

VOLUME
I OF II
REPORT
SECTION

ANNUAL REPORT 1983

GEORGE W. KUHN ~~~ DRAIN COMMISSIONER
OAKLAND COUNTY, MICHIGAN

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Oakland County Drain Commissioner



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Chief Deputy Drain Commissioner



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April 1, 1984

Honorable Board of Commissioners
County of Oakland
1200 North Telegraph Road
Pontiac, Michigan 48053


Mr. Chairman, Ladies & Gentlemen:

As required by the Michigan Drain Code, I enclose the Annual Report of the operations of the Drain Commissioner's Office during the period of January 1, 1983 through December 31, 1983.

Also, please find attached an analysis of personnel changes in the Department over the past several years as well as accomplishments in the Federal Court case from 1977 to-date.

I wish to extend my sincere thanks and appreciation to all of the members of the Board of Commissioners and to the members of the various standing committees for the excellent cooperation and assistance extended to this office during the past year.

Most sincerely,


George W. Kuhn



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April 1, 1984

TO: MEMBERS OF THE OAKLAND COUNTY BOARD OF COMMISSIONERS

Mr. Chairman, Ladies & Gentlemen:

As this new year begins, I wish to update each of you on the current status of personnel in the Drain Office and the changes in the number of full time positions which have occurred throughout 1983, plus changes which became effective January 1, 1984.

Six positions which were filled in 1983 have been deleted this January (including one retiree effective January 24, 1984). The deletion of these six positions will result in an initial savings of approximately \$160,691.00. An additional savings in the approximate amount of \$654,000 is the result of the deletion of 15 "Other Source" unfilled positions. This results in a reduction of 21 positions from the 80 positions we started with in 1983, to a new total of 59 positions for 1984.

The number of personnel has been drastically reduced from the peak workload period of 1979, as follows:

<u>Date</u>	<u>Budget & O/S Personnel</u>	<u>Date</u>	<u>Budget & O/S Personnel</u>
1978	107	1982	106
1979	208	1983	80
1980	173	1984	59
1981	147		

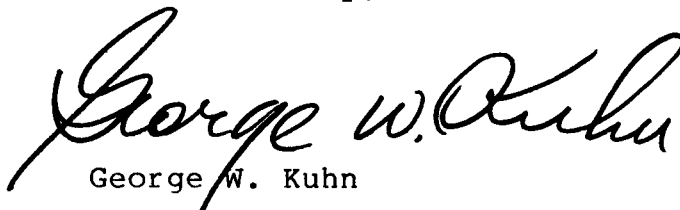
The personnel reductions for 1984 and the realignment from "Other Source" and budget positions added to 1983's over-all analysis gives us a grand total to-date of \$6,392,149.27, a substantial amount of savings.

In the area of vehicle reductions, the following analysis is provided:

<u>Year</u>	<u>Vehicles Assigned</u>
1974	30
1978-81	46
1982 (Jan.)	44
1982 (Dec.)	32
1983 (Dec.)	29 (including all OAKLAND COUNTY trucks & Vactor)

I believe the members of the Board of Commissioners will appreciate the continued efforts being made to maintain minimum staffing and vehicle levels to adequately carry on efficient and effective Drain Office operations.

Most sincerely,

A handwritten signature in cursive script that reads "George W. Kuhn". The signature is written in black ink and is positioned above the printed name.

George W. Kuhn

ACCOMPLISHMENTS - FEDERAL COURT CASE

1977 to-date

1. The Federal District Court in 1978 eliminated the 7% differential rate of return being charged to suburban rates for sewer treatment (approximately \$7 million savings annually).
2. In 1978 the Court awarded a refund for the fiscal 1977-1978 budget for "over-charging" all customers on maintenance operations some \$9 million. The suburban share was \$4.8 million; Oakland's share was over \$1 million.
3. The Court reduced the sewer rate charge (1978 increase) from \$2.08 to \$2.00, an \$.08 savings per 1,000 cubic feet.
4. The Court ordered in 1979 an outside audit of the financial records of the Detroit Water & Sewerage Department.
5. The Court placed the Detroit Water and Sewerage Department under Federal receivership in March, 1979.
6. The January 1, 1980 sewer rate increase of \$3.45 mcf was reduced to \$3.40, another \$.05 savings.
7. In 1980 the Court ordered a reduction of the DWSD fiscal year budget for 1980-1981 in the amount of \$3.5 million (from \$184 million to \$180.5 million).
8. In 1983 the Court ordered a refund (called a "look-back adjustment") for overcharges in the 1982-1983 fiscal year rates of the DWSD. Oakland County will receive \$1.7 million from this adjustment.
9. We are presently involved in a lawsuit in Federal District Court seeking millions of dollars in damages due to the excessive, unlawful profits paid out on the Vista sludge disposal contracts at the Detroit Wastewater Treatment Plant.

VOLUME I
1983 ANNUAL REPORT

TABLE OF CONTENTS

VOLUME I

ENGINEERING UNIT.....	1
INSPECTION UNIT.....	7
MAINTENANCE UNIT.....	9
SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM.....	13
DRAIN CONSTRUCTION COMPLETED	
Gosling Drain.....	21
Kasper Drain.....	21
Maplehurst Enclosure Section I Drain.....	22
DRAINS UNDER CONSTRUCTION	
Caddell Drain.....	23
Joachim Relief Drains.....	24
Vogt Drain.....	25
SANITARY SEWER CONSTRUCTION COMPLETED	
Sewer System Evaluation Survey (SSES) - Waterford Township.....	27
13-Mile Road Arm, Section I.....	27
Waterford Extensions - Phase V.....	27
SEWER & WATER PROJECTS UNDER CONSTRUCTION	
Oakland Township Extension No. 2.....	29
Orion Township Extension No. 2.....	29
Waterford Emergency Pump Connection Improvements.....	30
LAKE IMPROVEMENT BOARDS	
Big Lake Improvement Board.....	31
Duck Lake Improvement Board.....	32
Indianwood Lake Improvement Board.....	32
Island Lake Improvement Board.....	33
Lakeville Lake Improvement Board.....	34
Pontiac Lake Improvement Board.....	35
Rainbow Lake Improvement Board.....	35
VanNorman Lake Improvement Board.....	36
Walters Lake Improvement Board.....	36
Watkins Lake Weed Control Board.....	37
Wolverine Lake Improvement Board.....	37

DRAINS UNDER DEVELOPMENT

Jackson Drain.....39
Price Drain.....39

SEWER & WATER PROJECTS UNDER DEVELOPMENT

Evergreen-Farmington Pollution Control
Facilities (Sewer).....41
Huron Gardens Extension Improvements.....43
North Huron Valley-Rouge Valley Wastewater
Control System.....43
Orion Township Extension No. 3.....46
West Bloomfield Water - Section VII.....47

FINANCIAL STATEMENTS

Introduction.....49

Southeastern Oakland County
Sewage Disposal System.....51

Red Run Federal Drain.....66

Lake Projects:

Indianwood Lake Improvement Board.....68
Lakeville Lake Improvement Board.....70
Pontiac Lake Improvement Board.....72
Pontiac Lake Level Control.....74
Wolverine Lake Improvement Board.....77

Chapter 20 Drains:

Caddell Drain.....78
Gosling Drain.....80
Jackson Drain.....82
Joachim Relief Drains.....84
Vogt Drain.....86

Sewer & Water Projects - Act 342:

Evergreen-Farmington Pollution Control
Facilities (Sewer).....88
Oakland Township Extension No. 2.....90
Orion Township Extension No. 2.....92
13-Mile Road Arm, Section I.....94
Waterford Emergency Pump Connection Improvements.....96
Waterford Extensions - Phase V.....98

ENGINEERING UNIT

THE COUNTY DRAIN COMMISSIONER

The County Drain Commissioner has broad powers and responsibilities under several state laws. His primary duties are described in the Michigan Drain Code, Act 40 of 1956. Additional powers and duties of the Drain Commissioner derive from the provisions of two public works acts, Act 342 of 1939 and Act 185 of 1957, the Inland Lake Level Control Act, Act 146 of 1961, the Inland Lake Improvement Act, Act 345 of 1966, the Subdivision Control Act, Act 288 of 1967, the Soil Erosion and Sedimentation Control Act, Act 347 of 1972, and various other statutes.

For organizational purposes the functions of the Drain Commissioner as a part of Oakland County government are delegated to four operating units, Engineering, S.O.C.S.D.S., Inspection and Maintenance. The employees in each of these units perform the multitude of tasks necessary under the different programs of the office of the County Drain Commissioner to construct and maintain a variety of public works facilities for the use of residents in all parts of Oakland County.

ENGINEERING UNIT

The staff of engineers and other technical personnel in this unit are responsible for the design and construction of public works facilities of various kinds including storm drains, sanitary sewers, water mains and lake level control structures. The Chief Engineer, David J. Snyder, and the Assistant Chief Engineer, Herold J. Lueders, supervise the engineering functions of the unit. At the end of 1983 there were 22 employees in this unit. The following specific activities are performed in the Engineering Unit.

Construction Permits

During 1983 a total of 61 permits were issued for connections or taps into County and Inter-County Drains. The number of permits does not directly reflect the extent of construction or modification of the affected drains. A single permit may involve only a single connection to a drain or many different direct points of connection or other involvement.

In most cases before a permit is issued, two sets of construction plans are submitted for review. Requests for a connection to a drain may be submitted by public agencies, private property owners or contractors retained by others to construct particular facilities. All plans submitted for review must conform to the engineering design standards which have been developed by the Drain Commissioner's office to protect the integrity and usefulness of existing facilities.

At the time of construction of any connection for which a permit has been issued, an inspection is made to assure that the work is done properly and in accordance with the approved engineering plans. A fee or fee and deposit is charged to offset the cost of this inspection.

Easement Acquisition

Prior to building any public works facility it is necessary to secure easements. Easements are permanent (land upon which a structure is located) or temporary (land required during construction of the facility). Upon completion of a project, temporary easements revert back to the owner, while permanent easements remain under the control of the Drain Commissioner.

During 1983 approximately 280 easement parcels were title searched, written and appraised by the Right of Way staff. 175 easement parcels were acquired prior to January 1, 1984.

When a mutually acceptable agreement with a property owner cannot be reached, it is necessary to file a condemnation action in Circuit Court under Act 87 of P.A. of 1980, as amended. The Right of Way staff works closely with the Oakland County Corporation Counsel in filing condemnation. As a result of a condemnation proceeding, the Court awards the requested easement to the Drainage District, and, with the assistance of expert appraisers, awards the property owners a sum of money deemed to represent the diminution in value to the property caused by the easement.

The Right of Way staff works in close conjunction with the design engineer to determine the minimum requirements for construction and maintenance easements and relocations in order to minimize easement acquisition costs.

Review of Lateral Connections to the S.O.C.S.D.S.

All connections into any sewer that is tributary to the Southeastern Oakland County Sewage Disposal System are required to be first reviewed by this office prior to being submitted to the Michigan Department of Health.

This review helps protect established Drainage Districts and allows a record to be kept of all facilities outletting into County trunk lines, as well as assuring this office that proper and approved construction standards are used.

The Drain Commissioner works closely with local governments. All plans sent to us for review are transmitted through the municipalities' engineer or Engineering Department. We do this to assure that sewer lines conform to the local community master plan for sewerage development.

The Engineering Unit, between January 1, 1983 and December 31, 1983, received and reviewed 16 sets of sanitary and combined sewer plans for facilities that will outlet into the Southeastern Oakland County Sewage Disposal System.

Upon completion of our review, these plans were then forwarded to the Water Quality Division of the Michigan Department of Natural Resources with our recommendation that a construction permit be issued.

Lake Level Program

Under the provisions of Act 146 of 1961, the Drain Commissioner's office participates in legal proceedings to establish and build lake level control structures for lakes in Oakland County.

There are 42 lakes in the County where levels have been established and assigned to the Drain Commissioner for control and maintenance. The Engineering Unit prepares Special Assessment Districts for these projects and also prepares, as necessary, annual assessment rolls to provide for necessary maintenance expenditures on these projects.

Regular inspection of lake level control structures is made on a weekly basis, or more often as weather conditions may dictate. The level of each lake is read and recorded, and adjustments to the structures are made throughout the year. Every effort is made to maintain the established legal level. Regular inspection also assures that the structures are in good operating condition, and permits scheduled maintenance and repairs when needed.

As required by statute, the triennial dam inspection reports for the control structures under the jurisdiction of this office were prepared and forwarded to the Michigan Department of Natural Resources on December 22, 1983.

Plat Review

Since 1959, under a directive from the Oakland County Plat Board, a review and advisory report on all storm drainage facilities proposed in new subdivisions was made by the Drain Commissioner.

Since January 1, 1968, under the provisions of Public Act 288 of 1967, the Subdivision Control Act, the Drain Commissioner has reviewed and approved all new subdivision plats in Oakland County. The review by the Drain Commissioner is made to ensure that adequate storm drainage facilities have been included in the engineering plans for the proposed plat. Act 288 made the approval of the Drain Commissioner mandatory. In addition, Act 419 of 1976, the Mobile Home Commission Act, requires that the Drain Commissioner review and approve the outlet drainage for new mobile home developments.

In 1983, 12 preliminary plats, 19 sets of subdivision construction plans and 22 final plats were approved by the Drain Commissioner. Sixteen Oakland County communities are represented in the 22 final plats, comprising 344 residential and 35 commercial lots. The 22 final plats signed by the Drain Commissioner during 1983 represent the first yearly increase in subdivision activity since 1978.

Drain and Lake Level Assessments

Drains constructed prior to 1956 were financed by special assessment against the property served by the drain. Maintenance charges for these drains are the obligation of the property located within the special assessment district established when the drain was constructed. During 1983 maintenance work was performed on 19 of the special assessment drains, known as Chapter 4 drains, and 19 Lake Level Projects.

The Board of Commissioners approved Warrants in the amount of \$128,885.56 to assess property for the maintenance costs of Chapter 4 Drains and Lake Level Control Projects.

Soil Erosion and Sedimentation Control

For the past nine years the Drain Commissioner's Office has operated as the designated enforcing agency in Oakland County for the Soil Erosion and Sedimentation Control Act, Act 347 of 1972. The program is operated to obtain the maximum effectiveness in protecting the environment, without placing an unreasonable burden on individual property owners.

In 1983, 266 applications for soil erosion permits were received by this office as compared to 204 applications received in 1982. This increase in permit applications over 1982 is mostly due to substantial increases in single family residence, commercial, and multiple housing construction for 1983.

The amount of total revenue collected in 1983 was \$37,608.79. In 1982 the total revenue collected was \$20,859.05. Therefore, the 1983 revenue exceeded the 1982 revenue by \$16,749.74. The total amount paid by Oakland County in wages to those employees who worked on Soil Erosion and Sedimentation Control in 1983 was \$43,122.40. By comparison, in 1982 the total amount paid for wages was \$45,302.25. As these figures indicate, the 1982 wages paid were greater than the 1983 wages - producing a net wage savings of \$2,179.85 in 1983. These figures also indicate that the 1983 wages paid exceeded the 1983 revenue collected, leaving a negative balance of \$5,513.61, which is \$18,929.59 less than the negative balance for 1982 of \$24,443.20.

It should be noted that the foregoing comparison does not include the miscellaneous and fixed costs associated with running the program, such as employee fringe benefits, telephones, office space, copying expense, gasoline, office supplies, etc. As in the past, the Drain Commissioner's Soil Erosion and Sedimentation Control Division continued its informal instructional meetings with builders, developers, property owners, engineers, architects, etc.

INSPECTION UNIT

INSPECTION UNIT

The Oakland County Drain Commissioner employs trained inspection personnel to inspect drain, sewer and water projects.

The primary responsibility of the inspector is to insure that each facility is constructed in accordance with the plans and specifications, with particular attention paid to backfill material, proper compaction and workmanship. Careful observation of the quality and proper placement of construction materials such as pipe, concrete and reinforcing steel in underground lines, pump stations and other structures are also important duties of the inspector.

Another major function of the inspector is to maintain good public relations with members of the public affected by the construction of various projects. Necessary services, such as mail delivery and garbage collection, and prompt restoration of access to private property during and after construction are expedited to reduce the inconvenience to the public.

The Inspection Unit is in radio and telephone communication with field personnel and local communities during working hours so that any complaints or inquiries or construction-related problems can be handled as quickly as possible.

The inspector prepares daily inspection reports and keeps a log of the progress of construction. His daily records assure accurate and thorough restoration of the construction site, and also insure correct payment to the contractors on the project, thus avoiding possible litigation at a future date.

The Inspection Unit also videotapes future construction sites and routes. Particular care is taken with easement areas where possible problems can be anticipated or where difficult types of restoration work will be needed. After construction, the video tapes are referred to as needed during restoration work, and can be used to eliminate confusion regarding the actual conditions which existed before construction. The video record is valuable to discourage litigation because a visual review of the prior condition of all property is possible.

A particularly important responsibility of the inspector on each project is the preparation of an "as-built" plan, which is a plan that shows exactly how the project was constructed in the field, with dimensions identifying the location of all underground structures. Future surface access for additional installations or service is thereby facilitated with a minimum of disturbance and cost to the existing project.

In 1983 the inspection staff was involved in more than 10 construction projects ranging in size and complexity from a 5' x 8' twin box siphon under I-696 at Campbell Road, to the lowering of an 8" water main under the Red Run Drain.

The inspection staff was given responsibility for the field inspection portion of the soil erosion and sedimentation control program and meets with both municipalities and private citizens in an effort to promote a reasonable and effective soil erosion policy.

MAINTENANCE UNIT

MAINTENANCE UNIT

The Oakland County Drain Commissioner is responsible for the regular maintenance of established storm drains located throughout Oakland County. For this purpose maintenance personnel are employed to provide a wide variety of maintenance and repair services. Primary work includes the inspection and maintenance of approximately 600 miles of established county drainage and combined storm and sanitary systems. In addition, dams used in the regulation, operation and control of the legal levels of 42 Oakland County lakes are maintained by this unit.

In the performance of these functions, personnel use various types of vehicles and construction equipment, including basic and specialized hand and power tools and certain necessary safety equipment. Inventory, repair and proper care of these tools and equipment is a function of the maintenance unit.

General Drain Maintenance

Periodic maintenance activities include removing roots, silt and other debris from enclosed drains; repairing structures that have failed or have been damaged; rehabilitating open drains by removing brush, debris, shoals and silt; cleaning and maintaining manholes and catch basins; and inspection and cleaning of diversion gates, meter chambers and outfall structures.

During 1983, general drain maintenance was performed on 57 Chapter 20 drains, two Chapter 21 drains, 37 Chapter 4 drains, and two Act 342 projects. Also, maintenance was performed on 13 additional drains which have been incorporated within the Twelve Towns Relief Drains system.

Drain Inspections

Routine inspections are made, periodically, on all drainage systems. Once inspected the necessary repairs are performed. This preventive maintenance system assures reliable drainage to the residents of Oakland County and avoids costly drain failures.

During 1983 the following drains were inspected by the Oakland County Drain Commissioner's Maintenance Unit: 68 Chapter 20 drains, three Chapter 21 drains and 54 Chapter 4 drains. Inspections were also performed on 13 drains which have been incorporated within the Twelve Towns Relief Drains system.

Equipment

In order to increase efficiency while maintaining personnel at a constant level, the maintenance unit employs specialized power equipment.

The most important piece of equipment is the Vactor Jet. The Vactor works with water pressure and vacuum to clean out storm

and sanitary sewers. It is especially efficient in cleaning catch basins, manholes and sewer lines of 30 inch and lesser diameter pipe. By using the Vactor, more work can be done with a two-man crew than formerly could be done with hand equipment and substantially more manpower. It has enabled the maintenance unit to clean drains and sewers on an orderly and routine schedule. The result is decreased costs per job, and increased service to the public.

The Drain Commissioner employs the necessary safety equipment needed to meet OSHA and MIOSHA standards as well as the hazards of the particular drain maintenance work.

Maintenance of Lake Level Structures

The drain maintenance unit also maintains dams including dike repair, painting and repair of structures, and repair of gates and landscaping. During 1983 maintenance was performed at 21 Lake Level Control locations.

Rain Gauge Operations

There are 23 rain gauges located throughout Oakland County. Drain maintenance personnel install, maintain and repair rain gauges in cooperation with the U. S. Department of Agriculture, Weather Service Office. Supplies are distributed to the various stations and recorded data is collected and processed.

Work Sponsorship Programs

In addition to maintenance labor provided by full-time County employees, the Drain Commissioner uses programs that permit the use of workers at little or no cost to the taxpayer. Temporary summer employment, County welfare recipient and Michigan Youth Corps programs supplied laborers for these programs during 1983.

Temporary summer employees were used by the maintenance unit primarily for our Lake Level Dam Maintenance Program and as additional help to regular crews. County welfare recipient and Michigan Youth Corps workers were used to remove brush and debris from open drainage channels on 39 Chapter 4 drains in rural areas of the County and provided the necessary labor for four Chapter 20 and two lake maintenance projects.

With minimal costs of supervisory personnel and equipment, these maintenance crews assisted permanent County employees in the maintenance work at substantial cost savings.

Inter-Departmental Services

The Drain Commissioner also cooperates with other County departments to provide specialized personnel and/or equipment as required. By lending personnel and equipment at minimal rates, other County departments were able to reduce their costs to complete specific maintenance assignments. The Department of

Facilities and Operations, Oakland-Pontiac Airport, Water and Sewer Engineering, Public Works, Parks and Recreation and Construction Inspection utilized these available maintenance services during 1983.

Special Projects

The Drain Commissioner undertook certain special projects during 1983 utilizing Maintenance staff expertise enabling substantial cost savings. Projects completed were on the Randolph Street, Pontiac Creek Extension, Augusta, Pontiac-Clinton River Drain No. 3, Clarenceville, Clarenceville Extension, Pearl, Keego Harbor, White and Duck Lake, Waterford Phase IV projects, and channel clean-out between Upper Silver Lake and Silver Lake. Work started during 1983 at the Indianwood Lake/Little Cedar Lake site will be completed in 1984. Other efforts included work at the Watkins Lake and Long Lake pump sites.

Another project involved the research and compilation of Chapter 4 drain histories and the development of a computer program to store information pertinent to their operation and maintenance. Upon completion of the project, past, present and projected information relative to over 400 Chapter 4, 20 and 21 drains may be readily accessible by computer print-out in terms of a drain and the communities it serves, or conversely, a community and the drains by which it is served. It is expected that the availability of such information will enable the Drain Commissioner and the community, in the interest of public health, convenience and welfare, to more effectively plan maintenance activities and budget future expenditures, while achieving greater efficiency in the operation and maintenance of Oakland County drains, both economically and physically.

SOUTHEASTERN OAKLAND COUNTY
SEWAGE DISPOSAL SYSTEM

SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM

The Southeastern Oakland County Sewage Disposal System (S.O.C.S.D.S.) serves a district of approximately 46,000 acres and provides sewer service to all of the areas within the cities of Berkley, Clawson, Ferndale, Hazel Park, Huntington Woods, Madison Heights, Oak Park, Pleasant Ridge, Royal Oak, and the Township of Royal Oak; also part of the area within the City of Birmingham, City of Southfield, City of Troy, and the Village of Beverly Hills. Although some cities have areas of separated sewers, most of the areas served have combined sewers.

The S.O.C.S.D.S. operates two facilities which control sewage flows to the City of Detroit - the Twelve Towns Relief Drains retention system, and the Pollution Control Facility. The Twelve Towns Relief Drains retention system has a holding capacity of approximately 90 acre feet. When this capacity is exceeded, sewage spills into the Pollution Control Facility, a storage basin approximately two miles long with a capacity of 190 acre feet. The purpose of this facility is to abate pollution of the Red Run Drain and Clinton River by holding back sewage during a rain storm until the City of Detroit can accept this sewage. If the rain storm is too intense, the Pollution Control Facility will allow sewage with primary treatment (chlorination) to spill into the Red Run Drain.

In 1983 we experienced 26 spills to the Pollution Control Facility. Of these 19 were retained, thus experiencing 7 overflows to the Red Run Drain for a total of 92 hours.

During an overflow the quality of water now entering the Red Run Drain at the Dequindre outlet is greatly improved due to the chlorination of overflow entering the Pollution Control basin. Standard analyses are performed in accordance with National Pollution Discharge Elimination System, Permit No. MI 0026115.

Available treatment consists of chlorination and the settling of solids from the flows entering the retention structure from the Twelve Towns weir. Storm water flows may also enter the basin from various storm drains located the length of the retention structure. Wastewater volumes less than the total combined storage capacity are dewatered to the Dequindre Interceptor sewer for further treatment at the City of Detroit Wastewater Treatment Plant. For wastewater volumes in excess of the combined storage capability, the retention structure provides a chlorine contact time of approximately 40 minutes at flow rates of 4,350 cubic feet per second before spilling to the Red Run Drain. The system design will accommodate flow rates up to 8,700 cubic feet per second. Solids settling will occur in the basin as a result of the reduction of water velocity. The debris and solids are removed from the basin to either the Dequindre Interceptor or the County incinerator for disposal.

The chlorination system consists of three 30,000 gallon underground concrete tanks for storage of sodium hypochlorite solution. This hypochlorite solution is controlled in stepped rates dependent on the level of the wastewater above the crest of the weir on entering the retention structure. This stepping of the hypochlorite feed rate is proportional to flow of wastewater entering the retention basin when the Broome gates are closed. On large volumes, when the gates are opened, the full capacity of 250 gallons per minute is applied. This full capacity is capable of dosing 8,700 cfs of wastewater flow. The length of time that the hypochlorite solution is applied may be manually or automatically controlled.

The dewatering pumping station facilities include a wet well bar screen, six dewatering pumps of 15.85 cfs capacity each, and one small dewatering pump of 3.12 cfs capacity. Dewatering of the retention structure is manually initiated by an operator. Instruments indicating retention structure wastewater level and the Dequindre Interceptor sewage level are provided for the operator's observation. Automatic controls are provided to stop the dewatering pumps on completion of dewatering and to restrict the number of pumps operating dependent on available flow capacity in the Dequindre Interceptor.

During 1983 maintenance of the S.O.C.S.D.S. and Pollution Control Facility was completed with no unusual problems encountered. Pumps and motors were maintained on a regular basis with only one pump needing ring replacement. Buildings and grounds were satisfactorily maintained with no major repairs needed.

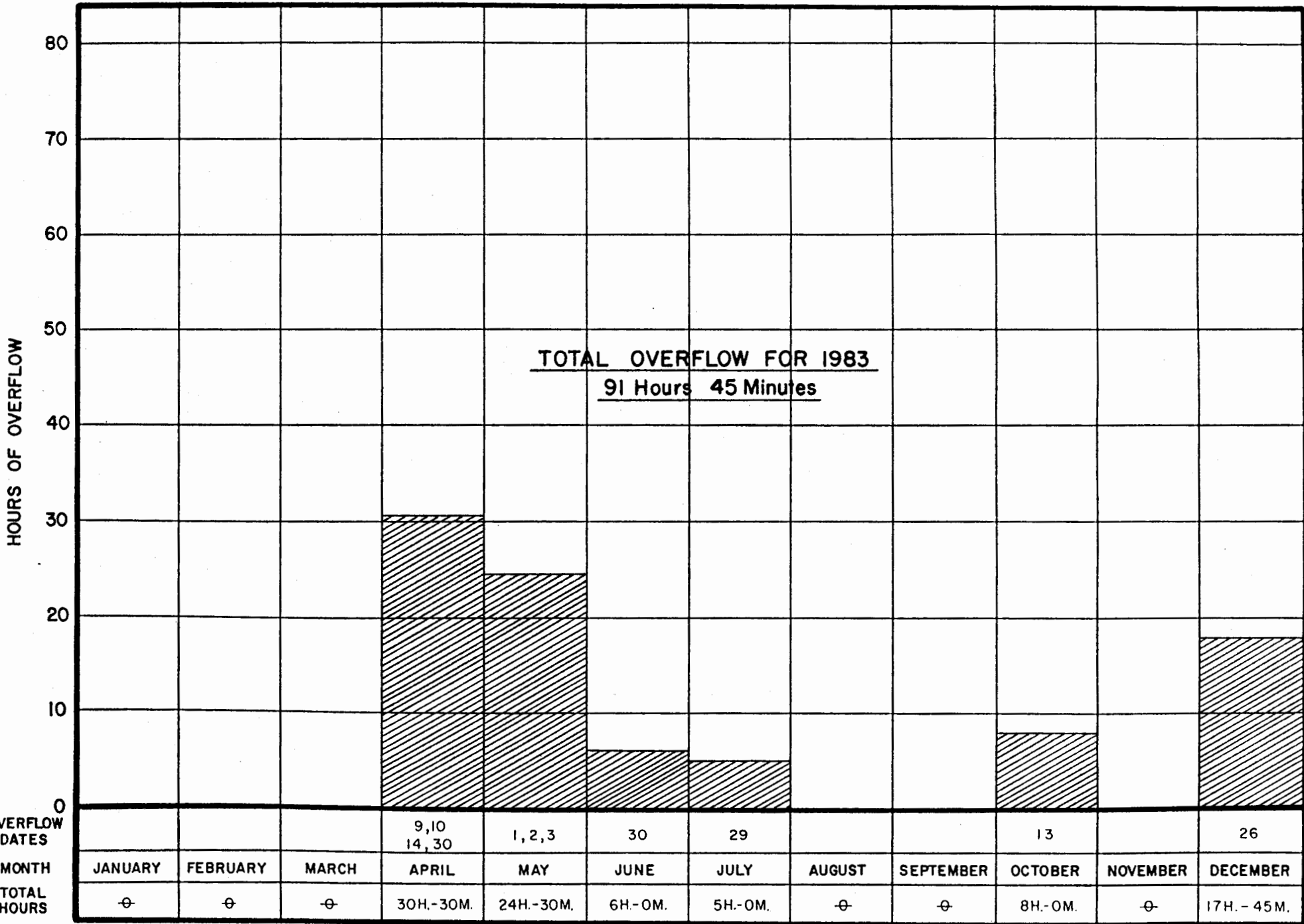
Lawns and grounds, right of ways, and greenbelts were mowed, cared for, and serviced. Again in 1983, part of the right of way over the Pollution Control Facility was used by the City of Madison Heights for garden plots. The plots have been readied for use again in 1984.

Beginning late in 1983, the Maintenance Department began to change and reverse the butterfly valves in the flushing system to achieve a more efficient system. This work is progressing at a good pace, with 60% of the valves having been changed.

The Red Run Federal Drain right of way was maintained and kept free of trash and junk which was dumped along the right of way. Shoal removal and bank restoration were continued in 1983, and will be resumed in 1984 when weather permits. Weed spraying was determined not to be needed this year and will be re-evaluated in the spring of 1984. The Maintenance Department experienced no unusual problems with the Pollution Control Facility in 1983 and was able to complete the maintenance program on schedule.

As well as operating the Pollution Control Facility, the S.O.C.S.D.S. maintains a laboratory where staff continually monitors contributors to the sewer system. The purpose of the program is to test sewage effluent from industries and other designated points so as to limit the users of the system to the specific parameters of sewage strengths. The City of Detroit is notified of the results of these tests as is the industry violating the sewage ordinance.

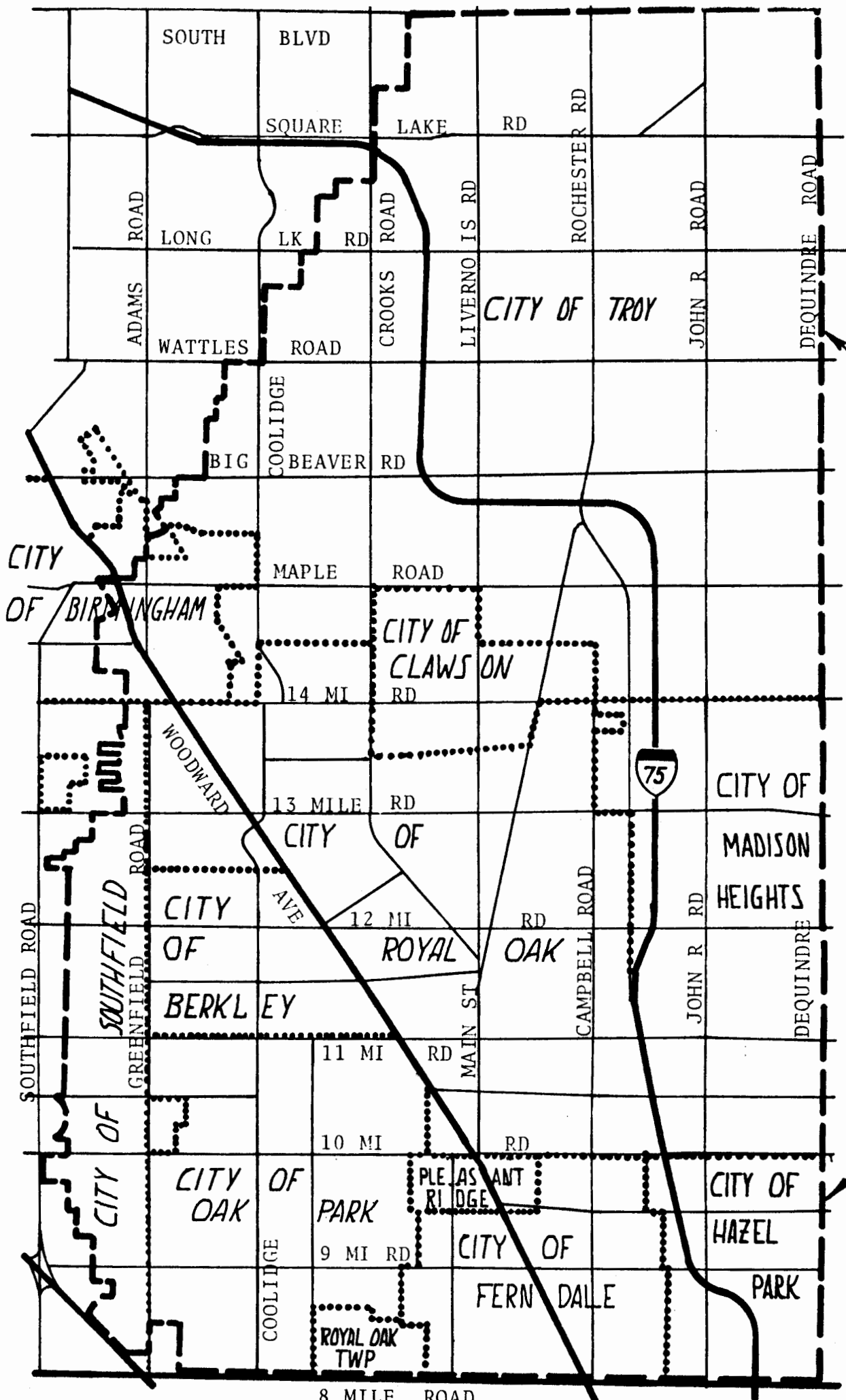
During calendar year 1983, approximately 25,000 analyses were performed on more than 5,000 samples collected in the system. The S.O.C.S.D.S. laboratory staff has worked closely with and wishes to acknowledge the assistance and cooperation received from the Michigan Water Resources Commission, the City of Detroit, the City of Warren, the U. S. Army Corps of Engineers, and the U. S. Environmental Protection Agency in the effort to clean up county and inter-county drains discharging industrial and domestic waste into waters controlled by their respective offices.



SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM

JANUARY 1, 1983 TO DECEMBER 31, 1983

NORTH



S.O.C.S.D.S. Sanitary Drainage District Limits

SOUTH BLVD

SQUARE LAKE RD

ADAMS ROAD

LONG

LK RD

CROOKS ROAD

LIVVERNO IS RD

ROCHESTER RD

JOHN R ROAD

DEQUINDRE ROAD

CITY OF TROY

WATTLES ROAD

COOLIDGE

BIG BEAVER RD

CITY OF BIRMINGHAM

MAPLE ROAD

CITY OF CLAWSON

14 MI

WOODWARD

13 MILE RD

CITY OF



CITY OF MADISON HEIGHTS

SOUTHFIELD ROAD

SOUTHFIELD ROAD

CITY OF BERKLEY

AVE

12 MI

ROYAL OAK

CAMPBELL ROAD

JOHN R RD

DEQUINDRE

CITY OF

11 MI RD

MAIN ST

10 MI

RD

CITY OF PARK

PLEASANT RIDGE

CITY OF HAZEL

COOLIDGE

9 MI RD

CITY OF FERN DALE

PARK

ROYAL OAK TWP

8 MILE ROAD

DRAIN CONSTRUCTION COMPLETED

DRAIN CONSTRUCTION

The Drain Commissioner, under the provisions of the Michigan Drain Code, Act 40 of Public Acts of 1956, as amended, is authorized to construct county drains.

Construction of a county drain is undertaken only after a petition has been filed with the Drain Commissioner. Petitions are normally filed by one or more governmental units, however, a petition may be filed by a property owner or a group of property owners.

During the time period covered by this report, three drainage projects were completed, two drains are in various stages of planning and development, and four drains are presently under construction.

DRAIN CONSTRUCTION PROJECTS COMPLETED BETWEEN JANUARY 1, 1983 AND DECEMBER 31, 1983

Gosling Drain

Annual springtime flooding of Lake George Road south of Buell Road in Sections 20 and 21 of Oakland Township resulted in a petition to the Oakland County Drain Commissioner to locate, establish and construct an intra-county drain under the provisions of Chapter 20 of Act No. 40, Public Acts of Michigan, 1956, as amended, to alleviate the problem.

The Drainage Board, after determining that the proposed project was practical and necessary for the public health, retained the firm of Giffels-Webster Engineers, Inc. to prepare the plans and specifications for the Gosling Drain.

Bids for construction were received on March 16, 1983, and the contract was subsequently awarded to the low bidder, Harry Rosen's Bulldozing Service, Inc. for the amount of \$31,440.00.

Construction began on June 1, 1983 and the project is complete. Final payment to the contractor was approved on December 7, 1983. The Gosling Drain is now in service.

Kasper Drain

The Kasper Drain is located in Sections 14 and 23 of Pontiac Township and serves a commercial area along Opdyke Road and a large residential area east of Interstate 75.

The Township of Pontiac petitioned the Oakland County Drain Commissioner to locate, establish and construct a storm drain because of periodic flooding and poor drainage in this area.

The engineering firm of Orchard, Papke, Hiltz & McCliment, Inc., was employed by the Drainage Board to prepare plans and specifications for the drain.

As designed, the outlet of the drain is 96 inch diameter reinforced concrete pipe and includes various smaller size pipe to its upper terminus. Also at the request of the Township of Pontiac, road ditching was designed into the project to relieve road flooding in the Hawthorne Acres and the Chandler Estates Subdivisions. Branch No. 1 Extension was deleted from the project because of difficulty in right of way acquisition.

The Board accepted construction bids for the Kasper Drain on February 17, 1978, and the contract for construction was awarded to A & P Construction Company, the low bidder, in the amount of \$1,678,002.00.

Construction of the main drain has been completed and is presently in use.

After the problems with right of way acquisition were resolved, the Board received construction bids for the Branch No. 1 Extension. On September 23, 1981, the contract for construction of Branch No. 1 Extension was awarded to Triangle Excavating Company. Construction began in December, 1981 and was substantially completed in the fall of 1982. Final cleanup and surface restoration was completed in early 1983, and final payment to the contractor of \$161,421.88 was approved by the Drainage Board on June 22, 1983.

Maplehurst Enclosure Section 1 Drain

Upon receipt of a petition by the Township of Pontiac, under the provisions of Chapter 8 of Act No. 40, Public Acts of Michigan, 1956, as amended, the Drain Commissioner of the County of Oakland appointed a Board of Determination to determine the necessity of enclosing a portion of the Maplehurst Drain in the N.E. 1/4 of Section 36, Pontiac Township. After holding a hearing at the project site and listening to comments from residents and officials, the Board declared that the proposed project was necessary for the protection of the public health in Avon and Pontiac Townships.

The firm of Orchard, Papke, Hiltz and McCliment, Inc. was retained to provide plans and specifications for the construction of the Maplehurst Enclosure Section 1 Drain, and on August 19, 1982 the J. Yates Excavating Company, the low bidder at \$26,130.00, was awarded the contract for construction. Construction was completed on November 30, 1982, and the Maplehurst Enclosure Section 1 Drain is now in service. Final payment to the contractor was approved by the Drain Commissioner on July 20, 1983.

DRAINS UNDER CONSTRUCTION

DRAINS UNDER CONSTRUCTION

Caddell Drain

In October of 1981 severe flooding took place in the I-96, Ten Mile Road, Grand River and Halstead Road areas of Farmington Hills. The area is known as the Tarabusi Creek District on the City of Farmington Hills Master Storm Drainage Plan which was then being prepared by Hubbell, Roth & Clark, Inc., consulting engineers. On December 21, 1981 the City of Farmington Hills approved petitioning for a county drain in the area. Several meetings between the county, state and the involved municipalities and their consultants took place, and on April 30, 1982 a petition, jointly signed by the City of Farmington, the City of Farmington Hills and the City of Novi was received by the Drain Office. On May 3, 1982 the first meeting of the Drainage Board took place and the project was named the "Caddell Drain." On June 6, 1982 the project was declared necessary for the public health and the Final Order of Determination was signed; Hubbell, Roth & Clark, Inc. was hired as consulting engineer and the firm of Dickinson, Wright, Moon, Van Dusen & Freeman was hired as bond counsel.

At a meeting at the Michigan Department of Transportation held July 29, 1982 preliminary authorization was received to proceed with Phase I of the drain, construction of an overflow system that would help relieve excessive flooding to the properties immediately west of M-102. The system could flood the freeway in a severe storm, but should prevent major flooding damage to buildings and other private property. Should this happen, the freeway will be closed and a by-pass route used for traffic. An action plan for closing the freeway was incorporated into a three party agreement between the Drain Office, the Michigan Department of Transportation and the City of Farmington Hills. Financing was provided by the City of Farmington Hills. Bids were taken by the Drainage Board on September 22, 1982, and the work was awarded to Dan's Excavating, Inc., Utica, Michigan for \$104,280.00. The 8'6" diameter overflow pipe was installed by open cut methods through the northbound M-102 off ramp during the weekend of October 15, 1982.

Engineering on the entire project has continued. Plans and specifications were approved and tentative apportionments set at a Drainage Board meeting held on December 1, 1982. At the January 26, 1983 meeting of the Drainage Board final apportionments were confirmed and the total cost estimate of \$4,000,000. was approved.

On February 9, 1983 the Drainage Board authorized the issuance of \$3,270,000. in bonds to finance the project. Pledge of Oakland County's full faith and credit was approved by the Board of Commissioners on February 24, 1983. Application to the Municipal Finance Commission for approval to sell bonds was made, and on March 17, 1983 our office received notice of receipt of the application.

After substantial effort to satisfy the many aspects of the State of Michigan reviews, a permit dated July 27, 1983 for the entire Caddell Drain project was issued by the Department of Natural Resources. Permits or approved applications were received for soil erosion and County Road Commission involvement. Approvals from the Michigan Department of Transportation are presently being worked on.

On August 23, 1983 the State of Michigan Municipal Finance Commission ruled that a bond sale could take place only if the debt service on the bonds would be met within the governing debt and tax limits of the applicants. This position was not changed at a rehearing which took place on December 27, 1983. Presently attempts are being made to finance the project with procedures satisfactory to the State of Michigan Municipal Finance Commission.

Joachim Relief Drains

On October 14, 1969 the City of Pontiac petitioned the Oakland County Drain Commissioner to construct a drain in the northeastern portion of the City in the vicinity of Galloway Lake. The drain would outlet directly into Galloway Lake.

After receiving the petition from the City, the Drainage Board employed Jones & Henry Engineers, Ltd. to prepare construction plans and specifications for the proposed project. Because of environmental concerns, the Board also had an Environmental Impact Statement (EIS) prepared.

Construction bids for the project were received by the Drainage Board on October 6, 1972. On November 13, 1972 a contract for construction of the drain was awarded to Rocco Ferrera & Company for their low bid of \$540,677.50, subject to the sale of bonds to finance the project.

Environmental concerns and difficulty in obtaining necessary construction permits delayed financing of the project. As a result, the period of time during which the bid was held firm by Rocco Ferrera & Company expired.

No further work on the project occurred until 1977, when the City of Pontiac requested that work be resumed. The Corps of Engineers advised the Drain Office that the project would now require the issuance of a 404 permit by their department. As part of the review for this permit, the U. S. Department of the Interior (Fish and Wild Life Service) rejected the drain outlet

discharge directly into Galloway Lake for ecological reasons, and suggested an alternate discharge point downstream of Galloway Lake.

Work on the project was again deferred until October 1981, when the City of Pontiac adopted a resolution requesting the Drain Commissioner to proceed with the project, resolve the problems with the Corps of Engineers, and update the construction plans.

At the request of the City of Pontiac, the Engineering Department of the Drain Commissioner's Office replaced Jones & Henry Engineers, Ltd. as the design engineers.

Construction plans for the drain were redrawn with route revisions and other redesign changes. The project was let for bid on June 22, 1983, with a construction contract being awarded to Ben P. Fyke & Sons, Inc. for their low bid of \$1,236,623.00. Actual construction of the drain began in August, 1983, and is scheduled for completion in July, 1984.

Vogt Drain

Flooding in Sections 13 and 14, City of Troy, in the lower portion of the existing Houghten Drainage District and downstream, prompted the City Council of Troy on April 19, 1982 to petition this office for storm drainage relief.

The first meeting of the Drainage Board was held on April 23, 1982, and the project was named the "Vogt Drain." At a meeting held June 30, 1982 the project was declared practicable and necessary for public health, the Final Order of Determination was approved, and Hubbell, Roth & Clark, Inc. was retained as consulting engineers.

Phase I of the project begins at the Henry-Graham Drain east of John R. and ends at Hamman Drive, just west of John R. Construction bids were received on December 7, 1983 with the contract being awarded to the low bidder, Dan's Excavating, Inc. in the amount of \$1,829,329.23. Actual construction is scheduled to begin in early 1984.

Phase II of the project begins at Hamman Drive and connects with the existing Lanni Drain at Rochester Road. A branch also extends northerly to an existing retention reservoir at Long Lake Road while another branch extends southerly to an existing retention reservoir. Final construction plans are being developed by Hubbell, Roth & Clark, Inc., with easement acquisition currently underway. It is anticipated that Phase II will be bid in mid-1984.

Total project cost for Phases I and II is estimated at \$5,900,000.

SANITARY SEWER CONSTRUCTION COMPLETED

SANITARY SEWER CONSTRUCTION COMPLETED

Sewer System Evaluation Survey (SSES) - Waterford Township

In April of 1977 the United States E.P.A. approved a grant amendment requested by Oakland County, to the Waterford Township Facilities Plan of Study (Step 1), under the Public Law 92-500 grant program, to conduct a Sewer System Evaluation Survey (SSES) for sanitary sewer systems, in the "Huron-Gardens," "Coleman-Friedman," and "Lorraine-Manor" subdivisions of Waterford Township. The need for the SSES was based on data contained in the Facilities Plan which identified excess inflow and infiltration (I/I) problems. The grant provided the funds to perform the tasks necessary to obtain an accurate determination of the sources of I/I, and sufficient other information to develop recommendations for rehabilitation or replacement.

All field survey work was completed and the final report was submitted by the consulting engineers, Johnson & Anderson, Inc., in February, 1983. The final report was sent to the Michigan Department of Natural Resources on April 1, 1983 for review and approval.

13-Mile Road Arm, Section 1

This system consists of 2100 lineal feet of 6-inch through 10-inch sanitary sewer to serve the area of Maple and Halstead Roads where West Bloomfield has recently constructed a fire station.

The consulting firm of Giffels-Webster Engineers, Inc. was awarded the contract to design the system and prepare construction plans and specifications.

The contract for construction was awarded to Adamo Construction Company of Detroit, Michigan on December 6, 1982 in the amount of \$74,976.25. Construction was done in January and February, 1983, and the sewer was placed into service in March, 1983 for the use intended. Initial cleanup and restoration took place in the spring with all unfinished items being completed in the fall of 1983. It is anticipated that final payment to the contractor will be made early in 1984.

Waterford Extensions - Phase V

The system consists of 75.4 miles of sanitary sewers, 6-inch through 21-inch in size, and fourteen submersible-pump, pumping stations serving residents and businesses located in the northwest corner of Waterford Township.

A substantial portion of the construction is located in the populated areas adjacent to the Van Norman, Lester, Lotus, Maceday and Williams lake chain, surrounding Huntoon Lake.

The firm of Johnson and Anderson, Inc. designed the system, prepared construction plans and specifications, and assisted in obtaining federal and state funding under the Public Law 92-500 grant program.

Fourteen construction contracts were awarded to six contractors; Giannetti Brothers Construction Co., Inc., Rocco-Ferrera & Co., Inc., Douglas M. Higgins, Inc., Ric-Man Construction, Inc., Sterling Construction Co., Inc., and Guymann Construction, Inc. The total cost of construction contracts was \$21,522,392.52.

Approximately 71 percent of the project is eligible for 80 percent cost participation by the United States E.P.A. and the State of Michigan, jointly. More than 13.4 million dollars will be received when all project work is complete.

Construction of the system and all surface resotration were completed in 1983. Final construction payments to the contractors should be processed within the second quarter of 1984.

SEWER & WATER PROJECTS UNDER CONSTRUCTION

SEWER AND WATER PROJECTS UNDER CONSTRUCTION

Oakland Township Extension No. 2

Late in 1979 and early 1980 owners of property located in south-central Oakland Township approached their Township officials and the Drain Commissioner's office with a request for Oakland County to construct a small, trunk sanitary sewer connecting to the Paint Creek Interceptor to serve a district easterly of Orion and Silverbell Roads. The project to be financed with private funds placed on deposit with Oakland Township.

The Oakland Township Board approved a contract on January 13, 1981 and the Oakland County Board of Commissioners on February 19, 1981. Project development and construction was assigned to the Drain Commissioner's office, as County Agency under Act 342, P.A. of 1939, as amended.

The consulting firm of Giffels-Webster Engineers, Inc. was contracted to design the system and prepare construction plans and specifications. The system will be composed of approximately 4,900 lineal feet of 6-inch and 10-inch sanitary sewer.

Construction bids were received on November 29, 1983 and the contract was awarded to the low bidder, P & R Contracting Co., in the amount of \$207,543.00. Actual construction is scheduled to begin early in 1984.

Orion Township Extension No. 2

Orion Township officials initiated discussion with the Drain Commissioner's staff in October, 1981 concerning the possible construction of a trunk sanitary sewer extension to the recently completed Oakland-Orion S.D.S. interceptor sewer to serve an area north of Greenshield Road in the vicinity of the M-24 highway corridor. The principal, immediate need is for service to the Orion Community schools complex on Scripps Road where sanitary sewerage needs are being provided by a troublesome onsite disposal system.

The agreement between Orion Township and the County of Oakland was approved by the Township Board on December 21, 1981. The Oakland County Board of Commissioners approved the contract on February 4, 1982, assign project development and construction to the Drain Commissioner's office as County Agency, and transferred \$437,000 in surplus funds from prior years construction to finance the project work.

The project consists of 7,350 lineal feet of sanitary sewers, 6-inch through 15-inch in size. The firm of Johnson and Anderson, Inc. designed the system and prepared construction plans and specifications.

Construction bids were received on January 6, 1983 and the contract was awarded to Pacitto & Forest in the amount of \$158,408.00. Actual construction was completed during 1983 with minor cleanup and restoration to be completed in the spring of 1984.

Waterford Emergency Pump Connection Improvements

Waterford Township requested Oakland County to proceed with the development of a project to construct nine emergency by-pass pump connections at sanitary sewerage pumping stations located in the southerly portion of the Township.

The agreement between Waterford Township and the County of Oakland was approved by the Township Board on May 10, 1982. The Oakland County Board of Commissioners approved the agreement on June 3, 1982, assigned the project development and construction to the Drain Commissioner's office as County Agency, and transferred \$50,000 in surplus funds from prior years sewer construction projects to finance the project work.

The project consisted of construction of riser pipes to the force mains with hose connections at ground level for connection of discharges from emergency pumps which temporarily by-pass the pumping stations. Design of the project and preparation of construction plans and specifications was done by the Drain Commissioner's staff.

Construction bids were received on August 16, 1983 and the contract was awarded to Union Construction Co. in the amount of \$25,322.66. Actual construction was completed in the fall of 1983 with minor cleanup and restoration remaining to be completed in the spring of 1984.

LAKE IMPROVEMENT BOARDS

LAKE IMPROVEMENT BOARDS

The Inland Lake Improvement Act, Act No. 345 of 1966, as amended, permits a township to create a lake improvement board after receiving petitions from 2/3 of the freeholders owning land abutting the lake in the township. Section 4 of the Act provides that the County Drain Commissioner will serve as the representative of the Drain Office on the lake improvement board.

A brief summary of the activity of each lake improvement board during 1983 follows:

Big Lake Improvement Board

Big Lake is approximately 220 acres in size and is located in Springfield Township. The Oakland County Drain Commissioner also operates and maintains a lake level structure for Big Lake under the provisions of the Inland Lake Level Act. The members of the Lake Improvement Board during 1983 were Bernard A. Wendt, Chairman, Richard D. Kuhn, Jr., representing the Oakland County Board of Commissioners, Peg Bostwick, representing the Michigan Department of Natural Resources, and Robert H. Fredericks, representing the Oakland County Drain Commissioner.

On February 9, 1983 the Lake Improvement Board at a public hearing received comments on a proposed lake improvement project and approved a 5-year lake improvement project as practicable pursuant to the statute. On April 25, 1983 the Lake Improvement Board received comments on the proposed 5-year special assessment roll which had been prepared to finance the 5-year lake improvement project on Big Lake. After receiving public comments, the Lake Improvement Board confirmed the special assessment roll for the lake improvement project.

The Lake Improvement Board entered into a contract with the Big Lake Quality Water Association, Inc., a non-profit corporation formed by the residents on Big Lake to perform the weed harvesting work as authorized by Section 27 of the Lake Improvement Act. Payments by the Lake Improvement Board to the contractor for weed harvesting in 1983 totaled \$42,850. A full report on receipts and expenditures by the Lake Improvement Board is included in the Financial Report Section.

The Lake Improvement Board was advised late in 1983 that a federal grant had been received to pay a portion of the cost of the lake improvement project on Big Lake. The federal grant will provide approximately \$74,000 or 1/2 of the estimated cost of \$148,000 for weed harvesting work on Big Lake over a period of four years.

The first year of the five-year program of weed harvesting was very successful on Big Lake. No substantial problems were encountered with the weed harvesting work during 1983, and the same program will be continued over the next four years.

Duck Lake Improvement Board

The Highland Township Board of Trustees created the Improvement Board for Duck Lake on November 21, 1983 in response to petitions signed by two-thirds of the freeholders of Duck Lake property. The organizational meeting of the Board is scheduled for January 12, 1984. The members of the Lake Improvement Board during 1983 were Ronald Selke, Chairman and Highland Township Supervisor, William J. Foley, representing the Oakland County Board of Commissioners, Albert Massey, representing the Michigan Department of Natural Resources, and H. James Lueders, representing the Oakland County Drain Commissioner.

Duck Lake is located in Sections 2, 11, 12 and 14 of Highland Township near the intersection of White Lake and Harvey Lake Roads. The water surface covers approximately 356 acres and the lake is bounded mostly by residential community. The Oakland County Drain Commissioner constructed, and operates and maintains a lake level facility for Duck Lake.

Lake improvement study and project development will most likely start shortly after the Lake Board has organized.

Indianwood Lake Improvement Board

Indianwood Lake is approximately 80 acres in size and is located primarily in Orion Township, with a small portion in Oxford Township. The members of the Lake Improvement Board during 1983 were Roy Rewold, Chairman and member of the Oakland County Board of Commissioners, Katherine E. Jacobs, Orion Township Clerk, representing Orion Township, Al Massey, representing the Michigan Department of Natural Resources, and Robert H. Fredericks, representing the Oakland County Drain Commissioner.

The current Lake Improvement Board for Indianwood Lake was created by the Orion Township Board on February 7, 1983. On March 8, 1983 the Lake Improvement Board tentatively approved a 2-year lake improvement program consisting primarily of weed harvesting work on Indianwood Lake. The program was based on an engineering feasibility report for a similar program which had been prepared and approved in 1980. At a public hearing held April 7, 1983, the Lake Improvement Board received comments on the proposed project and approved a 2-year lake improvement project as practicable pursuant to the statute.

At a public hearing held June 2, 1983 the Lake Improvement Board received comments on the proposed 2-year special assessment roll which had been prepared to finance the 2-year lake improvement project on Indianwood Lake. After receiving public comments, the Lake Improvement Board confirmed the special assessment roll for the lake improvement project. Also on June 2, bids were received for the weed harvesting work to be performed on Indianwood Lake during 1983 and 1984. The contract for weed harvesting was awarded to Maney's Aquatic Weed Harvesting Corporation, Evart, Michigan, for the weed harvesting work in both 1983 and 1984.

Due to problems with his weed harvesting equipment, the contractor was unable to begin the weed harvest on Indianwood Lake on or about June 1st as scheduled. The actual weed harvesting began on July 26, 1983 and continued through August 4, 1983. Payments by the Lake Improvement Board to the contractor for weed harvesting in 1983 totaled \$8,790. Because of the delay in arriving on Indianwood Lake, the second weed harvest which had originally been scheduled for August was cancelled. Because the weed harvesting expenses were less than budget due to the single weed harvest, the Lake Improvement Board at a meeting held August 17, 1983 reduced by 1/2 the second year assessment roll to reflect the reduced expenditures during the 2-year lake improvement program. A full report on receipts and expenditures by the Lake Improvement Board is included in the Financial Report Section.

In October, 1983 the Lake Improvement Board received a request from the Indianwood Improvement Association concerning the possibility of closing the opening between Little Cedar Lake and Indianwood Lake to restore the natural separation which had existed between the two adjacent lakes. The Lake Improvement Board requested the Oakland County Drain Commissioner to assist, if possible, in closing this opening. After review of the physical site and obtaining permission from the Michigan Department of Natural Resources, the Drain Commissioner agreed to use Youth Corps employees provided by the State of Michigan and Drain Commissioner maintenance employees to reconstruct the necessary barrier between the two lakes on the condition that the residents on Indianwood Lake and Little Cedar Lake contribute sufficient funds to pay the actual cost of materials necessary to perform the work. Contributions were received from residents on the two lakes in the total amount of \$775.18. Construction of the closure between the two lakes was completed in 1983, although finish grading, additional topsoil, and seed and mulch will be completed in the spring of 1984.

The Lake Improvement Board expects to continue with the second year of its two-year program in 1984 and will review the lake improvement program after the completion of the weed harvest in 1984.

Island Lake Improvement Board

Island Lake is approximately 108 acres in size and is located in Bloomfield Township. The Lake Improvement Board for Island Lake was formed by a resolution of Bloomfield Township on February 14, 1983. The members of the Lake Improvement Board during 1983 were Fred Korzon, Chairman and Bloomfield Township Supervisor, Nancy McConnell, representing the Oakland County Board of Commissioners, Al Massey, representing the Michigan Department of Natural Resources, and Robert H. Fredericks, representing the Oakland County Drain Commissioner.

The Lake Improvement Board received an engineering feasibility report on February 22, 1983 from Randall L. Ford, an engineer employed by Bloomfield Township. At a public hearing held March 17, 1983 the Lake Improvement Board received comments on a proposed five-year lake improvement project for Island Lake, and after receiving comments approved the project as practicable pursuant to the statute.

At a public hearing held April 14, 1983 the Lake Improvement Board received comments on the proposed five-year special assessment roll which had been prepared to finance the five-year lake improvement project on Island Lake. After receiving public comments, the Lake Improvement Board confirmed the special assessment roll for the lake improvement project.

On May 31, 1983 the Lake Improvement Board approved an agreement with the Island, Lower, Long, and Forest Lake Property Owners Association, a non-profit corporation, which was formed by the residents on Island Lake for the purpose of entering into a contract for weed harvesting work on Island Lake as authorized by Section 27 of the Lake Improvement Act. Payments by the Lake Improvement Board to the contractor for weed harvesting in 1983 totaled \$27,500. The Treasurer of Bloomfield Township serves as the treasurer for the Lake Improvement Board and maintains a record of all receipts and expenditures by the Board.

The first year of the weed harvesting program on Island Lake was very successful. No problems were encountered during 1983, and the program is expected to continue in the same manner over the next four years.

Lakeville Lake Improvement Board

Lakeville Lake is approximately 460 acres in size and is located in Section 2 of Addison Township. The Oakland County Drain Commissioner also operates and maintains a lake level structure for Lakeville Lake under the provisions of the Inland Lake Level Act. The members of the Lake Improvement Board during 1983 were Richard R. Wilcox, Chairman and representative of the Oakland County Board of Commissioners, Ron Wonboy, representing Addison Township, Howard Wandell, representing the Michigan Department of Natural Resources, and Robert H. Fredericks, representing the Oakland County Drain Commissioner.

In 1979 the Lake Improvement Board approved an engineering feasibility report for a lake improvement project on Lakeville Lake, primarily consisting of weed harvesting. A 5-year special assessment roll was confirmed in 1979 to finance the project. The Lake Improvement Board entered into a contract with the Lake Restoration Association, Lakeville, Michigan, a non-profit

corporation formed by the Lakeville Lake Property Owners Association to perform the weed harvesting work on Lakeville Lake as authorized by Section 27 of the Lake Improvement Act. Payments by the Lake Improvement Board to the contractor for weed harvesting in 1983 totaled \$26,500. A full report on receipts and expenditures by the Lake Improvement Board is included in the Financial Report Section.

The weed harvesting program on Lakeville Lake has been very successful and has served as a model for several other lake improvement boards in Oakland County and in other parts of the state. No problems were encountered with the weed harvesting work during 1983, and a similar program is expected to continue in the future.

Pontiac Lake Improvement Board

The Pontiac Lake Improvement Board was created in October, 1977 under the provisions of the Inland Lake Improvement Act (Act 345 of the Public Acts of 1966). The organizational meeting of the Board was held on March 21, 1978. The members of the Lake Improvement Board during 1983 were James L. Reid, Chairman and White Lake Township Supervisor, Dennis M. Ritter, Waterford Township Treasurer, Anne M. Hobart, representing the Oakland County Board of Commissioners, Steve Sadewasser, representing the Michigan Department of Natural Resources, and H. James Lueders, representing the Oakland County Drain Commissioner.

Pontiac Lake is located in Sections 11, 12, 13, and 14 of White Lake Township, and Section 18 of Waterford Township. Pontiac Lake is an artificial impoundment of approximately 615 acres and is bounded by state, county, commercial and residential properties. The Oakland County Drain Commissioner maintains and operates the dam for Pontiac Lake, which forms the lake and maintains its level.

Reports by Johnson & Anderson, Inc. in December of 1979, and the Michigan Department of Natural Resources in October of 1981, recommended winter drawdown of lake level for lake bottom improvement, aeration of the deep pool, supplemental flow augmentation (deep well), and mechanical aquatic weed harvesting. The winter drawdown was implemented in conjunction with the Pontiac Lake Dam Repair Project, the aeration system was constructed and operated for the 1983 summer season, and the annual weed harvesting started also in the summer of 1983. The supplemental well was cancelled for lack of cost effectiveness and poor aquifer test results.

Rainbow Lake Improvement Board

A resolution dated September 21, 1981 by the Waterford Township Board established the Rainbow Lake Improvement Board. The Lake Improvement Board held its organizational meeting on November 24, 1982. The members of the Lake Improvement Board for 1983 were Betty Fortino, Chairman and member of the Oakland County Board of

Commissioners, Paul Deni, Waterford Township Trustee, Albert Massey, representing the Michigan Department of Natural Resources, and David J. Snyder, representing the Oakland County Drain Commissioner.

Rainbow Lake, an eight acre lake in Section 4 of Waterford Township, involves 21 residents who are affected by the project. Gerald A. Cleary, P.E., was retained to prepare an engineering feasibility report which included an economic study and cost estimate. The report was presented to the Rainbow Lake Improvement Board at a meeting held October 18, 1983 and subsequently to the residents at an evening Board meeting held November 1, 1983. The residents, through their lake owner's association, are presently evaluating the report.

VanNorman Lake Improvement Board

The Independence Township Board of Trustees created the Improvement Board for VanNorman Lake on December 8, 1983 in response to petitions signed by two-thirds of the freeholders of VanNorman Lake property. The organizational meeting of the Board will be scheduled for early 1984 and will include members representing Independence and Waterford Townships, the Oakland County Board of Commissioners, the Michigan Department of Natural Resources and the Oakland County Drain Commissioner's Office.

VanNorman Lake is located in Sections 32 and 33 of Independence Township and Sections 4 and 5 of Waterford Township near the intersection of Dixie Highway and Andersonville Road. The water surface covers approximately 72 acres and the lake is bounded mostly by residential community.

Lake improvement study and project development will most likely start shortly after the Lake Board has organized.

Walters Lake Improvement Board

The Independence Township Board of Trustees created the Improvement Board for Walters Lake on October 4, 1983 in response to petitions signed by two-thirds of the freeholders of Walters Lake property. Formal organization of the Board took place on October 26, 1983. The members of the Lake Improvement Board for 1983 were Richard A. Holman, Chairman and Independence Township Clerk, Richard D. Kuhn, Jr., representing the Oakland County Board of Commissioners, Howard Wandell, representing the Michigan Department of Natural Resources, and H. James Lueders, representing the Oakland County Drain Commissioner.

Walters Lake is located in Sections 12, 13, and 14 of Independence Township near the intersection of Clarkston and Eston Roads. The water surface covers nearly 83 acres and the lake is bounded mostly by residential community.

Present Lake Board effort is directed to the selection of a registered professional engineer to undertake a lake improvement study to determine feasible lake improvement projects. Selection should be made in early 1984, and study activity should start as soon as funding is arranged and an engineering contract is signed.

Watkins Lake Weed Control Board

Watkins Lake is located in Waterford Township and has a surface area of 225 acres. Having no natural inlet, Watkins Lake is normally supplemented by storm water runoff and ground water.

The Waterford Township Board adopted a resolution on April 20, 1970 to implement P.A. 345 of 1966 as amended to create the first lake improvement board in Oakland County, the Watkins Lake Weed Control Board. The Board members for 1983 were Betty Fortino, Chairman and representative from the Oakland County Board of Commissioners, Dennis Ritter, Waterford Township Treasurer, Al Massey, representative from the Michigan Department of Natural Resources, and George W. Kuhn, Oakland County Drain Commissioner.

After the formation of the Watkins Lake Weed Control Board, an engineering study was made by Johnson & Anderson, Inc. and completed on December 1, 1972. Engineering recommendations basically indicated two feasible methods of weed control - chemically treating 100 acres of Watkins Lake and harvesting the remainder. For the first five years of its weed harvesting program the Watkins Lake Weed Control Board contracted with the Oakland County Drain Commissioner's Office for weed harvesting services, however over the past several years the weed harvesting contract has been awarded to the Watkins Lakefront Owners Association, Inc.

On March 9, 1983 the Board approved a budget of \$21,000 for the operating period beginning January 1, 1983 through June 1, 1984. During 1983 approximately 50% was actually spent for weed harvesting services, resulting in a substantial balance being carried over to the 1984 calendar year.

Wolverine Lake Improvement Board

Wolverine Lake is approximately 240 acres in size and is located in the Village of Wolverine Lake in Commerce Township. The members of the Lake Improvement Board during 1983 were Timothy R. Kozub, Chairman, Dr. G. William Caddell, representing the Oakland County Board of Commissioners, Al Massey, representing the Michigan Department of Natural Resources, and Robert H. Fredericks, representing the Oakland County Drain Commissioner.

Early 1983 brought about the conclusion of the 1982 Wolverine Lake drawdown. The drawdown was for the purpose of tree stump removal, controlling weed growth, individual lake front property owner lake improvements and possible removal of lake bottom material which was hindering watercraft.

A permit application was made with the Department of Natural Resources on February 15, 1983 and a conditional permit was granted to perform the removal of lake bottom material in three different locations. However, due to the unseasonably warm weather it was not possible to proceed with the removal of lake bottom material after the conditional permit was received and before the refilling of the lake was to begin. The permit obtained for the removal of lake bottom material may be renewed for two additional one year periods. This would allow removal of the lake bottom material during a future drawdown.

DRAINS UNDER DEVELOPMENT

DRAINS UNDER DEVELOPMENT

Jackson Drain

On March 22, 1982 the City Council of Troy adopted a petition for drainage improvements in Big Beaver Road from the Henry-Graham Drain west to 1/2 mile west of John R., and east to Dequindre Road. The petition was received by this office on March 30, 1982, and the first meeting of the Drainage Board was held the next day. The project was named the "Jackson Drain."

At a meeting held on May 12, 1982 the project was declared practicable and necessary for public health, the Final Order of Determination was approved, and Hubbell, Roth & Clark, Inc. was retained as consulting engineers. The total preliminary cost of the drain is \$1,320,000.

In 1983, as a part of the John R. Road improvement project, 105 lineal feet of Jackson Drain pipe enclosure was installed. Since, however, the road widening and reconstruction project for Big Beaver Road from Dequindre Road to 2-1/2 miles to the west had been postponed, the City of Troy requested that we put this project, now in the late design stage, on hold.

Price Drain

Severe flooding has occurred to properties adjoining Sylvan Lake, Otter Lake and Cass Lake in recent years. During periods of intensive precipitation and heavy Spring runoff, damage has been sustained by low lying properties in the vicinity of these lakes due to inadequate facilities to control the levels. The area most affected is west of Telegraph Road in West Bloomfield and Waterford Townships. The lakes are a part of the Clinton River system. Recent intensive development upstream from the lakes has increased the velocity and volume of runoff and has caused present control facilities to become inadequate. Present control of the levels of these lakes requires regulation of the Dawson Mill Pond dam, controlled by the City of Pontiac, and operation and control of dams on Cass Lake, controlled by the Oakland County Drain Commissioner. Coordination of these two efforts in the past has occasionally been difficult.

Because of the difficulty of maintaining constant levels in the Clinton River and the subject lakes, the Charter Township of Waterford and the City of Sylvan Lake petitioned the Oakland County Drain Commissioner to locate, establish and construct an intra-county drain under provisions of Act 40 of the Public Acts of 1956, as amended.

The Drainage Board determined that the proposed project was necessary for the public health and was practical and designated the project as the Price Drain. At the hearing held on September 8, 1976, there were several objections registered to the project and the hearing was adjourned.

Because the original petition did not include the Dawson Mill Pond dam, an amended petition was submitted by the City of Keego Harbor, the Township of West Bloomfield, the Township of Waterford and the City of Sylvan Lake. The amended petition includes the Dawson Mill Pond dam.

The engineering firm of Hubbell, Roth & Clark, Inc. was employed by the Drainage Board to prepare a study with regard to proposed Clinton River Improvements from and including the Dawson Mill Pond dam and the Clinton River system upstream through Cass Lake. The report has been completed and has been delivered to the Drainage Board.

The U. S. Army Corps of Engineers, under the direction of Project Engineer Dennis Oakes, is also making a study of improvements to relieve flooding problems in this area.

On December 20, 1979, the Drainage Board tentatively determined that the project proposed in revised petitions (for the limited purpose of undertaking planning and engineering studies) submitted by the City of Keego Harbor, City of Sylvan Lake, Township of West Bloomfield and the Charter Township of Waterford were of sufficiency and that the project proposed therein was practical.

Revised petitions to construct this project were sent to the communities on August 3, 1982. Only one acceptable petition was received (from the City of Pontiac) on October 13, 1982. An additional acceptable petition from one of the remaining communities must be received before any further action can be taken by this office. In 1983 attempts to obtain a second petition were made, but as of December 31, 1983 no such petition has been filed with our office.

SEWER & WATER PROJECTS UNDER DEVELOPMENT

SEWER AND WATER PROJECTS UNDER DEVELOPMENT

Evergreen-Farmington Pollution Control Facilities (Sewer)

Two independent sanitary sewer interceptor systems known as the "Farmington" and the "Evergreen" were planned and designed in the mid 50's, and constructed in the late 50's and early 60's. The districts they serve are located in the south-central portion of Oakland County, from the City of Pontiac, south to Eight Mile Road. They have a common north-south boundary along the extended alignment of Inkster Road, the Evergreen to the east and the Farmington to the west.

Discharges from these two interceptors flow by a common connection to a City of Detroit Interceptor located at Eight Mile and Southfield Roads, and thence to the Detroit Sewage Treatment Plant. The Detroit Interceptor sewer carries both storm water and sanitary sewage, commonly called combined sewage. The Evergreen Interceptor also carries some combined sewage which was designed to spill only periodically into the Rouge River at control structures along its route during times of intense rainfall and limitations of downstream capacity.

Substantial growth has taken place in south Oakland County since the two interceptor systems were completed in the early 60's. The density and character of the growth in both districts have exceeded, substantially, that which was or could have been anticipated during the design phases. Consequently, physical capacities began to show severe strain and only periodic spills to the Rouge River became frequent spills. Growth and development in the districts continue today although the pace is much slower, but each increase adds to that strain.

Many new public regulations dealing with pollution of the waters of the state have been enacted within the decade of the 70's. As a result, stream water quality standards have been upgraded to a degree that requires much stricter control of pollutant discharges from all sources.

Much developed area within these districts is still served by onsite disposal through septic tanks and tile fields which for a variety of reasons do not function in their modern environment. Collector sewers must be constructed in such areas. New regulations also call for much stricter control over the discharge of combined sewer overflows. Such controls result in an increased demand for capacity to transport and treat sewage. Several sewage collector systems in the district constructed in earlier years contribute excessive non-sanitary flows of ground water or surface water origin. Such flows have increased the intensity of the problem.

In 1964, the National Sanitation Foundation completed a study of the future needs for sanitary sewers in the Detroit Metropolitan area. The report recommended that sewage collection and treatment should be developed as a region-wide effort and that sewage from many suburbs should be transported via interceptor sewers directly to the Detroit Sewage Treatment Plant. The plan which developed included a requirement for a sanitary interceptor to provide capacity for, at least, the flows from these two districts. The construction of that interceptor has become the basis for the solution to the problem.

On-going studies for project development address many major considerations. Three of these have a considerable impact. Cost to construct the necessary facilities continues to escalate rapidly. Available capacities within the districts' interceptors and the Detroit outlet continue to dwindle. The cost of transportation and treatment of storm and other non-sanitary water inflows continues to grow to rather high proportions. This latter indicates that there is an increasing cost-effectiveness to reducing or eliminating non-sanitary flows.

The enactment of Public Law 92-500 offered strong incentives in the form of federal and state grant funding to conduct the intensive studies necessary to identify and provide solutions to problems of this nature. Although grant program laws, rules and regulations have undergone further changes, grant participation is expected to remain at the 75% level for this program.

Early in 1976, sixteen communities located in the districts requested Oakland County to apply for a Facilities Planning Grant (Step 1) and provided the local share as an advance to finance studies. The Board of Commissioners approved that request and assigned the work to the Drain Commissioner's office, as County Agency under Act 342, Public Acts of 1939, as amended. A subsequent Step 1 grant application was filed and approved by the D.N.R. and E.P.A.

Hubbell, Roth and Clark, Inc. was selected as the consulting engineer to perform the study. The Drain Commissioner's staff continues to provide assistance in certain phases of the work.

The Facilities Plan was completed in October, 1982. The findings indicated that the program needs approach 38 million dollars for interceptors, 44 million dollars for combined sewer overflow controls, and 8 million dollars for sewer systems rehabilitation. Funding advances from local communities are providing for the preparation of construction plans for portions of the system. That work is underway and the first phase of plan preparation is expected to be completed by the fall of 1984.

Detroit Facilities Planning is also in progress. The plan includes additional outlet capacity for the Evergreen-Farmington district in conjunction with the North Huron Valley-Rouge Valley project.

Eight of the sixteen communities within the districts have initiated Facilities Planning for local needs. These efforts are expected to provide master plans for collector sewers within both developed and undeveloped areas. Construction for these needs could reach a level in excess of 50 million dollars.

Huron Gardens Extension Improvements

Resolutions for the Waterford Township Board and the Oakland County Board of Commissioners are being prepared to establish this project and provide funds for development and construction. It is expected that the resolutions will be presented and approved during the first quarter of 1984.

The project is for construction of improvements to the existing sanitary sewer system located, generally, in the Huron Gardens Subdivision area of Sections 25 and 36, Waterford Township. The necessity for the improvements was identified by the Sewer System Evaluation Survey (SSES) completed in February of 1983 by consulting engineers, Johnson & Anderson, Inc.

It is estimated that the project will cost \$110,000 and that principle construction will be completed during the second quarter of 1984 prior to construction of street paving in the same area by the Oakland County Road Commission.

North Huron Valley - Rouge Valley Wastewater Control System

The North Huron Valley-Rouge Valley Wastewater Control system is a sanitary interceptor project designed to serve the existing and future needs of eleven communities in Wayne County and three in Oakland County. The three Oakland communities are the City of Wixom, which will abandon rather than improve its existing wastewater treatment plant; Commerce Township, which currently has no sanitary sewers; and the City of Novi, which is badly in need of additional capacity. All wastewater generated by the communities will be treated by the City of Detroit at the Delray Wastewater Treatment Plant.

The project is to be financed in part with Federal funds under the EPA Wastewater Construction Grants Act. The County of Wayne has been the grant applicant for the studies portion of the project. Construction of the project will include new facilities in Oakland and Wayne Counties, and in the City of Detroit. Each of these entities will be responsible for its own construction and construction plan preparation. Ten major project components are being combined into three construction grant segments. Segment 1 is to be constructed from grant funds available October 1, 1984; Segment 2 is to be constructed from funds available October 1, 1985; and Segment 3 is to be constructed from funds available October 1, 1986. A description of individual project components and total costs are as follows:

SEGMENT 1 (FY 1984 FUNDS)

1. Component 1 - Master Control Interceptor - \$8.74 million

The interceptor commences at a connection to the existing Detroit Northwest Interceptor in the neighborhood of Ford Road and Southfield, thence parallel to Ford Road and the existing Rouge Valley Interceptor System (RVIS) and terminates approximately 500 feet west of the existing Master Control structure, located west of Evergreen and Ford Roads on the RVIS.

2. Component 10 - Inkster Arm Storage - \$6.00 million

The 5.5 million gallon underground storage facility is located southwest of the intersection of Five Mile and Inkster Roads.

3. Component 2 - Middle Rouge Interceptor from Master Control to Telegraph - \$6.97 million

The interceptor commences at the terminus of Component 1, parallels the existing RVIS and terminates at the existing Redford Arm Interceptor connection to the RVIS at Telegraph Road.

4. Component 3 - Middle Rouge Interceptor from Telegraph to Inkster - \$7.35 million

The interceptor commences at the terminus of Component 2, parallels the existing RVIS and terminates at the existing Inkster Arm Interceptor connection to the existing RVIS at Inkster Road.

SEGMENT 2 (FY 1985 FUNDS)

1. Component 4 - Middle Rouge Interceptor from Inkster to Farmington - \$9.17 million

The interceptor commences at the terminus of Component 3, parallels the existing RVIS and terminates at Farmington Road.

2. Component 9 - Detroit Improvements - \$19.80 million

9A Evergreen - Farmington Permanent Connection

The interceptor commences with a connection to the existing First Hamilton Interceptor at Seven Mile and San Juan, thence north in San Juan, thence west in Outer Drive, thence west in Vassar Drive, thence northwest in James Couzens, thence west in St. Martins, thence north in Oakfield and terminating at a connection to the existing interceptor in Eight Mile Road.

9B Diversion Structure

The diversion structure, located at Fourth and Myrtle, will inter-connect the existing First Hamilton Interceptor to the existing North Interceptor East Arm.

9C Control Gate Modification

A control gate on the Detroit River Interceptor will be modified to complete the Evergreen-Farmington flow shifting.

SEGMENT 3 (FY 1986 FUNDS)

1. Component 5 - Middle Rouge Interceptor from Farmington to Haggerty - 18.12 million

The interceptor commences at the terminus of Component 4, parallels the existing RVIS along the Middle Rouge River and terminates at Haggerty Road.

2. Component 8 - Warren Arm Interceptor - \$12.75 million

The interceptor commences at the terminus of Component 4, thence southwesterly to Warren and Cowan Roads, thence westerly in Warren Road to the easterly boundary of Canton Township where it will divide into two branches. The westerly branch will proceed westerly in Warren Road to a terminus point at the intersection of Morton-Taylor and Warren Roads. The southerly branch proceeds south along the easterly boundary of Canton Township to Cherry Hill Road, thence west to Haggerty Road, thence south to a terminus point at the intersection of Haggerty and Palmer Roads.

3. Component 7 - North Arm - Wayne County - \$3.00 million

7A North Arm Connection

The interceptor commences at the terminus of Component 5, thence north and west along E.N. Hines Drive and terminates 200 feet east of the intersection of Wilcox Road and E.N. Hines Drive in Plymouth Township.

7B Haggerty Arm

The interceptor commences at the terminus of the North Arm Connection, thence east along Wilcox and Schoolcraft Roads, thence north in Haggerty Road and terminates at the intersection of Haggerty and Five Mile Roads.

4. Component 6 - North Arm - Oakland County - \$18.45 million

6A Wixom Arm

The interceptor commences at the existing Wixom Wastewater Treatment Plant, thence east along Charms Road to Wixom Road, thence south to Potter Road, thence east to Benstein Road, interconnecting to the terminus of the Commerce Arm, thence due south along Benstein Road extended to the Chesapeake and Ohio Railroad, thence southeasterly along the Chesapeake and Ohio Railroad and terminating at a connection to the existing Novi Interceptor at the I-96 Expressway.

6B Commerce Arm

The interceptor main branch commences at the intersection of Commerce Road at Creedmore Road extended, thence south in Creedmore Road to Bluebird Drive, thence southerly along Bluebird Drive and the easterly shore of Commerce Lake to Watuga Road, thence southerly to Oakley Park Road, thence westerly adjacent to Oakley Park Road to Benstein Road, thence south in Benstein Road and terminating at a connection to the Wixom Arm at the intersection of Benstein Road and Potter Road extended, including a branch from the Walled Lake Central High School along Oakley Park Road westerly to a connection to the main branch.

Orion Township Extension No. 3

On December 6, 1983 the Drain Commissioner's Office received a request from the Township of Orion to construct a sanitary sewer along Lapeer Road (M-24) from a point north of Brown Road to a point north of Greenshield Road. This sewer would serve a district easterly and westerly of Lapeer Road and would allow for industrial and commercial development to occur along the M-24 corridor adjacent to the new General Motors plant. The Township Board requested that this project be constructed utilizing surplus funds currently on deposit with the County.

The project will consist of approximately 13,500 L.F. of 8" diameter through 12" diameter sanitary sewer. A preliminary project cost estimate prepared by the Orion Township engineer, Orchard, Hiltz & McCliment, Inc., estimates the total project cost at \$644,000.

It is anticipated that the preparation and execution of the necessary resolutions and contract agreements will take place early in 1984, with preparation of construction plans and specifications to begin shortly thereafter.

West Bloomfield Water - Section VII

West Bloomfield Township has requested Oakland County to proceed with the development of a project to construct a 20-inch water transmission main along Pontiac Trail within the limits of the City of Orchard Lake Village westerly from Orchard Lake Road. The west end would terminate in Pontiac Trail near Mirror Lake.

The agreement between West Bloomfield Township and the County of Oakland was approved by the Township Board on January 18, 1982. The Oakland County Board of Commissioners approved the agreement on February 4, 1982, assigned the project development and construction to the Drain Commissioner's office as County Agency, and transferred \$680,000 in surplus funds from prior years water construction projects to finance the project work.

The project is composed of approximately 7,000 lineal feet of water transmission and distribution main, 20" to 8" in size. The firm of Hubbell, Roth & Clark, Inc. was retained to design the system and prepare construction plans and specifications. Construction bids should be requested in early 1984, with construction expected to begin in the summer of 1984.

FINANCIAL STATEMENTS

FINANCIAL STATEMENTS

Financial statements for the Southeastern Oakland County Sewage Disposal System and for each drainage district or project discussed in this report are included in this volume. Financial statements for each drainage district and itemized statements of all of the various accounts maintained by the Oakland County Drain Commissioner in connection with the construction, operation, and maintenance of all of the projects under the jurisdiction of the Oakland County Drain Commissioner are contained in Volume II of this Annual Report.

Reference should be made to the Table of Contents of the Financial Statements in Volume II for reference to any specific project or fund account not included in this volume.

OAKLAND COUNTY DRAIN COMMISSIONER

SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM

Combined Balance Sheet

as of December 31, 1983

<u>ASSETS</u>	87700 OPERATION & MAINTENANCE SEWAGE DISPOSAL	87710 OPERATION & MAINTENANCE POLLUTION CONTROL	<u>TOTAL</u>
Cash	\$ 287,247.98	\$ 275,482.98	\$ 562,730.96
Investments (Schedule I)	2,480,000.00	847,000.00	3,327,000.00
Accounts Receivable (Schedule II)	964,728.91	1,006,046.28	1,970,775.19
Fixed Assets - Operational	90,126.06	67,541.89	157,667.95
Allowance for Depreciation - Operational	(63,779.08)	(34,055.58)	(97,834.66)
Fixed Assets	8,697,453.95	24,614,258.88	33,311,712.83
Allowance for Depreciation Detail Project	(4,362,358.75)	(6,190,176.41)	(10,552,535.16)
Prepaid Expenses	9,956.75	2,160.60	12,117.35
Due from Other Funds	154,407.62		154,407.62
TOTAL ASSETS	\$ 8,257,783.44	\$ 20,588,258.64	\$ 28,846,042.08
 <u>LIABILITIES</u>			
Accounts Payable	\$	\$ (1,082.79)	\$ (1,082.79)
Accounts Payable (Detroit Sewage Bill)	1,955,418.69	1,639,618.26	3,595,036.95
Accounts Payable - Flushing		925.65	925.65
Vouchers Payable	30,460.12	20,531.34	50,991.46
Accrued Payroll	3,668.33	2,199.51	5,867.84
Due to Other Funds (Schedule III)	16,380.48	18,518.14	34,898.62
Total Liabilities	\$ 2,005,927.62	\$ 1,680,710.11	\$ 3,686,637.73
 <u>SURPLUS</u>			
Reserve for Operations & Maintenance	\$ 600,000.00	\$ 350,000.00	\$ 950,000.00
Reserves for Replacement	150,000.00		150,000.00
Fund Balance - Undesignated	1,166,760.62	137,854.06	1,304,614.68
Equity in Fixed Assets Detail Project	4,335,095.20	18,419,694.47	22,754,789.67
Total Surplus	\$ 6,251,855.82	\$ 18,907,548.53	\$ 25,159,404.35
TOTAL LIABILITIES & SURPLUS	\$ 8,257,783.44	\$ 20,588,258.64	\$ 28,846,042.08

Statement of Operations for Twelve Months Period
Ending December 31, 1983

REVENUE	87700 SEWAGE DISPOSAL SYSTEM	87710 POLLUTION CONTROL SERVICE	TOTAL
Sewage & Pollution Control Service	\$ 9,131,798.25	\$ 7,587,927.10	\$ 16,719,725.35
Penalties	7,934.99	36,192.65	-44,127.64
Surcharge Income	16,850.09	223,809.74	240,659.83
Total Income From Sales	\$ 9,156,583.33	\$ 7,847,929.49	\$ 17,004,512.82
LESS: Treatment Costs			
Sewage & Pollution Control Services	\$ 8,699,648.98	\$ 6,330,578.04	\$ 15,030,227.02
Capacity Charges	12,480.00		12,480.00
Detroit Sewer Maintenance	16,882.00		16,882.00
Cost of Surcharges	18,427.98	223,809.74	242,237.72
Total Treatment Costs	\$ 8,747,438.96	\$ 6,554,387.78	\$ 15,301,826.74
Gross Income From Sales	\$ 409,144.37	\$ 1,293,541.71	\$ 1,702,686.08
LESS: Operating Expenses			
Adjustment of Prior Years Expenditures	\$	\$ (34,809.43)	\$ (34,809.43)
Payroll - Administrative	3,300.00	3,300.00	6,600.00
Payroll - Sewage Disposal Personnel	150,916.54		150,916.54
Payroll - Pollution Control Personnel		128,565.28	128,565.28
Payroll - Other	11,183.12	10,970.55	22,153.67
Fringe Benefits	2,133.56	2,507.34	4,640.90
F.I.C.A. Contribution	9,890.59	8,106.45	17,997.04
Employees' Medical Insurance	16,288.60	12,965.98	29,254.58
Employees' Life Insurance	541.58	472.88	1,014.46
Contribution to Employees' Retirement	24,203.12	19,847.44	44,050.56
Workmen's Comp., Disability, Unemp. Ins.	3,708.83	5,887.05	9,595.88
Heat & Gas	2,794.10	6,665.34	9,459.44
Lights & Power	5,251.40	23,816.39	29,067.79
Water & Sewer	1,358.09	24,043.01	25,401.10
Telephone	880.47	1,235.75	2,116.22
Radio Maintenance	1,416.48	1,561.94	2,978.42
Building Maintenance	737.77	651.33	1,389.10
Land & Grounds Maintenance	129.58	263.20	392.78
Equipment Repairs & Expense	1,831.64	14,585.79	16,417.43
Vehicle Mileage & Expense	4,034.48	8,269.56	12,304.04
Shop Supplies		3,457.50	3,457.50
Lab Supplies & Expense	3,363.03		3,363.03
Laundry & Cleaning	1,358.02	1,466.40	2,824.42
Central Stores - Housekeeping	682.01	682.02	1,364.03
Chlorination Supplies & Expense		40,760.72	40,760.72
Protective Clothing & Equipment		621.36	621.36
General Insurance	2,806.12	4,511.09	7,317.21
Travel & Conference	292.12	1,014.97	1,307.09
Membership Dues & Publications	73.00	73.00	146.00
Equipment Rental	69.00	493.23	562.23
Office Supplies & Expense	505.93	1,249.27	1,755.20
Accounting Service - Oakland County	23,418.44	23,418.44	46,836.88
Depreciation - Operational	3,061.46	10,471.75	13,533.21
Outside Auditing Services	3,575.00	3,575.00	7,150.00
Legal Services	4,512.09	19,501.00	24,013.09
Stationery Stock	5.00	5.00	10.00
Engineering & Survey	2,366.22	1,443.00	3,809.22
Drain Equipment	2,013.50	2,013.51	4,027.01
Garbage & Rubbish Disposal		669.20	669.20
Maintenance Contract		1,599.33	1,599.33
Film & Processing		13.26	13.26
Total Operating Expense	\$ 288,700.89	\$ 355,944.90	\$ 644,645.79
Total Operating Earnings	\$ 120,443.48	\$ 937,596.81	\$ 1,058,040.29
ADD: Other Income			
Adjustment Prior Years Revenue	\$	\$ 1,744.96	\$ 1,744.96
Income on Investments	176,108.74	28,833.42	204,942.16
Miscellaneous Income (Schedule V)	5,053.56	28.56	5,082.12
Gain on Sale of Assets		3,134.04	3,134.04
TOTAL OTHER INCOME	\$ 181,162.30	\$ 33,740.98	\$ 214,903.28
NET EARNINGS FOR YEAR ENDING 1983	\$ 301,605.78	\$ 971,337.79	\$ 1,272,943.57

OAKLAND COUNTY DRAIN COMMISSIONER
SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM

BALANCE SHEET
as of December 31, 1983

	<u>RESERVE</u> <u>FUND NO. 87720</u>
<u>ASSETS</u>	
Cash	\$ 67.93
Investments (Schedule I)	<u>262,400.00</u>
TOTAL ASSETS	<u>\$ 262,467.93</u>
<u>LIABILITIES</u>	
Due to Municipalities	\$ 12,467.93
Due to Other Funds	<u>250,000.00</u>
TOTAL LIABILITIES	<u>\$ 262,467.93</u>

OAKLAND COUNTY DRAIN COMMISSIONER
SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM

Statement of Revenue & Expenditures
at December 31, 1983

	<u>RESERVE</u> <u>FUND NO. 87720</u>
<u>REVENUE</u>	
Income on Investments	\$ 12,467.93
TOTAL REVENUE	<u>\$ 12,467.93</u>
<u>EXPENDITURES</u>	
Distribution of Income on Investments	\$ _____
TOTAL EXPENDITURES	\$ _____
EXCESS OF REVENUES OVER EXPENDITURES	<u>\$ 12,467.93</u>

OAKLAND COUNTY DRAIN COMMISSIONER
SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM

POLLUTION CONTROL FACILITIES
BALANCE SHEET
as of December 31, 1983

<u>ASSETS</u>	<u>CONSTRUCTION FUND NO. 87780</u>
Cash	\$ (129.67)
Investments (Schedule I)	<u>2,029,500.00</u>
TOTAL ASSETS	<u>\$ 2,029,500.00</u>
<u>FUND BALANCE</u>	
Designated for Credits	<u>\$ 2,029,370.33</u>
TOTAL FUND BALANCE	<u>\$ 2,029,370.33</u>

OAKLAND COUNTY DRAIN COMMISSIONER
SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM
POLLUTION CONTROL FACILITIES
Statement of Revenue & Expenditures
at December 31, 1983

<u>REVENUE</u>	<u>CONSTRUCTION FUND NO. 87780</u>
Income on Investments	\$ 169,137.49
TOTAL REVENUE	<u>\$ 169,137.49</u>
<u>EXPENDITURES</u>	
Investment Fees	\$ 361.58
TOTAL EXPENDITURES	<u>\$ 361.58</u>
EXCESS OF REVENUES OVER EXPENDITURES	<u><u>\$ 168,775.91</u></u>

OAKLAND COUNTY DRAIN COMMISSIONER
 SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM
 BOND AND INTEREST REDEMPTION FUND
 DEQUINDRE SERIES

BALANCE SHEET
 as of December 31, 1983

<u>ASSETS</u>	<u>REDEMPTION FUND NO. 35300</u>
Cash	\$ 283.35
Investments (Schedule I)	91,000.00
Assessments Receivable (Schedule IV)	2,408,100.00
Due from Other Funds	<u>100,000.00</u>
 TOTAL ASSETS	 <u>\$ 2,599,383.35</u>
 <u>LIABILITIES</u>	
Bonds Payable	<u>\$ 2,410,000.00</u>
Total Liabilities	<u>\$ 2,410,000.00</u>
 <u>FUND BALANCE</u>	
Reserve for Bond and Interest Undesignated	<u>\$ 100,000.00</u> 89,383.35
Total Fund Balance	<u>\$ 189,383.35</u>
TOTAL LIABILITIES AND FUND BALANCE	<u>\$ 2,599,383.35</u>

OAKLAND COUNTY DRAIN COMMISSIONER
SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM
BOND AND INTEREST REDEMPTION FUND
DEQUINDRE SERIES

Statement of Operations
as of December 31, 1983

<u>REVENUE</u>	<u>REDEMPTION</u> <u>FUND NO. 35300</u>
Interest From Municipalities	\$ 72,688.10
Income on Investments	<u>6,161.33</u>
TOTAL REVENUE	<u>\$ 78,849.43</u>
<u>EXPENDITURES</u>	
Interest Expense	\$ 76,425.60
Treasurer's Investment Fee	9.28
Paying Agent's Fees	<u>203.22</u>
TOTAL EXPENDITURES	<u>\$ 76,638.10</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	<u><u>\$ 2,211.33</u></u>

OAKLAND COUNTY DRAIN COMMISSIONER
 SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM
 BOND AND INTEREST REDEMPTION FUND
 1970 SERIES

BALANCE SHEET
 as of December 31, 1983

<u>ASSETS</u>	<u>REDEMPTION FUND NO. 35500</u>
Cash	\$ 108.14
Investments (Schedule I)	234,875.00
Assessments Receivable (Schedule IV)	<u>9,550,000.00</u>
 TOTAL ASSETS	 <u>\$ 9,784,983.14</u>
 <u>LIABILITIES</u>	
Bonds Payable	<u>\$ 9,550,000.00</u>
Total Liabilities	\$ 9,550,000.00
 <u>FUND BALANCE</u>	
Undesignated	<u>\$ 234,983.14</u>
Total Fund Balance	<u>\$ 234,983.14</u>
 TOTAL LIABILITIES AND FUND BALANCE	 <u>\$ 9,784,983.14</u>

OAKLAND COUNTY DRAIN COMMISSIONER
SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM
BOND AND INTEREST REDEMPTION FUND
1970 SERIES

Statement of Operations
at December 31, 1983

<u>REVENUE</u>	<u>REDEMPTION FUND NO. 35500</u>
Interest from Municipalities	\$ 510,350.00
Income on Investments	<u>32,210.10</u>
TOTAL REVENUE	<u>\$ 542,560.10</u>
<u>EXPENDITURES</u>	
Interest Expense	\$ 510,350.00
Investment Fees	33.28
Paying Agent's Fees	<u>696.75</u>
TOTAL EXPENDITURES	<u>\$ 511,080.03</u>
EXCESS OF REVENUES OVER EXPENDITURES	<u><u>\$ 31,480.07</u></u>

OAKLAND COUNTY DRAIN COMMISSIONER
 SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM
 SCHEDULE OF INVESTMENTS
 as of December 31, 1983
 (SCHEDULE I)

<u>INVESTED</u>	<u>INVEST NO.</u>	<u>WHERE INVESTED & FUND</u>	<u>INT. RATE</u>	<u>MATURITY DATE</u>	<u>AMOUNT INVESTED</u>
<u>Operation & Maintenance Fund Sewage Disposal (100)</u>					
11/10/83	15866	Nat'l Bank of Detroit	9.375	2/14/84	\$ 160,000.00
11/17/83	15975	First Federal of Michigan	7.750	2/14/84	90,000.00
11/17/83	15976	First Federal of Michigan	9.500	2/14/84	1,510,000.00
11/30/83	16054	Mfgs. Bank of Southfield	9.000	2/14/84	295,000.00
11/30/83	16058	Mfgs. Bank of Southfield	9.000	2/14/84	225,000.00
12/05/83	16065	Mfgs. Bank of Novi	9.000	2/14/84	280,000.00
12/05/83	16067	Mfgs. Bank of Novi	9.000	2/14/84	270,000.00
12/22/83	16283	Comerica Bank - Troy	9.375	2/14/84	175,000.00
12/23/83	16289	Comerica Bank	9.375	2/14/84	140,000.00
12/23/83	16290	Comericak Bank	9.375	2/14/84	182,000.00
					<u>\$ 3,327,000.00</u>
<u>Reserve Fund (200)</u>					
10/14/83	15461	Community Nat'l Bank	7.750	4/16/84	\$ 27,050.00
10/20/83	15539	Mich. Nat'l Bank of Detroit	9.300	4/16/84	110,350.00
12/05/83	16066	Mfgs. Bank of Novi	9.000	4/16/84	125,000.00
					<u>\$ 262,400.00</u>
<u>Bond & Interest Redemption Fund (300)</u>					
11/14/83	15869	Nat'l Bank of Detroit	9.125	4/24/84	\$ 91,000.00
<u>Bond & Interest Redemption Fund (500)</u>					
10/24/83	15570	Nat'l Bank of Detroit	9.125	4/24/84	\$ 234,875.00
<u>Construction Fund (400)</u>					
8/15/83	14904	Mich. Nat'l Bank of Detroit	10.000	2/24/84	\$ 1,522,500.00
8/15/83	14908	Pontiac State Bank	9.625	2/24/84	507,000.00
					<u>\$ 2,029,500.00</u>
Total Investments					<u><u>\$ 5,944,775.00</u></u>

OAKLAND COUNTY DRAIN COMMISSIONER
SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM

SCHEDULE II
Accounts Receivable

SEWAGE DISPOSAL

Berkley	\$	54,658.44	
Beverly Hills Village		2,229.98	
Birmingham		18,877.17	
Clawson		46,681.54	
Ferndale		59,111.43	
Hazel Park		52,218.82	
Huntington Woods		10,843.43	
Madison Heights		106,671.54	
Oak Park		105,635.56	
Pleasant Ridge		4,527.10	
Royal Oak City		123,906.68	
Oakland County DPW		1,717.75	
Royal Oak Township		101,028.64	
Southfield		79,323.29	
Troy		131,380.27	
Detroit Zoo		5,970.22	
Rackham Golf Club		2.87	
Other		<u>34,830.62</u>	\$ 939,615.35
 <u>High Strength Surcharge</u>			
Madison Heights	\$	7,257.91	
Oak Park		<u>674.28</u>	\$ 7,932.19

Continued -

OAKLAND COUNTY DRAIN COMMISSIONER
SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM

SCHEDULE II - Continued
Accounts Receivable

POLLUTION CONTROL

Berkley	\$	80,066.00	
Beverly Hills Village		3,769.00	
Birmingham		28,734.00	
Clawson		74,006.00	
Ferndale		66,218.00	
Hazel Park		35,168.00	
Huntington Woods		17,832.00	
Madison Heights		54,217.76	
Oak Park		177,602.24	
Pleasant Ridge		8,639.00	
Royal Oak City		173,534.00	
Royal Oak Township		95,160.76	
Southfield		97,776.00	
Troy		13,162.00	
Detroit Zoo		2,235.00	
Rackham Golf Club		<u>2,770.00</u>	\$ 930,889.76

Penalties Receivable

S.D. Madison Heights	\$	294.22	
S.D. Royal Oak Township		<u>16,887.15</u>	\$ 17,181.37
P.C. Madison Heights		63,372.72	
P.C. Royal Oak Township		<u>11,783.80</u>	\$ 75,156.52
TOTAL ACCOUNTS RECEIVABLE			<u>\$ 1,970,775.19</u>

OAKLAND COUNTY DRAIN COMMISSIONER
SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM

Due to Other Funds
as of December 31, 1983
SCHEDULE III

Oakland County - General Fund		
Sewage Disposal	\$	7,025.63
Pollution Control		7,099.32
Oakland County - Fringe Benefits Fund		
Sewage Disposal		7,163.00
Pollution Control		5,578.71
Oakland County Equipment Fund		
Sewage Disposal		11.50
Pollution Control		11.50
Oakland County DPW Sewer, Water & Solid Waste Fund		
Sewage Disposal		1,389.03
Pollution Control		123.59
Oakland County Radio Communication Fund		
Sewage Disposal		61.24
Pollution Control		183.71
Oakland County Communication Fund		
Sewage Disposal		47.54
Pollution Control		70.89
Oakland County Motor Pool Fund		
Sewage Disposal		436.62
Pollution Control		796.88
Oakland County Store Operations Fund		
Sewage Disposal		245.92
Pollution Control		245.92
S.O.C.S.D.S. Sewage Disposal Fund		
Pollution Control		4,407.62
Total	\$	<u>34,898.62</u>

SOUTHEASTERN OAKLAND COUNTY SEWAGE DISPOSAL SYSTEM

Schedule of Assessments Receivable - Deferred
as of December 31, 1983
(SCHEDULE IV)

	1970 SERIES FUND NO. 35500	DEQUINDRE SERIES FUND NO. 35300	TOTAL
City of Berkley	\$ 680,527.38	\$ 106,100.00	\$ 786,627.38
City of Birmingham	422,453.40		422,453.40
City of Clawson	582,808.13	76,500.00	659,308.13
City of Ferndale	1,007,173.56	151,200.00	1,158,373.56
City of Hazel Park	238,247.98	102,700.00	340,947.98
City of Huntington Woods	290,255.36	41,300.00	331,555.36
City of Madison Heights	674,538.03	233,900.00	908,438.03
City of Oak Park	1,271,932.60	187,300.00	1,459,232.60
City of Pleasant Ridge	128,913.92	18,300.00	147,213.92
City of Royal Oak	3,038,626.78	419,000.00	3,457,626.78
Township of Royal Oak	174,689.55	31,900.00	206,589.55
City of Southfield	738,809.01	131,400.00	870,209.01
City of Troy	236,033.98	899,200.00	1,135,233.98
Village of Beverly Hills	64,990.32	9,300.00	74,290.32
TOTAL ASSESSMENTS RECEIVABLE DEFERRED 12/31/83	<u>\$ 9,550,000.00</u>	<u>\$ 2,408,100.00</u>	<u>\$ 11,958,100.00</u>

Miscellaneous Income
SCHEDULE V

Sludge Permits	\$ 5,025.00
Reimbursement from Detroit Edison	57.12
TOTAL	<u>\$ 5,082.12</u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
CHAPTER 21 MAINTENANCE FUNDS
BALANCE SHEET
RED RUN FEDERAL DRAINAGE DIST.

DECEMBER 31, 1983

MAINTENANCE
FUND NO
90395

ASSETS		
CASH	\$	3,284.48
INVESTMENTS		80,000.00
FIXED ASSETS		1,326,289.16
		<hr style="border-top: 1px dashed black;"/>
TOTAL ASSETS	\$	1,409,573.64
		<hr style="border-top: 3px double black;"/>
LIABILITIES		
DEPOSITS	\$	2,200.00
DUE TO OTHER FUNDS		9,341.29
		<hr style="border-top: 1px dashed black;"/>
TOTAL LIABILITIES	\$	11,541.29
FUND BALANCE		
UNDESIGNATED	\$	1,398,032.35
		<hr style="border-top: 1px dashed black;"/>
TOTAL FUND BALANCE	\$	1,398,032.35
		<hr style="border-top: 1px dashed black;"/>
TOTAL LIABILITIES & FUND BALANCE	\$	1,409,573.64
		<hr style="border-top: 3px double black;"/>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
CHAPTER 21 MAINTENANCE FUNDS
STATEMENT OF REVENUE & EXPENDITURES
RED RUN FEDERAL DRAINAGE DIST.

DECEMBER 31, 1983

MAINTENANCE
FUND NO
90395

REVENUES

INCOME FROM INVESTMENTS	\$	8,170.18
PERMITS		150.00
		<hr style="border-top: 1px dashed black;"/>
TOTAL REVENUES	\$	8,320.18
		<hr style="border-top: 1px dashed black;"/>

EXPENDITURES

SALARIES - REGULAR	\$	9,164.35
FRINGE BENEFITS		5,187.22
INVESTMENT FEES		76.52
INSURANCE		77.19
MAINTENANCE CONTRACT		51,294.50
PUBLISHING LEGAL NOTICES		68.00
TRANSPORTATION		107.19
MAINTENANCE SUPPLIES		44.97
MATERIAL & SUPPLIES		150.00
OFFICE SUPPLIES		146.29
DRAIN EQUIPMENT		3,505.95
		<hr style="border-top: 1px dashed black;"/>
TOTAL EXPENDITURES	\$	69,822.18
		<hr style="border-top: 1px dashed black;"/>

EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	\$(61,502.00)
		<hr style="border-top: 1px dashed black;"/> =====

CAKLAND COUNTY
 SPECIAL ASSESSMENT FUNDS
 LAKE IMPROVEMENT BOARD FUNDS
 BALANCE SHEET
 INDIANWOOD LAKE-LAKE IMP.

DECEMBER 31, 1983

LAKE
 IMPROVEMENT
 FUND NO
 80803

ASSETS

CASH	\$	12,675.82
		<u> </u>
TOTAL ASSETS	\$	12,675.82
		<u> </u>

LIABILITIES

DEPOSITS	\$	473.33
DUE TO OTHER FUNDS		110.55
VOUCHERS PAYABLE		301.85
UNDISTRIBUTED TAXES		154.50
		<u> </u>
TOTAL LIABILITIES	\$	1,040.23

FUND BALANCE

UNDESIGNATED	\$	11,635.59
		<u> </u>
TOTAL FUND BALANCE	\$	11,635.59

TOTAL LIABILITIES & FUND BALANCE	\$	12,675.82
		<u> </u>
		<u> </u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
LAKE IMPROVEMENT BOARD FUNDS
STATEMENT OF REVENUE & EXPENDITURES
INDIANWOOD LAKE-LAKE IMP.

DECEMBER 31, 1983

LAKE
IMPROVEMENT
FUND NO
80803

REVENUES

PROPERTY TAX LEVY	\$	17,917.82
		<hr style="border-top: 1px dashed black;"/>
TOTAL REVENUES	\$	17,917.82
		<hr style="border-top: 1px dashed black;"/>

EXPENDITURES

SALARIES - REGULAR	\$	54.68
CONTRACTED SERVICES		8,790.00
PHOTOCOPY EXPENSE		5.75
PUBLISHING LEGAL NOTICES		147.48
POSTAGE		35.42
DRAIN EQUIPMENT		120.55
		<hr style="border-top: 1px dashed black;"/>
TOTAL EXPENDITURES	\$	9,153.88
		<hr style="border-top: 1px dashed black;"/>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	\$	8,763.94
		<hr style="border-top: 1px dashed black;"/> <hr style="border-top: 1px dashed black;"/>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
LAKE IMPROVEMENT BOARD FUNDS
BALANCE SHEET
LAKEVILLE LAKE-LAKE IMP.

DECEMBER 31, 1983

LAKE
IMPROVEMENT
FUND NC
80802

ASSETS

CASH	\$	198.69

TOTAL ASSETS	\$	198.69
		=====

LIABILITIES

DUE TO OTHER FUNDS	\$	2.70

TOTAL LIABILITIES	\$	2.70

FUND BALANCE

UNDESIGNATED	\$	195.99

TOTAL FUND BALANCE	\$	195.99

TOTAL LIABILITIES & FUND BALANCE	\$	198.69

		=====

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
LAKE IMPROVEMENT BOARD FUNDS
STATEMENT OF REVENUE & EXPENDITURES
LAKEVILLE LAKE-LAKE IMP.

DECEMBER 31, 1983

LAKE
IMPROVEMENT
FUND NO
80802

REVENUES

INCOME FROM INVESTMENTS	\$	587.71
PROPERTY TAX LEVY		26,124.00
		<hr style="border-top: 1px dashed black;"/>
TOTAL REVENUES	\$	26,711.71
		<hr style="border-top: 1px dashed black;"/>

EXPENDITURES

CONTRACTED SERVICES	\$	26,500.00
PHOTOCOPY EXPENSE		2.70
		<hr style="border-top: 1px dashed black;"/>
TOTAL EXPENDITURES	\$	26,502.70
		<hr style="border-top: 1px dashed black;"/>

EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	\$	209.01
		<hr style="border-top: 1px dashed black;"/> <hr style="border-top: 1px dashed black;"/>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
LAKE IMPROVEMENT BOARD FUNDS
BALANCE SHEET
PONTIAC LAKE-LAKE IMP.

DECEMBER 31, 1983

LAKE
IMPROVEMENT
FUND NO
80807

ASSETS	
CASH	\$ 5,703.72
	<u> </u>
TOTAL ASSETS	\$ 5,703.72
	<u> </u>
LIABILITIES	
DUE TO OTHER FUNDS	\$ 8,018.88
	<u> </u>
TOTAL LIABILITIES	\$ 8,018.88
FUND BALANCE	
UNDESIGNATED	\$(2,315.16)
	<u> </u>
TOTAL FUND BALANCE	\$(2,315.16)
	<u> </u>
TOTAL LIABILITIES & FUND BALANCE	\$ 5,703.72
	<u> </u>
	<u> </u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
LAKE IMPROVEMENT BOARD FUNDS
STATEMENT OF REVENUE & EXPENDITURES
PONTIAC LAKE-LAKE IMP.

DECEMBER 31, 1983

LAKE
IMPROVEMENT
FUND NO
80807

REVENUES

INCOME FROM INVESTMENTS	\$	1,200.41
PROPERTY TAX LEVY		55,124.51

TOTAL REVENUES	\$	56,324.92

EXPENDITURES

CONTRACTED SERVICES	\$	50,000.00
ELECTRICAL SERVICE		42.91
EQUIPMENT REPAIRS & MAINT.		578.29
PHOTOCOPY EXPENSE		10.30
DRAIN EQUIPMENT		2.50

TOTAL EXPENDITURES	\$	50,634.00

EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	\$	5,690.92
		=====

OAKLAND COUNTY
 SPECIAL ASSESSMENT FUNDS
 LAKE LEVEL MAINTENANCE FUNDS
 BALANCE SHEET
 PONTIAC LAKE LEVEL

DECEMBER 31, 1983

MAINTENANCE
 FUND NO
 85221

ASSETS

CASH	\$	1,625.14
		<u> </u>
TOTAL ASSETS	\$	1,625.14
		<u> </u>

LIABILITIES

DUE TO OTHER FUNDS	\$	324,112.69
UNDISTRIBUTED TAXES		1,625.14
		<u> </u>
TOTAL LIABILITIES	\$	325,737.83

FUND BALANCE

UNDESIGNATED	\$(324,112.69)
		<u> </u>
TOTAL FUND BALANCE	\$(324,112.69)

TOTAL LIABILITIES & FUND BALANCE	\$	1,625.14
		<u> </u>
		<u> </u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
LAKE LEVEL MAINTENANCE FUNDS
STATEMENT OF REVENUE & EXPENDITURES
PONTIAC LAKE LEVEL

DECEMBER 31, 1983

MAINTENANCE
FUND NC
85221

REVENUES

GRANTS	\$	15,723.44
PROPERTY TAX LEVY		63,748.04
		<hr style="border-top: 1px dashed black;"/>
TOTAL REVENUES	\$	79,471.48
		<hr style="border-top: 1px dashed black;"/>

EXPENDITURES

SALARIES - REGULAR	\$	1,241.58
CONTRACTED SERVICES		21,325.15
ELECTRICAL SERVICE		26.34
ENGINEERING AND SURVEY		7,316.00
INSURANCE		974.96
MISCELLANEOUS		1.64
PHOTOCOPY EXPENSE		11.00
FILM & PROCESSING		36.14
MICROFILMING & REPRODUCTIONS		30.00
DRAIN EQUIPMENT		1,220.28
		<hr style="border-top: 1px dashed black;"/>
TOTAL EXPENDITURES	\$	32,183.09
		<hr style="border-top: 1px dashed black;"/>
		<hr style="border-top: 1px dashed black;"/>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	\$	47,288.39
		<hr style="border-top: 1px dashed black;"/> <hr style="border-top: 1px dashed black;"/>

OAKLAND COUNTY
 SPECIAL ASSESSMENT FUNDS
 LAKE IMPROVEMENT BOARD FUNDS
 STATEMENT OF REVENUE & EXPENDITURES
 WOLVERINE LAKE-LAKE IMP.

DECEMBER 31, 1983

LAKE
 IMPROVEMENT
 FUND NO
 80809

REVENUES

INCOME FROM INVESTMENTS	\$	684.18
PROPERTY TAX LEVY		136.17
		<hr style="border-top: 1px dashed black;"/>
TOTAL REVENUES	\$	820.35
		<hr style="border-top: 1px dashed black;"/>

EXPENDITURES

EQUIPMENT RENTAL	\$	2.50
PHOTOCOPY EXPENSE		1.50
REBILLABLE SERVICES		6,622.64
FILM & PROCESSING		5.47
POSTAGE	(4.98)
DRAIN EQUIPMENT		1.00
		<hr style="border-top: 1px dashed black;"/>
TOTAL EXPENDITURES	\$	6,628.13
		<hr style="border-top: 1px dashed black;"/>

EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	\$(5,807.78)
		<hr style="border-top: 1px dashed black;"/> <hr style="border-top: 1px dashed black;"/>

OAKLAND COUNTY
 SPECIAL ASSESSMENT FUNDS
 CHAPTER 20 CONSTRUCTION FUNDS
 BALANCE SHEET
 CADDELL DRAINAGE DISTRICT

DECEMBER 31, 1983

CONSTRUCTION
 FUND NO
 81600

ASSETS			
CASH	\$	1,024.77	
CAPITAL PROJECTS IN PROCESS		2,931,232.02	
		<u> </u>	
TOTAL ASSETS	\$	2,932,256.79	<u> </u>
LIABILITIES			
ACCOUNTS PAYABLE	\$	39,626.41	
ADVANCES AND LOANS PAYABLE		220,851.50	
CONTRACTS PAYABLE		2,396,177.87	
DUE TO OTHER FUNDS		10,267.74	
		<u> </u>	
TOTAL LIABILITIES	\$	2,666,923.52	
FUND BALANCE			
RESERVES	\$	264,443.55	
UNDESIGNATED		889.72	
		<u> </u>	
TOTAL FUND BALANCE	\$	265,333.27	
TOTAL LIABILITIES & FUND BALANCE	\$	2,932,256.79	<u> </u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
CHAPTER 20 CONSTRUCTION FUNDS
STATEMENT OF REVENUE & EXPENDITURES
CADELL DRAINAGE DISTRICT

<u>REVENUE</u>	<u>CONSTRUCTION FUND FOR YEAR 1983</u>	<u>81600 CONSTRUCTION FUND THRU 12/31/83</u>
PREPAYMENT - CITY OF FARMINGTON HILLS	\$ 138,190.72	\$ 264,443.55
INCOME ON INVESTMENTS	<u>61.33</u>	<u>889.72</u>
TOTAL REVENUE	<u>\$ 138,252.05</u>	<u>\$ 265,333.27</u>
<u>EXPENDITURES</u>		
CAPITAL OUTLAY	<u>\$ 2,793,172.72</u>	<u>\$ 2,931,232.02</u>
TOTAL EXPENDITURES	<u>\$ 2,793,172.72</u>	<u>\$ 2,931,232.02</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	<u><u>\$(2,654,920.67)</u></u>	<u><u>\$(2,665,898.75)</u></u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
CHAPTER 20 CONSTRUCTION FUNDS
BALANCE SHEET
GOSLING DRAINAGE DISTRICT

DECEMBER 31, 1983

CONSTRUCTION
FUND NO
81601

ASSETS

CASH	\$	179.69
ASSESSMENTS RECEIVABLE		14,527.04
CAPITAL PROJECTS IN PROCESS		61,586.26
		<hr style="border-top: 1px dashed black;"/>
TOTAL ASSETS	\$	76,292.99
		<hr style="border-top: 3px double black;"/>

LIABILITIES

DUE TO OTHER FUNDS		5,780.61
		<hr style="border-top: 1px dashed black;"/>
TOTAL LIABILITIES	\$	5,780.61

FUND BALANCE

RESERVES	\$	69,400.00
UNDESIGNATED		1,112.38
		<hr style="border-top: 1px dashed black;"/>
TOTAL FUND BALANCE	\$	70,512.38

TOTAL LIABILITIES & FUND BALANCE	\$	76,292.99
		<hr style="border-top: 3px double black;"/>

OAKLAND COUNTY
 SPECIAL ASSESSMENT FUNDS
 CHAPTER 20 CONSTRUCTION FUNDS
 STATEMENT OF REVENUE & EXPENDITURES
 GOSLING DRAINAGE DISTRICT

<u>REVENUE</u>	CONSTRUCTION FUND FOR YEAR 1983	81601 CONSTRUCTION FUND THRU 12/31/83
PREPAID ASSESSMENTS - TOWNSHIP OF OAKLAND	\$	\$ 69,400.00
INCOME ON INVESTMENTS	<u>1,112.38</u>	<u>1,112.38</u>
TOTAL REVENUE	\$ <u>1,112.38</u>	\$ <u>70,512.38</u>
 <u>EXPENDITURES</u>		
CAPITAL OUTLAY	\$ <u>47,549.75</u>	\$ <u>61,586.26</u>
TOTAL EXPENDITURES	\$ <u>47,549.75</u>	\$ <u>61,586.26</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	<u>\$ (46,437.37)</u>	<u>\$ 8,926.12</u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
CHAPTER 20 CONSTRUCTION FUNDS
BALANCE SHEET
JACKSON DRAINAGE DISTRICT

DECEMBER 31, 1983

CONSTRUCTION
FUND NO
81599

ASSETS

CASH	\$	2,397.53
INVESTMENTS		364,000.00
CAPITAL PROJECTS IN PROCESS		54,043.48
		<hr style="border-top: 1px dashed black;"/>
TOTAL ASSETS	\$	420,441.01
		<hr style="border-top: 3px double black;"/>

LIABILITIES

ACCOUNTS PAYABLE	\$	6,742.69
ADVANCES AND LOANS PAYABLE		400,000.00
DEPOSITS		1,000.00
DUE TO OTHER FUNDS		24.15
		<hr style="border-top: 1px dashed black;"/>
TOTAL LIABILITIES	\$	407,766.84

FUND BALANCE

UNDESIGNATED	\$	12,674.17
		<hr style="border-top: 1px dashed black;"/>
TOTAL FUND BALANCE	\$	12,674.17

TOTAL LIABILITIES & FUND BALANCE	\$	420,441.01
		<hr style="border-top: 3px double black;"/>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
CHAPTER 20 CONSTRUCTION FUNDS
STATEMENT OF REVENUE & EXPENDITURES
JACKSON DRAINAGE DISTRICT

<u>REVENUE</u>	<u>CONSTRUCTION FUND FOR YEAR 1983</u>	<u>81599 CONSTRUCTION FUND THRU 12/31/83</u>
LOAN FROM ROTH DRAIN	\$ 54,043.48	\$ 54,043.48
INCOME ON INVESTMENTS	12,624.17	12,624.17
TAP PERMITS	<u>50.00</u>	<u>50.00</u>
TOTAL REVENUE	<u>\$ 66,717.65</u>	<u>\$ 66,717.65</u>
 <u>EXPENDITURES</u>		
CAPITAL OUTLAY	<u>\$ 54,043.48</u>	<u>\$ 54,043.48</u>
TOTAL EXPENDITURES	<u>\$ 54,043.48</u>	<u>\$ 54,043.48</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	<u>\$ 12,674.17</u>	<u>\$ 12,674.17</u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
CHAPTER 20 CONSTRUCTION FUNDS
BALANCE SHEET
JOACHIM DRAINAGE DISTRICT

DECEMBER 31, 1983

CONSTRUCTION
FUND NO
81526

ASSETS

CASH	\$	6,360.42
INVESTMENTS		1,122,000.00
ASSESSMENTS RECEIVABLE		99,427.38
CAPITAL PROJECTS IN PROCESS		1,531,967.24
		<hr style="border-top: 1px dashed black;"/>
TOTAL ASSETS	\$	2,759,755.04
		<hr style="border-top: 3px double black;"/>

LIABILITIES

CONTRACTS PAYABLE	\$	1,015,897.10
DUE TO OTHER FUNDS		34,670.17
RETAIN % OF CONTRACTS PAYABLE	(24,525.10)
		<hr style="border-top: 1px dashed black;"/>
TOTAL LIABILITIES	\$	1,026,042.17

FUND BALANCE

RESERVES	\$	1,518,333.00
UNDESIGNATED		215,379.87
		<hr style="border-top: 1px dashed black;"/>
TOTAL FUND BALANCE	\$	1,733,712.87

TOTAL LIABILITIES & FUND BALANCE	\$	2,759,755.04
		<hr style="border-top: 3px double black;"/>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
CHAPTER 20 CONSTRUCTION FUNDS
STATEMENT OF REVENUE & EXPENDITURES
JOACHIM RELIEF DRAINAGE DISTRICT

<u>REVENUE</u>	<u>CONSTRUCTION FUND FOR YEAR 1983</u>	<u>81526 CONSTRUCTION FUND THRU 12/31/83</u>
PREPAID ASSESSMENTS	\$ 1,273,333.00	\$ 1,518,333.00
CITY OF PONTIAC \$1,492,521.58		
STATE OF MICHIGAN 25,811.42		
INCOME ON INVESTMENTS	35,610.58	214,484.87
OTHER	<u>895.00</u>	<u>895.00</u>
 TOTAL REVENUE	 <u>\$ 1,309,838.58</u>	 <u>\$ 1,733,712.87</u>
 <u>EXPENDITURES</u>		
 CAPITAL OUTLAY	 <u>\$ 1,412,093.19</u>	 <u>\$ 1,531,967.24</u>
 TOTAL EXPENDITURES	 <u>\$ 1,412,093.19</u>	 <u>\$ 1,531,967.24</u>
 EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	 <u>\$ (102,254.61)</u>	 <u>\$ 201,745.63</u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
CHAPTER 20 CONSTRUCTION FUNDS
BALANCE SHEET
VOGT DRAINAGE DISTRICT

DECEMBER 31, 1983

CONSTRUCTION
FUND NO
81602

ASSETS

CASH	\$	2,373.56
INVESTMENTS		193,500.00
CAPITAL PROJECTS IN PROCESS		318,752.09
		<u> </u>
TOTAL ASSETS	\$	<u>519,625.65</u> =====

LIABILITIES

ACCOUNTS PAYABLE	\$	74,442.40
ADVANCES AND LOANS PAYABLE		400,000.00
DUE TO OTHER FUNDS		37,549.38
		<u> </u>
TOTAL LIABILITIES	\$	511,991.78

FUND BALANCE

UNDESIGNATED	\$	7,633.87
		<u> </u>
TOTAL FUND BALANCE	\$	7,633.87

TOTAL LIABILITIES & FUND BALANCE	\$	<u>519,625.65</u> =====
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OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
CHAPTER 20 CONSTRUCTION FUNDS
STATEMENT OF REVENUE & EXPENDITURES
VOGT DRAINAGE DISTRICT

<u>REVENUE</u>	<u>CONSTRUCTION FUND FOR YEAR 1983</u>	<u>81602 CONSTRUCTION FUND THRU 12/31/83</u>
INCOME ON INVESTMENTS	\$ 7,633.87	\$ 7,633.87
TOTAL REVENUE	<u>\$ 7,633.87</u>	<u>\$ 7,633.87</u>
 <u>EXPENDITURES</u>		
CAPITAL OUTLAY	\$ 307,003.00	\$ 318,752.09
TOTAL EXPENDITURES	<u>\$ 307,003.00</u>	<u>\$ 318,752.09</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	<u>\$ (299,369.13)</u>	<u>\$ (311,118.22)</u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
ACT 342 CONSTRUCTION FUNDS
BALANCE SHEET
EVERGREEN FARMINGTON SDS

DECEMBER 31, 1983

CONSTRUCTION
FUND NO
87270

ASSETS

CASH	\$	14,930.93
INVESTMENTS		1,051,000.00
DUE FROM STATE OF MICHIGAN		21,845.00
CAPITAL PROJECTS IN PROCESS		192,184.73
		<hr style="border-top: 1px dashed black;"/>
TOTAL ASSETS	\$	1,279,960.66
		<hr style="border-top: 3px double black;"/>

LIABILITIES

DUE TO OTHER FUNDS	\$	135,809.33
		<hr style="border-top: 1px dashed black;"/>
TOTAL LIABILITIES	\$	135,809.33

FUND BALANCE

RESERVES	\$	3,970,279.70
UNDESIGNATED		(2,826,128.37)
		<hr style="border-top: 1px dashed black;"/>
TOTAL FUND BALANCE	\$	1,144,151.33

TOTAL LIABILITIES & FUND BALANCE	\$	1,279,960.66
		<hr style="border-top: 3px double black;"/>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
ACT 342 CONSTRUCTION FUNDS
STATEMENT OF REVENUE & EXPENDITURES
EVERGREEN-FARMINGTON S.D.S.

<u>REVENUE</u>	<u>CONSTRUCTION FUND FOR YEAR 1983</u>	<u>87270 CONSTRUCTION FUND THRU 12/31/83</u>
GRANTS	\$ 193,487.00	\$ 2,282,371.00
PREPAID ASSESSMENTS	1,107,823.19	1,734,352.70
INCOME ON INVESTMENTS	21,279.50	104,450.10
OTHER	<u>469.73</u>	<u>469.73</u>
TOTAL REVENUE	<u>\$ 1,323,059.42</u>	<u>\$ 4,121,643.53</u>
 <u>EXPENDITURES</u>		
CAPITAL OUTLAY	<u>\$ 242,122.62</u>	<u>\$ 3,123,232.93</u>
TOTAL EXPENDITURES	<u>\$ 242,122.62</u>	<u>\$ 3,123,232.93</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	<u>\$ 1,080,936.80</u>	<u>\$ 998,410.60</u>

OAKLAND COUNTY
 SPECIAL ASSESSMENT FUNDS
 ACT 342 CONSTRUCTION FUNDS
 BALANCE SHEET
 PAINT CREEK INT. OAK TWP EXT 2

DECEMBER 31, 1983

CONSTRUCTION
 FUND NO
 87130

ASSETS

CASH	\$	2,289.06
INVESTMENTS		27,500.00
CAPITAL PROJECTS IN PROCESS		112,390.59
		<hr style="border-top: 1px dashed black;"/>
TOTAL ASSETS	\$	142,179.65
		<hr style="border-top: 3px double black;"/>

LIABILITIES

DUE TO OTHER FUNDS	\$	2,869.88
		<hr style="border-top: 1px dashed black;"/>
TOTAL LIABILITIES	\$	2,869.88

FUND BALANCE

RESERVES	\$	133,600.00
UNDESIGNATED		5,709.77
		<hr style="border-top: 1px dashed black;"/>
TOTAL FUND BALANCE	\$	139,309.77

TOTAL LIABILITIES & FUND BALANCE	\$	142,179.65
		<hr style="border-top: 3px double black;"/>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
ACT 342 CONSTRUCTION FUNDS
STATEMENT OF REVENUE & EXPENDITURES
CLINTON-OAKLAND S.D.S.
PAINT CREEK INTERCEPTOR
OAKLAND TOWNSHIP EXTS. NO. 2

<u>REVENUE</u>	<u>CONSTRUCTION FUND FOR YEAR 1983</u>	<u>87130 CONSTRUCTION FUND THRU 12/31/83</u>
PREPAID ASSESSMENTS	\$ 60,600.00	\$ 133,600.00
INCOME ON INVESTMENTS	<u>1,630.87</u>	<u>5,709.77</u>
TOTAL REVENUE	<u>\$ 62,230.87</u>	<u>\$ 139,309.77</u>
 <u>EXPENDITURES</u>		
CAPITAL OUTLAY	<u>\$ 55,523.94</u>	<u>\$ 112,390.59</u>
TOTAL EXPENDITURES	<u>\$ 55,523.94</u>	<u>\$ 112,390.59</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	<u>\$ 6,706.93</u>	<u>\$ 26,919.18</u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
ACT 185 CONSTRUCTION FUNDS
BALANCE SHEET
COSDS PAINT CK INTER CRICN #2

DECEMBER 31, 1983

CONSTRUCTION
FUND NO
83671

ASSETS

CASH	\$	7,480.42
INVESTMENTS		237,500.00
CAPITAL PROJECTS IN PROCESS		248,431.88
		<u> </u>
TOTAL ASSETS	\$	<u>493,412.30</u>
		<u> </u>

LIABILITIES

CONTRACTS PAYABLE	\$	15,992.40
DUE TO OTHER FUNDS		82.44
RETAIN % OF CONTRACTS PAYABLE	(7,920.40)
		<u> </u>
TOTAL LIABILITIES	\$	8,154.44

FUND BALANCE

RESERVES	\$	437,000.00
UNDESIGNATED		48,257.86
		<u> </u>
TOTAL FUND BALANCE	\$	485,257.86

TOTAL LIABILITIES & FUND BALANCE	\$	<u>493,412.30</u>
		<u> </u>

OAKLAND COUNTY
 SPECIAL ASSESSMENT FUNDS
 ACT 185 CONSTRUCTION FUNDS
 STATEMENT OF REVENUE & EXPENDITURES
 CLINTON-OAKLAND S.D.S.
 PAINT CREEK INTERCEPTOR
 ORION TWP. EXT. NO. 2

<u>REVENUE</u>	<u>CONSTRUCTION FUND FOR YEAR 1983</u>	<u>83671 CONSTRUCTION FUND THRU 12/31/83</u>
ADVANCE FOR CONSTRUCTION INCOME ON INVESTMENT	\$ 23,203.83	\$ 437,000.00 48,257.86
TOTAL REVENUE	<u>\$ 23,203.83</u>	<u>\$ 485,257.86</u>
 <u>EXPENDITURES</u>		
CAPITAL OUTLAY	<u>\$ 200,879.25</u>	<u>\$ 248,431.88</u>
TOTAL EXPENDITURES	<u>\$ 200,879.25</u>	<u>\$ 248,431.88</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	<u>\$ (177,675.42)</u>	<u>\$ 236,825.98</u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
ACT 185 CONSTRUCTION FUNDS
BALANCE SHEET
FARM SDS 13 MILE RD ARM EXT #1

DECEMBER 31, 1983

CONSTRUCTION
FUND NO
83191

ASSETS

CASH	\$	1,437.27
INVESTMENTS		5,000.00
CAPITAL PROJECTS IN PROCESS		110,520.16
		<u> </u>
TOTAL ASSETS	\$	<u>116,957.43</u>
		<u> </u>

LIABILITIES

CONTRACTS PAYABLE	\$	2,571.47
		<u> </u>
TOTAL LIABILITIES	\$	2,571.47

FUND BALANCE

RESERVES	\$	105,960.00
UNDESIGNATED		8,425.96
		<u> </u>
TOTAL FUND BALANCE	\$	114,385.96

TOTAL LIABILITIES & FUND BALANCE	\$	<u>116,957.43</u>
		<u> </u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
ACT 185 CONSTRUCTION FUNDS
STATEMENT OF REVENUE & EXPENDITURES
FARMINGTON S.D.S.
13 MILE ROAD ARM EXT. NO. 1

<u>REVENUE</u>	<u>CONSTRUCTION FUND FOR YEAR 1983</u>	<u>83191 CONSTRUCTION FUND THRU 12/31/83</u>
ADVANCE FOR CONSTRUCTION INCOME ON INVESTMENTS	\$ 6,000.00 <u>1,997.98</u>	\$ 105,960.00 <u>8,425.96</u>
TOTAL REVENUE	\$ <u>7,997.98</u>	\$ <u>114,385.96</u>
<u>EXPENDITURES</u>		
CAPITAL OUTLAY	\$ <u>89,884.33</u>	\$ <u>110,520.16</u>
TOTAL EXPENDITURES	\$ <u>89,884.33</u>	\$ <u>110,520.16</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	<u>\$ (81,886.35)</u>	<u>\$ 3,865.80</u>

CAKLAND COUNTY
 SPECIAL ASSESSMENT FUNDS
 ACT 342 CONSTRUCTION FUNDS
 BALANCE SHEET
 COSOS WATERFRD EMG PUMP CONIM

DECEMBER 31, 1983

CONSTRUCTION
 FUND NO
 87083

ASSETS

CASH	\$	2,116.50
INVESTMENTS		17,000.00
CAPITAL PROJECTS IN PROCESS		39,784.42

TOTAL ASSETS	\$	58,900.92
		=====

LIABILITIES

CONTRACTS PAYABLE	\$	2,532.26
DUE TO OTHER FUNDS		2,397.77

TOTAL LIABILITIES	\$	4,930.03

FUND BALANCE

RESERVES	\$	50,000.00
UNDESIGNATED		3,970.89

TOTAL FUND BALANCE	\$	53,970.89

TOTAL LIABILITIES & FUND BALANCE	\$	58,900.92

		=====

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
ACT 342 CONSTRUCTION FUNDS
STATEMENT OF REVENUE & EXPENDITURES
CLINTON-OAKLAND S.D.S.
WATERFORD EMERGENCY PUMP CONNECTION IMPROVEMENTS

<u>REVENUE</u>	<u>CONSTRUCTION FUND FOR YEAR 1983</u>	<u>87083 CONSTRUCTION FUND THRU 12/31/83</u>
ADVANCE FOR CONSTRUCTION	\$	\$ 50,000.00
INCOME ON INVESTMENTS	2,452.78	3,895.89
OTHER	<u>75.00</u>	<u>75.00</u>
TOTAL REVENUE	<u>\$ 2,527.78</u>	<u>\$ 53,970.89</u>
 <u>EXPENDITURES</u>		
CAPITAL OUTLAY	<u>\$ 33,884.28</u>	<u>\$ 39,784.42</u>
TOTAL EXPENDITURES	<u>\$ 33,884.28</u>	<u>\$ 39,784.42</u>
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	<u>\$ (31,356.50)</u>	<u>\$ 14,186.47</u>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
ACT 342 CONSTRUCTION FUNDS
BALANCE SHEET
COSDS WATERFRD EXT PHASE V

DECEMBER 31, 1983

CONSTRUCTION
FUND NO
87082

ASSETS

CASH	\$	10,436.79
INVESTMENTS		297,500.00
DUE FROM FEDERAL GOVERNMENT		392,117.00
DUE FROM STATE OF MICHIGAN		93,230.00
CAPITAL PROJECTS IN PROCESS		27,218,125.31
		<hr style="border-top: 1px dashed black;"/>
TOTAL ASSETS	\$	28,011,409.10
		<hr style="border-top: 3px double black;"/>

LIABILITIES

CONTRACTS PAYABLE	\$(5,417.69)
DUE TO OTHER FUNDS		6,473.30
		<hr style="border-top: 1px dashed black;"/>
TOTAL LIABILITIES	\$	1,055.61

FUND BALANCE

RESERVES	\$	27,291,775.00
UNDESIGNATED		718,578.49
		<hr style="border-top: 1px dashed black;"/>
TOTAL FUND BALANCE	\$	28,010,353.49

TOTAL LIABILITIES & FUND BALANCE	\$	28,011,409.10
		<hr style="border-top: 3px double black;"/>

OAKLAND COUNTY
SPECIAL ASSESSMENT FUNDS
ACT 342 CONSTRUCTION FUNDS
STATEMENT OF REVENUE & EXPENDITURES
CLINTON-OAKLAND S.D.S.
WATERFORD EXTENSIONS, PHASE V

<u>REVENUE</u>	CONSTRUCTION FUND <u>FOR YEAR 1983</u>	87082 CONSTRUCTION FUND <u>THRU 12/31/83</u>
SALE OF BONDS	\$	\$13,475,000.00
GRANTS	100,645.00	13,331,428.00
INCOME ON INVESTMENTS	20,546.81	1,614,746.55
OTHER		33,831.94
	<u>121,191.81</u>	<u>28,455,006.40</u>
TOTAL REVENUE	\$	\$28,455,006.40
 <u>EXPENDITURES</u>		
CAPITAL OUTLAY	\$	\$28,148,125.31
TOTAL EXPENDITURES	\$	\$28,148,125.31
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	\$	\$ 306,881.18

FINANCIAL STATEMENTS

Financial statements for the Southeastern Oakland County Sewage Disposal System and for each drainage district or project discussed in this report are included in this volume. Financial statements for each drainage district and itemized statements of all of the various accounts maintained by the Oakland County Drain Commissioner in connection with the construction, operation, and maintenance of all of the projects under the jurisdiction of the Oakland County Drain Commissioner are contained in Volume II of this Annual Report.

Reference should be made to the Table of Contents of the Financial Statements in Volume II for reference to any specific project or fund account not included in this volume.