

P/ I 70
5877
1960-62

I-129



RECEIVED

JUL 22 1964

LEGISLATIVE RESEARCH
COMMITTEE

BIENNIAL REPORT

1960 - 1962

LEGISLATIVE REFERENCE LIBRARY
STATE OF MINNESOTA

STATE OF MINNESOTA
DEPARTMENT OF
IRON RANGE RESOURCES AND REHABILITATION



STATE OF MINNESOTA
DEPARTMENT OF
IRON RANGE RESOURCES AND REHABILITATION
80 STATE OFFICE BUILDING
SAINT PAUL 1, MINNESOTA

To the Governor and the Legislature
of the State of Minnesota:

It is my pleasure to submit the tenth biennial report of the Department of Iron Range Resources and Rehabilitation in compliance with M.S. 1961, Sec. 298.22, Subd. 2.

In addition to a review of the Department's activities during the past fiscal period, this report includes for the first time a brief summary of the Department's record since it was established in 1941.

Copies of this report will be available for members of the Legislature and other State departments. Federal, County and local agencies and schools may obtain copies upon request. A limited supply will be available to the general public.

Respectfully submitted,

A. M. DeYonnes
A. M. DeYonnes
Commissioner

BIENNIAL REPORT

LEGISLATIVE REFERENCE LIBRARY
STATE OF MINNESOTA

ORDER OF CONTENTS

FOREWORD	3
FINANCIAL REPORT:	
20-Year Summary	5
Allotments and Expenditures	6
Occupational Tax Receipts	8
LEGISLATIVE TRANSFER CHART.....	9
REVOLVING FUND RECEIPTS CHART.....	10
OCCUPATIONAL TAX INCOME CHART	11
THE COMMISSION	12
THE COMMISSIONER	13
FORESTRY DIVISION.....	14
MINERAL RESEARCH DIVISION.....	18
AGRICULTURE	22
LEGISLATIVE COMMITTEE ON TAXATION OF IRON ORE	23
NEW PROJECTS	24
TECHNICAL ASSISTANCE GRANTS.....	28
OTHER PROJECTS.....	32
HISTORY	37
BIENNIAL FINANCIAL REPORT	41

FOREWORD

Since its inception in 1941, the Department of Iron Range Resources and Rehabilitation has operated with dedicated funds, a percentage of the State occupational iron ore tax. With a steady decline in iron ore mining operations, which is the basis for the occupational tax, and a change from direct shipping ores to beneficiated ores and taconite, the Department's receipts have been declining every year. The occupational tax is considerably less on beneficiated ores and taconite than it is on direct shipping ores.

Total tax receipts have dropped from \$1,314,442 in 1957 to approximately \$500,000 in 1962. Indications are that the receipts from occupational taxes will continue to decline each year, since the mining of direct shipping ore will be reduced proportionately with the increase in beneficiated ore and taconite operations.

The most significant event in the history of IRRR was passage of Minnesota Laws 1961, Chapter 215 by the 1961 Legislature, which established the revolving fund for the department.

This legislation was recommended by Governor Elmer L. Andersen in his inaugural address to the Legislature in January 1961. The law was signed by Governor Andersen April 11, 1961, and became effective immediately. Similar legislation had been proposed in several previous Legislatures but failed to materialize.

As a result of this bill, all receipts from rentals, royalties, and sales of buildings and equipment remain available through IRRR for the support of future projects.

Prior to 1961, the only receipts for the Department were its portion, five percent, of the occupational tax on iron ore. A total of \$16,414,739 has been made available to the Department from this source over the years.

A closer look at the use of the \$16,414,739, however, shows that well over a third.....approximately \$6,000,000.....was actually transferred by the Legislature through special laws from the Department's fund to other agencies. Another \$1,003,600 received by the Department in the form of rents, royalties, and sales of buildings and equipment.....actually representing partial return of monies invested by the Department in projects.....was returned to the general revenue fund, as specified by Laws 1941, Chapter 544, which first established the Commission. This \$1,003,600 paid to the general revenue fund was not available to the Department to support additional projects.

Cost of administering the program since 1941 has been \$724,725.

Further limiting the funds available to the Department for its program was the paradox of the original law itself.

In years of high employment and good economy in the mining area, the Department's income was very high. During these "good" years there was very little demand for assistance by either private industry or governmental agencies in the Range area.

On the other hand, the years of limited mining operations saw a decided drop in the Department's receipts. It has been during these "bad" years that the Range communities turned to the Department for assistance, primarily funds, to develop new industry and create employment. Under the terms of the original law no provision was made to accumulate funds in the high income years to meet the needs of low-income, high demand years.

The action of the Legislature in 1961 corrected this paradox. Approximately \$44,000 was retained in the Department's revolving fund in fiscal 1961-62 and it is estimated that receipts in fiscal 1962-63 may add \$72,690 to the revolving fund. These deposits are receipts from rents, royalties and sales of buildings and equipment.

This report will show how the Department, despite limited income from its portion of the occupational taxes on iron ores, is continuing its operations according to the intent of the law.

The receipts available through the revolving fund will help promote further projects. However, with a very limited budget for the next biennium.....the smallest in history even including the revolving funds with the occupational tax receipts.....any legislative transfers would seriously affect the Department's present program and would completely eliminate the possibility of helping private industry or establishing new industries in the Range area at a time when the need to provide employment and improve the economy of the area is the greatest.

This report, through the use of graphs and charts, will document this fact.

Previous to this report, the Department's biennial report has never included more than a brief summary of the Department's program for the biennial period, as required by law. Since this is the 20th anniversary of the Department, the Commissioner has attempted to prepare a more complete report including a history of the Department, a review of all projects in which the Department has a financial interest at present, and a summary of the eleven projects which have been developed and will be in operation or were in the process of construction during the biennium 1960-62.

THREE PHASES PROGRAM

The Department of Iron Range Resources and Rehabilitation is divided into three specific operational phases:

Administration

An administrative staff consisting of the Commissioner, Assistant Commissioner, Accountant and Clerk-Stenographer is in charge of the supervision of approximately 40 permanent personnel. An assistant attorney general is appointed by the State Attorney General to provide the Department with legal services. This administrative office is located in the State Office Building, St. Paul.

The official headquarters of the Department is in Hibbing and includes a Supervisor of the Forestry Division with a staff of approximately 30 full-time employees, a Supervisor of Mineral Research with a staff of approximately 10, and a full-time Clerk-Stenographer.

The Forestry Division and Mineral Research Staffs are scattered throughout Northeastern Minnesota working in cooperation with State, County and Federal foresters and other State, Federal and local agencies, as well as the mining and timber industries.

Program Participation

The second phase of the Department's operation includes providing matching funds for Federal, State and County governments and the University of Minnesota for specific projects of interest and importance to Northeastern Minnesota. This includes participation in Area Redevelopment Administration programs, Small Business Administration projects and Public Works Administration projects.

Industrial Development

The third phase of the Department's program is providing funds to private firms or individuals for starting new industry in the area, using natural resources, or to expand present facilities in operations which depend on natural resources of Northeastern Minnesota.

Financial participation in industrial projects is restricted to industries that will make use of natural resources and provide employment in areas where distress and unemployment exist because of the depletion of natural resources. The Department does not make loans as such, but rather provides funds for the purchase of buildings and equipment for new plants or to expand existing facilities.

The State enters into a contract with operators, who pay rental to the State for the use of the equipment or building. At the end of the contract period, the operator can bid on the purchase of the equipment or building, applying the rental towards the purchase price.

Financial reports on all three phases of the Department's operations are included in a later section of this report. These financial reports include a complete record of all programs and projects which have had financial assistance from this Department since it was established in 1941.

DEPARTMENT OF IRON RANGE RESOURCES AND REHABILITATION

Summary of Receipts, Transfers, and Liquidations

1941 to 1963

* * * *

Total receipts from 10% of occupational tax credited to Gen. Rev. Fund ----- \$ 16,414,739.86

Received from IRRR Revolving Fund from April 1961 to June 30, 1962
(Minnesota Statutes 1961, Section 298.221) ----- 46,030.78

Other Receipts ----- 1,000.00

Total Receipts from 1941 through June 30, 1962 ----- \$ 16,461,770.64

Transfers Out by Legislative Action:

Dept. of Administration ----- \$ 800.00

Dept. of Agriculture ----- 49,945.21

Dept. of Conservation, Div. of

Forestry ----- 2,934,215.41

Lands & Minerals ----- 794,133.62

Waters ----- 9,301.59

Dept. of Health ----- 87,430.06

Iron Ore Tax Commission ----- 194,008.37

Forestry Study Commission ----- 37,308.36

Mapping Advisory Board ----- 28,000.00

University of Minnesota (Mining) ----- 1,739,100.00

University of Minnesota (Legume Seed
Investigations) ----- 60,000.00

Total Transfers Out by Legislative Action ----- (5,934,242.62)

Amount available for Expenditure by the Department ----- \$ 10,527,528.02

Liquidations from 1941 through June 30, 1962:

Administration ----- 724,725.14

All other projects (See Summary of
Expenditures) ----- 8,914,736.16

Total Liquidations from 1941 through June 30, 1962 ----- (9,639,461.30)

Amount available for expenditure beginning July 1, 1962 ----- \$ 888,066.72

DEPARTMENT OF IRON RANGE RESOURCES AND REHABILITATION

Summary of Allotments and Expenditures

1941 to 1963

* * *

<u>PROJECT</u>	<u>AMOUNT</u>
Administration	\$ 724,725.14
Agriculture:	
Farm Management & Accounting	106,922.86
Seed Potatoes	4,039.48
Small Fruit	51,482.14
Vegetable Research (Univ. of Minnesota)	1,259.56
Land Clearing Machine Operator's Salary	1,324.06
Area Vocational Technical School Training Program	3,856.50
Arrowhead Canning Co., Grand Rapids	209,765.51
Arrowhead Charcoal Co., Inc., Chisholm	43,750.00 *
Artificial Breeding	25,763.45
Bergstedt Mfg., Inc., Hibbing	20,000.00 *
Carey Lake Recreation Area, Hibbing-Chisholm	6,000.00 *
Cedar Enterprises, Northome	55,000.00 *
Cedar Oil Extraction	165.37
Chun King Sales, Inc., Duluth	199,983.30
Consultant Fees	8,430.39
Cow Testing	63,126.52
Crow Wing Charcoal Co., Crosby	36,000.00 *
Duluth Filter Co., Duluth	50,000.00 *
Fish Canning	52,549.97
Flax Program	25,202.96
Forestry Development	2,820,110.51
Forestry Rehabilitation Camp, Thistledeew Lake	19,398.43
Future Farmers of America Camp, Virginia	14,934.16
Governor's Resources Conferences - 1956, 1958 & 1960	10,576.48
Greenhouse, Two Harbors	2,280.46
Indian Survey	2,500.00
Iron Ore Taxation Committee	22,798.70 **
Iron Range Planning Commission	44,635.00 *
Iron Powder Plant, Aurora	783,763.28
Kimball & Sons Co., Hill City	39,000.00 *

Summary of Allotments and Expenditures (Continued)

PROJECT	AMOUNT
Land Clearing Machine	15,256.45
Legume Seed Investigations (Univ. of Minnesota)	216,672.39 ***
Lookout Mountain Ski Lodge, Virginia	33,589.77
Maple Syrup Plant, Grand Portage	12,490.72
Marl Survey (Univ. of Minnesota)	15,360.29
McCarthy Potato Warehouse, Hibbing	75,000.00 *
McGregor Mfg. Corp., McGregor	43,479.60
McLeod Inc., Grand Rapids	15,000.00
Mesabi Grow Co., Inc., Cotton	50,000.00 *
Milkhouses	25,937.62
Mineral Survey & Research	22,946.32
Mining	4,445.02
Minnesota Arrowhead Assoc., Duluth	55,000.00
Minn.-North Dakota Resources Development Commission	1,112.41
Moore, W. S., Co., Gilbert	52,000.00 *
Motion Picture	7,449.89
Multiply of Virginia, Inc., Virginia	600,782.94
Nu-Ply Corp., Bemidji	358,983.91
Peat Processing Plant, Floodwood	279,428.14
Peat Research, Chisholm	74,212.15
Peat Research (Univ. of Minnesota)	289,904.44
Port Authority of Duluth	30,000.00
Rehabilitation Center for the Range	1,479.98
Strategic-Udy Direct Reduction Process (Cuyuna Range)	15,000.00 *
Sulfide Drilling (Aitkin County)	28,100.48
Superwood Corp., Duluth	367,500.00
Titanium Drilling (Cook County)	26,148.92
Topographic Mapping (U. S. Geological Survey)	540,929.13
Tourist Guide Training (Bemidji State College)	400.00
Typha Products, Inc., Northome	13,000.00 *
Vocational School Survey	2,961.58
Vocational Training	64,234.43

Summary of Allotments and Expenditures (Continued)

<u>PROJECT</u>	<u>AMOUNT</u>
Water Survey (U. S. Geological Survey)	\$ 515,818.89
Warehouse, Cook	27,654.52
Warehouse, Embarrass	19,661.10
Warehouse, Lakeland	6,193.54
Wood Processing Plant, Deer River	356,357.28
Zontelli Brothers (Krupp-Renn Direct Reduction Process), Ironton	77,550.00
TOTAL	\$ 9,316,661.00
This Includes Industrial Loans Totaling	3,826,863.00

- * Funds for these projects were allotted during the biennium, but have not been entirely liquidated to date.
- ** In addition to this amount, \$194,008.37 was transferred from IRRR funds to the Iron Ore Tax Commission by the Legislature. See summary of transfers.
- *** In addition to this amount, \$60,000.00 was transferred from IRRR funds to the University of Minnesota by the Legislature. See summary of transfers.

Iron Range Resources and Rehabilitation Department is financed by ten percent of the proceeds of taxes paid to the State into the general revenue fund of the State of Minnesota from the occupational taxes on the business of mining or producing iron ore.

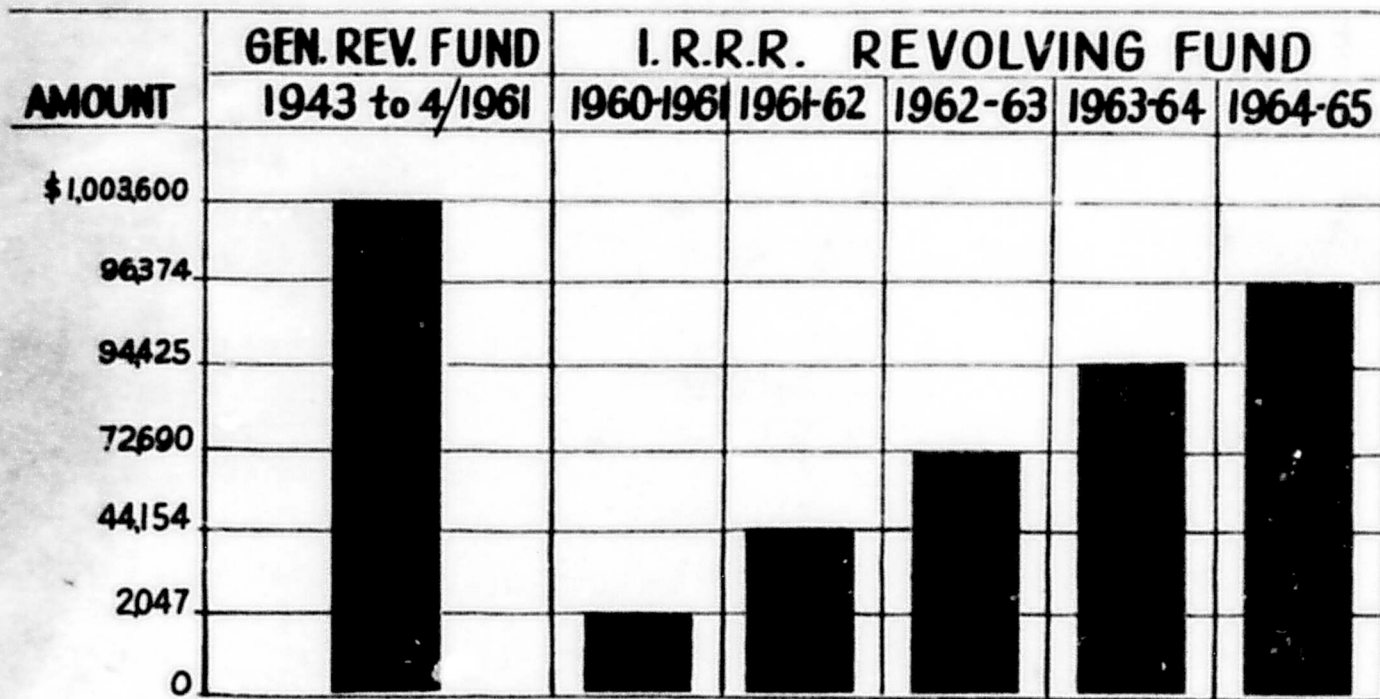
Following are occupational tax receipts for the Department from 1941 through June 30, 1962:

1941-1942	\$ 159,680.50
1942-1943	419,981.34
1943-1944	411,622.60
1944-1945	335,490.76
1945-1946	316,799.53
1946-1947	313,723.85
1947-1948	318,620.65
1948-1949	1,071,179.89
1949-1950	651,873.36
1950-1951	855,568.32
1951-1952	1,199,834.72
1952-1953	942,199.88
1953-1954	1,379,095.05
1954-1955	750,611.40
1955-1956	1,233,214.65
1956-1957	1,106,298.85
1957-1958	1,314,442.06
1958-1959	648,369.29
1959-1960	1,300,865.62
1960-1961	1,032,719.16
1961-1962	652,548.38
TOTAL	\$16,414,739.86

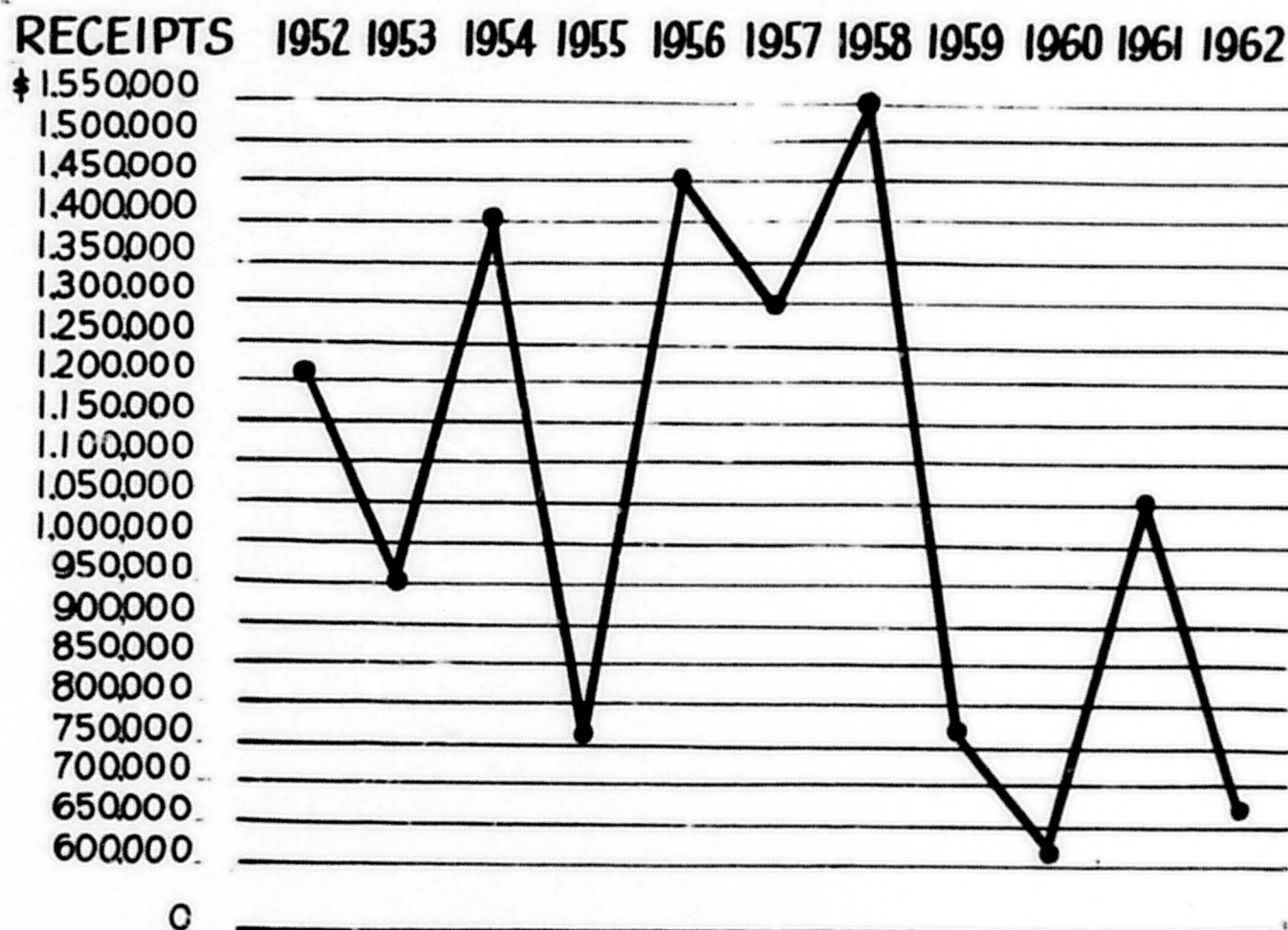
LEGISLATIVE TRANSFERS OF IRON RANGE RESOURCES FUND 1943 - 1963

DEPARTMENT of AGRICULTURE	■ \$50,000
BOARD of HEALTH	■ \$100,000
CONSERVATION DEPARTMENT	
FORESTRY	■ \$3,010,614
LANDS & MINERALS	■ \$913,373
WATERS	■ \$12,240
UNIVERSITY of MINNESOTA	
SCHOOL of MINES	■ \$1,779,100
PEAT RESEARCH	■ \$305,904
LEGUME SEED RESEARCH	■ \$60,000 + \$216,672 (U. of M.)
MAPPING ADVISORY BOARD	■ \$28,000
COMMISSION on TAXATION of IRON ORE	■ \$225,000
FORESTRY STUDY COMMISSION	■ \$40,000
U. S. GEOLOGICAL SURVEY	
MAPPING	■ \$540,929
WATER	■ \$540,870
RANGE PLANNING COMMISSION	■ \$45,000
COUNTY LAND DEVELOPMENT	■ \$300,000
TOTAL	\$7,951,030

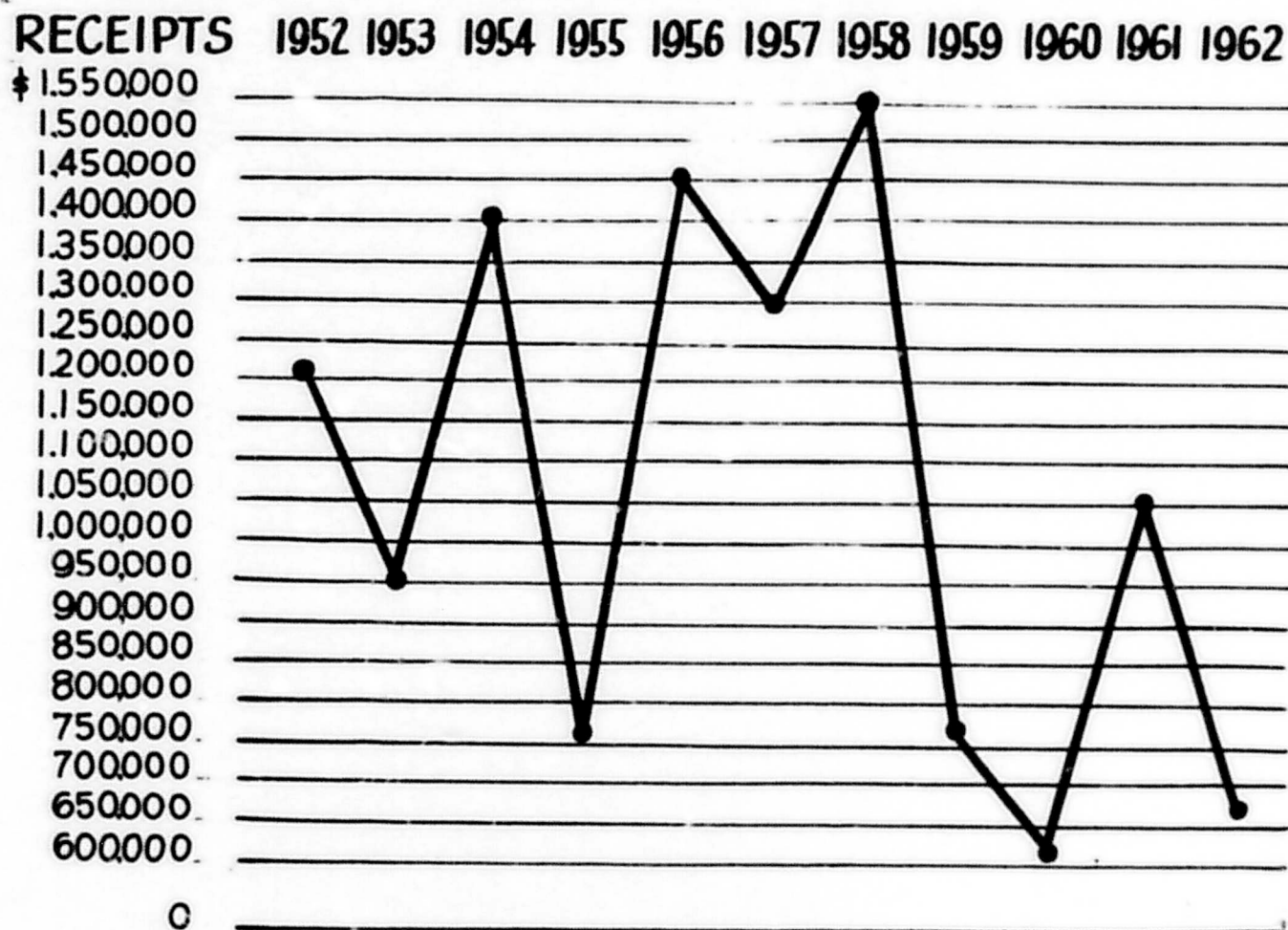
RECEIPTS FROM IRON RANGE RESOURCES & REHABILITATION PROJECTS



IRON ORE OCCUPATION TAX RECEIPTS



IRON ORE OCCUPATION TAX RECEIPTS



THE COMMISSION

The basic law, Minnesota Statute 1941, 298.22, outlined the powers and duties of the Commissioner. In 1943 the Legislature amended the original Iron Range Resources and Rehabilitation law to provide for an Iron Range Resources and Rehabilitation Commission.....a seven member advisory board to guide and assist the Commissioner.

The Commission is composed of three members of the House of Representatives, appointed by the Speaker of the House; three members of the Senate, appointed by the Committee on Committees of the Senate; and the Conservation Commissioner. Members serve for terms of two years, commencing in January in the year in which the Legislature is in session.

The Commission members hold an organizational meeting after the appointments have been announced. A Chairman, Vice Chairman and Secretary are elected. Meetings are held as often as deemed necessary by the Commissioner at the call of the chairman.

An official court reporter is employed to make a detailed record of the proceedings of every session. The Special Assistant Attorney who advises the Commissioner also serves the Commission.

Copies of the minutes of these meetings are made available to the Governor, the State Auditor, the Department of Administration and each member of the Commission.

During the 1960-62 biennium a total of 11 meetings were held: nine in St. Paul, one in Hibbing and one in Duluth. At least six members were in attendance at each session and a full complement attended most meetings.

The Commission receives progress reports from the Commissioner on all Department activities, receives financial reports, and hears "Findings of Fact" on new projects which the Commissioner has under consideration.

When necessary to allot or earmark funds, the Commission is asked to vote on the Commissioner's recommendations. A record of the vote on such motions is submitted along with the "Finding of Facts" to the Department of Administration and the State Auditor.

THE COMMISSIONER

The basic law, Minnesota Statute 298.22, which outlines the powers and duties of the Commissioner, provided a wide latitude of authority for the office of Iron Range Resources and Rehabilitation.

Subsequent opinions from the Attorney General's Office.....a special assistant attorney general is assigned to the Department to give legal advice.....have, however, restricted the scope of the Department's activities and limited the expenditure of funds to participation in financing projects which involve the natural resources of a specific geographic area.....the 18 northeastern Minnesota counties.

The Commissioner, in addition to his duties as administrative head of the Department, provides the Commission with progress reports on all Department activities, submits financial reports and prepares "Findings of Facts" for the Commission, Department of Administration and the State Auditor. This includes a record of all resolutions allotting or earmarking funds for administrative and audit approval before the State Auditor is asked to encumber the funds and the Attorney General's Office is asked to prepare contracts.

The Commissioner has had additional duties during the past biennium. The Area Redevelopment Administration (ARA) law was passed in May, 1961. The Governor designated the Commissioner to serve as a representative with the Department of Business Development as the State's representative for the ARA activities in Minnesota until the federal government named an area representative for the program.

The Department and Commissioner cooperate with the Federal representatives of ARA on all projects submitted to Washington for loans and grants. This Department participated in several ARA projects in providing funds for equipment and grants for research projects. Labor and the use of materials and equipment have also been provided for some projects. Department personnel and literature from its library and records have also been used in preparing the State's Overall Economic Development Program, which is a requisite for ARA participation in projects.

The Commissioner was also named Chairman of the task force of all department heads of the State to help eligible communities take advantage of the Accelerated Public Works (APW) Act passed by Congress in September, 1962.

Particular to the objectives of this Department and the opportunities provided by APW, the Department conducted a survey to indicate how many Range and Duluth area communities would take advantage of the bill. This survey was included in the Congressional record as evidence of the need for such legislation for Northeastern Minnesota.

The Commissioner was also appointed by the Governor as a member of the Minnesota Natural Resources Council in August, 1961. He served on the committee responsible for the report on minerals which included the publication Natural Resources of Minnesota: 1962, which was presented at the Minnesota Natural Resources Council in Duluth in October, 1962.

FORESTRY DIVISION

The Forestry Department of Iron Range Resources and Rehabilitation is divided into the following phases of work: forest survey (7 men), county management (11 men), research (1 man), and consulting and marketing (3 men).

The main purpose of the forestry program is to build up the forest resources of Minnesota.

FOREST SURVEY PROGRESS IN MINNESOTA

In 1959, the Office of Iron Range Resources and Rehabilitation, together with Lake States Forest Experiment Station, undertook a leadership to conduct a cooperative forest survey in Minnesota. Other agencies and companies contributing to the survey are: The National Foresters, Bureau of Indian Affairs, State Forest Service, some county forests and several forest industries.

The objectives of forest survey is to determine facts regarding present and prospective forest resource, supplies and demands of Minnesota, and to develop from such facts sound technical interpretation, as a basis for policy and program decisions on State and local levels. To fulfill this responsibility requires the preparation of reports appraising the forest situation in each District, County or specific area covered by the Survey.

Basic information is required on forest land area, timber volume, timber growth and mortality, potential productivity of forest lands, desirable timber cut, actual cut, timber requirements, forest ownership and related information which bears upon balancing the timber budget of Minnesota.

Forest resource facts will be adequately analyzed and interpreted and findings will be issued promptly by publications and other means. The forest based industries, present and potential, which hold an important place in the economic life of Minnesota are largely dependent upon such forest survey information.

During the past two years, demand for forest resource information reached a new high. Many public and private parties, as the Area Redevelopment Administration and others wanted recent data and some investigated possibilities of obtaining it. Three years of hard work have been passed and fieldwork has been completed in 18 northeastern counties: Aitkin, Becker, Beltrami, Carlton, Cass, Clearwater, Cook, Crow Wing, Hubbard, Itasca, Koochiching, Lake, Lake of the Woods, Mahanomen, Pine, Roseau, St. Louis and Wadena.

Forest land ownership was collected from a complete canvass of official county land ownership records. The personnel of Iron Range Resources and Rehabilitation and county foresters finished a comprehensive canvass of Minnesota primary wood-using industries in 1961. These data will be used to compute the volume of timber removed from the State's forests in 1960. Growth and mortality information was obtained by remeasurement of 3,000 permanent plots established previously by Iron Range Resources and Rehabilitation personnel and cooperative agencies.

Computation of the data from field records is well along and will be finished this year. The first local report, Koochiching County, has been written and should be published soon.

The next report will have five individual counties (Cook, Lake, St. Louis, Carlton and Pine) should be ready for publication in July, 1963.

Two additional reports covering other northeastern counties will be prepared.

The use of automatic data processing machines was increased to speed up the computing of the reports. The cooperative type of forest survey in Minnesota materially reduced the cost of the work and prevented duplication of effort.

The contributions are gratefully acknowledged. The results should be beneficial to all interested parties.

We are looking optimistically in the near future to completing this big and important project.

COUNTY LAND-USE PROGRAM

To assist the counties in northeastern Minnesota administer their tax-forfeited lands of nearly four million acres, the Iron Range Resources and Rehabilitation has continued its county land-use program. Assistance in the form of services by a forester or timber appraiser has been allotted to the following counties on a full-time basis: Aitkin, Beltrami, Cass, Crow Wing, Hubbard, Itasca, Koochiching, and St. Louis. Part time assistance is given to Becker, Clearwater and Wadena Counties.

Foresters assigned by the Iron Range Resources and Rehabilitation assist these counties in managing their lands. Their duties include cruising lands for timber and land sales, selecting areas to be cut, assist in marking and scaling timber, and supervising such sales. Improvement work consisting of planting, diskings, airplane spraying, thinning are duties the Iron Range Resources and Rehabilitation expects of its personnel in order to build up the forest resources on tax-forfeited lands.

The state-wide forest survey shows that the counties control a large forest resource on tax-forfeited lands. To definitely locate this timber and know what timber should be cut, an inventory of all tax-forfeited lands within a county is needed. Foresters assigned to these counties are continually working toward this complete inventory. Knowledge of what we have, where we have it and what to do with it is a necessity in order that these resources can be utilized to the best. Private concerns wishing to expand or new industries wishing to locate within Minnesota can obtain information as to the feasibility of doing so.

During the past two years, these foresters have aided the various counties in taking advantage of the Minnesota Tree Tax Bill passed by the 1957 Legislature. Most of the counties in northeastern Minnesota have taken advantage of this new form of taxation on forest land. In order for lands to be placed under this act, growth rates obtained from the survey completed ten years ago had to be obtained. The Iron Range Resources and Rehabilitation county foresters used these figures and applied them to average county stumpage prices to arrive at the new tax rate. This law specified that in 1965 new growth figures will have to be applied, so once again the Iron Range Resources and Rehabilitation forester will seek the aid of the present survey mentioned above to arrive at the tax figures needed. When the present forest survey has been completed, these growth figures will be available to any county who wishes to use them.

Federal funds (A.C.P. and Title IV) made available to the counties to increase production on their lands by planting and thinning has been instrumental in increasing these activities. The Iron Range Resources and Rehabilitation foresters have helped these counties in preparing the work plans and supervising the field work necessary in order to take advantage of these federal funds. The Aitkin Land Department in 1960 planted 105,000 trees on tax-forfeited land. In 1962, with Federal help and Iron Range Resources and Rehabilitation assistance, this was increased to 300,000 seedlings. Federal funds were instrumental in maintaining or increasing plantings in other counties as follows:

	<u>1960</u>	<u>1962</u>
Beltrami County	139,000	200,000
Crow Wing County	None	26,000
Hubbard County	100,000	100,000
Itasca County	859,000	533,000
Koochiching County	286,000	500,000
St. Louis County	448,000	505,000
Becker County	40,000	65,000
Clearwater County	73,000	213,000
Wadena County	50,000	50,000

Nature can and is putting trees in the ground cheaper and better than man can. In order to help nature to do this work, the Iron Range Resources and Rehabilitation foresters have started airplane spraying on a small scale. Where nature has placed a desirable specie under undesirable species (such as balsam under off-site

aspen, or white and Norway pine under aspen or white birch) man can use airplane spraying to dispose of the undesirable specie. The costs involved are very much lower than actual planting. This type of work has been done in Aitkin, Cass, Wadena, and Beltrami Counties. The results so far have proved very satisfactory and plans are underway to increase this phase of work in the future.

CONSULTING AND MARKETING

Consulting for better ways to produce finished wood products, enticing new industries into the area, encouraging established industries to expand, these are among the prime duties of the Iron Range Resources and Rehabilitation utilization personnel. The state-wide inventory conducted ten years ago plus indications from the present state-wide survey and county inventories show that nature and man are producing much more wood than is being utilized.

Finding new uses for hardwoods, especially aspen, is being worked on. Pallet making, a large increasing industry, at the present time does not list aspen as an accepted species. Rough aspen lumber from various mills located in northeastern Minnesota was sent to Forest Products Laboratory, Madison, Wisconsin. Tests were run to determine whether aspen has the stability and stress needed for pallet making. Indications look promising and it may come to pass that part of Minnesota's oversupply of aspen can be utilized by this industry.

During the past two years, this division has conducted a number of other projects, including the designing of a sawmill and charcoal retort to use poor grade hardwoods. They also gave assistance to other concerns producing charcoal. Plant design to bring about better performance has been given to several industries. Information on the building and use of dry kiln has been made available. Assistance has been given to Minnesota concerns interested in a new method of converting logs to chips prior to reaching the pulp mill - a practice now employed in several other states. Enticing Minnesota industries now using out-of-state wood to convert and use Minnesota woods has been tried by this division, with progress made in this direction. They have also given aid to out-of-state industries who have shown an interest in locating in Minnesota or by locating a Minnesota wood supply for them. They have cooperated with industries attempting to secure loans from the Area Redevelopment Administration and the Small Business Administration.

A Marketing-Pricing Review is issued semi-annually by the Iron Range Resources and Rehabilitation under the supervision of Carl Rawie, marketing specialist. This review gives the buyer and seller knowledge of stumpage, pulp, sawlogs, posts, poles, and piling prices.

DEPARTMENT RESEARCH PROJECTS

Because the Iron Range Resources and Rehabilitation is not equipped to cope with large-scale research problems, it has cooperated with agencies such as Lake States Forest Experiment Station, University of Minnesota, Wilderness Research Center, providing funds for these agencies to undertake particular phases of research.

The Iron Range Resources and Rehabilitation research personnel have contented themselves with doing small practical research problems which can be accomplished with a minimum of laboratory facilities.

A newly designed tree planter capable of planting in brushy areas has been the result of their efforts. This is a big step for the county management group because in the past only fields and open areas were planted.

As these areas are now planted, areas of brush and poorly stocked stands have to be worked. The conventional tree planter employed in the past cannot be used. Thus, in order to plant the vast acreage of brush lands that are in need of planting, a new method had to be undertaken. This revamped tree planter designed by the research group has been in operation for the past two years and the results have been very satisfactory.

Experiments have been started to put back into production the large acreage of lowlands once covered by spruce, tamarack and cedar, and now being occupied by alder and willow. Using a fire plow and planting the seedlings on the turnover furrow shows promise that this waste area can once again produce timber.

The research branch is working very closely with the county land-use division in determining what chemicals give the best results when trying to remove undesirable species.

CO-OPERATIVE RESEARCH PROJECTS

Following are brief reports on several forestry research projects supported in part by the Iron Range Resources and Rehabilitation Commission funds, July 1, 1960, through June 31, 1962. These funds were used to further work of established research institutions on problems in northern Minnesota by the Lake States Forest Experiment Station of the Forest Service and the Quetico-Superior Wilderness Research Center.

FOREST MANAGEMENT STUDIES BY LAKE STATES FOREST EXPERIMENT STATION

Silvicultural research has concentrated on the development of effective regeneration methods (other than planting) for red pine, one of our most valuable species and one which has not been holding its own because of deficient natural regeneration.

The research has included: (1) Study of the flowering cycle in red pine, (2) investigation of seed production in red pine stands of different ages and densities, (3) assessment of effectiveness of various kinds of seedbeds, both in the field and under controlled laboratory conditions, and (4) evaluation of prescribed burning as a means of seedbed preparation.

Results in brief are as follows: (1) Red pine seed production increase from age 50 to age 90 (limits of the study) and with increased growing space per tree, (2) mineral soil on burned areas are good seedbeds but vary greatly with weather conditions and competition, (3) frost heaving, frost injury, drought, and insects cause more first-year mortality of red pine seedlings than do birds or rodents, and (4) 1 year after burning there is little difference in the total nitrogen or available phosphorus in the seedbed as compared to conditions before burning.

FOREST INSECT STUDIES BY THE LAKE STATES FOREST EXPERIMENT STATION

Forest insect research concentrated on studies of the most damaging defoliating insect in the extensive conifer stands in northern Minnesota--the spruce budworm. Some studies were also made on the jack-pine budworm, another defoliator. Studies were aimed at better control of these damaging insects, and worthwhile progress has been made.

Studies on these insects have already produced (1) sound methods of conducting appraisal surveys, (2) more efficient timing and application of chemical control operation, and (3) a knowledge of insect behavior under forest conditions. This will help in the development of silvicultural control methods. It was also found that the spruce budworm epidemic in over 600,000 acres of balsam fir was responsible for the loss of 200,000 cords of wood through 1960.

Studies in silvicultural control methods have already provided (1) a method for identifying those trees and stands particularly susceptible to damage, (2) a measure of the losses in volume as a result of spruce budworm attack, and (3) progress in the development of cutting methods to reduce severity of attack. Additional field tests using several different types of cuttings are now needed to determine which techniques are most promising.

About a dozen technical publications detailing the results of these studies have been released during the 1960-62 period. Copies of these were furnished with our last report.

STUDIES BY THE QUETICO-SUPERIOR WILDERNESS RESEARCH CENTER

At the Quetico-Superior Wilderness Research Center research concerned the development of a red pine seed orchard and an ecological study of the effects of burning on reforestation. These projects also were supported in part by other funds.

Early results of the studies are as follows: (1) Material from more than 400 desirable red pine trees has been grafted to provide eventual high-quality seed production, easily accessible--pollen has already been produced; (2) section wood from selected red pines has been grafted onto five other pines and balsam fir in an attempt to stimulate flowering and seed production--some flowering occurred the first year; (3) after study of similar practices in Finland and Sweden, a jack pine stand was cut to leave only sound seed trees and was control-burned in 1961.

By 1962 about 1,500 jack pine seedlings per acre were present; this is considered adequate for regeneration. Results of these studies so far have been published in one Journal of Forestry article.

All of these projects are long-range studies, and, in addition to annual enlargement of them, work previously done requires careful observations and records every year.

MINERAL RESEARCH DIVISION

Peat Survey Mapping and Sampling Program

Peat bog survey and sampling is being done by the Mineral Research Department in cooperation with Dr. Moses Passer, Department of Chemistry, University of Minnesota, Duluth, and Dr. Rouse Farnham, Department of Soils, University of Minnesota, St. Paul.

Samples are taken to Dr. Farnham at St. Paul for physical examination and classification (sphagnum, reed-sedge, humus) who then sends a portion to Dr. Passer in Duluth for chemical determinations.

Determinations of where and how to sample are made through consultations between Iron Range Resources and Rehabilitation personnel and Drs. Farnham and Passer.

This program is carried on in expectation of a large increase in consumption (it has tripled in the last ten years) in an effort to absorb imports in domestic production and to promote Minnesota's development of its reserves that represent one-half of the United States total. Most of the peat lands presently belong to the State and counties.

Bogs sampled by IRR & R mineral research division in the 1961-1962 biennium.

<u>Peat Bogs Sampled as of January, 1963</u>	<u>Holes</u>	<u>Samples</u>
1. Toivola Bog - Partly	123	1,243
2. Deer River Bog - Itasca	41	427
3. Cohasset Bog - Itasca	7	59
4. Little Swan	22	143
5. Riley Bog	8	57
6. Section 31, Twp. 57 N, Range 18 W) Section 6, Twp. 56 N, Range 18 W)	14	52
7. Britt Bog	30	278
8. Cook Bog	95	1,331
9. Lost Lake - Partly	5	70
10. Sturgeon Bog	74	604
11. Sturgeon Bog - South	7	37
12. Linden Grove Bog	5	20
13. West Central Lakes	65	677

	Holes	Samples
14. St. Louis County Peat Co. at Central Lakes	37	231
15. International Falls - Preliminary	15	105
16. Ridge Bog - Koochiching County - Preliminary	12	84
17. Red Lake - Beltrami County - Preliminary	11	77
18. Floodwood Bog	28	211
19. Pine Island Bog - Koochiching County - Preliminary	16	100
20. Red Lake Bog - In Process		
TOTALS	615	5,806

During the winter of 1961-62 Dr. Passer of the University of Minnesota conducted some "freeze-dry" experiments on peat; samples were provided by IRR & R. Large samples were gathered from 17 holes. Fifty-six large batches were dug and delivered to Dr. Passer at the University of Minnesota at Duluth.

The St. Louis County Peat Company was assisted in a sampling program to determine its reserves and types of peat. These samples to be classified and mapped and results supplied to us for our records.

Prior to the summer of 1962, peat samples were taken with a Davis Sampler which in many instances did not bring up a satisfactory sample and in any case did not bring up an undisturbed sample.

In the spring of 1962, a Davis backhoe was installed on the rear of a Bombardier Muskeg Carrier. It is now possible to dig a hole and visually examine the peat in place to 8 feet in depth. This also yields a better sample and makes field classification more accurate. The Davis Sampler is still used to probe deeper, but 8 feet is considered about the very maximum harvest depth at present.

Kettle River Drilling

Requests for drilling near Kettle River led to drilling two holes there - Hole No. 1 - 192' 8" deep; Hole No. 2 - 56' 9" deep. The core from these holes were logged by Dr. G. M. Schwartz who classified the rock cut as graphitic, pyritic quartzose phillite. His conclusion - "The rock cut by the drill does not appear to have commercial possibilities for either pyrite or graphite."

Taconite Exploration

In cooperation with the Lands and Minerals section of the Conservation Department, one diamond drill hole was drilled northeast of Virginia on state land to check on existence, extent and analysis of taconite there.

Assistance to Village of Aurora in Search for Water

Several holes were drilled in the Village of Aurora in search of a supply of good water for the municipal system. Two aquifers were found one of which they are now using with the other as a reserve.

Assistance to City of Chisholm

Assistance to the City of Chisholm in their search for adequate reserves of water. Many holes were drilled. Several favorable areas were found.

Beryllium Exploration

A pegmatite dike was discovered on Hay Creek near Royalton by Ernie Olson and Robert Kinzer of the area. They were able to uncover part of the dike and hand pick some marketable books of mica and beryl crystals. The mica sells for as much as \$16.00 per pound. Upon a request for assistance, IRR & R drilled four holes to trace the dike vertically and laterally. The dike was traced about 300 feet horizontally and to a depth of 120 feet vertically by this drilling program. Forty-four auger holes were drilled tracing the dike and to assist in locating four diamond drill holes. The four holes drilled were:

Hole No. 1	117' 8"	45° angle
Hole No. 2	121' 8"	Vertical
Hole No. 3	157' 11"	Vertical
Hole No. 4	67' 8"	45° angle

The owners of this discovery are seeking funds from private and federal sources to sink a shaft into the dike. Drill holes were of small diameter and a shaft or drift offers the only reliable exploration.

Holes were logged by Dr. P. K. Sims of the Minnesota Geological Survey. Holes No. 1 and 2 were also logged by John Sweeney, Geologist with the U. S. Bureau of Mines. The dike as cut by drill holes one and two contained mica and beryl crystals. The area was surveyed and a map cross section drawn.

Pegmatites in the Littlefork - International Falls area were visited and some samples of this beryl mica prospect given to Dr. P. K. Sims for study and analysis. Further visits and work are planned for spring.

Clay Investigations

Cook - Bear River Area. In response to a request by area residents and the St. Louis County Club, our auger drill was assigned to the Cook-Bear River area.

Sixty-two holes were drilled in the area totalling 2,318 feet. Four samples were sent to the Bureau of Mines Laboratory at Norris, Tennessee. The report indicated some commercial possibilities of using the clay for brick. A portion of all samples was delivered to Dr. James E. Lawver, Director, University Mines Experiment Station, for study and analysis. He is setting up the organization and equipment to handle this. It is hoped that Dr. Lawver's extensive plans for a complete, all-inclusive experiment station will be fulfilled in the near future. A map showing hole locations and descriptions was made.

Carlton Area

In an effort to reactivate the clay industry in Carlton County, the local ARA requested the participation of IRR & R in a clay research project. There were at one time 6 brick plants in the area with one operating as late as 1950.

The auger drill was operated in the area in January, 1963. These samples were scheduled for delivery to Dr. Lawver at the Mines Experiment Station at the University of Minnesota in Minneapolis.

Soil Testing and Sampling

Ely Industrial Sites - Two industrial sites were checked by observation and drilling in the Ely area. A report with maps and drill hole logs was made for them.

Hill City Industrial Sites - Two industrial sites were surveyed, drilled and mapped as possible locations for the Kimball peat log plant. Topography and soil conditions were determined and proposed plant area staked out.

Carlos Avery Game Farm Area (Near Forest Lake) - Five auger holes were drilled to assist the Conservation Department in determining foundation soil conditions under a proposed dam. A total of 266 feet of drilling was involved.

Schoolcraft Park (Deer River Area) - This work was done for the Conservation Department. Two holes were drilled totalling 120' in search of a water supply for this park.

Nett Lake Project (Indian Reservation) - Soil conditions and depth of bedrock were determined by work done in the Village of Nett Lake. Forty-five holes were drilled totalling 420 feet. This was done in cooperation with the Bureau of Indian Affairs. They were planning water and sewer systems in the village.

Deerwood Wild Rice Plant (Deerwood, Crow Wing County) - IRR & R cooperation in this ARA project involved surveying, mapping and drilling. Streets, alleys and property lines were located for them. Building sites and grades were established. Several holes were drilled to check soils and one hole was drilled to a depth of 45 feet in search of a water supply.

Geological and Magnetic Investigations in T. 53 and 54 N, Range 14 and 15 W.

Upon requests from the area, work was done that centered around the Alfred Korby farm and mill. Samples of rock from the area were submitted to the Mines Experiment Station. 15,250 feet of magnetic lines were run to supplement previous work by Dr. G. M. Schwartz. Cross sections were made up and referred to Dr. Paul K. Sims at the University of Minnesota.

An alleged outcrop was checked by drilling and test pitting and found to be a very large boulder.

Reports from Dr. Lawver and Dr. Sims were submitted to interested parties and the project terminated.

LAND OWNERSHIP MAPS

County land ownership maps in color showing county, state, federal and private lands were made up and printed for Itasca County. Ownership maps of St. Louis County are now at the printers. Ownership has been checked and brought up to date in Koochiching County and will be ready for the printer in March.

Plans were developed from a need for information by many segments of our government, industry and agriculture. Ownership maps of all 18 Northeastern Minnesota counties are planned.

PEAT BOG MAPS

As a necessary part of investigations in peat, county maps showing areas of peat that are of sufficient size and have indications of commercial use, are being prepared for publication. These areas are to be determined from aerial photos, topographic maps, aerial checking, and ground reconnaissance and sampling. Maps of St. Louis County are now being drawn. These, together with the ownership maps, should be of great value to the peat industry.

DEEP-HOLE TACONITE PROGRAM

IRF & R's mineral research division is cooperating in a program to investigate the extension of the taconites southward from the Mesabi Range as proposed by the Governor's Resources Council. Ten deep holes are planned to determine analysis, physical structure and possibilities of large underground operation. Drilling sites have been field checked to determine topography, access and water supplies. Land ownership in the drill hole areas has also been determined as predominantly public.

An application for an ARA grant, under the auspices of the University of Minnesota, has been prepared and presented to them for submission. This involves a very complete prospectus including maps, cross sections, and cost estimates.

U.S.G.S. TOPOGRAPHIC MAPS

U.S.G.S. topographic maps are now on file in Hibbing and available through the Mineral Research office and are free to public and governmental agencies. File cabinets have been constructed and a perpetual inventory of maps is maintained.

U.S.G.S. WATER SURVEY

Many holes were drilled for the U.S.G.S. in addition to funds granted them. These holes were drilled from the Grand Rapids area east along most of the Iron Range.

AGRICULTURE

Iron Range Resources and Rehabilitation has had a very limited agriculture program during the past biennium.

Since the death of August Neubauer on October 24, 1959, who had served as agriculture fieldman since July of 1952, the Department has not had any full-time employees in agriculture. Prior to Neubauer's appointment, IRRR had hired Fred Braden, who served as agriculture fieldman from 1944 to 1955. There were no funds allotted for a fieldman in the budget for the 1960-62 biennium.

The IRRR Commissioner has been negotiating with the Department of Agriculture and several small fruit, dairy farm, and agricultural groups in Northeastern Minnesota on a program that will help the agriculture problem in the area. No determination has been made as to the best possible program which would not overlap or conflict with existing agricultural agencies now in operation with Federal, State, and University of Minnesota funds.

An appropriation for agriculture will be made for the next biennium when a favorable program has been determined and approved by the State Department of Agriculture and other existing agricultural agencies.

The Department has conducted during the past biennium the Farm Management Program for Northeastern Minnesota sponsored by IRRR in cooperation with the Minnesota Department of Education, Vocational Division, and the University of Minnesota, Institute of Agriculture, and the Area Vocational-Technical School, Duluth.

The Farm Management Program is the first of its kind in Northeastern Minnesota, started in 1956 in 12 northeastern counties. Published reports of the survey were made in 1956, 1957, 1958, and 1959. There was no report in 1960 by IRRR, although the Area Vocational-Technical School in Duluth did publish a summary of a limited survey. The program was continued in 1961 and a report was published in April, 1962.

LEGISLATIVE COMMITTEE ON TAXATION OF IRON ORE

The Legislative Commission on Taxation of Iron Ore was originally created by Laws of 1951, Section 2, Chapter 714; and its activities were continued by successive appropriations in 1953, 1955, 1957, and 1959.

Membership of the Commission is composed of 16 members, eight from the House of Representatives appointed by the Speaker and eight from the Senate appointed by the Committee on Committees. The Commission is made up of an equal number of majority and minority members of both Houses and this plan of equal representation is and always has been carried out in the selection of officers of the Commission and in the appointment of its subcommittees.

The purposes for which this Commission was created are outlined in the Law as follows:

"Such Commission shall make a comprehensive, detailed and complete investigation and study of all the factors contributing to a sound iron ore tax policy for this state, including information regarding the quality and extent of Minnesota's iron ore reserves and those in other parts of the world; the cost of developing Minnesota iron ores and those in other parts of the world; the advisability of using the Lake Erie price as a tax base; the impact of National Defense considerations; and the possible construction of the St. Lawrence Waterway by either Canada or the United States or both, upon the Minnesota iron ore industry, and other related factors, for the purpose of formulating a stable and fair policy for the taxation of iron ore and in order that the state shall receive the maximum possible benefit from this natural resource."

The near-decade of the Commission's existence has coincided with perhaps the greatest period of technological and economic change in the Minnesota Iron Ore Industry since the development of the Mesabi Range.

Based on these investigations and studies, the Commission has submitted a biennial report to the Legislature. The 1961 Session of the Legislature failed to appropriate funds for continuation of this Commission.

The Commissioner, upon the recommendation of Governor Elmer L. Andersen, proposed to the Iron Range Resources and Rehabilitation Commission that the Legislative Commission on Taxation of Iron Ore should be continued during the 1961-1963 biennium so that a report could be submitted to the Legislature in 1963. The Attorney General ruled favorably on the request of the Commissioner for the continuation of the Commission as an arm or separate committee of Iron Range Resources and Rehabilitation. The Iron Range Resources and Rehabilitation Commission approved an annual appropriation of \$15,000 for this purpose.

Members of the Legislative Committee on Taxation of Iron Ore for the 1961-1963 biennium were selected on the same basis as previous Commissions.

A total of \$194,000 of Iron Range Resources and Rehabilitation funds was appropriated by legislative transfer for the Iron Ore Tax Committee from 1951 to 1961.

Copies of the Legislative Commission on Taxation of Iron Ore reports to the Legislature are available in the offices of Iron Range Resources and Rehabilitation.

NEW PROJECTS

the financial assistance of the Department of Iron Range Resources and Rehabilitation, a total of eleven new private projects were initiated during the biennium. A total of \$433,750 was made available to these industries through lease-purchase contracts for machinery, equipment and buildings. These new private projects will provide employment for approximately 160 persons in Northeastern Minnesota.

Following is a brief report on each project. Detailed information on each is available at the office of the Commissioner.

ARROWHEAD CHARCOAL COMPANY, INC. Chisholm

James Duncan, unemployed Chisholm mining engineer, presented a project to the Commission for the making of charcoal with a portable kiln. He explained that this kiln could be transported out in the field where land clearing operations were in progress. The timber being cleared could be converted into charcoal at the site with this machinery.

Duncan, as President of the Arrowhead Charcoal Company, has made an application for a \$250,000 ARA loan for construction of a briquetting plant. IRRR participated in this project by providing funds, \$43,750, for the construction of the first portable charcoal kiln, which is now in operation.

This unit alone employs from four to six men in the field. When Federal funds are available, the briquetting plant is expected to employ from 30 to 50 people on a year-round basis, according to reports on the market ability of the product.

BERGSTEDT'S MANUFACTURING, INC. Hibbing - Virginia

Mr. R. J. Bergstedt of Bergstedt's Interiors, operators of retail stores in Virginia and Hibbing, developed machinery that will produce tub-type flower planters out of cedar logs. As an experienced merchant, Bergstedt indicates that there is a definite market for this product, which can compete favorably with items of this type which he now handles but has to import from California and other states.

His invention will produce a circular flower box with only one seam, which can be effectively sealed to produce a near perfect flower pot with many advantages over the conventional type sectional planters.

He intends to merchandise these items from his two Range stores as well as to other outlets in the area.

IRRR appropriated \$20,000 for the purchase of the machinery for this operation.

Bergstedt expects to employ from three to five persons full time and hopes to expand his business and enlarge the facilities within two years.

CEDAR FENCE MANUFACTURING PLANT Northome

At the request of the Northome Community Club, \$55,000 was appropriated for the construction of a plant to manufacture cedar fence posts. The plant is being operated by Derick South, Arlington, Texas, who appeared before the Commission with representatives of the Northome Community Club.

The plant is in operation and will employ from 15 to 30 men. It also provides employment in the field for loggers who are able to cut and sell substantial supplies of cedar timber. Forestry reports indicate there is an ever expanding supply of timber in the area for which there is very little commercial market.

The product, a stockade type fence, is sold mostly in the Texas area by the operator, who is associated with the Ajax Fence Company, Arlington, Texas.

CROW WING CHARCOAL COMPANY Crosby

The Crow Wing Charcoal Company plans to construct six charcoal kilns at Crosby, Minnesota, with a \$36,000 appropriation provided by IRRR.

The firm will produce raw charcoal for use in the briquetting plant at Isanti, Minnesota, owned and operated by the Rum River Charcoal Company. The operators estimate they will purchase in excess of \$50,000 worth of scrub oak from farmers in the area, the timber which is plentiful but of little commercial value.

They plan to employ from four to six people operating the kilns.

At the present time, they import 50 percent of their raw charcoal for their Isanti operation from out of the state.

DULUTH FILTER COMPANY Duluth

An appropriation of \$50,000 was approved for the Duluth Filter Company of Duluth, Minnesota. This was part of a \$260,000 ARA project.

This firm manufactures filter cartridges for diesel machinery used by mining companies and generating plants. The product has been thoroughly developed and tested throughout the past six years by the Superwood Corporation of Duluth and the Duluth Filter Company. There is a great demand for the product.

The manufacture of replacement cartridges and filtration equipment is international in scope. There is an approximate excess of \$250 million dollars spent annually on industrial filtration. The Duluth firm claims its production far superior in performance than its nearest rival. It is estimated that 80 percent of the total figure spent for filtration equipment is required for replacement cartridges. The remaining 20 percent is spent for the original equipment.

The plant presently employs from 12 to 24 full-time workers in eight-hour shifts in the Duluth operation.

Basic material in the filter cartridge is Minnesota jackpine wood fibers which are presently manufactured at the Floodwood plant of the Superwood Corporation of Duluth. An increase in production would provide a market for woodcutters in the Duluth area utilizing some of the vast reserve of jackpine in Northeastern Minnesota.

KIMBALL AND SONS COMPANY Hill City

A total of \$39,000 was appropriated for Kimball and Sons Company of Hill City for the manufacture of peat products including a fireplace log and a "fire starter" using basically peat and wax mixtures. The products, according to market experts in the Twin Cities, have great commercial potential, being very new and unusual items with very practical use.

The Kimballs have purchased an acre of land, which they have deeded to the State, and have received funds for the building and equipment.

The plant will employ from 4 to 12 persons continually, with as many as 30 persons for several months preceding the Christmas holiday seasons.

MESABI GROW COMPANY, INC. Cotton

A sum of \$50,000 was appropriated for the purpose of packaging equipment for Mesabi Grow Company, Inc. at Cotton and Central Lakes, Minnesota.

The firm specializes in processing and packaging peat for horticultural purposes. Packaging small sizes is done at the plant in Cotton. The large sacks and baling will be done at a building constructed by the firm at Central Lakes.

In 1962 a total of 50 carloads was shipped by the firm to distributors throughout the South and Midwest. With completion of the new plant at Central Lakes a substantial increase in shipments is expected.

From four to six persons are employed at the plant at Cotton and approximately 10 more are employed in the field and at the plant at Central Lakes.

W. S. MOORE COMPANY Gilbert

The Area Redevelopment Administration has approved a \$260,000 project for the W. S. Moore Company, iron ore mining and contracting firm, Duluth, Minnesota. Iron Range Resources and Rehabilitation is participating in this project with a \$52,000 appropriation for the purchase of equipment for a briquetting plant to be located at Gilbert, Minnesota.

There is a considerable supply of "fine-sized" ore in the Range area which, in its present condition, is no longer desirable in the iron ore market. The W. S. Moore Company, using the Dravo-system briquettes made from these fine ores, could compete with blast furnace production with the high-grade pellets now in production.

With successful results to give assurance to iron ore producers that the increased price of briquettes over "fines" will not only make their mine product saleable, but worth more than enough to pay for the briquetting cost, ore handling, loss in weight, and profit to the owners of the facility, we are certain of a response sufficient to warrant investment of Federal, State, and private funds in a full-scale briquetting plant.

W. S. Moore Company intends, if the pilot plant operation is successful, to make application for an ARA loan for the construction of a 400,000 ton briquetting plant to treat iron ore fines of various ores produced on the Mesabi, Vermilion, and Cuyuna Ranges.

A plant of this size by no means approaches the tonnage that could ultimately be agglomerated by this means, but an initial facility, making marketable product out of one that is not wanted, could mean much to the sagging employment on the Ranges.

A total of 10 men will be employed in the pilot plant, in addition to the construction employees required for putting the plant in operation.

POTATO WAREHOUSE Hibbing

At the request of St. Louis County agricultural authorities, a \$75,000 fund was appropriated for the construction of a potato warehouse in the Hibbing-Chisholm area. Robert J. McCarthy, Hibbing, a successful young potato farmer, highly recommended by the St. Louis County Fair Association and other agricultural organizations in the area, offered to operate the potato warehouse with his crops as well as that of some 10 farmers in the Range area.

Approximately \$27,000 of equipment has been purchased for the plant, which would make it possible for the cleaning, packaging, and storing of potatoes for McCarthy and his associates.

Construction of the building was delayed because of lack of utilities for the two-acre site on the Hibbing Beltline, which has been deeded to the State for this purpose by the Hibbing ARA.

McCarthy estimates 10 persons will be employed in the plant and 10 farmers in the area will increase their potato production considerably when these facilities are available.

STURGEON LAKE INDUSTRIES Sturgeon Lake

IRRR provided services of department personnel for this project starting with surveys and reports used in the application for an ARA loan. A wood technologist was assigned to work with the operators practically on a full-time basis in preparing reports for the application and the supervision and assist in the installation of the machinery and equipment as funds became available for the construction of the plant.

This is a \$45,500 ARA project including \$14,000 of State funds. It will provide employment for 14 workers directly and also provide additional indirect employment in such supporting industries as lumber and logging in the area.

TYPHA PRODUCTS, INC.
Bemidji

Typha Products, Inc., Bemidji, submitted a request for construction of a plant and equipment for the manufacture, distribution, and marketing of typha, a "fluff" derived from the common cattail plant.

There is a market demand for typha for use in insulation, padding, filler, and other practical products.

The Commission approved an appropriation of \$13,000 for a pilot operation at a plant located at Northome, Minnesota, owned and operated by Typha Products, Inc., a Minnesota corporation, which was formed in 1959.

David A. Vincent, president, has experimented with this raw product since 1946 and has six patents pending for the commercial use of the product.

When results of a pilot operation are evaluated, the corporation expects to obtain funds for a large-scale operation in the Bemidji area. The present operation employs from 2 to 3 persons.

TECHNICAL ASSISTANCE GRANTS

IRRR has provided \$776,550 for technical assistance grants for the University of Minnesota and for private industry.

Some of these grants were made in cooperation with ARA projects with participating funds from IRRR and Federal ARA. The University of Minnesota received \$309,000 for the School of Mines Experiment Station a total of nine projects received \$467,550 in technical assistant grants.

KRUPP-RENN DIRECT REDUCTION PROCESS

\$77,550 was encumbered for Zontelli Brothers of Crosby. This money was used to provide for collection of samples of iron ore from the Cuyuna and Mesabi Ranges which were sent to Germany for processing in the direct reduction plant at Essen, Germany.

On October 10, 1961, a contract was entered into by the State of Minnesota, through the Commissioner of Iron Range Resources and Rehabilitation, and Zontelli Brothers, which provided that Zontelli Brothers would conduct an iron ore research program on lean ores on both the Cuyuna and Mesabi Ranges.

The terms of the contract provided for the completion of the work and the delivery of the report to the Commissioner on December 1, 1962. Zontelli Brothers requested an extension of 90 days, which was granted by the Commission. The complete report should be available March 30, 1963.

Due to increased foreign competition, the production of ores from the Iron Ranges of Minnesota has steadily decreased with unemployment and economic conditions worsening each successive year.

It is evident that the successful application of a process to utilize low-grade ores will result in large benefits to the people of the State as well as to industry. Records indicate there are millions of tons of lean ore reserves with from 35 to 50 percent iron.

The scope of the Zontelli project is to provide a process which would utilize this ore converting it into a product with 92 to 93 percent iron. This process is carried out in a rotary kiln and produces low carbon metallic nodules known as "luppen".

While European and Asiatic countries have used this product for many years, the use of luppen in iron and steel in the United States has been limited to test runs from the luppen made by Southwestern Engineering Company in a demonstration operation conducted at Pioche, Nevada, several years ago. The feed to this demonstration run was a titaniferous material containing 47 percent iron and 19 percent titanium oxide. The luppen produced from this feed material contained from 92 to 95 percent iron and less than one percent titanium and about .06 percent sulphur.

There appears to be a multiplicity of applications for luppen by the American steel industry. The Krupp-Renn process appears promising as an economical method for producing a material which can be transformed into hot metal and steel at a competitive price and a low capital cost.

ARA supplemented the IRRR project with an additional technical assistance grant of \$65,000 Federal funds. This included the use of lignite from North Dakota in the Krupp-Renn process. In June, 1962, ARA approved a second technical assistance grant totaling \$175,000 to the Southwest Engineering Company of California for further research for the same project, which was first inaugurated by the IRRR in May of 1961.

STRATEGIC-UDY DIRECT REDUCTION PROCESS

IRRR was asked by the ARA committees of five Northeastern Minnesota communities to participate in a three-phase research project involving the Strategic-Udy direct reduction iron ore process. Cost of the total project, which was approved by the ARA, was \$80,000. IRRR participation was \$15,000. Communities requesting the research work were Hibbing, Chisholm, Virginia, Eveleth, and Ely.

One phase of the work has been completed. Ford, Bacon & Davis of New York have completed the market study in a report entitled "Market for Iron and Steel Products Available to a New Producer Operating a Strategic-Udy DR Plant in Northeastern Minnesota". One copy of this report is available at the office of IRRR.

The other two phases of the work includes power study and engineering study to be used in a feasibility report for the possible construction of a direct reduction plant in the Hibbing-Chisholm area using the Strategic-Udy process.

CAREY LAKE RECREATION AREA

The St. Louis County Area Redevelopment Administration in behalf of residents of the Hibbing, Chisholm, Buhl, and Kinney area proposed a \$9,000 project for a study of Carey Lake as a recreation area and for recreational development.

The study is to determine the physical and economic potentials of developing the site for recreation activities, estimate the benefits, develop a general plan, suggest standards and controls, prepare preliminary cost estimates, and make recommendations for the private and public responsibilities to assure a high quality development.

IRRR entered into a contract with the St. Louis County ARA and Jyring and Whiteman, Inc., architects and planners, to make this study and provide a technical report to the Commissioner and the St. Louis County ARA. Results of this report will be used to promote legislation for development of the Carey Lake area with State and Federal funds.

IRRR will pay \$6,000 toward the project. The remaining \$3,000 will be paid by the St. Louis County ARA.

COUNTY CORNER POST RELOCATION

A \$100,000 fund was established to provide matching funds for counties interested in corner post relocation. The restoration and relocation of section corners was carried on in six counties during the biennium--St. Louis, Itasca, Koochiching, Aitkin, Cook, and Lake.

These section corners are actually the street or highway signs in the unplatted areas and are very important for foresters, appraisers, mining and industrial operators, and real estate men. Much time and considerable expense have been saved by State and Federal agencies as well as private firms in establishing property lines in the unplatted forest areas of the Range as a result of this project.

MINNESOTA ARROWHEAD ASSOCIATION

A grant of \$5,000 was made by IRRR to the Minnesota Arrowhead Association for continuation of a tourist survey project financed by this department in 1958. In that year the Minnesota Arrowhead Association was given a \$50,000 grant for a complete survey of tourist and travel facilities in Northeastern Minnesota.

A report on the use of \$5,000 appropriated in 1962 will be filed with the Commissioner by the Minnesota Arrowhead Association.

RANGE REGIONAL PLANNING COMMISSION RANGE MUNICIPALITIES AND CIVIC ASSOCIATION

For the second straight year, IRRR provided \$15,000 to the Department of Business Development for continuation of an Iron Range planning project sponsored by the Range Regional Planning Commission, Range Municipalities and Civic Association, Housing and Home Finance Agency, Minnesota Department of Business Development, and Iron Range Resources and Rehabilitation. This is a three-year program with technical work being done by Planning Associates of Minneapolis and Hibbing.

The Iron Range Planning Region, spread over 2,750 square miles, included in this study, lies within both St. Louis and Itasca Counties in Northeastern Minnesota. The 87 local governmental units directly concerned with the region have a total population of approximately 121,000. These units are strung out for over 140 miles, their location coinciding more or less with the iron ore formation of the Mesabi and Vermilion Iron Ranges.

The main purpose of the State planning effort is to bring about the early formation of state policy in matters affecting the development of specific regions such as the Iron Range. Many of the problems facing the Range cannot be solved within the area, but depend upon state-wide policies, plans, and programs applied to such elements as taxation, natural resources, transportation, and recreation.

Three reports have been completed including (1) "Population and Settlement Characteristics", (2) "Land Use, Survey and Analysis", and (3) "Economic Study, Inventory and Outline". Copies of these reports are available at the office of the Commissioner of IRRR or from the offices of the Department of Business Development, State Office Building.

UNITED STATES GEOLOGICAL SURVEY

\$216,000 was appropriated for matching funds with the United States Geological Survey in 1960-1962 for topographic mapping and water surveys in the Range area.

In the 1962-63 fiscal year, because of lack of funds, the IRRR's contribution to the mapping program was suspended and its share for the water program was reduced to \$25,000. The IRRR has participated in the topographic mapping program with the U. S. Geological Survey since 1949.

The total expenditures for the two-year period ended June 30, 1962, on maps of the Iron Range program were \$200,000, half of which was from IRRR Funds.

The following maps were published during the same period:

Cross Lake	Marr Island
Pine Mountain	Grand Portage
Lima Mountain	Crocodile Lake
Devil Track Lake	Hungry Jack Lake
Tom Lake	Pine Lake West
Northern Light Lake	Lower Whitefish Lake
Kadunce Creek	Pelican Lake
Pigeon Point	Trommald
Mineral Center	Pine River
Farquhar Peak	Pine River SW
Hovland	Jenkins
Pine Lake East	Nisswa
The Cascades	Grand Marais
South Fowl Lake	

The following maps were ready for publication on June 30, 1962, and were either published in the past six-month period or will be published in the very near future:

<u>Administrative Name</u>	<u>Map Name</u>
Brule Lake NE	Eagle Mountain
Brule Lake NW	Brule Lake
Brule Lake SE	Mark Lake
Brule Lake SW	Tait Lake
Gull Lake NE	Connors Island
Gull Lake NW	Munker Island
Gull Lake SE	Long Island Lake
Gull Lake SW	Gillis Lake
Gunflint Lake SE	South Lake
Gunflint Lake SW	Gunflint Lake
Knife Lake NE	Ester Lake
Knife Lake NW	Dutton Lake
Knife Lake SE	Ogishkemuncie Lake
Knife Lake SW	Kekekabic Lake

<u>Administrative Name</u>	<u>Map Name</u>
Lake Alice NE	Lake Polly
Lake Alice NW	Alice Lake
Lake Alice SE	Kawishiwi Lake
Lake Alice SW	Perent Lake
Wind Lake NE	Cherokee Lake
Wind Lake NW	Kelso Mountain
Wind Lake SE	Sawbill Camp
Wind Lake SW	Beth Lake

The following are the quadrangles that were active as of June 30, 1962, grouped by status of mapping:

Ready for field completion

Ashawa SE

In photogrammetry

Ashawa NE, NW, and SW

Ready for advance field completion

Colemans Island SE and SW

Crane Lake NW, SE, and SW

Echo Lake NE, NW, SE, and SW

Iron Lake NE, NW, SE, and SW

Shell Lake NE, NW, SE, and SW

Ready for supplemental control

Meadowbrook NE, NW, SE, and SW

Side Lake (Sturgeon NE)

Sturgeon NW, SE, and SW

Authorized for mapping under Iron Range cooperation

Cohasset NE and NW

La Prairie NE, NW, SE, and SW

Pokegama Lake SE and SW

Swan River NE, NW, SE, and SW

Trout Lake NE and NW

VOCATIONAL TRAINING SCHOOLS

IRRR provided a grant of \$10,000 to Hibbing School District No. 701 to help in the establishment of a vocational training school. The money will be used to pay 50 percent of the salary of two instructors for one year.

Similar requests have been received from Grand Rapids, which has been approved by the State Board of Education for a second vocational training school on the Range, and Eveleth which has made an application for a third vocational training school on the Range.

This assistance is consistent with the provisions of the law which authorizes the Commissioner of IRRR to provide funds for the vocational training and rehabilitation of the residents of the area.

In September, 1961, Iron Range Resources and Rehabilitation entered into a contract with the State of Minnesota Department of Education, through the State Board of Vocational Education, and appropriated \$50,000 for the payment of tuition fees for unemployed residents of Northeastern Minnesota interested in attending state vocational training schools.

The program was to continue until funds were made available by Public Law 87-27 (87th Congress S.F. No. 1), which was to provide a vocational training program for the unemployed with Federal funds.

The Federal plan, part of the Area Redevelopment Administration bill, was not effective until late in 1962. The Iron Range Resources and Rehabilitation contract with the State Department of Education automatically terminated when Federal funds were available.

Students attended classes in Duluth, St. Cloud, and Staples. Only 23 unemployed men took advantage of this program. The State paid \$3,856.50 in tuition fees for this program.

OTHER PROJECTS

The following is a report of projects started before the biennium included in this report, but in which Iron Range Resources and Rehabilitation is still financially involved.

Three projects developed by IRRR, which had become inactive prior to this biennium, were reactivated by the Commissioner --

1. The \$600,000 Multiply plant at Virginia, destroyed by fire in March, 1961.
2. The \$393,000 Wood Processing Plant at Deer River, closed since February, 1959.
3. The \$43,500 McGregor collapsible ski plant, closed since October, 1958.

ARROWHEAD CANNING COMPANY, INC. Grand Rapids

The Arrowhead Canning Company at Grand Rapids, Minnesota, was financed with an IRRR appropriation. The project started with \$65,000 in 1945, was increased eventually to \$210,000. The plant is being sold to the Mills Lumber Company of Grand Rapids on a lease-purchase contract. A part of the building is still being used for a wild rice processing and canning operation by Parke-Lind, Inc. of Wheaton, Illinois.

ARROWHEAD SEED GROWERS COOPERATIVE Cook

The Arrowhead Seed Growers warehouse at Cook, Minnesota, which was financed by Iron Range Resources and Rehabilitation with a \$27,650 appropriation in 1947, is being purchased by the Arrowhead Seed Growers Cooperative on a lease-purchase contract.

The Commissioner in requesting funds for this project reported that the area was adapted for growing of legume crops and rutabagas and potatoes. He indicated that the growing of such agricultural products could be increased if facilities were established in the Village of Cook for the cleaning and grading of legume seeds and for the storing and warehousing of rutabagas and potatoes.

The appropriation included funds for construction of building and machinery and equipment in connection with the operation.

DEER RIVER WOOD PROCESSING PLANT Deer River

In 1948, Iron Range Resources and Rehabilitation appropriated \$250,000 for the construction of a wood processing plant at Deer River, Minnesota.

The plant was completed in 1948 at a cost of \$250,000. When it was ready for operation, it developed that the Chippewa Wood Processing Association was not legally qualified to enter into an agreement to operate the plant in accordance with the terms proposed. The plant was turned over to James Reid, Superintendent of Construction, to operate on his own responsibility. It was so operated until June 30, 1949.

The plant was idle until November, 1950, when a lease was executed with the Burns Manufacturing Company on a monthly rental basis starting at \$150 per month for the first year, \$200 per month for the second year, and \$300 per month for the following three years.

Cedar Products, Inc. operated the plant from 1955 until January 31, 1959. Since that time the plant had been idle.

Total expenditures on the plant were \$292,709.38, adding the \$60,000 invested for the addition in 1960, the total cost is \$352,709.38. The State had received a total of \$15,558.17 to date on this project.

Since January 31, 1959, the plant had cost the State approximately \$15,000 a year in maintenance. It was necessary to provide watchmen and to purchase coal to prevent damage to the building and its contents.

A new addition had been constructed in connection with the original plant in 1960. No contract had been signed, however, for the operation of the plant.

In 1962, James K. Campbell of Manchester Industries, Inc., Manchester, Iowa, who had been negotiating with the State during 1961, agreed to operate the plant with a lease-purchase agreement.

Campbell took over the plant in October, 1961, which saved the State the expense of maintenance for the building.

It took Campbell approximately one year to get into operation, however, since it was necessary for him to transfer some of his machinery from Iowa to the Minnesota plant. He also purchased some State-owned equipment which was not in use at the Nu-Ply Plant in Bemidji and some State-owned equipment at the plant at McGregor, Minnesota.

The lease-purchase contract was not put into effect until all of the equipment was installed and the plant was in operation.

Campbell expects to employ from 10 to 20 men in the plant and will also require considerable timber from the woodcutters in the area when he is in full operation.

FORMED FIBER PRODUCTS, INC. Floodwood

In 1948, the Iron Range Resources and Rehabilitation constructed a pilot plant for production of peat moss at Floodwood at a total cost of \$284,000.

The plant was operated until December, 1950, when it was closed and remained idle until 1958.

Iron Range Resources and Rehabilitation now has a contract with Formed Fiber Products, Inc. of Duluth to purchase the building in the amount of \$19,000. The contract provided for a cash down payment of \$2,000 and a monthly payment of \$141.67 until paid. The plant was sold following a call for bids in accordance with Laws 1957, Chapter 425, January 28, 1958. Payments are made under terms of a contract for deed.

GRAND PORTAGE MAPLE SYRUP PLANT Grand Portage

The Grand Portage Maple Syrup Plant, constructed with a \$12,485 appropriation from Iron Range Resources and Rehabilitation, has not been financially successful as an operation since it was constructed in 1957.

The plant was put into operation in the spring of 1959 by the Chippewa Products Association. No payments have been received on the contract since the operation started because of labor problems and lack of good marketing program.

In 1961, the Commissioner entered into a contract with a private operator, Ray Cash of Onamia, Minnesota, who paid the State \$290.25 on the basis of a per gallon fee, the same terms on which the Chippewa Products Association was scheduled to operate.

The Commissioner is negotiating with James E. Hawkins, Area Director of the Bureau of Indian Affairs of the U. S. Department of the Interior. The Bureau of Indian Affairs has been asked to consider taking over supervision and operation of the plant with the Grand Portage Band of Grand Portage Indians.

Under proper management and with a good marketing program, this plant could provide employment and some income for residents of the Grand Portage Indian Reservation.

LOOKOUT MOUNTAIN SKI LODGE, INC.
Virginia

The Iron Range Resources and Rehabilitation Commission approved an appropriation of \$34,000 for the purchase of equipment for Lookout Mountain Ski Lodge, Inc. of Virginia. A contract was entered into between the State of Minnesota and Lookout Mountain Ski Lodge, Inc. in March, 1959, on a 5-year lease which provided for an annual payment of \$6,717.96 beginning June 1, 1959.

Equipment purchased included one Tucker Sno-Cat, six ski tows, and one Dodge pickup truck.

The first full payment was received in June, 1959. In June, 1960, a partial payment of \$1,800 was received.

The contract was revised in 1961 in order to spread the payments over a 10-year period. Because of lack of snow in 1961 and 1962 ski seasons, the firm was unable to make payments.

In 1962 they obtained a Small Business Administration loan for the purpose of snow making equipment. Officers of the corporation indicated that with this equipment they would be able to operate more successfully and hope to be able to continue payment on schedule for the balance of the contract.

McGREGOR MANUFACTURING CORPORATION
McGregor

Iron Range Resources and Rehabilitation appropriated \$43,500 to the McGregor Manufacturing Corporation in April, 1957.

The firm planned to manufacture collapsible snow skis and water skis from ash lumber, which is in abundance in Aitkin County and surrounding area.

During its operation for approximately a year and a half, the plant employed from six to 20 persons and provided a market for ash lumber. It was a definite boost to the economy of the McGregor area during its operation.

The skis made from ash lumber, however, were not successful and the corporation had production problems in the manufacture of laminated skis.

There were many technical problems involved and the Corporation was forced to invest considerable funds in trying to solve these production difficulties. When these funds became exhausted, the majority of the stockholders decided to close the plant.

A local development corporation at McGregor operated with some of the equipment and made efforts to locate a new firm to take over complete operation of the plant. The plant was idle, however, from 1958 until 1961.

During 1961 the Commissioner proposed to members of the Iron Range Resources and Rehabilitation Commission that since the McGregor Development Corporation had no success in getting an operator for the plant, the equipment should be made available to any industry in Northeastern Minnesota which would increase its activity and provide more employment by use of the machinery.

All of the machinery was put into use on lease-purchase contracts in plants in Virginia, Grand Rapids, Northome, Deer River, and Pine River.

The equipment is now in use and the State is being paid for the equipment on rental and lease-purchase contracts.

McLEOD, INC.
Grand Rapids

State-owned equipment located at McLeod, Inc. in Grand Rapids, formerly known as Wolmac Company, which filed bankruptcy on October 6, 1961, has been made available to Lloyd K. Johnson, Ameriply Veneer Company at Grand Marais on a lease-purchase contract. The contract provides for payment of the unpaid balance of \$3,125 with monthly payments for a 3-year period.

This equipment was purchased in 1949 for \$15,000 for the Wolmac Company. On January 1, 1956, a new lease was made with McLeod, Inc., which provided for monthly payments with option to purchase.

MULTIPLY OF VIRGINIA, INC.
Virginia

The \$600,000 Multiply division of the Superwood Corporation at Virginia was destroyed by fire on March 18, 1961.

This plant, which manufactures a new type panel board, employed 20 persons and was expected to require more than 10,000 cords of aspen per year. It had been in operation only 8 months.

According to the terms of the contract, the firm had the right to invest the insurance for the rehabilitation and reconstruction of the plant. Officials were hesitant about this, however, because of the loss they suffered because of the fire and also the loss of time involved before operations could resume.

The Commission approved a change in the contract, extending the term from 10 to 20 years to help to give the firm better financial terms and to encourage the firm to continue the operation.

Arrangements were made with the City of Virginia to extend municipal services to the plant at no cost to the Corporation. This was not available in the original construction plans. The Virginia Water and Light Department also made some concessions for the water and light facilities of the operation. With these concessions, the Corporation was encouraged to rebuild the plant and continue operation.

Since the plant was reconstructed, however, there has been a technical problem with the production of the final product.

The Commissioner is negotiating with the firm and also with City and County officials concerning the personal property and real estate tax problems involved.

Every effort is being made to put the plant in operation as soon as possible and to maintain the potential of 20 employees, which will mean an additional \$100,000 payroll for the area.

NU-PLY CORPORATION
Bemidji

In November, 1953, the Commission approved a \$350,000 appropriation for the construction of a pilot plant to process a new type plywood at Bemidji.

In 1962, the Commissioner recommended an adjustment in the contract payments extending the terms from a 10 to 20-year contract. With this adjustment, operators of the plant report they are able to continue a profitable operation. They have been able to provide considerable employment and purchase large amounts of timber from woodcutters in the area since the change in the terms of the contract.

Without this concession, the operator contends they would have been forced to close the plant. They are now current in their payments and report a very successful operating program with a prediction of increased employment and purchasing capacity.

HISTORY

HISTORY

In 1938, the late Senator Richard Kelly of Chisholm and Representative John Blatnik, both members of the Chisholm Junior Chamber of Commerce, proposed a rehabilitation program for Northeastern Minnesota at a regional Chamber of Commerce meeting at Eveleth.

As the result of this proposal, a Rehabilitation Committee of the Junior Chambers of Commerce of Northeastern Minnesota was formed. The first objective of this committee was to get a Federal survey through the U. S. Department of Social Research, which had established the fact that the northeastern section of Minnesota was one of the six so-called "permanently depressed areas" of the United States.

The chief causes for this condition in Minnesota were the loss of lumbering as a major industry through the depletion of the timber and the drastic reduction of payrolls at operating iron ore mines.

In July, 1940, the Rehabilitation Committee of the Junior Chambers of Commerce of Northeastern Minnesota published a general statement of policy and objectives. In preparing this statement, the Committee had the cooperation and services of M. W. Torkelson, director of the Wisconsin State Planning Board and chairman of the Northern Lakes States Regional Committee, who outlined the problem of rehabilitation of the cut-over region of the three lake states.....Michigan, Minnesota and Wisconsin.

Professor E. W. Davis of the University of Minnesota School of Mines prepared a paper, which was included in the statement, on the iron ore deposits of Minnesota. His paper indicated that the future of iron ore mining in Northeastern Minnesota was still bright in spite of the fact that there was an indication that high-grade ores were being depleted. He outlined the possibility of improving low-grade ores and predicted the greatest hope in the future was the development of the iron bearing rock, taconite.

The Rehabilitation Committee of the Junior Chambers of Commerce of Northeastern Minnesota distributed over 200 copies of their statement of policy and objectives to members of the Legislature in the 1941 Session.

As a result, this Committee was invited to appear before the Senate and House Tax Committees. Howard Siegel, Eveleth attorney and committee chairman, presented the report before the Tax Committees, acting as a spokesman for the Rehabilitation Committee of the Junior Chambers of Commerce of Northeastern Minnesota which was composed of three members from each Junior Chamber of Commerce unit located in Duluth and the Iron Range.

Other members of the Committee were Newman Olson, Buhl; Walter Brown, Jr. and Melvin Ranta, Chisholm; John Donovan and Arthur King, Duluth; Paul Kochaver and Helmer Olson, Hibbing; George Bozich, Kinney; and A. M. DeYoannes and Dan McLaughlin, Virginia.

The same report was submitted to Governor Harold E. Stassen.

The report included a 10-point recommendation:

1. The formation of a State-wide Rehabilitation Committee for the purpose of making a comprehensive survey and study of the natural resources of Northeastern Minnesota and the uses to which such resources can be put to assist employment in that region. This should be made in cooperation with the National Resources Board, subdivisions of the State and those agencies now engaged in carrying out this work.

2. The adoption of legislation, or any other necessary steps, which will tend to encourage underground mining and low-grade ore mining from the viewpoint of increasing employment.
3. That a comprehensive survey be made of all mineral bearing lands located in Northeastern Minnesota with the view of attaining the following objectives:
 - a. To determine more definitely and accurately the tonnages of the various grades and classifications of ore located within the area.
 - b. To utilize such different classifications of ore in a manner which would result in the conservation of ore deposits.
4. That further research be intensified with the view of determining economic methods for the mining of low-grade ore and that adequate appropriations be made for the carrying out of this work.
5. That the possibilities for securing an inexpensive source of fuel for Northeastern Minnesota be investigated with the view of utilizing this product for the processing of low-grade ores and other needed purposes.
6. That should future assessments of mineral properties within the Range area be made by the Tax Commissioner, then adequate provision be made so that the Range area has proper representation on the Tax Commission, preserving all rights of municipalities and taxpayers affected with respect to due notice and appeals.
7. That assuming recommendation (6) is carried into effect, then sufficient and adequate personnel be engaged by the Tax Commissioner so as to assure a proper and fair basis for the assessment of mineral properties.
8. That should reassessment of private holding on the Iron Ranges be deemed necessary, consideration in establishing appraisal values should be given to the presence of outstanding mineral rights affecting such holdings as well as the locations of such properties with respect to mining operations and the presence of mines.
9. That a study be made to determine whether or not freight rates are excessive in connection with ore shipments made from the mines to the shipping docks.
10. That the problems confronting the Iron Range area be adjusted through a rehabilitation program rather than through the device of further limiting tax levies which would retard rehabilitation of the area.

The Committee apparently made an impression on the Legislators and the Governor with this report.

On March 27, 1941, Governor Harold E. Stassen in a state-wide radio broadcast devoted his entire program to the problems of Northeastern Minnesota. Following a review of the economic conditions on the Range, the serious unemployment problem, and the even more serious condition of iron ore taxation, Governor Stassen said: "It is clear that there is much more involved in the Iron Range problem than the question of how much taxes the mining companies should pay and what part of it the State should get and what part the local communities should get. The real problem is what kind of a plan of rehabilitation, what kind of a program of hope to those men and women and children can we develop. I am pleased to hear that some of the people of the Iron Range territory, particularly some of the younger men, are looking at the problem in this broader sense.

"With this background in mind, we take up the Interim Committee's recommendations. One of their most important findings, so far as the tax situation is concerned, is their recommendation that there should be further gradual limitation on the taxes that some of the local communities on the Iron Range can levy. It seems to me that this proposal is sound if, and only if, the State's taxes on the richest ore is increased, and if a portion of the State's iron ore revenue is used for a rehabilitation program to help the people of the Iron Range."

Following this statement, Governor Stassen recommended a new schedule of taxation of iron ore, which reduced the per capita limitation for local communities for taxation purposes. This meant a reduced income from iron ore taxation for Range schools and communities on a gradual sliding scale basis.

Governor Stassen stated: "Then as a counterpart to the limitations on local taxation, 10% of the iron ore occupation tax which the State General Revenue Fund receives should be allocated over to the Minnesota Resources

Commission, earmarked by the Legislature to be used for a rehabilitation program for the people of the Iron Range. This program should include these definite steps:

- "1. The establishment of a vocational school like Dunwoody on the Iron Range.
- "2. Constant encouragement for the development of low-grade and underground mining to provide more employment.
- "3. Expansion of employment in the tourist field.
- "4. Expansion of employment in a long-range forestry program.
- "5. Study of expansion of flax production in which Minnesota is rapidly advancing.
- "6. It should constantly bring to the attention of the Federal Government the special problems of this area and coordinate with their programs of rehabilitation and development of resources."

As a result of the legislative efforts of the Rehabilitation Committee of the Junior Chambers of Commerce of Northeastern Minnesota, a law was passed in the 1941 Session providing that 10 percent of the 50 percent of the occupational taxes that goes into the general revenue fund be earmarked for this department.

Thus the Department of Iron Range Resources and Rehabilitation was established by the Minnesota Legislature in the 1941 Session with the funds available beginning in May, 1941. This department was created by Governor Harold E. Stassen as a result of the project started by the Rehabilitation Committee of the Junior Chambers of Commerce of Northeastern Minnesota.

Reports were submitted by the Junior Chambers Committee to the Governor recommending how the rehabilitation program should operate at a meeting in Eveleth in July, 1941. Included in this report were papers on forestry, agriculture, local government, education, mining, and taxation.

Three definite recommendations were also proposed:

1. The money appropriated for purposes of rehabilitation should not be used for direct relief or work-relief purposes, but rather to assist our depressed people in becoming self-sustaining.
2. That personnel selected to administer the program, either in official or advisory capacity, should include adequate representation from the areas affected.
3. That the offices of the Commissioner of Iron Range Resources and Rehabilitation should be located on the Mesabi Range.

Herbert J. Miller, executive secretary of the Minnesota Resources Commission, was named director of the rehabilitation program by Governor Harold E. Stassen in July of 1941 immediately following the Eveleth meeting. The office was established in Chisholm in September, 1941.

Although the Department of Iron Range Resources and Rehabilitation was established by law on May 1, 1941, the seven member Commission, which advises and guides the Commissioner of the Department, was not created until the 1943 Session of the Legislature. This law provided that three members of the Senate, appointed by the Committee on Committees of the Senate, three members of the House of Representatives, appointed by the Speaker of the House, and the Conservation Commissioner should make up the Commission. They serve two-year terms commencing in January in the year which the Legislature is in session.

Herbert J. Miller, former Executive Director of the Minnesota Resources Commission, served as Director of Iron Range Resources and Rehabilitation until June 30, 1942.

Since Miller's term, the Department has been served by five Commissioners, each appointed by the Governor and confirmed by the Senate for terms of two years:

Robert Wilson, Minneapolis
Ben Constantine, Eveleth
Edward Bayuk, Eveleth
Kearlo Otava, Mountain Iron
Hyrom S. Sorenson, Bagley
A. M. DeYonnes, Virginia

January 1, 1943 to May 1, 1949
May 1, 1949 to November 20, 1950
November 21, 1950 to April 30, 1955
May 1, 1955 to January 4, 1961
January 5, 1961 to February 2, 1961
February 3, 1961 to June 30, 1963

Commission, earmarked by the Legislature to be used for a rehabilitation program for the people of the Iron Range. This program should include these definite steps:

- "1. The establishment of a vocational school like Dunwoody on the Iron Range.
- "2. Constant encouragement for the development of low-grade and underground mining to provide more employment.
- "3. Expansion of employment in the tourist field.
- "4. Expansion of employment in a long-range forestry program.
- "5. Study of expansion of flax production in which Minnesota is rapidly advancing.
- "6. It should constantly bring to the attention of the Federal Government the special problems of this area and coordinate with their programs of rehabilitation and development of resources."

As a result of the legislative efforts of the Rehabilitation Committee of the Junior Chambers of Commerce of Northeastern Minnesota, a law was passed in the 1941 Session providing that 10 percent of the 50 percent of the occupational taxes that goes into the general revenue fund be earmarked for this department.

Thus the Department of Iron Range Resources and Rehabilitation was established by the Minnesota Legislature in the 1941 Session with the funds available beginning in May, 1941. This department was created by Governor Harold E. Stassen as a result of the project started by the Rehabilitation Committee of the Junior Chambers of Commerce of Northeastern Minnesota.

Reports were submitted by the Junior Chambers Committee to the Governor recommending how the rehabilitation program should operate at a meeting in Eveleth in July, 1941. Included in this report were papers on forestry, agriculture, local government, education, mining, and taxation.

Three definite recommendations were also proposed:

1. The money appropriated for purposes of rehabilitation should not be used for direct relief or work-relief purposes, but rather to assist our depressed people in becoming self-sustaining.
2. That personnel selected to administer the program, either in official or advisory capacity, should include adequate representation from the areas affected.
3. That the offices of the Commissioner of Iron Range Resources and Rehabilitation should be located on the Mesabi Range.

Herbert J. Miller, executive secretary of the Minnesota Resources Commission, was named director of the rehabilitation program by Governor Harold E. Stassen in July of 1941 immediately following the Eveleth meeting. The office was established in Chisholm in September, 1941.

Although the Department of Iron Range Resources and Rehabilitation was established by law on May 1, 1941, the seven member Commission, which advises and guides the Commissioner of the Department, was not created until the 1943 Session of the Legislature. This law provided that three members of the Senate, appointed by the Committee on Committees of the Senate, three members of the House of Representatives, appointed by the Speaker of the House, and the Conservation Commissioner should make up the Commission. They serve two-year terms commencing in January in the year which the Legislature is in session.

Herbert J. Miller, former Executive Director of the Minnesota Resources Commission, served as Director of Iron Range Resources and Rehabilitation until June 30, 1942.

Since Miller's term, the Department has been served by five Commissioners, each appointed by the Governor and confirmed by the Senate for terms of two years:

Robert Wilson, Minneapolis
Ben Constantine, Eveleth
Edward Bayuk, Eveleth
Karlo Otava, Mountain Iron
Hyron S. Sorenson, Bagley
A. M. DeYonnes, Virginia

January 1, 1943 to May 1, 1949
May 1, 1949 to November 20, 1950
November 21, 1950 to April 30, 1955
May 1, 1955 to January 4, 1961
January 5, 1961 to February 2, 1961
February 3, 1961 to June 30, 1963

RECEIPTS, TRANSFERS, AND EXPENDITURES

RECEIPTS:	1960-1961	1961-1962
Balance brought forward July 1	\$ 930,475.43	\$ 1,230,358.12
Receipts from IRRR Revolving Fund	1,948.62	44,082.16
Miscellaneous refunds from prior years expenditures	2.47	169.03
Transfers In:		
Recovery of Unobligated balances of transfers out in prior years:		
Department of Agriculture	---	6.37
Department of Health	2,156.50	2,443.87
Interim Comm. on Taxation of Iron Ore	---	991.63
Total Receipts -----	\$ 934,583.02	\$ 1,278,051.16
EXPENDITURES:		
Transfers Out (By Legislative Action):		
Department of Agriculture	\$ 7,500.00	---
Department of Health	15,000.00	---
University of Minnesota (Beneficiation of low-grade ores)	150,000.00	159,000.00
Legislative Claims	1,661.12	---
Total Transfers Out -----	\$ 174,161.12	\$ 159,000.00
Projects:		
Administration	\$ 59,419.31	\$ 80,835.60
Agriculture:		
Farm Management & Accounting	---	1,289.62
Land Clearing Machine Operator's Salary	---	1,324.06
Area Vocational Technical Schools	---	3,856.50
* Cedar Enterprises, Northome	---	49,873.39
* Crow Wing Charcoal Co., Crosby	---	1,400.00
Forestry Development	184,437.54	163,854.52
Cooperative Research	12,049.57	12,100.00
Cooperative County Land Development	23,660.15	47,260.11
Summer Works Projects	16,683.78	57,138.96
Governor's Resources Conference	1,157.93	---
Iron Ore Taxation Committee	---	7,798.70
* Iron Range Planning Commission	14,635.00	---
* Kimball & Sons Co., Hill City	---	2.00
Maple Syrup Plant, Grand Portage	1.00	1.00
* McCarthy Potato Warehouse, Hibbing	---	29,343.18
* Mesabi Grow Co., Inc., Cotton	---	11,673.26
Mineral Research	62,537.34	51,850.92
Minnesota Arrowhead Association	---	5,000.00
Peat Research (University of Minnesota)	10,000.00	10,000.00
* Typha Products, Inc., Northome	---	5,533.33
Topographic Mapping (U. S. Geological Survey)	49,975.06	50,000.00
Water Survey (U. S. Geological Survey)	65,468.36	49,948.30
Wood Processing Plant, Deer River	62,757.90	902.72
Zontelli Brothers, Ironton	---	77,550.00
Total Project Expenditures -----	\$ 562,782.94	\$ 718,536.17
Total Transfers Out and Project Expenditures	\$ 736,944.06	\$ 877,536.17
Balance June 30 -----	197,638.96	400,515.01
Receipts from 10% of Occupational Tax on Iron Ore credited to General Revenue Fund, June 30	1,032,719.16	652,548.38
Brought Forward July 1 -----	\$ 1,230,358.12	\$ 1,053,063.39
Transfer Out to University of Minnesota for year 1962-63		(165,000.00)
Misc. refunds from prior years expenditures		3.33
		\$ 888,066.72
* Funds committed for these projects totaled \$298,000.00, therefore, the balance of \$185,539.84 will be spent in year 1962-63 -----		(185,539.84)
Total amount available for expenditure for year 1962-63 -----		\$ 702,526.88

RECEIPTS FROM IRRR PROJECTS CREDITED TO THE DEPARTMENT'S REVOLVING FUND

	<u>1960-1961</u>	<u>1961-1962</u>
Arrowhead Seed Growers Coop., Cook, Minn.	\$ 250.03	\$ 499.98
Durkee Manufacturing Co., Inc., Pine River	- - -	140.40
Formed Fiber Products, Inc., Floodwood	283.34	1,700.04
Jet-Ski Co, Inc., Grand Rapids	- - -	148.50
Maple Syrup Plant, Grand Portage	290.25	- - -
McGregor Development Corp., McGregor	75.00	250.00
Mesabi Grow Co., Inc., Cotton	- - -	97.28
Mills Lumber Co., Grand Rapids	1,050.00	3,850.00
Multiply of Virginia, Inc., Virginia	- - -	24,003.00
Northern Electric Coop., REA line rental	- - -	1.00
Northern Woodcrafters Company, Virginia	- - -	94.74
Nu-Ply Corporation, Bemidji	- - -	<u>13,297.22</u>
Total Receipts from Projects	<u>\$ 1,948.62</u>	<u>\$ 44,082.16</u>

Effective April 11, 1961, as a result of Minnesota Laws 1961, Chapter 215, passed by the 1961 Legislature, all receipts from rentals, royalties, and sales of equipment and buildings revert to IRRR. Prior to this date, receipts were credited to the General Revenue Fund.

i 70

1960-62

P/5877

ORGANIZATION CHART

IRON RANGE RESOURCES & REHABILITATION

MINNESOTA STATUTES, SECTION 298.22

GOVERNOR

LEGISLATURE

LEGAL

- 1- SPECIAL ASSISTANT ATTORNEY GENERAL
(APPOINTED BY ATTORNEY GENERAL)

COMMISSION MEMBERS (ADVISORY)

- 3- SENATORS (2- YEAR TERM, APPOINTED BY COMM. ON COMMITTEES OF THE SENATE)
- 3- REPRESENTATIVES (2 YEAR TERM, APPT. BY SPEAKER OF THE HOUSE)
- 1- COMMISSIONER OF CONSERVATION (6- YEAR TERM)

COMMISSIONER OF IRON RANGE RESOURCES AND REHABILITATION

APPOINTED BY THE GOVERNOR AND APPROVED BY THE SENATE FOR A 2 YEAR TERM

ADMINISTRATIVE

- 1- ASSISTANT COMMISSIONER
- 1- ACCOUNTANT I
- 1- CLERK-STENO II
- 1- CLERK-TYPIST I (SEASONAL)
- 1- CLERK III TEMPORARY

FORESTRY DEVELOPMENT

- 1- FORESTER V (SUPERVISOR)
- 1- CLERK-STENO II
- 4- FORESTRY III
- 1- FORESTRY EDUC. CONSULTANT
- 4- FORESTER II
- 1- FORESTER I
- 2- TIMBER APPRAISER

MINERAL RESEARCH

- 1- MINING ENGR. III (SUPERVISOR)
- 1- MINING ENGR. I
- 2- MINING AIDE II
- 2- MINING AIDE I
- 1- DIAMOND DRILL OPERATOR
- 1- HEAVY EQUIP. OPERATOR (TEMP.)
- 6- LABORER I (TEMPORARY)

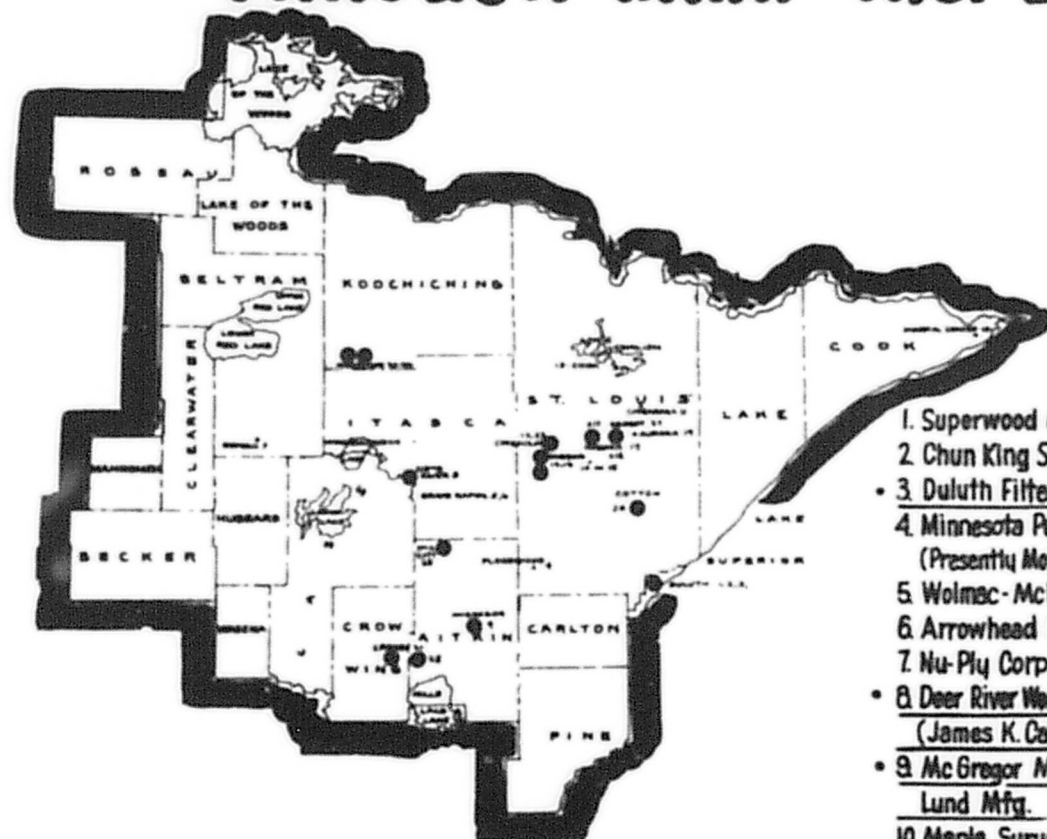
AGRICULTURE

- 1- FIELD REPRESENTATIVE (AGRICULTURAL)
- 3- CLERK-TYPIST I (SEASONAL)
- 1- HEAVY EQUIPMENT OPERATOR (SEASONAL)

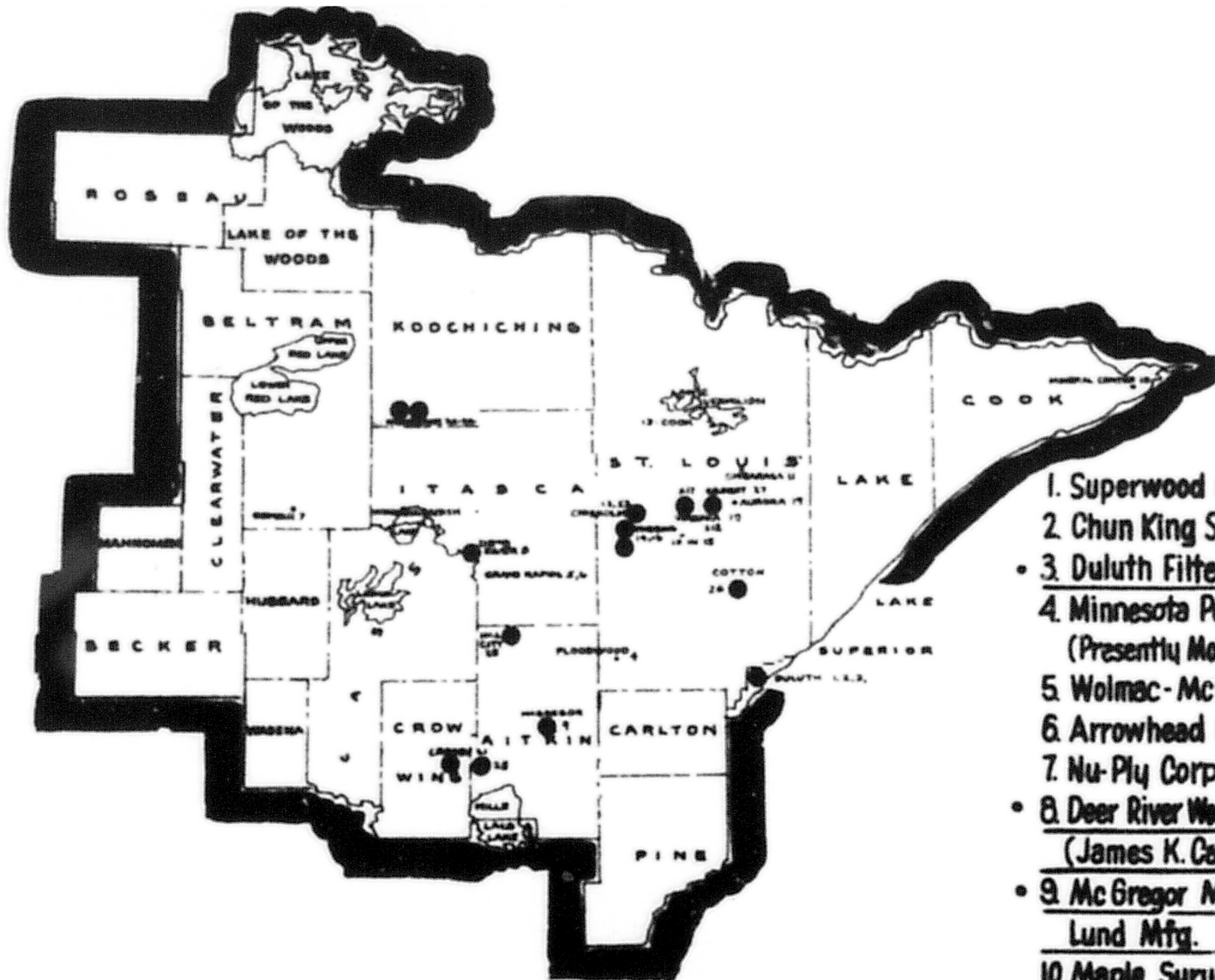
FIELD OPERATIONS

- | FORESTRY | MINERAL |
|---|---|
| 80- LABORER I
(EMERGENCY & PART TIME SEASONAL) | 20- LABORER I
(EMERGENCY & PART TIME SEASONAL) |

INDUSTRIES DEVELOPED OR ASSISTED THROUGH I.R.R. & R.C. LOANS



- 1. Superwood Corp.
- 2. Chun King Sales, Inc.
- 3. Duluth Filter Co.
- 4. Minnesota Peat Processing
(Presently Molded Wood Plant)
- 5. Wolmac-McLeod
- 6. Arrowhead Canning Co.
- 7. Nu-Ply Corp.
- 8. Deer River Woodprocess. Plant
(James K. Campbell)
- 9. MacGregor Mfg. Co.
Lund Mfg.
- 10. Maple Syrup Plant
- 11. Potato Warehouse
- 12. Potato Warehouse
- 13. Arrowhead Seed Growers
- 14. Bergstedt's Mfg. Inc.
- 15. Milk Houses
- 16. Potato Whse. (Rbt. J. McCarthy)
- 17. Lookout Mt. Ski Lodge, Inc.
- 18. Multiply of Virginia, Inc.
- 19. Iron Powder Plant
- 20. Cedar Enterprises (D.D. South)
- 21. Crow Wing Charcoal Co.
- 22. Peat Research
- 23. Arrowhead Charcoal Co., Inc.
- 24. Typha Products, Inc.
- 25. Kimball & Sons Co.
- 26. Mesabi Grow Co., Inc.
- 27. W.S. Moore Co.
- 28. Zontelli Brothers



1. Superwood
2. Chun King S
- 3. Duluth Filte
4. Minnesota P
(Presently Mo
5. Wolmac - Mc
6. Arrowhead
7. Nu-Ply Corp
- 8. Deer River W
(James K. Ca
- 9. Mc Gregor N
Lund Mfg.
10. Maple Syru
11. Potato Wa



MICROGRAPHIC SERVICES UNIT
DEPARTMENT OF ADMINISTRATION

STATE OF MINNESOTA
CERTIFICATE OF AUTHENTICITY

THIS IS TO CERTIFY that the microfilm appearing on this Film-File starting with Cover and ending with BACK COVER is an accurate and complete reproduction of records of the following agency: Legislative Reference Library delivered to the undersigned by Shawn Duffy the legal custodian of said records, who affirmed that such records were microfilmed by the undersigned in the regular course of business pursuant to established policy of the following agency: Legislative Reference Library to maintain and preserve such records through the storage of microfilm reproduction thereof, in protected locations.

It is further certified that photographic processes used for microfilming of the above records were accomplished in a manner and on microfilm which meets with the requirements of the National Bureau of Standards for permanent microphotographic copy.

ROLL/FICHE NUMBER 001

I-129
DOCUMENT I.D.

NOV 21 1978

DATE PRODUCED

[Signature]
CAMERA OPERATOR