO WHILE UPPER(DEST) <> 'Q'
     SET COLOR TO GR/B,W/R,G
     GO TOP
     DO WHILE .NOT. EOF()
        TEMP = '&MPRINT'
        STORE "X" TO MPRINT
        DO LOCATOUT
        MPRINT = '&TEMP'
        @ 23,5 SAY " -N- REVIEW OTHER PROJECTS ; -S- EXAMINE
DISPLAYED PROJECT COMPLETELY "
        WAIT "                              -Z- RETURN TO OPENING MENU " TO PAUSE
        IF UPPER(PAUSE) = 'Z'
           SET FILTER TO
           RETURN
        ENDIF
        IF UPPER(PAUSE) = 'S'
           SKIP -1
           STORE PROJID TO STPROJID
           DO WHILE UPPER(PAUSE) = 'S'
              IF UPPER(DEST) = 'E'
                 SET FORMAT TO POPIN
              ENDIF
              DO CASE
                 CASE UPPER(DEST) = 'E'
                   CHANGE NEXT 1
                 CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                   CLEAR
                   @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                   ?
                   SET ALTERNATE ON
                   DISPLAY
                   SET ALTERNATE OFF
                 OTHERWISE
                   DO POPOUT
              ENDCASE
              @ 23,1 SAY " "
              WAIT "                        -S- TO SCROLL:-Z- RETURN TO OPENING
MENU " TO PAUSE
              IF UPPER(PAUSE) = 'Z'
                 SET FILTER TO
                 RETURN
```

```
            ENDIF
            SKIP -1
            IF UPPER(DEST) = 'E'
               SET FORMAT TO EFFLUIN
            ENDIF
            SET COLOR TO GR/B,W/R,G
            DO CASE
               CASE UPPER(DEST) = 'E'
                 CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                 CLEAR
                 @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                 ?
                 SET ALTERNATE ON
                 DISPLAY
                 SET ALTERNATE OFF
               OTHERWISE
                 DO EFFLUOUT
            ENDCASE
            @ 23,1 SAY " "
            WAIT "                        -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SET COLOR TO GR/B,W/R,G
            SKIP -1
            IF UPPER(DEST) = 'E'
               SET FORMAT TO LOCATEIN
            ENDIF
            DO CASE
               CASE UPPER(DEST) = 'E'
                    CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                    CLEAR
                    @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                    ?
                    SET ALTERNATE ON
                    DISPLAY
                    SET ALTERNATE OFF
               OTHERWISE
               DO LOCATOUT
            ENDCASE
            @ 22,1 SAY " "
            WAIT "                        -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SKIP -1
         ENDDO
         SET FILTER TO
         CLOSE FORMAT
```

```
         CLOSE DATABASES
         RETURN
      ENDIF
   ENDDO
   SET COLOR TO GR/B,W/R,R
   CLEAR
   @ 12,8 SAY "* NO ADDITIONAL PROJECTS IN DATABASE IN
SPECIFIED RGA *"
   @ 21,1 SAY " "
   WAIT "              -S- TO RECYCLE PROJECTS;-Z- RETURN TO
OPENING MENU " TO PAUSE
   IF UPPER(PAUSE) = 'Z'
      SET FILTER TO
      RETURN
   ENDIF
 ENDDO
SET FILTER TO
RETURN
```

The following program, TOWNSHIP.PRG, is called from MENU.PRG when the user specifies screening by township name. It automatically scrolls through all of the records which match the screening criterion and allows the user to select the record he wishes to examine.

```
 SET PROCEDURE TO DISPLAY
 USE PINELAND
 SET EXACT OFF
 LOCATE FOR TOWNSHIP = STTOWN
 IF EOF()
    SET COLOR TO GR/B,W/R,R
    CLEAR
    @ 12,24 SAY "* TOWNSHIP NOT FOUND IN DATABASE *"
    @ 22,33 SAY "press any key"
    WAIT "" TO PAUSE
    RETURN
 ENDIF
 SET FILTER TO TOWNSHIP = STTOWN
 DO WHILE UPPER(DEST) <> 'Q'
    SET COLOR TO GR/B,W/R,G
    GO TOP
    DO WHILE .NOT. EOF()
       TEMP = '&MPRINT'
       STORE "X" TO MPRINT
       DO LOCATOUT
       MPRINT = '&TEMP'
       @ 23,5 SAY " -N- REVIEW OTHER PROJECTS ; -S- EXAMINE
DISPLAYED PROJECT COMPLETELY "
       WAIT "                          -Z- RETURN TO OPENING MENU " TO PAUSE
       IF UPPER(PAUSE) = 'Z'
          SET FILTER TO
          RETURN
       ENDIF
       IF UPPER(PAUSE) = 'S'
```

```
            SKIP -1
            STORE TOWNSHIP TO STTOWN
            DO WHILE UPPER(PAUSE) = 'S'
               IF UPPER(DEST) = 'E'
                  SET FORMAT TO POPIN
               ENDIF
               DO CASE
                  CASE UPPER(DEST) = 'E'
                    CHANGE NEXT 1
                  CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                    CLEAR
                    @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                    ?
                    SET ALTERNATE ON
                    DISPLAY
                    SET ALTERNATE OFF
                  OTHERWISE
                    DO POPOUT
               ENDCASE
               @ 23,1 SAY " "
               WAIT "                        -S- TO SCROLL:-Z- RETURN TO OPENING
MENU " TO PAUSE
               IF UPPER(PAUSE) = 'Z'
                  SET FILTER TO
                  RETURN
               ENDIF
               SKIP -1
               IF UPPER(DEST) = 'E'
                  SET FORMAT TO EFFLUIN
               ENDIF
               SET COLOR TO GR/B,W/R,G
               DO CASE
                  CASE UPPER(DEST) = 'E'
                    CHANGE NEXT 1
                  CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                    CLEAR
                    @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                    ?
                    SET ALTERNATE ON
                    DISPLAY
                    SET ALTERNATE OFF
                  OTHERWISE
                    DO EFFLUOUT
               ENDCASE
               @ 23,1 SAY " "
               WAIT "                        -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
               IF UPPER(PAUSE) = 'Z'
                  SET FILTER TO
                  RETURN
               ENDIF
               SET COLOR TO GR/B,W/R,G
               SKIP -1
               IF UPPER(DEST) = 'E'
                  SET FORMAT TO LOCATEIN
```

```
               ENDIF
               DO CASE
                  CASE UPPER(DEST) = 'E'
                       CHANGE NEXT 1
                  CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                       CLEAR
                       @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                       ?
                       SET ALTERNATE ON
                       DISPLAY
                       SET ALTERNATE OFF
                  OTHERWISE
                  DO LOCATOUT
               ENDCASE
               @ 22,1 SAY " "
               WAIT "                          -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
               IF UPPER(PAUSE) = 'Z'
                  SET FILTER TO
                  RETURN
               ENDIF
               SKIP -1
            ENDDO
            SET FILTER TO
            CLOSE FORMAT
            CLOSE DATABASES
            RETURN
         ENDIF
      ENDDO
      SET COLOR TO GR/B,W/R,R
      CLEAR
      @ 12,10 SAY "* NO ADDITIONAL PROJECTS IN DATABASE IN
SPECIFIED TOWNSHIP *"
      @ 21,1 SAY " "
      WAIT "               -S- TO RECYCLE PROJECTS;-Z- RETURN TO
OPENING MENU " TO PAUSE
      IF UPPER(PAUSE) = 'Z'
         SET FILTER TO
         RETURN
      ENDIF
   ENDDO
SET FILTER TO
RETURN
```

The following program, POTWNAME.PRG, is called from MENU.PRG when the user specifies screening by facility name. It automatically scrolls through all of the records which match the screening criterion and allows the user to select the record he wishes to examine.

```
  SET PROCEDURE TO DISPLAY
  USE PINELAND
  SET EXACT OFF
  LOCATE FOR FACNAME = STPNAME
```

```
  IF EOF()
     SET COLOR TO GR/B,W/R,R
     CLEAR
     @ 12,21 SAY "* FACILITY NAME NOT FOUND IN DATABASE *"
     @ 22,33 SAY "press any key"
     WAIT "" TO PAUSE
     RETURN
  ENDIF
  SET FILTER TO FACNAME = STPNAME
  DO WHILE UPPER(DEST) <> 'Q'
     SET COLOR TO GR/B,W/R,G
     GO TOP
     DO WHILE .NOT. EOF()
        TEMP = '&MPRINT'
        STORE "X" TO MPRINT
        DO LOCATOUT
        MPRINT = '&TEMP'
        @ 23,4 SAY " -N- REVIEW OTHER PROJECTS ; -S- EXAMINE
DISPLAYED PROJECT COMPLETELY "
        WAIT "                          -Z- RETURN TO OPENING MENU " TO PAUSE
        IF UPPER(PAUSE) = 'Z'
           SET FILTER TO
           RETURN
        ENDIF
        IF UPPER(PAUSE) = 'S'
           SKIP -1
           STORE FACNAME TO STPNAME
           DO WHILE UPPER(PAUSE) = 'S'
              IF UPPER(DEST) = 'E'
                 SET FORMAT TO POPIN
              ENDIF
              DO CASE
                 CASE UPPER(DEST) = 'E'
                   CHANGE NEXT 1
                 CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                   CLEAR
                   @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                   ?
                   SET ALTERNATE ON
                   DISPLAY
                   SET ALTERNATE OFF
                 OTHERWISE
                   DO POPOUT
              ENDCASE
              @ 23,1 SAY " "
              WAIT "                        -S- TO SCROLL:-Z- RETURN TO OPENING
MENU " TO PAUSE
              IF UPPER(PAUSE) = 'Z'
                 SET FILTER TO
                 RETURN
              ENDIF
              SKIP -1
              IF UPPER(DEST) = 'E'
                 SET FORMAT TO EFFLUIN
              ENDIF
```

```
            SET COLOR TO GR/B,W/R,G
            DO CASE
               CASE UPPER(DEST) = 'E'
                 CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                 CLEAR
                 @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                 ?
                 SET ALTERNATE ON
                 DISPLAY
                 SET ALTERNATE OFF
               OTHERWISE
                 DO EFFLUOUT
            ENDCASE
            @ 23,1 SAY " "
            WAIT "                          -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SET COLOR TO GR/B,W/R,G
            SKIP -1
            IF UPPER(DEST) = 'E'
               SET FORMAT TO LOCATEIN
            ENDIF
            DO CASE
               CASE UPPER(DEST) = 'E'
                    CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                    CLEAR
                    @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                    ?
                    SET ALTERNATE ON
                    DISPLAY
                    SET ALTERNATE OFF
               OTHERWISE
               DO LOCATOUT
            ENDCASE
            @ 22,1 SAY " "
            WAIT "                          -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SKIP -1
         ENDDO
         SET FILTER TO
         CLOSE FORMAT
         CLOSE DATABASES
         RETURN
      ENDIF
   ENDDO
   SET COLOR TO GR/B,W/R,R
```

```
     CLEAR
     @ 12,11 SAY "* NO ADDITIONAL PROJECTS IN DATABASE WITH
SPECIFIED NAME *"
     @ 21,1 SAY " "
     WAIT "               -S- TO RECYCLE PROJECTS;-Z- RETURN TO
OPENING MENU " TO PAUSE
     IF UPPER(PAUSE) = 'Z'
        SET FILTER TO
        RETURN
     ENDIF
  ENDDO
SET FILTER TO
RETURN
```

This program, TRANSFER.PRG, is called from MENU.PRG when a file function is selected. If the UNLOAD function is selected this program will create a SDF (standard data format) file containing all data elements for all records. If the LOAD function is selected this program will erase all records currently in the database and replace them with the information contained in a SDF file. The purpose of these functions is to give the users of the system the ability to back up their data.

```
IF UPPER(DEST) = 'U'
   CLEAR
   @ 6,21 SAY "INSERT DESTINATION DISKETTE IN DRIVE:A"
   @ 10,29 SAY "PRESS 'C' TO CONTINUE"
   @ 13,26 SAY "PRESS ANY OTHER KEY TO ABORT"
   ?
   ?
   WAIT "" TO PAUSE
   IF UPPER(PAUSE) <> 'C'
      RETURN
   ENDIF
   @ 15,1 CLEAR
   ACCEPT "         ENTER DESTINATION FILE NAME (INCLUDE EXTENSION)
: " TO MFILE
   CLEAR
   USE PINELAND
   COPY TO A:&MFILE SDF
   RETURN
ENDIF
IF UPPER(DEST) = 'L'
   SET COLOR TO  /+GR,W/R,*R
   CLEAR
   @ 6,32 SAY "***  WARNING  ***"
   @ 10,12 SAY "ALL ENTRIES PRESENTLY IN THE DATABASE WILL BE REPLACED"
   @ 15,11 SAY "INSERT DATA DISKETTE IN DRIVE:A AND PRESS 'C' TO CONTIN"
   @ 15,66 SAY "UE"
   @ 18,26 SAY "PRESS ANY OTHER KEY TO ABORT"
   ?
   WAIT "" TO PAUSE
   IF UPPER(PAUSE) <> 'C'
      SET COLOR TO 6/1,7/4,2
```

```
      RETURN
   ENDIF
   @ 19,1 CLEAR
   ACCEPT "              ENTER DATA FILE NAME (INCLUDE EXTENSION): " TO
MFILE
   SET COLOR TO 6/1,7/4,2
   CLEAR
   USE PINELAND
   SET SAFETY OFF
   ZAP
   APPEND FROM A:&MFILE SDF
ENDIF
RETURN
```

The following program, PROJID.PRG, is called from MENU.PRG when the user specifies screening by project identification number. It automatically scrolls through all of the records which match the screening criterion and allows the user to select the record he wishes to examine.

```
  SET PROCEDURE TO DISPLAY
  USE PINELAND
  SET EXACT OFF
  LOCATE FOR PROJID = STPROJID
  IF EOF()
     SET COLOR TO GR/B,W/R,GR
     CLEAR
     @ 12,23 SAY "* PROJECT ID NOT FOUND IN DATABASE *"
     @ 22,33 SAY "press any key"
     WAIT "" TO PAUSE
     RETURN
  ENDIF
  SET FILTER TO PROJID = STPROJID
  DO WHILE UPPER(DEST) <> 'Q'
     SET COLOR TO GR/B,W/R,GR
     GO TOP
     DO WHILE .NOT. EOF()
        TEMP = '&MPRINT'
        STORE "X" TO MPRINT
        DO LOCATOUT
        MPRINT = '&TEMP'
        @ 23,5 SAY " -N- REVIEW OTHER PROJECTS ; -S- EXAMINE
DISPLAYED PROJECT COMPLETELY "
        WAIT "                              -Z- RETURN TO OPENING MENU " TO PAUSE
        IF UPPER(PAUSE) = 'Z'
           SET FILTER TO
           RETURN
        ENDIF
        IF UPPER(PAUSE) = 'S'
           SKIP -1
           STORE PROJID TO STPROJID
           DO WHILE UPPER(PAUSE) = 'S'
              IF UPPER(DEST) = 'E'
                 SET FORMAT TO POPIN
```

```
            ENDIF
            DO CASE
               CASE UPPER(DEST) = 'E'
                 CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                 CLEAR
                 @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                 ?
                 SET ALTERNATE ON
                 DISPLAY
                 SET ALTERNATE OFF
               OTHERWISE
                 DO POPOUT
            ENDCASE
            @ 23,1 SAY " "
            WAIT "                        -S- TO SCROLL:-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SKIP -1
            IF UPPER(DEST) = 'E'
               SET FORMAT TO EFFLUIN
            ENDIF
            SET COLOR TO GR/B,W/R,GR
            DO CASE
               CASE UPPER(DEST) = 'E'
                 CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                 CLEAR
                 @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                 ?
                 SET ALTERNATE ON
                 DISPLAY
                 SET ALTERNATE OFF
               OTHERWISE
                 DO EFFLUOUT
            ENDCASE
            @ 23,1 SAY " "
            WAIT "                        -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SET COLOR TO GR/B,W/R,GR
            SKIP -1
            IF UPPER(DEST) = 'E'
               SET FORMAT TO LOCATEIN
            ENDIF
            DO CASE
               CASE UPPER(DEST) = 'E'
                    CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
```

```
                    CLEAR
                    @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                    ?
                    SET ALTERNATE ON
                    DISPLAY
                    SET ALTERNATE OFF
                 OTHERWISE
                 DO LOCATOUT
              ENDCASE
              @ 22,1 SAY " "
              WAIT "                        -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
              IF UPPER(PAUSE) = 'Z'
                 SET FILTER TO
                 RETURN
              ENDIF
              SKIP -1
           ENDDO
           SET FILTER TO
           CLOSE FORMAT
           CLOSE DATABASES
           RETURN
        ENDIF
     ENDDO
     SET COLOR TO GR/B,W/R,GR
     CLEAR
     @ 12,8 SAY "* NO ADDITIONAL PROJECTS IN DATABASE WITH
SPECIFIED PROJECT ID *"
     @ 21,1 SAY " "
     WAIT "              -S- TO RECYCLE PROJECTS;-Z- RETURN TO
OPENING MENU " TO PAUSE
     IF UPPER(PAUSE) = 'Z'
        SET FILTER TO
        RETURN
     ENDIF
  ENDDO
SET FILTER TO
RETURN
```

This program, RANKING.PRG, is called from MENU.PRG and allows the user to rank the projects in the database by user specified weighting factors which the program prompts the user for. The results are automatically stored in the database. For a more detailed explanation of the ranking system please refer to the prvious section on Ranking of Projects.

```
* RANKING.PRG
@ 1,3 SAY "THE RANKING SYSTEM CAN WEIGH CERTAIN CRITERIA MORE HEAV"
@ 1,58 SAY "ILY THAN OTHERS."
@ 3,9 SAY "PLEASE ENTER A NUMERIC WEIGHTING FACTOR FOR EACH CATEGO"
@ 3,64 SAY "RY."
@ 5,5 SAY "IT IS RECOMMENDED THAT THE FACTORS HAVE A VALUE IN THE"
@ 5,60 SAY "RANGE OF 1-4."
@ 8,1 SAY ""
```

```
INPUT "                              ENVIRONMENTAL/PUBLIC HEALTH -   " TO eqfactor
@ 10,1 SAY ""
INPUT "                              PROJECT STATUS - " TO psfactor
@ 12,1 SAY ""
INPUT "                              POTENTIAL TO MEET NEEDS - " TO pfactor
@ 14,1 SAY ""
INPUT "                              COST - " TO cfactor
@ 19,4 SAY "REVIEW YOUR WEIGHTING FACTORS!  IF YOU WISH TO CONTINU"
@ 19,58 SAY "E PRESS 'C'"
@ 21,18 SAY "PRESS ANY OTHER KEY TO ABORT RANKING"
WAIT " " TO PAUSE
IF UPPER(PAUSE) <> 'C'
   RETURN
ENDIF
SET COLOR TO GR/B,W/R,W
CLEAR
@ 12,22 SAY "*** RANKING PINELANDS PROJECTS ***"
USE PINELAND
GO TOP
DO WHILE .NOT. EOF()
      DO CASE
        CASE UPPER(ONSITE) = 'P' .OR. UPPER(WQPROBLEM) = 'Y'
              QUAL = 5
   CASE UPPER(ONSITE)='L' .AND. ( UPPER(WQPROBLEM) ='N'.OR. WQPROBLEM=' ' )
              QUAL = 2.5
        OTHERWISE
              QUAL = 0
      ENDCASE
      QUAL = EQFACTOR * QUAL
   * RANKING MODIFIED 11/20/86 AS REQUESTED BY PINELANDS COMM.
   IF UPPER(WQPROBLEM) = 'Y'
      HOUSES = HOUSPRES + HOUSNPRES
      DO CASE
         CASE HOUSES > 1600
              NUMRGA = 5
         CASE HOUSES <= 1600 .AND. HOUSES > 1200
              NUMRGA = 4
         CASE HOUSES <= 1200 .AND. HOUSES > 800
              NUMRGA = 3
         CASE HOUSES <= 800 .AND. HOUSES > 400
              NUMRGA = 2
         CASE HOUSES <= 400 .AND. HOUSES > 0
              NUMRGA = 1
         OTHERWISE
              NUMRGA = 0
      ENDCASE
   ELSE
      DO CASE
         CASE HOUSNPRES > 1600
              NUMRGA = 5
         CASE HOUSNPRES <= 1600 .AND. HOUSNPRES > 1200
              NUMRGA = 4
         CASE HOUSNPRES <= 1200 .AND. HOUSNPRES > 800
              NUMRGA = 3
         CASE HOUSNPRES <= 800 .AND. HOUSNPRES > 400
```

```
            NUMRGA = 2
      CASE HOUSNPRES <= 400 .AND. HOUSNPRES > 0
            NUMRGA = 1
      OTHERWISE
            NUMRGA = 0
   ENDCASE
ENDIF
NUMRGA = EQFACTOR * NUMRGA
STAT = 0
IF UPPER(PREPLAN) = 'Y'
   STAT = STAT + 2
ENDIF
IF UPPER(WQPLAN) = 'Y'
   STAT = STAT + 2
ENDIF
IF UPPER(PREENG) = 'Y'
   STAT = STAT + 2
ENDIF
IF UPPER(FINENG) = 'Y'
   STAT = STAT + 2
ENDIF
IF UPPER(PERMITS) = 'Y'
   STAT = STAT + 2
ENDIF
STAT = PSFACTOR * STAT
DO CASE
   CASE PCTUNMET < 10
        PMET = 5
   CASE PCTUNMET < 20 .AND. PCTUNMET >= 10
        PMET = 4.5
   CASE PCTUNMET < 30 .AND. PCTUNMET >= 20
        PMET = 4
   CASE PCTUNMET < 40 .AND. PCTUNMET >= 30
        PMET = 3.5
   CASE PCTUNMET < 50 .AND. PCTUNMET >= 40
        PMET = 3
   CASE PCTUNMET < 60 .AND. PCTUNMET >= 50
        PMET = 2.5
   CASE PCTUNMET < 70 .AND. PCTUNMET >= 60
        PMET = 2
   CASE PCTUNMET < 80 .AND. PCTUNMET >= 70
        PMET = 1.5
   CASE PCTUNMET < 90 .AND. PCTUNMET >= 80
        PMET = 1
   CASE PCTUNMET < 99 .AND. PCTUNMET >= 90
        PMET = 0.5
   OTHERWISE
        PMET = 0.0
ENDCASE
PMET = PFACTOR * PMET
DO CASE
   CASE RESCAP > 9000
        EDU = 5
   CASE RESCAP > 8000 .AND. RESCAP <= 9000
        EDU = 4.5
```

```
   *RANKING MODIFIED 11/17/86 AS REQUESTED BY PINELANDS COMM.
   DO CASE
      CASE PERCAP < (0.3 * MEANCOST)
           PERCAPF = 10
      CASE PERCAP < (.60 * MEANCOST) .AND. PERCAP >= (0.3 * MEANCOST)
           PERCAPF = 8
      CASE PERCAP < (.90 * MEANCOST) .AND. PERCAP >= (0.60 * MEANCOST)
           PERCAPF = 6
      CASE PERCAP < (1.20 * MEANCOST) .AND. PERCAP >= (.90 * MEANCOST)
           PERCAPF = 4
     CASE PERCAP < (1.5 * MEANCOST) .AND. PERCAP >= (1.20 * MEANCOST)
           PERCAPF = 2
      OTHERWISE
           PERCAPF = 0
   ENDCASE
   PERCAPF = CFACTOR * PERCAPF
   REPLACE SCORE WITH (QUAL + EDU + STAT + NUMRGA + PMET + PERCAPF)
   REPLACE QUALSCOR WITH QUAL
   REPLACE EXISCOR WITH NUMRGA
   REPLACE STATSCOR WITH STAT
   REPLACE POTSCOR WITH PMET
   REPLACE EDUSCOR WITH EDU
   REPLACE PCAPSCOR WITH PERCAPF
   SKIP 1
ENDDO
RETURN
```

The following program, REACHNAM.PRG, is called from MENU.PRG when the user specifies screening by local waterbody name. It automatically scrolls through all of the records which match the screening criterion and allows the user to select the record he wishes to examine.

```
  SET PROCEDURE TO DISPLAY
  USE PINELAND
  SET EXACT OFF
  LOCATE FOR REACHNAM = STRNAME
  IF EOF()
     SET COLOR TO GR/B,W/R,R
     CLEAR
     @ 12,23 SAY "* REACH NAME NOT FOUND IN DATABASE *"
     @ 22,33 SAY "press any key"
     WAIT "" TO PAUSE
     RETURN
  ENDIF
  SET FILTER TO REACHNAM = STRNAME
  DO WHILE UPPER(DEST) <> 'Q'
     SET COLOR TO GR/B,W/R,G
     GO TOP
     DO WHILE .NOT. EOF()
        TEMP = '&MPRINT'
        STORE "X" TO MPRINT
        DO LOCATOUT
        MPRINT = '&TEMP'
```

```
        @ 23,5 SAY " -N- REVIEW OTHER PROJECTS ; -S- EXAMINE
DISPLAYED PROJECT COMPLETELY "
        WAIT "                              -Z- RETURN TO OPENING MENU " TO PAUSE
        IF UPPER(PAUSE) = 'Z'
           SET FILTER TO
           RETURN
        ENDIF
        IF UPPER(PAUSE) = 'S'
           SKIP -1
           STORE REACHNAM TO STRNAME
           DO WHILE UPPER(PAUSE) = 'S'
              IF UPPER(DEST) = 'E'
                 SET FORMAT TO POPIN
              ENDIF
              DO CASE
                 CASE UPPER(DEST) = 'E'
                   CHANGE NEXT 1
                 CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                   CLEAR
                   @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                   ?
                   SET ALTERNATE ON
                   DISPLAY
                   SET ALTERNATE OFF
                 OTHERWISE
                   DO POPOUT
              ENDCASE
              @ 23,1 SAY " "
              WAIT "                        -S- TO SCROLL:-Z- RETURN TO OPENING
MENU " TO PAUSE
              IF UPPER(PAUSE) = 'Z'
                 SET FILTER TO
                 RETURN
              ENDIF
              SKIP -1
              IF UPPER(DEST) = 'E'
                 SET FORMAT TO EFFLUIN
              ENDIF
              SET COLOR TO GR/B,W/R,G
              DO CASE
                 CASE UPPER(DEST) = 'E'
                   CHANGE NEXT 1
                 CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                   CLEAR
                   @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                   ?
                   SET ALTERNATE ON
                   DISPLAY
                   SET ALTERNATE OFF
                 OTHERWISE
                   DO EFFLUOUT
              ENDCASE
              @ 23,1 SAY " "
              WAIT "                        -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
```

```
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SET COLOR TO GR/B,W/R,G
            SKIP -1
            IF UPPER(DEST) = 'E'
               SET FORMAT TO LOCATEIN
            ENDIF
            DO CASE
               CASE UPPER(DEST) = 'E'
                    CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                    CLEAR
                    @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                    ?
                    SET ALTERNATE ON
                    DISPLAY
                    SET ALTERNATE OFF
               OTHERWISE
               DO LOCATOUT
            ENDCASE
            @ 22,1 SAY " "
            WAIT "                        -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SKIP -1
         ENDDO
         SET FILTER TO
         CLOSE FORMAT
         CLOSE DATABASES
         RETURN
      ENDIF
   ENDDO
   SET COLOR TO GR/B,W/R,R
   CLEAR
   @ 12,9 SAY "* NO ADDITIONAL PROJECTS IN DATABASE ON
SPECIFIED REACH NAME *"
   @ 21,1 SAY " "
   WAIT "              -S- TO RECYCLE PROJECTS;-Z- RETURN TO
OPENING MENU " TO PAUSE
   IF UPPER(PAUSE) = 'Z'
      SET FILTER TO
      RETURN
   ENDIF
 ENDDO
SET FILTER TO
RETURN
```

The following program, PROJCODE.PRG, is called from MENU.PRG when the user specifies screening by project code. It automatically

scrolls through all of the records which match the screening criterion and allows the user to select the record he wishes to examine.

```
  SET PROCEDURE TO DISPLAY
  USE PINELAND
  SET EXACT OFF
  LOCATE FOR PROJCODE = STPROJC
  IF EOF()
     SET COLOR TO GR/B,W/R,R
     CLEAR
     @ 12,22 SAY "* PROJECT CODE NOT FOUND IN DATABASE *"
     @ 22,33 SAY "press any key"
     WAIT "" TO PAUSE
     RETURN
  ENDIF
  SET FILTER TO PROJCODE = STPROJC
  DO WHILE UPPER(DEST) <> 'Q'
     SET COLOR TO GR/B,W/R,G
     GO TOP
     DO WHILE .NOT. EOF()
        TEMP = '&MPRINT'
        STORE "X" TO MPRINT
        DO LOCATOUT
        MPRINT = '&TEMP'
        @ 23,5 SAY " -N- REVIEW OTHER PROJECTS ; -S- EXAMINE
DISPLAYED PROJECT COMPLETELY "
        WAIT "                              -Z- RETURN TO OPENING MENU " TO PAUSE
        IF UPPER(PAUSE) = 'Z'
           SET FILTER TO
           RETURN
        ENDIF
        IF UPPER(PAUSE) = 'S'
           SKIP -1
           STORE PROJCODE TO STPROJC
           DO WHILE UPPER(PAUSE) = 'S'
              IF UPPER(DEST) = 'E'
                 SET FORMAT TO POPIN
              ENDIF
              DO CASE
                 CASE UPPER(DEST) = 'E'
                   CHANGE NEXT 1
                 CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                   CLEAR
                   @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                   ?
                   SET ALTERNATE ON
                   DISPLAY
                   SET ALTERNATE OFF
                 OTHERWISE
                   DO POPOUT
              ENDCASE
              @ 23,1 SAY " "
              WAIT "                        -S- TO SCROLL:-Z- RETURN TO OPENING
MENU " TO PAUSE
```

```
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SKIP -1
            IF UPPER(DEST) = 'E'
               SET FORMAT TO EFFLUIN
            ENDIF
            SET COLOR TO GR/B,W/R,G
            DO CASE
               CASE UPPER(DEST) = 'E'
                 CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                 CLEAR
                 @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                 ?
                 SET ALTERNATE ON
                 DISPLAY
                 SET ALTERNATE OFF
               OTHERWISE
                 DO EFFLUOUT
            ENDCASE
            @ 23,1 SAY " "
            WAIT "                        -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SET COLOR TO GR/B,W/R,G
            SKIP -1
            IF UPPER(DEST) = 'E'
               SET FORMAT TO LOCATEIN
            ENDIF
            DO CASE
               CASE UPPER(DEST) = 'E'
                    CHANGE NEXT 1
               CASE UPPER(DEST) = 'P' .AND. UPPER(MPRINT) = 'B'
                    CLEAR
                    @ 2,22 SAY "PRINTING TO TEXT (.TXT) FILE"
                    ?
                    SET ALTERNATE ON
                    DISPLAY
                    SET ALTERNATE OFF
               OTHERWISE
               DO LOCATOUT
            ENDCASE
            @ 22,1 SAY " "
            WAIT "                        -S- TO SCROLL;-Z- RETURN TO OPENING
MENU " TO PAUSE
            IF UPPER(PAUSE) = 'Z'
               SET FILTER TO
               RETURN
            ENDIF
            SKIP -1
```

```
            ENDDO
            SET FILTER TO
            CLOSE FORMAT
            CLOSE DATABASES
            RETURN
         ENDIF
      ENDDO
      SET COLOR TO GR/B,W/R,R
      CLEAR
      @ 12,7 SAY "* NO ADDITIONAL PROJECTS IN DATABASE WITH
SPECIFIED PROJECT CODE *"
      @ 21,1 SAY " "
      WAIT "                -S- TO RECYCLE PROJECTS;-Z- RETURN TO
OPENING MENU " TO PAUSE
      IF UPPER(PAUSE) = 'Z'
         SET FILTER TO
         RETURN
      ENDIF
   ENDDO
SET FILTER TO
RETURN
```

This format screen, POPIN.FMT, is a DBASE format file and is used to create the funding/population screen when editing a record.

```
* SCREEN2.PRG
@ 1,26 SAY "-------------------------"
@ 2,26 SAY "FUNDING/POPULATION SCREEN"
@ 3,26 SAY "-------------------------"
@ 5,2 SAY "PROJECT NAME -"
@ 5,18 GET projname
@ 5,47 SAY "DEVELOPABLE LAND   -"
@ 5,69 GET devarea
@ 6,2 SAY "RGA      -"
@ 6,14 GET rga
@ 6,47 SAY "SERVICE AREA       -"
@ 6,69 GET serarea
@ 7,2 SAY "COUNTY   -"
@ 7,14 GET county
@ 7,47 SAY "PDC CAPACITY (DUs) -"
@ 7,69 GET pdccap
@ 8,2 SAY "TOWNSHIP -"
@ 8,14 GET township
@ 8,47 SAY "UNMET NEEDS (EDUs) -"
@ 8,69 SAY unmet
@ 9,47 SAY "UNMET NEEDS  (MGD) -"
@ 9,69 SAY unmetf
@ 10,1 SAY "TOTAL PROJECT COST ($) -"
@ 10,26 GET projcost
@ 10,47 SAY "% UNMET EDUs       -"
@ 10,69 SAY pctunmet
@ 11,1 SAY "PRESENT USER CHARGE    -"
@ 11,26 GET puserchar
@ 12,1 SAY "PROJECTED USER CHARGE  -"
```

```
@ 12,26 GET fuserchar
@ 12,47 SAY "PERSONS PER EDU    -"
@ 12,70 GET ppedu
@ 14,5 SAY "FUNDING      PERCENT                                    EDUs"
@ 14,68 SAY "FLOW"
@ 15,5 SAY "SOURCES      FUNDING          PROJECT CAPACITY -"
@ 15,52 GET housfut
@ 15,64 SAY housfutf
@ 16,5 SAY "-------      -------"
@ 17,1 SAY "1)"
@ 17,5 GET fundsrc1
@ 17,19 GET fundper1
@ 17,44 SAY "EXISTING CAPACITY DATA"
@ 18,1 SAY "2)"
@ 18,5 GET fundsrc2
@ 18,19 GET fundper2
@ 18,44 SAY "----------------------"
@ 19,1 SAY "3)"
@ 19,5 GET fundsrc3
@ 19,19 GET fundper3
@ 19,36 SAY "RGA          RGA        NON-RGA      NON-RGA"
@ 20,34 SAY "SEWERED   NON-SEWERED   SEWERED   NON-SEWERED"
@ 21,28 SAY "EDUs"
@ 21,34 GET houspres
@ 21,46 GET housnpres
@ 21,58 GET housnrga
@ 21,70 GET housnnrga
@ 22,27 SAY "PEOPLE"
@ 22,33 SAY prespop
@ 22,45 SAY nprespop
@ 22,57 SAY nrgapop
@ 22,69 SAY nnrgapop
```

This format screen, LOCATEIN.FMT, is a DBASE format file and is used to create the project identification screen when editing a record.

```
@ 1,24 SAY "----------------------------"
@ 2,24 SAY "PROJECT IDENTIFICATION SCREEN"
@ 3,24 SAY "----------------------------"
@ 4,1 SAY "PROJECT ID    -"
@ 4,18 GET projid
@ 4,44 SAY "CONTACT -"
@ 4,55 GET agcontact
@ 5,1 SAY "PROJECT NAME  -"
@ 5,18 GET projname
@ 5,44 SAY "ADDRESS -"
@ 5,55 GET agaddress
@ 6,1 SAY "FACILITY NAME -"
@ 6,18 GET facname
@ 6,52 SAY "-"
@ 6,55 GET agaddres2
@ 7,1 SAY "COUNTY        -"
@ 7,18 GET county
```

```
@ 7,44 SAY "PHONE    -"
@ 7,55 GET agphone
@ 8,1 SAY "TOWNSHIP       -"
@ 8,18 GET township
@ 9,1 SAY "PROJECT CODE  -"
@ 9,18 GET projcode
@ 9,52 SAY "START  DATE    -"
@ 9,69 GET stardate
@ 10,1 SAY "PROJECT DESCRIPTION    -"
@ 10,26 GET projdesc
@ 10,52 SAY "FINISH DATE    -"
@ 10,69 GET compdate
@ 11,1 SAY "REGIONAL GROWTH AREA  -"
@ 11,26 GET rga
@ 11,52 SAY "AREA PLANNING -"
@ 11,69 GET areaplan1
@ 12,52 SAY "PLANNING TYPE -"
@ 12,69 GET plantype1
@ 13,1 SAY "COMMENT -"
@ 13,11 GET comment
@ 13,52 SAY "PLANNING CONF -"
@ 13,69 GET planconf1
@ 15,27 SAY "LOCAL WATERBODY DATA"
@ 16,27 SAY "--------------------"
@ 17,1 SAY "REACH NAME       -"
@ 17,20 GET reachnam
@ 17,51 SAY "D.O. STANDARD  -"
@ 17,69 GET dostd
@ 18,1 SAY "LOW FLOW         -"
@ 18,20 GET lowq
@ 18,51 SAY "STANDARD MEET  -"
@ 18,69 GET meetdo
@ 19,1 SAY "STREAM USE CODE -"
@ 19,20 GET struse
@ 19,51 SAY "NH3 STANDARD    -"
@ 19,69 GET nh3std
@ 20,51 SAY "STANDARD MEET  -"
@ 20,69 GET meetnh3
```

This format screen, EFFLUIN.FMT, is a DBASE format file and is used to create the enviro-technical data screen when editing a record.

```
@ 1,25 SAY "----------------------------"
@ 2,25 SAY "ENVIRO-TECHNICAL DATA SCREEN"
@ 3,25 SAY "----------------------------"
@ 5,1 SAY "PROJECT ID    -"
@ 5,17 GET projid
@ 5,47 SAY "LOCAL W.Q. PROBLEMS  - "
@ 5,70 GET wqproblem
@ 6,1 SAY "PROJECT NAME -"
@ 6,17 GET projname
@ 6,47 SAY "RECEIVING WQ PROBLEM - "
@ 6,70 GET rcvwqprob
```

```
@ 7,1 SAY "RGA       -"
@ 7,13 GET rga
@ 7,47 SAY "ONSITE W.Q. PROBLEMS - "
@ 7,70 GET onsite
@ 8,1 SAY "COUNTY    -"
@ 8,13 GET county
@ 9,1 SAY "TOWNSHIP -"
@ 9,13 GET township
@ 9,54 SAY "CONCEPT       - "
@ 9,70 GET concept
@ 10,54 SAY "PRE-PLANNING - "
@ 10,70 GET preplan
@ 11,1 SAY "FACILITY RECEIVING FLOW - "
@ 11,28 GET rcvfac
@ 11,54 SAY "W.Q.PLANNING - "
@ 11,70 GET wqplan
@ 12,1 SAY "FACILITY FLOW RECEIVED  - "
@ 12,28 GET rcvfaccap
@ 12,54 SAY "PRELIM. ENG. - "
@ 12,70 GET preeng
@ 13,54 SAY "FINAL ENG.    - "
@ 13,70 GET fineng
@ 14,54 SAY "PERMITS       - "
@ 14,70 GET permits
@ 16,10 SAY "PARAMETER          EXISTING          DESIGN          FUTU"
@ 16,65 SAY "RE"
@ 17,12 SAY "FLOW"
@ 17,27 GET existqt
@ 17,44 GET designqt
@ 17,59 GET futureqt
@ 18,12 SAY "GPCD"
@ 18,28 GET egpcd
@ 18,45 GET dgpcd
@ 18,60 GET fgpcd
@ 19,12 SAY "BOD5"
@ 19,29 GET ebod
@ 19,46 GET dbod
@ 19,61 GET fbod
@ 20,13 SAY "SS"
@ 20,29 GET ess
@ 20,46 GET dss
@ 20,61 GET fss
@ 21,9 SAY "PHOSPHOROUS"
@ 21,29 GET ephos
@ 21,46 GET dphos
@ 21,61 GET fphos
@ 22,13 SAY "NH3"
@ 22,29 GET enh3
@ 22,46 GET dnh3
@ 22,61 GET fnh3
```

This file, CONFIG.SYS, must be present on the root directory when booting DOS on the computer at start up. It is necessary to increase the default number of files and buffers allowed to be

open at one time in order for the database system to function properly.

files=20
buffers=15