PINELANDS
INFRASTRUCTURE FINANCING PLAN

January 9, 1987

New Jersey Pinelands Commission

PINELANDS COMMISSION

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I. INTRODUCTION

The New Jersey Pinelands has been recognized locally, nationally, and internationally as an area containing unique and fragile environmental, cultural, and economic resources. Under the state Pinelands Protection Act of 1979, the Pinelands Commission was established and was authorized to plan for the long term protection of the area's resources. The Commission was also authorized to regulate development within the designated 924,000-acre Pinelands Area, which spans all or parts of 52 municipalities in seven southern New Jersey counties. The Comprehensive Management Plan (CMP) for the Pinelands was subsequently prepared and was adopted by the Pinelands Commission in November of 1980. The CMP divides the Pinelands Area into a number of "management areas", and sets forth minimum standards for development in each management area. In general, new development is highly restricted in the environmentally sensitive Preservation, and Forest, as well as Agricultural Production Areas, while growth compatible with the environment is encouraged in the Regional Growth Areas. The Plan is implemented through local governments, which are required to revise their master plans and zoning ordinances to conform to the standards contained in the CMP. By December of 1986, 42 of the 52 affected municipalities were certified by the Pinelands Commission as being in conformance with the Plan, and two other municipalities which have received conditional certification are in the process of making final adjustments to their zoning ordinances to achieve full certification.

The CMP relies upon several strategies for redirecting development away from environmentally sensitive and agriculturally important areas to the designated growth areas, including traditional zoning and a state land acquisition program. In addition, a novel regional transfer of development rights program, called the Pinelands Development Credit (PDC) program, was adopted as part of the overall plan. Under this program, PDCs are allocated to landowners in the Preservation and Agricultural Production Areas, and they may be sold to developers who can use them to increase permitted densities for residential development in the Regional Growth Area. In this way, the development potential associated with land can be transferred from one place to another, thereby encouraging growth in appropriate locations, providing permanent protection to sensitive lands, and permitting landowners in protected areas to share in the financial benefits derived from residential development in Regional Growth Areas.

While there are private financial benefits to be derived from residential development, there are also public costs associated with the provision of capital facilities such as sewage disposal systems and roads to serve the new residents. Such facilities are needed to accommodate the type and extent of the development permitted under the CMP in Regional Growth Areas, particularly the growth associated with the use of PDCs. In order to facilitate the

development anticipated in Regional Growth Areas and to ease the financial burden on local taxpayers of providing the necessary infrastructure improvements, the Pinelands Infrastructure Bond Act was enacted on August 23, 1985 as Chapter 302 of the Laws of 1985. The bond issue was approved by the voters in November of 1985, and provides $30 million in grants and loans for infrastructure projects servicing Pinelands Regional Growth Areas.

The types of projects which are eligible for funding include the acquisition, construction, or improvement of wastewater treatment, water supply, and transportation systems. Eligible recipients include counties, municipalities, and local authorities or agencies which have the capability to manage capital projects. The program will be administered by the Department of Environmental Protection; however the Act calls for the Pinelands Commission to prepare and adopt an "infrastructure master plan" to be used in evaluating potential projects to be funded under the program.

The master plan has been divided into two phases. Phase I, of which this Financing Plan becomes a part, deals with wastewater projects within RGA's. Because the CMP limits high density growth within regional growth areas to sewered areas, growth potential in RGA's is limited without sewers and adequate sewage treatment. Additionally, the

provision of sewers alleviates existing problems caused by septic tanks, which may pollute groundwater and contaminate private wells. Phase II of the master plan will cover water and transportation projects which become increasingly important as growth occurs as a result of sewers.

The Infrastructure Master Plan consists of several components. First, all of the capital projects are inventoried and described in terms of cost, status, conformance with existing plans, numbers of persons served, and expected impact on environment. The projects are assessed on the basis of Regional Growth Area development potential and the development which may occur given Pinelands build-out capacities. A rating system to rank the various projects has been established and followed by the final ranking of Pinelands infrastructure projects. All of the pertinent data is located on computer and new projects may be inserted when the priority list is updated.

This report is aimed at determining the level and type of funding which will be made available to projects which receive high priority on the ranking list. The Pinelands Infrastructure Bond Act does not address the issues of what level of assistance projects should receive nor how the proportion of grants vs. loans should be determined. Interest rates for trust loans are specified only in that they shall not exceed 50% of the average interest rate of

the Bond Buyer Municipal Index for bonds available for purchase during the last 26 weeks preceding the approval of the loan by the DEP. Therefore, the Pinelands Commission has considerable latitude in determining the financing arrangements for eligible projects. This report analyzes the various issues to be resolved in constructing a program which is equitable and provides the assistance necessary to make projects viable, while at the same time providing assistance to as many projects as possible, both now and in the future.

In attempting to resolve these issues, the Commission staff has consulted with grant/loan program professionals representing the U.S. Farmers Home Administration, the N.J. Department of Community Affairs and the N.J. Department of Treasury. A technical advisory committee composed of representatives from the three "208" planning agencies covering Pinelands Regional Growth Areas, the Governor's office, and the New Jersey Department of Environmental Protection has also provided invaluable assistance in formulating the project inventory priority system as well as the financial recommendations presented here. Finally, a representative from the firm of Bear Stearns, Inc. provided valuable comments and suggestions on the draft version of this report.

II. OVERVIEW OF PAST AND EXISTING WASTEWATER TREATMENT FINANCING PLANS

The Pinelands Infrastructure Trust Fund is unique within the context of other wastewater financing plans. Past and present federal/state wastewater grant assistance plans, for instance, offer a total grant package but at levels that have been established by legislative mandate given certain funding levels. Other programs within the State of New Jersey provide 100% loans at a rate which is yet undecided. Only the U.S. Department of Agriculture Farmers Home Administration gives out combination grants/loans, but this funding is reserved solely for hardship and a separate set of poverty criteria is utilized. Additionally, FmHA monies have only funded three wastewater treatment projects in the past five years out of its main office for New Jersey in Mt. Holly.

A. Past Programs

The past wastewater financing programs unified the Federal Environmental Protection Agency and State programs into one package. Up until October 1, 1984 all costs of wastewater management including planning, design and all facets of wastewater facility construction were eligible for funding under joint federal/state rules. The grant levels were fixed by legislative action and were set at a 75% federal contribution, 15% state contribution and 10% local contribution. However, as levels of funding dropped and the backlog of unfunded projects grew, both the federal and

state governments considered changes to this traditional grant arrangement.

B. Current Programs

Federal, U.S. Environmental Protection Agency

The existing wastewater funding program is a construction grants program which awards a 55% grant to projects which are on a joint federal/state priority list. The eligible costs are very tightly controlled and no longer include planning and design except at a rate based upon a percentage of actual construction costs. Only the construction of secondary or advanced treatment plants, interceptors and infiltration/inflow connections projects are fundable. New collection systems, sewer system replacements, and combined sewer overflow connections are not eligible for funding. Additionally, costs such as right of way acquisition and other project costs are ineligible for funding. All projects must be designed for a five year reserve capacity, the incremental costs of which must be borne by the grantee. Grant amounts are made as a percentage of the low bid project cost and are based on a system sized for the date of grant award.

Federal, U.S.D.A. Farmers Home Administration

The objective of the FmHA grant/loan program is that grants will be used for water supply and sewerage projects

serving the most financially needy communities to reduce user costs to a reasonable rate. Reasonable rate is defined as that which is approximately the same as the rate in other communities with similar economic conditions and with the same type of sewerage system in place. Grants are determined in accordance with the following criteria and do not result in a user rate below that deemed to be reasonable:

1) Grants may not exceed seventy five percent (75%) of the eligible project development costs (similar to eligible costs in the Pinelands Trust)

2) Applicants shall be considered for grant assistance when the debt service portion of the average annual user cost, for users in the applicant's service area, exceeds the following percentages of median household income:

   a) .5 percent when the median household income of the service area is below the poverty line for a family of four.

   b) 1.0 percent when the median household income of the service area is above the poverty line for a family of four but

not more than 85 percent of the State's metropolitan household income

Project costs attributed to users outside the needy community are factored out. The remainder of all project costs are funded by a market rate FmHA loan for a forty year period.

Three wastewater treatment projects have received commitments from the FmHA office in Mt. Holly, N.J. in the past 5 years. The project grant/loan breakdown is:

° 41% grant and 59% loan;

° 46% grant and 54% loan; and

° 61% grant and 39% loan.

The latter commitment has been made for the Chesilhurst collection system in the Pinelands.

State, Grant Program

The State of New Jersey currently operates a grant program in conjunction with the U.S.E.P.A. program. Utilizing the federal priorities list and evaluation system, the Department of Environmental Protection matches all 55% federal grants with an 8% state grant. All eligible costs

are identical to the federal program and since the same priority list is used, funded grant projects receive 63% of the total eligible costs of a given wastewater treatment project. All projects must be designed to meet existing needs on the date of initiation of operation plus an additional twenty year capacity. However, all incremental costs of reserve capacity beyond the needs existing on the date of initiation of operation shall be borne by the project sponsor.

State, Loan Programs

The state has established a new financing program to assist municipalities in constructing wastewater treatment facilities which complements and will eventually replace the Construction Grants Program, for which federal funding is likely to expire.

The Wastewater Treatment Financing Program is comprised of the Wastewater Treatment Fund (the Fund), a revolving loan fund capitalized by $150 million in state general obligation bonds, and the Wastewater Treatment Trust (the Trust), an innovative financing vehicle capitalized by $40 million in state general obligation bonds, with the ability of "leveraging" these funds to increase the amount of available funding. The New Jersey Wastewater Treatment Trust Act and the Wastewater Treatment Bond Act of 1985 together provide the legislative framework for this program. The Wastewater Treatment Bond Act of 1985, approved by the voters in November 1985, authorized the sale of $190 million in general obligation bonds to initially subsidize the Wastewater Treatment Financing Program. The New Jersey

Wastewater Treatment Trust Act establishes the New Jersey Wastewater Treatment Trust, a semiautonomous entity "in, but not of" the Department of Environmental Protection, to manage the financing policies of the New Jersey Wastewater Treatment Trust program.

The Wastewater Treatment Bond Act of 1985 provides for the state to make low and zero interest loans for construction of wastewater facilities. It also allows for grants provided that no grant shall exceed 20% of the project cost. The N.J. DEP which administers this program has decided, however, that the Wastewater Treatment Financing Program will loan these monies to applicants in anticipation of continuing a revolving loan program. The rules and regulations promulgating this program have been formulated and are awaiting final adoption.

The financial policies of the Wastewater Treatment Financing program have been formulated, concluding, for the best interest of New Jersey, that the Trust and the Fund shall act together, with each entity providing a portion of a local government unit's total loan for a project. The blending of interest rates for the combined loans of the Trust and Fund means that the resultant interest rates will be set at approximately 50 percent of market rate. These loans will be made for generally 20 years and for up to 100 percent of eligible project costs (eligible categories under

the Wastewater Treatment Financing program will additionally include categories not presently considered eligible under the Federal Construction Grants Program; i.e., collection systems, combined sewer overflows and sewer system rehabilitation projects). All projects must be designed to meet existing needs on the date of initiation of operation plus an additional 20 year reserve capacity. However, all incremental costs of reserve capacity beyond the needs existing on the date of initiation of operation shall be borne by the project sponsor.

In summary, then, there are three major programs at the federal and federal/state level which provide funds for wastewater treatment projects. The first is a combined U.S.E.P.A./N.J.D.E.P. grant program which funds 63% of a project's cost, but which is very strict with regard to eligible costs. The second is the Farmers Home Administration program which finances 100% of a project's cost through grants and loans at variable rates to financially needy rural communities. Finally, the N.J.D.E.P. plans to administer a 100% loan program at below market rates.

C. Comparison of Eligible Costs in All Current Programs

In order to compare current sewer system funding programs adequately, it is necessary to note how each program differs with regard to eligible costs. The program which funds the most eligible costs may also be the program

with the highest level of funding if these costs are substantially higher than those deemed eligible in other programs.

The Farmers Home Administration funds virtually all physical costs of a sewerage project because the program is designed to assist low income communities. The New Jersey Department of Environmental Protection and U.S.E.P.A. programs are similar and are more restrictive in terms of eligible costs. The Pinelands Trust regulations allow virtually all physical costs of construction of a sewerage system to be funded. The basic difference between the Pinelands Trust and FmHA program is that the Trust program is designed to create an incentive to sewer to meet the objectives of the CMP, while the FmHA assists only projects that would otherwise not be funded due to the financial condition of the community.

The first major difference in programs has to do with reserve capacity. Briefly,

° The USEPA requires a 5 year reserve capacity from the day of grant award notification, but the project sponsor must bear the increased cost of the increased capacity.

- The NJDEP requires a 20 year reserve capacity from the date of initiation of operation of the project, but the project sponsor must bear the increased cost of the increased capacity.

- The FmHA allows 20 year reserve capacity as an eligible cost as long as the capacity will permit "reasonable growth" which is a judgement made by the FmHA.

- The Pinelands Trust allows reserve capacity based on ultimate buildout capacity using PDC's as an eligible cost.

The second area of distinction between eligible costs has to do with land acquisition. Basically,

- The USEPA and N.J. DEP do not allow as an eligible cost, the acquisition of land for a sewage treatment plant or sewer right of way.

- The FmHA and Pinelands Trust do allow as eligible costs the acquisition of land for a sewage treatment plant and sewer right of way.

The final area of difference in eligible costs has to do with on-site systems. The N.J. DEP, FmHA and USEPA allow the costs of on-site systems; the Pinelands Trust does not.

III. MAJOR ISSUES TO BE RESOLVED

In reviewing different funding options for the Pinelands Infrastructure Trust program, three major issues to be resolved were identified. The first is whether funding rates should be fixed for each project, or whether the level of funding should vary by project on the basis of one or more criteria. The second major issue is to determine the level of assistance which should be provided to projects in order to make them financially feasible. The third issue is to determine the proportion of project costs which should be funded with grants vs. loans, and what interest rate will be applied for trust loans. This latter issue bears directly upon the Trust's ability to recapture monies over time in order to help finance a greater number of projects. These issues are discussed in detail below.

A. Fixed vs. Variable Funding Programs

1. Analysis of Alternatives

Several different types of fixed vs. variable funding options have been analyzed in terms of their advantages and disadvantages. These include an option to provide a fixed level of assistance to all projects, options to provide fixed levels of assistance to all projects except under certain circumstances, and options which would provide project-specific levels of

funding. Four alternatives are presented below, with a listing of the advantages and disadvantages of each.

1) Each project receives the same percentage level of project costs.

Advantages

All applicants (projects) are treated equally.

The program is simple and straight forward to administer.

The program is consistent with DEP and EPA grant and loan programs.

Future user fees are certain and easy to calculate.

Disadvantages

Does not take into account special circumstances relative to individual projects such

as ability to pay, or adjustment of possible high user fees.

Does not allow a higher priority project to receive a higher proportion of funds.

2) Each applicant receives the same level assistance except applicants who are unable to finance the project without additional funding. All determinations of additional need can be made by utilizing a specific set of economic criteria.

Advantages

All applicants are initially treated equally.

Accommodates local financial limitations which could render specific projects infeasible unless higher levels of assistance are provided.

The program is fairly simple and straight forward to administer.

Incorporates elements of all existing programs.

Disadvantages

Does not allow higher priority projects to receive a higher level of funding.

Could accelerate depletion of funds.

3) Each priority project receives an amount which is function of its ranking, with higher ranking receiving proportionally more funding.

Advantages

Projects most important to the implementation of the Pinelands CMP are given more incentive to be carried out.

Disadvantages

Treats applicants unequally.

Does not take into consideration ability to pay.

Level of funding is not guaranteed and may be confusing to applicants.

Criteria on which to base funding consideration are judgemental and difficult to administer.

4) Each applicant receives an amount based on household income versus estimated user fees. A high ratio of user fees to income would result in a greater level of funding.

Advantages

Treats ultimate household users equally in terms of ability to pay.

Comparable to existing FmHA program.

Treats applicants fairly with overall ability to pay at municipal or MUA level.

Disadvantages

Difficult to calculate and administer.

Difficult to estimate user fees.

Favors smaller jurisdictions because larger jurisdictions spread cost over a larger user base.

Level of funding to be received by applicant is uncertain.

Does not take into account relative priority of projects.

2. Recommendations

Based upon the Commission staff analysis and input provided by financial experts and grant/loan program professionals,it is proposed that the initial determination of funding levels for projects be fixed for all projects. However, the effective assistance level may be increased for a given project under the hardship exception provisions discussed below.

Hardship Exception

If a project sponsor feels that it cannot satisfactorily complete the project within the fixed level of funding authorized by the Pinelands Infrastructure program, the sponsor may appeal for financial relief. This relief may be sought to defray costs associated with the equivalent dwelling unit user cost, or defray costs which may prevent the project sponsor from

entering into a service agreement guaranteeing a loan based on the assets of any given community.

The hardship exception will be considered after the NJ DEP Construction Grants Division reviews the application with projected user fees and advises the Pinelands Commission that the estimated user fee has been calculated correctly. The Pinelands Commission will then modify its level of assistance if necessary to ensure that the average annual user cost, for users in the applicant's service area, will not exceed the following percentages of median household income:

1) .5 percent of the median household income if it is below the poverty threshold for a family of four.

2) 1.0 percent of the median household income if it is above the poverty line but not more than 85 percent of the median household income for the state.

Income levels and poverty thresholds will be computed on the basis of 1980 Census data (1979 Income Statistics), updated using the Consumer Price Index.

A project sponsor meeting these criteria may then be eligible for increased levels of assistance by:

1) increasing the term of the Trust loan segment from 20 up to 40 years thereby reducing the yearly payback.

2) decreasing the trust loan interest rate down to as low as 0% in order to reduce the debt service and consequently the payback of the loan.

3) converting all or a portion of the Trust loan to a grant.[1]

4) a combination of the above.

The Pinelands Commission will notify the N.J. DEP of any changes in the level of assistance and the project will then be reviewed on its financial merits by a financial review board made up of representatives of N.J. DEP, NJDCA's Division of Local Government Services, and the N.J. Department of Treasury.

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[1] If the estimated user fees are too high the maximum grant amount may not lower the fees to the recommended levels. If this occurs, the sponsor will have to determine if the project remains feasible.

B. Level of Assistance

In determining the percentage of project cost to be covered by the Pinelands Infrastructure Trust, two factors must be considered. The first is the effective cost of projects to the recipients at each level, and the second is the total number of projects which can be funded both now and in the future. Figure 1 shows how the effective cost of the recipient varies as a percent of the project costs funded by the trust, for both a grant program and a low-interest loan program. The "effective cost" is the total amount paid by the recipient to repay both trust loans and locally financed loans over a period of 20 years, expressed in actual, or future dollars[1], divided by the initial cost of the project. For the purposes of this and succeeding analyses (except where indicated), it is assumed that trust loans will carry an interest rate of 4% while locally bonded monies will repaid at a rate of 8%, which reflects recent rates of the Bond Buyer Municipal Index. The actual interest rates at the time the loans are made may differ.

It is apparent that as the percent of the project funded by the Pinelands Trust increases, the effective cost of the projects to the recipient decreases, for

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[1]All estimated costs and revenues derived on the basis of 20-year loans in this report are expressed in terms of future rather than present value., except where noted.

both grant and loan programs. The decrease in cost is especially dramatic as the grant proportion increases, dropping from 204% of initial project costs to zero if the entire project is funded through Trust grants. The effective cost drops from 204% to 147% of initial costs if the entire project is funded through low interest Trust loans. Clearly individual recipients of trust funds are better off when a higher proportion of project cost is covered by the Trust.

However, as Figures 2 and 3 show, the total value and hence the total number of projects which can be funded by the Trust drops as the funding level increases. Initially, the Trust could conceivably fund $120 million dollars worth of projects if it covers only 25% of the project costs, while only $30 million in projects could be covered if 100% funding is provided (see Figure 2). When viewed over a period of twenty years, the effect on the total value of projects remains the same for a grant program, but increases dramatically for a loan program, due to reinvestment of monies repaid to the Trust[1] (see Figure 3).

The issue in terms of determing the level of funding is to provide assistance to as many projects as

[1] It is assumed that funds are reinvested annually.

FIGURE 1

RECIPIENT COST – LEVEL OF TRUST FUNDING

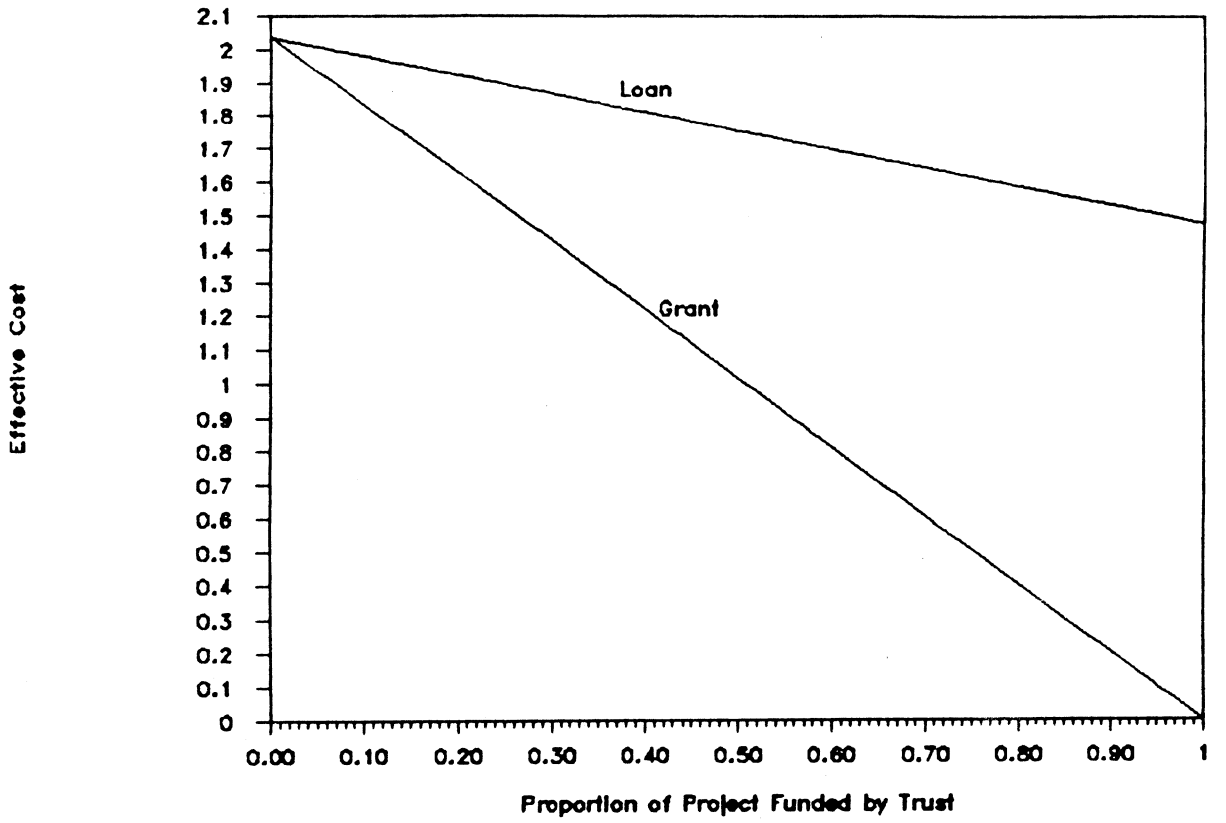


FIGURE 2

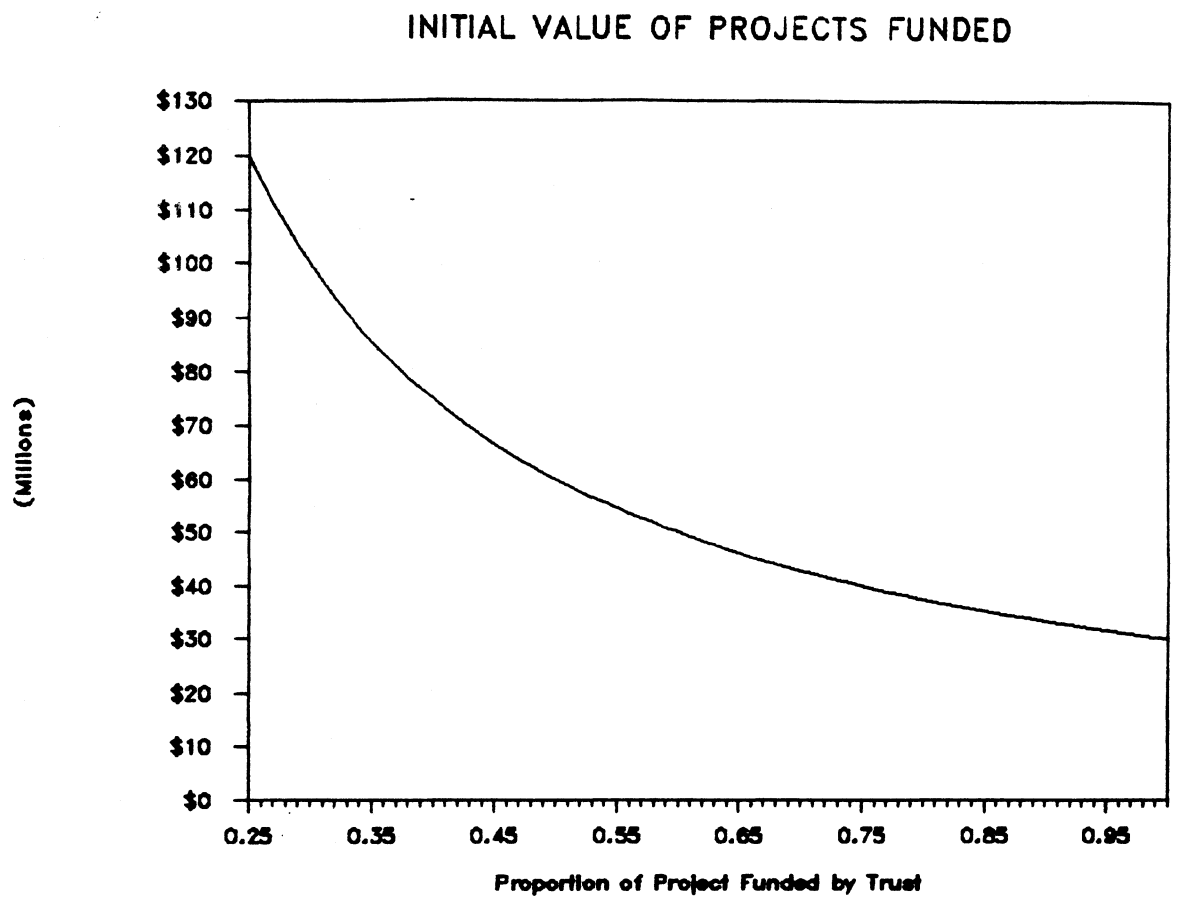
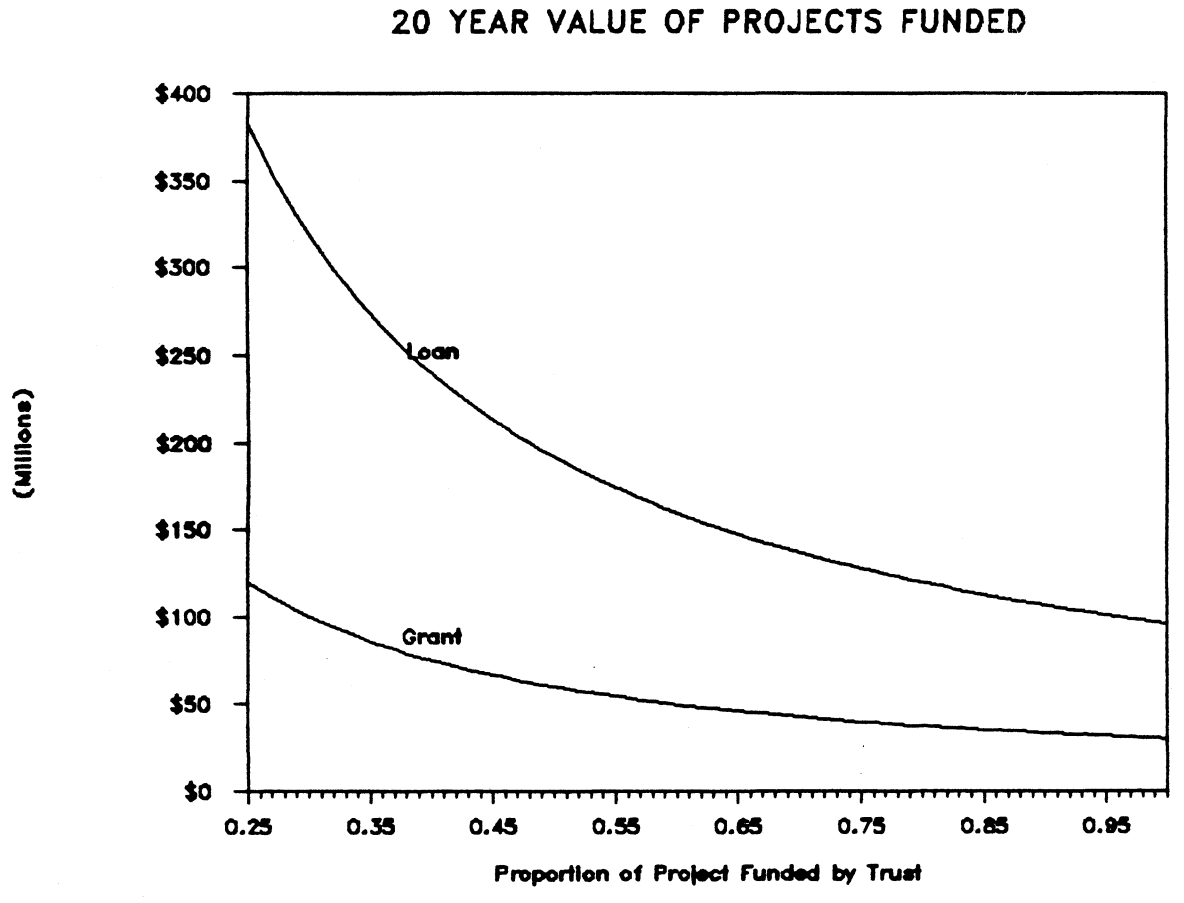


FIGURE 3



possible in the Pinelands while at the same time providing a "reasonable" level of assistance to individual projects so that the projects which do qualify for funds are feasible. Absent any objective measure of what constitutes a "reasonable" level of assistance, and on the recommendation of the grant/loan professionals consulted, the determination of the level of funding is based upon the existing federal construction grants program and the state wastewater trust program, and the level is set initially as an "effective" rate of assistance rather than as a fixed percentage of project costs. The total value of projects funded can then be maximized by varying the actual grant/loan percentages for a fixed rate of effective assistance, as will be described in the next section.

The effective rate of assistance provided under the federal construction grants program is computed by adding together the federal grant (55%) with the state matching grant (8%) and assuming that the remaining costs are covered through local bonding at an interest rate of 8% over 20 years. The effective cost to the recipient under this program would be 75% of the total initial costs of the project. The state wastewater trust program, on the other hand, covers 100% of eligible costs, but at approximately half the prevailing interest rate, resulting in an effective cost to

the recipient of 147% of initial projects costs. Based on this information, it is proposed that the Pinelands Infrastructure Trust provide a level of assistance which results in an effective cost to the recipient of 111%[1], which is midway between the assistance levels provided by the two programs. Of course, this effective level of assistance could be increased under the hardship provisions described in Section III A.2.

C. Trust Grants vs. Trust Loans

1. Loan Interest Rate

In order to provide a source of funding for future wastewater projects (including repair, replacement, and expansion of existing facilities), as well as water supply and transportation projects identified in the second phase of the Infrastructure Master Plan, it is necessary that at least a portion of the funds be provided as loans. In the preceding analyses, it has been assumed for illustrative purposes that Trust loans would carry a four percent interest charge. In fact, the Pinelands Infrastructure Bond Act permits interest rates to be set at half the prevailing market rate or lower. As Figure 4 shows, the payback to the Trust

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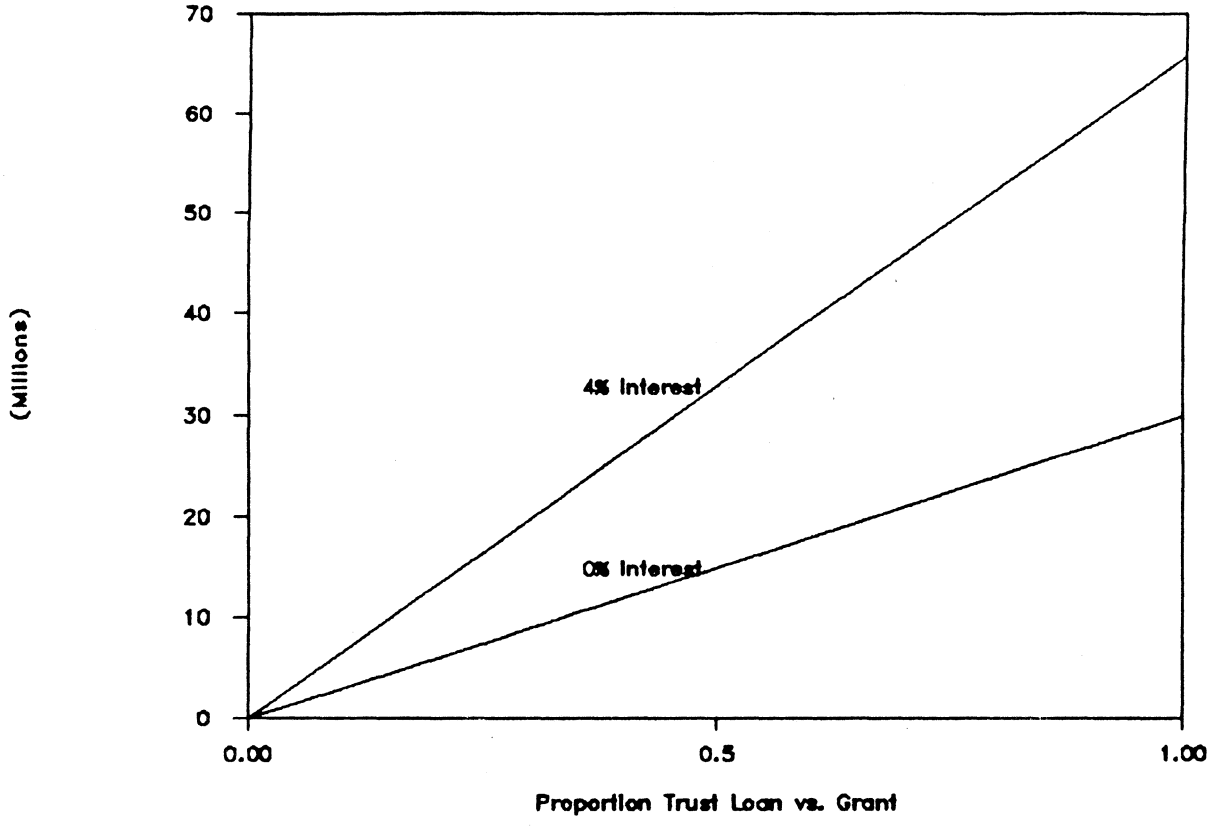
[1] In terms of present value, the effective cost to the recipient is only 54% of total project cost.

FIGURE 4

TWENTY YEAR PAYBACK TO THE TRUST



over a period of twenty years is much higher for a 4% interest loan program than for one which would charge no interest, particularly as the proportion of Trust funds paid in loans increases. After 20 years, the payback for a 100% loan program would be $65.7 million at four percent and only $30 million at zero percent, assuming that monies repaid are reinvested annually. Therefore, from the standpoint of providing a continuing source of funding over time, it is recommended that the interest rate be set at the maximum of half the prevailing bond rates.

At the same time, of course, the interest charge increases the cost of the loan to the recipient. For example, a recipient who borrows $1 million dollars at 4% interest over 20 years would make annual payments of $73,582, while the annual payments for a loan with no interest would be only $50,000. It is therefore recommended that the interest rate be lowered or eliminated in cases of financial hardship as a means of reducing recipient effective costs to a reasonable level if necessary, as discussed in Section III. A.2.

2. Grant and Loan Percentages

The final issue which must be resolved is what proportion of each project will be funded through a Trust grant, a Trust loan, and what proportion will be

locally financed, for an assistance level equal to 111% of initial project cost under current interest rates. Figure 5 shows four examples of financing arrangements which achieve this level of assistance. As the proportion of project costs covered by Trust loans increases, the grant proportion decreases at a much slower rate, thereby causing the locally financed share of costs to decline. Thus a greater percentage of project costs must be covered by the Trust as the loan proportion increases for a given effective level of assistance, for the simple reason that loans are more costly to recipients than grants.

This has ramifications for the total number of projects which can be funded under the Trust both now and in the future. Figure 6 depicts graphically the effect of an increasing percent of project costs covered through Trust loans for an assistance level equal to 100% of project costs, assuming a 4% interest rate for Trust loans and 8% for local financing, and annual reinvestment. The initial total value of projects which can be financed decreases as the percent Trust loan increases. At one extreme, if no trust loans were offered, the Trust grant necessary to achieve the fixed effective assistance rate would be 46% of project cost, and $66 million in projects could be funded immediately. However, no funds would be

FIGURE 5

TRUST AND LOCAL FINANCING ALTERNATIVES

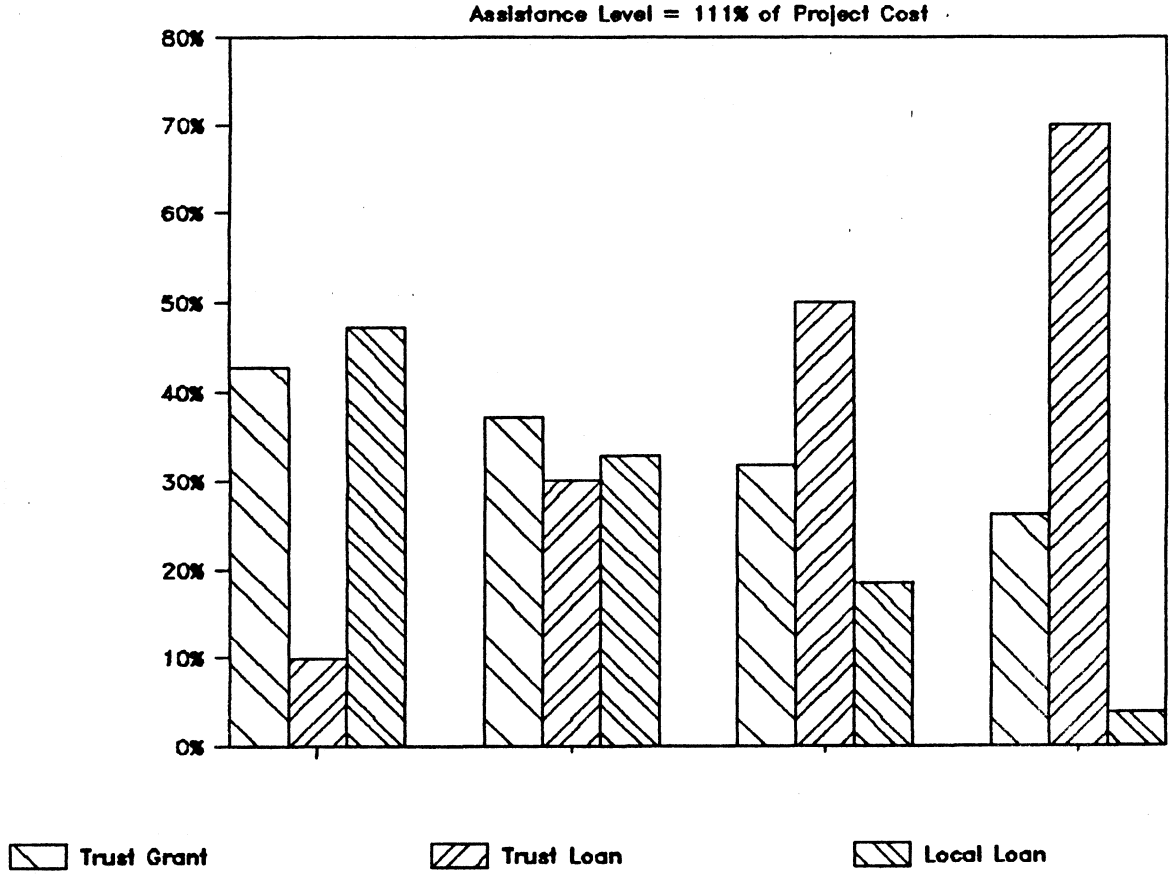
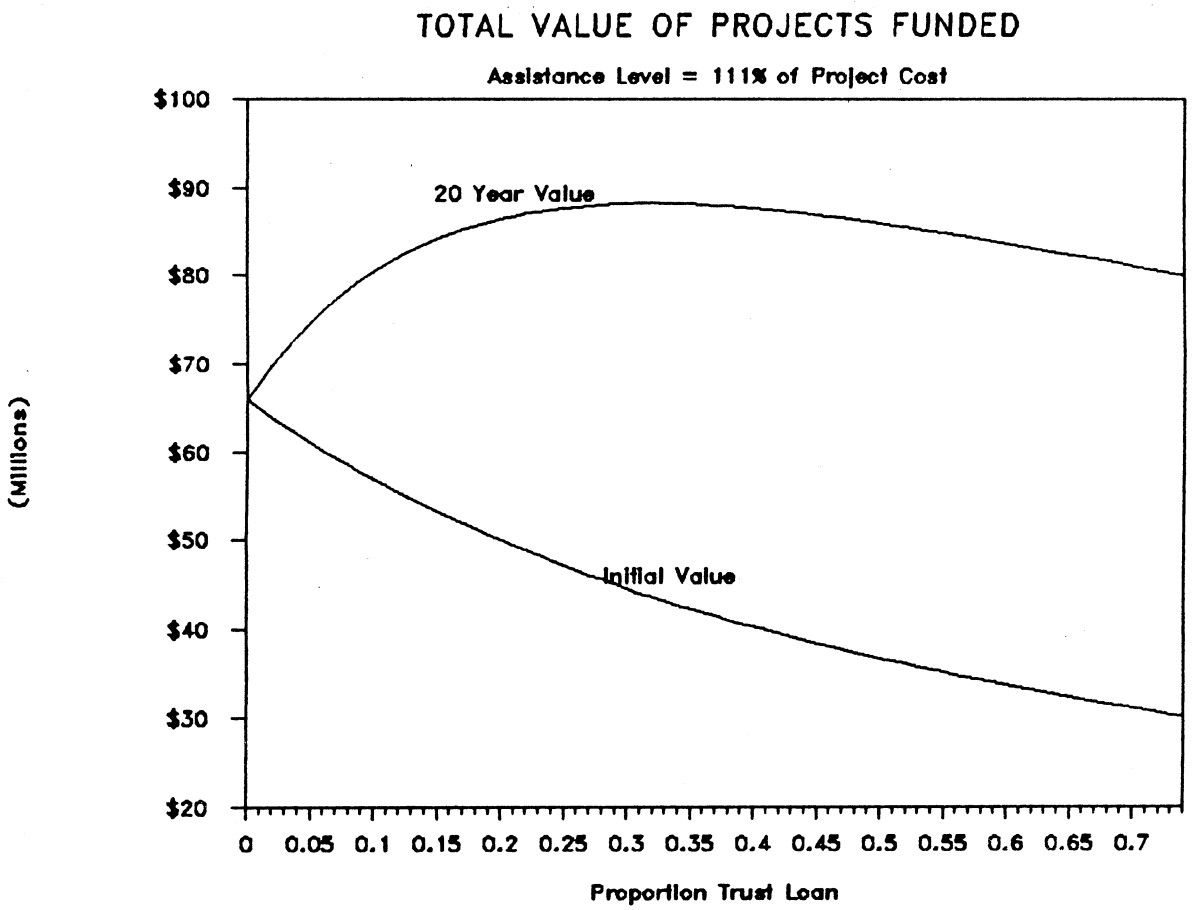


FIGURE 6


TOTAL VALUE OF PROJECTS FUNDED
Assistance Level = 111% of Project Cost
$100
$90
$80
$70
$60
$50
$40
$30
$20
(Millions)
20 Year Value
Initial Value
0 0.05 0.1 0.15 0.2 0.25 0.3 0.35 0.4 0.45 0.5 0.55 0.6 0.65 0.7
Proportion Trust Loan

returned to the Trust. At the other extreme, if 75% of project costs were financed through Trust loans, the remaining 25% would have to be financed through Trust grants in order to achieve the same effective assistance level, and only $30 million in projects could be funded initially. Thus, in terms of financing the projects identified in the first phase of the infrastructure program, the higher the grant percentage, the higher the number of projects which can be funded for a given level of effective assistance.

However, as noted above, it is recommended that the Trust be used to fund not only those projects identified thus far in the inventory, but other wastewater, water supply, and transportation projects identified in the next phase of the master plan. Figure 6 also shows the total value of the projects which can be funded at different percent Trust loans over a period of twenty years. In this case, the value initially increases as the loan percentage increases, due to the effect of reinvestment of monies loaned. However, the value peaks at a 32% loan (37% grant) and then begins to decrease, due to the effect of lowering the grant amount and thereby significantly increasing the total percent of project costs which must be funded by the Trust.

Therefore, in order to balance the short term and long-term goals of providing infrastructure to Pinelands Regional Growth Areas, it is recommended that the amount of the Trust loan be set at 20% of project cost and the amount of the Trust grant be set at 40% of project cost, with the remaining 40% of project costs to be financed locally. This funding scheme results in an effective level of assistance to recipients equal to approximately 111% of initial project costs (54% in terms of present value); allows just under $50 million in wastewater projects to be funded immediately; and permits an estimated $86 million in wastewater, water supply, and transportation projects to be financed over a period of 20 years. If grant or loan terms are changed because of hardship situations the 20 year estimate of available revenues will be affected as well.

IV. IMPLEMENTATION OF THE PROGRAM

A. Funding Allocations

Of the $30 million in funds authorized by the Pinelands Infrastructure Bond Act, about $28 million is available for determining levels of project funding. This figure is derived as follows:

Total Available	$30,000,000
Less: Bonding and Planning Costs	(500,000)
Planning/design grants	(100,000)
Available for Projects	29,400,000
Less: Contingency	(1,400,000)
Initial Allocation Amount	28,000,000

Planning costs are those associated with the preparation of the Pinelands Infrastructure Master Plan, while bonding costs include bond counsel, printing, and issuance costs of Pinelands Infrastructure Trust Bonds. Planning and design grants are recommended to be awarded to Regional Growth Area communities which are in need of sewerage projects but have only conceptual or incomplete plans upon which to base a project. It is anticipated that no more than three communities will receive planning/design assistance. Since the project cost estimates contained in this report are preliminary, it is likely that the final low bid construction costs will vary somewhat from these estimates. Since the final determination of the grant/loan amounts will be based on the low bid construction cost, it is recommended

that a $1.4 million contingency be set aside to provide a buffer in case the final costs for the projects funded exceed the preliminary estimates.

B. Levels of Project Funding

The levels of Pinelands Trust Assistance to each project eligible under the Trust funding ceiling of $28 million is shown in Table 1. A special notation should be made with regard to Stafford Township's Ocean Acres collection system. Because of its priority ranking, the Stafford Collection system was the last project which could be considered for funding. As the table shows, however, it is anticipated that there will insufficient funds available to fund the project at normal trust levels. However, since Stafford has now chosen to participate in the Stafford Skeleton project which fell next on the priority list, full Trust funding will be available and $150,981 of the $28,000,000 available for allocation can be reserved for future projects.

C. Implementation Process

In order to be considered for funding in the fiscal year July 1, 1987 - July 1, 1988 those projects listed in Table 1 must adhere to the following schedule:

- Planning and design documents submitted to DEP by May 1, 1987.
- Grant/loan application and engineering reports by June 30, 1987.
- Commence construction by June 30, 1988.

Table 1
TRUST ASSISTANCE
(Assuming Priorities and Costs Remain Stable in Subsequent Years)

Project Name	Estimated Eligible Cost[1]	Potential Trust Assistance		
		Grant	Loan	Total
Monroe Interceptor	$ 5,207,500[2]	$ 2,083,000	$ 1,041,500	$ 3,124,500
ACUA Coastal Interceptor	23,000,000	9,200,000	4,600,000	13,800,000
Waterford Sewage Treatment Plant[3]	4,200,000	1,680,000	840,000	2,520,000
OCUA Ridgeway-Cabin Branch Interceptor	6,080,000	2,432,000	1,216,000	3,648,000
Chesilhurst Interceptor[3]	513,176	205,271	102,635	307,906
Chesilhurst Collection System	529,824[4]	211,929	105,965	317,894
Hamilton-Harding Highway Interceptor	1,425,000	570,000	285,000	855,000
Galloway-Pinehurst Interceptors	659,560	263,824	131,912	395,716
Stafford-Ocean Acres Skeleton System[5]	4,800,006	1,920,002	960,001	2,880,003
Total Fundable Projects	$46,415,066	$18,566,026	$9,283,013	$27,849,019

[1] Final determination of eligible costs to be made by the Department of Environmental Protection.

[2] Estimated costs of $5,760,000 reduced to exclude local bonding and financing costs.

[3] As referenced in the supplement to the December 19, 1986 Pinelands Infrastructure Master Plan report, these two projects may be significantly revised. If that occurs and the newly identified proposals retain their ranking, the recommended Trust assistance not to exceed grants of $1,885,271 and loans of $942,635 will be made available.

[4] $2,457,000 in assistance from FmHA reduces cost of Pinelands Trust project to $529,824.

[5] Although the Stafford Collection system is ranked higher than the Skeleton System, the Stafford MUA has proposed to pursue the Skeleton System as a first phase of the full collection system.

At the time of submission, the eligible applicant may also submit a request for increased assistance due to hardship. The DEP will verify the estimated user fee and will notify the Pinelands Commission. The Pinelands Commission will then determine financial need, if any, and adjust the loan and/or grant accordingly. As is the case with all Pinelands and New Jersey Wastewater Trust projects, the State finance review board, comprised of members for the NJ DEP, Department of Treasury, and the Department of Community Affairs will finally judge the financial merits of the project.

When the project is approved, the NJ DEP will set a more exact project award for funding based on detailed engineering cost estimates. This award may be used for precise bonding estimates but will change according to the final low bid costs of the project. Only then will the exact cost of the project be known and no project overruns will be allowed unless borne by the applicant. Internal project costs, if lower, may be transferred to other internal line items. In order to receive grant/loan awards it is recommended that the conditions listed in Table 2 be placed on eligible projects[1]. It should be noted, also, that Pinelands Trust funding may be coupled with any other state, or federal or local funding programs.

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[1] See the descriptions of individual projects and unmet needs in Sections 2 and 3 of the Pinelands Infrastructure Master Plan for discussions of the issues underlying these proposed funding conditions.

Table 2

RECOMMENDED CONDITIONS OF FUNDING

Project	Conditions(s)
MONROE INTERCEPTOR	° Commitment to upgrade pump to GCUA interceptor
	° Request increased plant allocation from GCUA
ACUA COASTAL INTERCEPTOR	° Commitment to upgrade pumps to reach 7.0 mgd capacity
	° Increased costs associated with Harding Hwy. alignment change not eligible for Trust assistance
WATERFORD STP	° Site selection analysis for spray field in cooperation with Pinelands Commission
CHESILHURST INTERCEPTOR	° Re-examine capacity and revise plans accordingly
	° Commitment to upgrade pumps to reach full capacity
	° Trust assisted project limited to non-FmHA funded costs
CHESILHURST COLLECTION	° Re-examine capacity and revise plans accordingly
	° Trust assisted project limited to non-FmHA funded costs
HARDING HWY. INTERCEPTOR	° Final alignment to be approved by ACUA
	° Costs in excess of ACUA currently preferred alignment not eligible for Trust assistance
	° Re-examine "western" development and size pump accordingly
STAFFORD SKELETON	° May proceed with skeleton project only upon program and schedule for completion of full system
	° Any modifications to the skeleton project which significantly reduce project capacity, existing dwelling units to be served and reserve capacity will require a re-evaluation of the project
GALLOWAY SEWER	° May proceed with commitment from ACUA to provide capacity for future flows

D. Recommended Initial Appropriation

All of the project sponsors have indicated to the Commission in writing that they feel that they are able to meet all project schedules and begin construction of their projects by June 30, 1988. Therefore, the initial appropriation request is recommended to be $29,849,019.00, which covers all anticipated eligible project costs plus, a $1.4 million contingency and the estimated $500,000 in bonding and planning costs. A balance of $150,981 will remain in the trust for future projects.