Report to

Governor's Commission Reviewing the Iron Range Resources and Rehabilitation Board, Minnesota

Analysis of Operations, Opportunities and Implementation Strategies for the Iron Range Resources and Rehabilitation Board

851190

Arthur D. Little, Inc. Reference 54207

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EXECUTIVE SUMMARY

OVERVIEW

The mission of Arthur D. Little, Inc. in this project was to analyze the operations, opportunities and development strategies of the Iron Range Resources and Rehabilitation Board (IRRRB) to meet the changing needs and priorities of the Iron Range. Based upon our study of State of Minnesota documents, interviews with individuals in the public and private sectors throughout the Iron Range and in state government, and our analysis of the IRRRB and the needs and opportunities in the Iron Range region, we conclude that:

(1) the priority need in the Iron Range during this period of adjustment is for more targeted and focused economic development efforts building on the natural and human resources of the Iron Range;

(2) the IRRRB must increasingly focus its mission on regional economic development and accelerate its transition to an effective regional economic development agency with a major economic development investment role in the Iron Range;

(3) the IRRRB should reallocate its resources to targeted economic development efforts based on a more explicit economic development strategy and sector-specific development programs;

(4) the IRRRB should reorganize itself into four divisions and clarify relationships with other state, regional, and local organizations to reflect its more focussed mission and role; and

(5) the Board and Technical Advisory Committee should be expanded to ensure adequate coordination and technical input in guiding the IRRRB.

We also conclude that few legislative actions will be required to achieve these changes; actions can be taken now by the Board and the Staff to respond to the findings and conclusions of this report.

CHAPTER I - THE IRON RANGE IN PERSPECTIVE

Chapter I of this report provides an overview of the economic conditions and development opportunities and needs in the Iron Range, a region of Northeastern Minnesota encompassing parts of six counties and about 190,000 people. In this Chapter we conclude that the priority need in the Iron Range during this period of adjustment is for more targeted and focused effective economic development efforts building on the natural and human resources of the Range. The reasons for this are:

1. <u>The Range is undergoing a major structural shift in its economy with the decline of taconite production.</u> Unemployment is now about double the state and U.S. averages and was as high as 30% during 1982. Underemployment is probably also high and labor force participation is now relatively low due to the limited employment opportunities. In the absence of outmigration, it is estimated that about 10,000 jobs would have to be created to provide employment opportunities equivalent to other regions of Minnesota (i.e. equivalent unemployment and labor force participation rates).

2. <u>The decline in taconite production is not a temporary or short-term phenomenon</u>. As a direct result of the longer term realignment of the U.S. competitive position in the world steel industry, mining employment has fallen from a high of 16,450 in 1979 to about 7,000 today. It is expected to fluctuate around this lower range unless there are further major changes in either the steel or mining industries nationally.

3. <u>While the area's weaknesses present a significant barrier to efforts to recruit industry ("smokestack chasing"), the area's strengths provide the basis for promising development opportunities that should be the focus of an economic development strategy for the Iron Range.</u> Strengths include a good rail and highway system, a strong work ethic, and abundant natural resources. Weaknesses include distance from major markets, underutilized financial resources, high wage rates in certain sectors, and underdeveloped managerial resources.

4. <u>While there is keen competition for economic development, there appear to be potential development opportunities in the forestry, tourism, and non-natural resource-based manufacturing (particularly electronics) sectors.</u> Because of stiff competition, development opportunities will be difficult to realize and will require a concerted and coordinated effort on the part of institutions in the Iron Range. Risk and uncertainty also dictate the need for a variety of contingency strategies.

5. <u>Economic development and adjustment are likely to remain a high priority for some time, since it is unlikely that new developments or expansion will soon, if ever, absorb the economic slack from the decline of the mining industry</u>. New employment opportunities will probably utilize non-mine-related labor at significantly lower wage rates. In addition, the number of new jobs created is not likely to soon reach the estimated need of about 10,000 jobs (equivalent to 3,000 to 5,000 jobs in "leading" businesses) needed to provide employment for current residents of the Iron Range. Consequently, the management of economic development and adjustment in the Iron Range will be a major challenge for the foreseeable future.

CHAPTER II - IRON RANGE DEVELOPMENT ACTIVITIES IN TRANSITION

Chapter II of this report reviews the existing and potential resources, roles, responsibilities and interrelationships of local, regional, and state groups in the Iron Range region in order to establish the best mission and role for the IRRRB during this period of adjustment on the Iron Range. In this Chapter we conclude that the IRRRB can best leverage its resources and capabilities by increasingly focussing its mission on regional economic development and by accelerating its transition to an effective economic development agency with a major economic development investment role in the Iron Range. The reasons for this are:

1. The IRRRB's financial resources, which are likely to be increasingly limited in the future, can no longer effectively support the wide range of diversified grant and loan programs of recent years.

    - The IRRRB's financial resources will be more limited in the future. The operational requirements of on-going projects, reduced carryovers from one-time resource allocations, and the reduced levels of taconite production and taconite production tax revenues will mean reduced levels of discretionary resources in the future. It is estimated that financial resources available for new IRRRB projects will decline to about $5M-$15M/year over the next five years from a level of about $25M-$35M/year over the recent past.

    - The IRRRB is now involved in an overly broad range of projects. These include: research in plasma smelt, peat production, and mosquito control; developments of museums, ski areas, boat launch ramps, and industrial parks; repair of water tanks and sewage treatment facilities; reforestation; fish restocking; and a variety of specialized loan participation and grant programs. This is far too broad and fragmented a range of activities for an organization such as the IRRRB to effectively manage.

    - If the IRRRB does not rapidly reduce its financial obligations unrelated to economic development, there will not be sufficient funds to effectively lead an economic development effort in the Iron Range.

2. Regional economic development is the major priority need of the Iron Range, and the IRRRB is well positioned to have a significant impact on the economic development opportunities and problems facing the region.

    - The need and opportunity for economic development on the Iron Range is now. If job prospects do not improve soon, the best young people will leave the region and the downward cycle of economic decline will be reinforced, making needed investments ever more risky and less likely. Economic development competition in other areas of the United States is keen and well-funded. An aggressive and focussed IRRRB economic development program will be required to compete effectively.

- Economic development impediments in the Iron Range that can be addressed by the IRRRB include a lack of clear leadership, limited risk capital for new businesses or new products, scarce indigenous entrepreneur'al management, and a poor regional economic image. The IRRRB is in the best position to take the lead and address these problems in the Iron Range.

- Economic development opportunities that can be addressed by the IRRRB are based on the region's abundant natural resources, its strong work ethic, and its existing economic base. The IRRRB is well positioned to pursue the needed sector-specific development strategies and investment programs in these areas.

3. A regional economic development mission is consistent with the IRRRB's legislative mandate, while other state institutions are better positioned to take the lead in addressing other needs and opportunities of the Range, even though these may be within the IRRRB's broadly legislated mandate.

   - The IRRRB has a broad legislative mandate and resulting institutional flexibility and capability to select a clear direction and emphasis. The IRRRB has a very broad and permissive legislative mandate including economic, industrial, community, environmental and cultural development. The IRRRB also has the administrative flexibility and staff expertise to choose its focus within its broad mandate based on careful analysis, negotiation and interagency agreements.

   - There are a number of institutions with significant resources and capabilities which overlap with the broad mandate of the IRRRB. These include: Department of Energy and Economic Development (DEED) in economic, community, tourism, and energy development; Department of Natural Resources (DNR) in fish and wildlife, forestry, minerals, mine land reclamation, and parks and recreation management; Legislative Commission on Minnesota Resources (LCMR) in a broad range of resource protection, development and management supports; Natural Resources Research Institute (NRRI) in natural resources research; Arrowhead Region Development Commission (ARDC) in regional planning, economic and community development; and a wide range of other local and regional governments, development organizations and associations (e.g., Chambers of Commerce, the Arrowhead Community Economic Assistance Corporation, Blandin Foundation, and local agencies).

- o <u>Regional economic development is an explicit part of the relatively expansive mandates for the IRRRB and each of its three legislated funds</u> -- the Board Account, the Taconite Environmental Protection Fund (TEPF) and the Northeast Minnesota Economic Protection Fund (NEPF).

- o <u>Social and community development needs in the Iron Range that are often the focus of IRRRB efforts can be adequately addressed in a manner similar to that in other parts of Minnesota</u>. These include: block grants, facility-specific grants, state social services agencies, and local governments, for example.

- o <u>Environmental, energy, and resource management/development needs in the Iron Range that are often the focus of IRRRB efforts can and should be adequately addressed by the institutions having primary responsibility for these areas in other parts of the state</u>. These institutions include: DNR and DEED in alternative energy development; DNR, LCMR, and NRRI in natural resource management and research; and DNR and LCMR in environmental protection.

4. <u>Within its regional economic development mission</u>, the IRRRB should focus on maximizing the effectiveness of its flexible investment role.

   - o <u>The IRRRB has a mandate and resources which allow it to play a very flexible and potentially effective investment role in support of a variety of sector-specific economic development strategies</u>. It also has considerable experience in managing business loans, grants, and innovative investment programs. It has a relatively broad legislative mandate in this arena, and its financial resources are adequate to have a significant impact on economic development potentials in the Region if adequately leveraged.

   - o <u>The IRRRB has limited capability in economic planning, marketing, and promotion</u>. While many general economic development support activities are probably better managed at the state, local or Arrowhead Region level, (incorporating Duluth), sector-specific planning, marketing and promotion in support of IRRRB development strategies and IRRRB facilities are probably best managed by the IRRRB.

   - o <u>The IRRRB does not have experienced management capabilities with specialized facilities (e.g., Paulucci Planetarium, Giants Ridge, Wilderness Valley Farms)</u>. The IRRRB is somewhat constrained in regard to its facility management effectiveness due to its structure as a state government agency. A lead role in facility management is generally not a desirable situation for the IRRRB.

CHAPTER III - ESTABLISHING THE IRRRB AS AN ECONOMIC DEVELOPMENT AND INVESTMENT AGENCY

Chapter III of this report reviews what needs to be done to support and accelerate the transition of the IRRRB from a broad, multi-purpose organization to a more focussed economic development and investment agency for the Iron Range.

1. As a key element in its transition to a regional economic development and investment organization, the IRRRB needs to pursue an aggressive and accelerated reallocation of resources from their present broad based application to more targeted economic development efforts.

   - A phased reduction of the resources allocated to local community and social development grants will be necessary in conjunction with a tightening of grant evaluation criteria related to economic development and job creation/retention.. A large proportion of previous IRRRB grant activity has been justified on community or cultural development grounds. While these are certainly within the IRRRB's broad legislative mandate, such a dilution of IRRRB activities will not be possible if it is to effectively pursue its economic develoment mission.

   - A spinning off of facility management responsibility will enable the agency to direct its management efforts more to economic development. About two-thirds of the IRRRB's current staff are involved in operation and management of Giants Ridge, the Interpretative Center, and other special facilities. Spinning off the management of these facilities should reduce personnel costs and required operating subsidies for these projects, while freesing senior staff to pursue additional development opportunities.

   - A careful evaluation of further investment requirements at Giants Ridge and the Interpretative Center will be needed to assure that they are effective investments relative to the IRRRB's economic and tourism development strategies.

   - A tightening of project and loan review criteria for economic development activities and an enhanced capability in financial and development packaging and leveraging should permit the IRRRB to stretch its own economic development resources further.

2. The IRRRB Board and Staff need to prepare within the next 12 months a targeted economic development program and strategy to guide its transition. The action program should include at least the following steps:

- Preparation of a more explicit economic development strategy and sector-specific short-range and long-range economic development program for the IRRRB;

- A revised resource allocation process for the IRRRB;

- Institution of a systematic and proactive project development process;

- Development of a refined project evaluation system reflecting the different conditions in each sector;

- Creation of an aggressive marketing and outreach program; and

- Reinforcement of the policy of maximizing leverage of IRRRB funds.

3. The IRRRB needs to be reorganized internally into four divisions to best pursue its more targeted mission and roles in regional economic development.

- A Planning and Research division should be responsible for identifying economic development opportunities consistent with adopted investment strategies. The IRRRB may wish to contract out much of this Division's work rather than building a large staff encompassing sector-specific research and project evaluation skills.

- A Marketing and Development division should be responsible for initiating an organized marketing plan by sectors, packaging economic development opportunities and closing deals. The Division should to create individual "champions" or units responsible for particular investment areas (such as forestry, minerals, non-natural resources, and recreation/tourism).

- An Operations and Maintenance division should be responsible for running special facilities but should be phased down as these special facilities are spun-off or transferred to other institutions.

- An Administration and General Services division should be responsible for general day-to-day organizational needs as well as administrative monitoring of loan and financial assistance programs. It should have access to appropriate resources in the region, including legal talents.

4. Relationships with other state, regional and local organizations are now unclear and will need to be clarified for the IRRRB to effectively change and pursue its evolving focus on regional economic development.

   - Social, cultural and community development should be the principal responsibilities of state social agencies, the Minnesota Historical Society, local communities themselves, and groups like the ARDC or the ACEAC;

   - Resource management, development, and long-term utilization should be the principal responsibilities of DNR and LCMR, with UM(D) and NRRI providing research and testing support for natural resource development in northeastern Minnesota;

   - Environmental protection and improvement in the Iron Range should be within DNR's statewide responsibilities;

   - Support and coordination of local and regional economic development efforts throughout Northeast Minnesota should be the primary responsibility of DEED and the ARDC.

5. Outside analysis and review needs to be broadened at the Board, Advisory Committee and citizen levels to assure the most effective transition to a regional economic development mission and principal investment role.

   - Board membership should be expanded to support its changing missions and roles. The DNR Commissioner should be joined by the Commissioner of DEED and the Director of the NRRI to ensure coordination of programs and broadly-based technical expertise. The Board should also include a senior businessman and a financial expert, both from the Range and both appointed by the Board's legislators.

   - The Technical Advisory Committee should be expanded to fulfill a broader investment and development strategy review role, while retaining a subcommittee for loan review purposes of all loans and major grants.

   - More effective citizen input would be desirable in a format similar to that which is effectively used by the LCMR--particularly during the IRRRB's transition period to an economic development and investment agency.

CHAPTER IV - RECOMMENDATIONS

Chapter IV outlines the action steps that are recommended in order to pursue the course outlined above. The thrust of these recommendations is to help the IRRRB systematically meet the major challenges of economic development in the Iron Range. We recommend that the IRRRB:

1. Officially adopt a clear mission statement focussed on economic development in the Iron Range that is endorsed by the Board, the Governor and key institutions involved.

2. Prepare an explicit short range (1-2 years) and longer range (3-5 years) economic development program within the context of a longer range economic development strategy for the IRRRB with quantifiable targets and contingencies if opportunities do not materialize.

3. Prepare sector-specific development programs and strategies in potential growth areas such as tourism, mining, forest products, and electronics. These strategies must delineate clear priorities, impacts, and project review criteria for each sector, identifying highest priority investments and activities and best mechanisms for maximizing leverage of IRRRB funds.

4. Conduct an immediate and complete review of all operating responsibilities and assess alternatives to current IRRRB management. These evaluations are already underway for Wilderness Valley Farms, Paulucci Auditorium and Croft Mine. They should also be undertaken as soon as possibnle for Giants Ridge and the Interpretative Center, since there is currently a good window of opportunity for management transition in both cases. Alternatives to IRRRB ownership and operation should be pursued whenever practical, including sale, leasing or devolution of responsibilities for these projects to private or public groups (such as DNR, Department of Tourism, and the Minnesota Historical Society).

5. Reassess further development opportunities and investment requirements for Giants Ridge and the Interpretative Center in the context of these two projects and the broader economic development strategies of the IRRRB. While further investments in these projects should be considered in the context of an IRRRB transition, they, nonetheless, need to be consistent with a viable tourism development program and economic development strategy.

6. Focus IRRRB resources on economic development, allocate by sector, and adjust quarterly. The IRRRB should progressively lower resource allocations in the environmental, social and community development areas and tighten grant evaluation criteria to maximize economic development impacts and leverage.

7. Institute a proactive project development process to support the sectoral program managers or "champions" in preparing their annual Action Plans and developing their proposed project commitments.

8. Refine a comprehensive project evaluation system for the IRRRB and accelerate adoption of standards, criteria, and project review procedures for finding and packaging development deals and leveraging IRRRB resources.

9. Establish measurable performance targets and monitor the effectiveness of various IRRRB activities in achieving these targets.

10. Pursue more aggressive marketing and outreach efforts tied to activities of others involved in marketing of Northeastern Minnesota. These efforts will be needed to generate a positive image of the Iron Range as a place in which to invest, and to foster a view of the IRRRB as a responsive, pragmatic organization with which to do business.

11. To help set targets and sectoral plans, sponsor broadly based, public participation workshops on a regular basis (possibly every two years) and periodically review past decision criteria, sectoral allocations, and achievements through these workshops.

12. Within the next six months internally reorganize into four divisions: <u>Planning and Research</u>, (performing a program planning and project evaluation function); <u>Marketing and Development</u> (handling the marketing, packaging, and deal-making); <u>Operation and Management</u> (covering the operational management of existing agency projects); and <u>Administration and General Services</u> (handling administrative support and housekeeping services for the IRRRB and staff). Specific job descriptions should be established clearly outlining the unique responsibilities of the IRRRB staff, as shown in the recommended organization chart (Figure III-2). This should help the IRRRB move from an agency organized by funding sources and major projects to one concentrating on sectoral development activities and investments.

13. Establish clear relationships and memos of understandings with overlapping institutions. The IRRRB should develop and manage its own economic development strategy, limiting its investments to the Iron Range. Economic development investments should be leveraged and memoranda of understanding should provide guidelines for this coordination (particularly with DEED, DNR, and various local and regional institutions). Planning economic development and marketing activities should be coordinated with groups such as the ARDC, local Chambers of Commerce, and state agencies such as DEED and should be supported by clear memoranda of understanding. The IRRRB should negotiate with the Minnesota

Attorney General's office and other state institutions providing essential support services to economic development to provide adequate representation in the Iron Range area.

14. Broaden the responsibility of the Technical Advisory Committee (TAC) to include all IRRRB project reviews and its membership should be expanded to include members with economic development expertise.

15. Establish a Financial Advisory Committee (FAC) to provide overall technical advice on ways the IRRRB can best leverage its funds. The FAC should include a local banker, a senior investment analyst, and an economic development expert.

16. Expand the representation on the Board to include the Commissioner of DEED, the Director of NRRI, a senior finance expert or banker from the Iron Range, and a senior business representative from the Iron Range.

17. Establish the investment decision criteria and sectoral allocations by a majority vote; allocations for projects or activities outside of the agreed upon areas and criteria should require a three-quarter vote rule. This will help the IRRRB maintain its primary direction and emphasis on the difficult job ahead.

Few of these recommendations will require legislative action. We do not recommend extensive legislative reform because:

- The IRRRB has functioned as well as it has over the years because it has the flexibility to pursue a variety of goals depending on changing needs;

- The shift towards economic development should not be restrained while awaiting final legislative approval;

- Most of the recommendations can be taken account of under existing rules and regulations. The major recommendation which will require legislation involves expanding the membership of the Board. While awaiting the necessary legislative changes, the board could invite the new members to participate at meetings, even though they would not be allowed to vote.

These recommendations will allow the IRRRB to narrow its focus so that it can significantly impact the Range given the IRRRB's resources and the job ahead. In this way, the IRRRB will become a catalyst in the region, a developer of ideas, and an investment fund--the region's economic development leader.

CHAPTER I

THE IRON RANGE IN PERSPECTIVE

Minnesota's Iron Range* is in transition, and efforts are underway to broaden its economic base from its past dependency on mining. The adjustment process will not be quick, nor will it be easy. This Chapter, which summarizes Appendix A, takes a brief look at the Range's economic conditions and development opportunities. It is not meant to be comprehensive, but indicative of the in-depth analyses that the IRRRB should continue to do in setting its investment strategies (see Chapter III). This Chapter also sets the stage for defining the IRRRB'S mission (Chapter II) and what needs to be done to support and accelerate the transition of IRRRB to a more focused economic develoment and investment mission (Chapter III).

A. OVERVIEW

In the past five years, the economic situation in the Iron Range has deteriorated sharply following a decade or more of prosperous times. In addition to adverse impacts of the national recession, the Iron Range communities have been hard hit by sharp cut-backs in metals mining and taconite pellet production, by a major curtailment and closure in a wood products company, and fierce competition for the tourist dollar. Unemployment is unacceptably high, as Table I-1 shows, relative to the State and the Nation; Table I-2 outlines estimated unemployment totals for the Range. Table I-3 outlines covered employment by sector in the Arrowhead Region.

In the mining sector, production dropped sharply in recent years. The Minnesota Mining Directory shows taconite production capacity of 60 to 65 million tons. However, actual production declined from 56.2 million tons in 1979 to 25.1 million tons in 1982, and slightly increased to 32.5 million tons in 1983 (estimated). As a result, employment contracted drastically during the past six years: from a high of 16,450 in August 1979, to a low of 4,960 in November 1983, nearly a 70 percent drop. Since then, the level has recovered over two years to about 7,500. However, very recent events are not favorable; for example, the bankruptcy of Wheeling-Pittsburgh Steel Company has direct impacts on the Butler Taconite mining operation near Babbitt. The Bureau of Business and Economic Research, the University of Minnesota at Duluth (UMD) calls the outlook for jobs in mining "uncertain" in its Forecast 1985. The most optimistic statement it could make was that no increase could be expected in 1985 over the 7,500-job level of 1984. The Bureau's longer range projection (3 to 5

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* We define the Iron Range, in general terms, as the same as the 6-county Primary Taconite Tax Relief Area (see Figure I-1); the Iron Range communities are those in the Vermilion Range, the Cuyuna Range, and the Mesabi Range; the Arrowhead Region is the seven-county region including Duluth (see Appendix A).

TABLE I-1

PERCENTAGE UNEMPLOYED, 1981 - 1984

Area	July 1981	Jan 1982	July 1982	Jan 1983	Nov 1983	April 1984
Arrowhead Region	7.0	12.8	18.5	22.1	16.0	12.8
! ate of Minnesota	4.9	7.4	7.4	10.4	6.8	6.5
United States	7.3	9.4	9.8	11.4	8.1	7.6

Source: Arrowhead Regional Development Commission (ARDC).

TABLE I-2

ESTIMATED UNEMPLOYMENT TRENDS IRON RANGE COMMUNITIES

(Number Unemployed)

Year	St. Louis	Itasca	Total
1978	2,826	1,220	4,046
1979	3,319	1,440	4,759
1980	5,936	2,429	8,365
1981	4,843	2,096	6,939
1982	7,535	2,411	9 946
1983	12,807	3,017	15,824
1984*	7,535	3,411	10,946

*Preliminary, for February only; see Appendix A for definition of Iron Range communities

Source: Department of Employment Security, Minnesota.

TABLE I-3

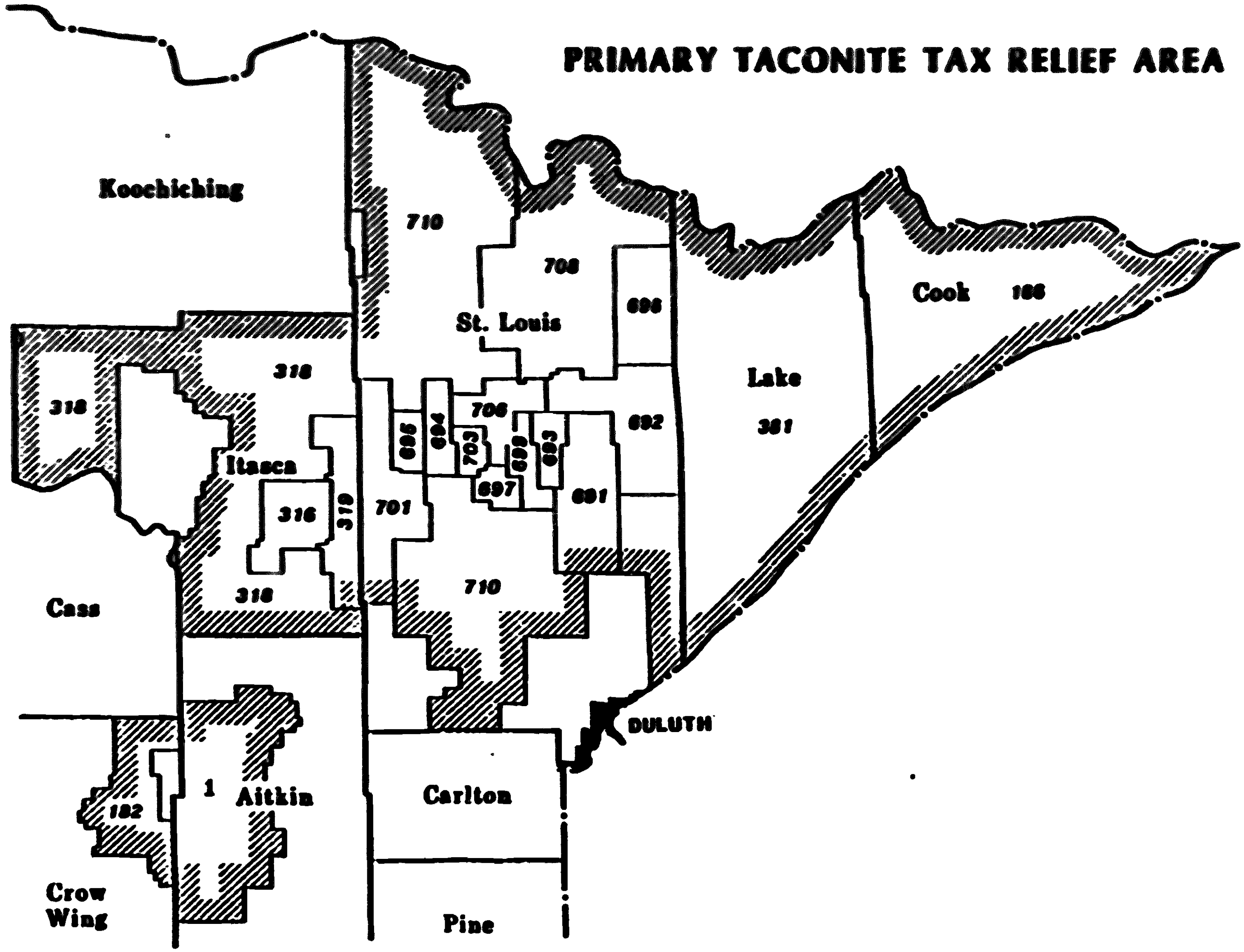
COVERED EMPLOYMENT IN THE SEVEN COUNTY ARROWHEAD REGION

	1976			1983		
	Duluth	Rest of Seven County Area	Total	Duluth	Rest of Seven County Region	Total Seven County
Total Employment	44,776	68,126	112,902	39,320	60,242	99,562
Total Unemployment	(2,800)	(7,999)	(10,799)	(4,850)	(20,982)	(25,832)
Agriculture, Forestry and Fishing	NIL	≈ 322	322	NIL	≈ 387	387
Metal Mining	NIL	≈ 13,516	13,516	NIL	≈ 7,130	7,130
Construction	1,776	6,651	8,427	876	2,092	2,968
Manufacturing	6,000	9,548	15,548	3,650	8,604	12,254
Food Products	NA	NA	(2,242)	NA	NA	(949)
Apparel	NA	NA	(919)	NA	NA	(129)
Lumber/Wood Products	NA	NA	(1,935)	NA	NA	(1,700)
Printing and Publishing	NA	NA	(1,319)	NA	NA	(1,543)
Fabricated Metals	NA	NA	(999)	NA	NA	(844)
Machinery (exc. Electrical)	NA	NA	(1,221)	NA	NA	(890)
All other (including Paper)	NA	NA	(6,913)	NA	NA	(6,199)
Transportation, Communications and Utilities	4,400	1,058	5,458	3,245	1,796	5,041
Wholesale Trade	2,400	2,272	4,672	1,763	1,862	3,625
Retail Trade	9,500	11,866	21,366	8,664	12,104	20,768
Finance, Insurance and Real Estate	1,700	1,885	3,585	1,759	1,923	3,682
Services and Mining	9,800	8,252	18,052	11,478	9,846	21,324
Government	9,200	12,756	21,959	7,880	14,503	22,383

Source: Glenn Growseth, University of Business and Economic Research, telephone conversations, 4/29/85. 5/28/85.

FIGURE I-1

PRIMARY TACONITE TAX RELIEF AREA



Source: Office of the Legislative Auditor, Economic Development, (March, 1985).

years) for the Iron Range region closely resemble the expected growth pattern of the entire State. But, it also asserts that the presently ailing mining industry will continue to be an important industry to northeastern Minnesota for many years to come.

In the the timber and wood products industry, precise and up-to-date information on employment and production are difficult to obtain because of the mix of commercial forest land ownership and the mix of products. From standing timber to markets, the forest industry is generally-labor intensive. Within the seven-county Arrowhead region, pulp and paper production provide the most jobs--an estimated 5,000 to 6,000 in 1983, with lumber and wood products about 1,700 jobs, and forestry itself less than 400. Major manufacturers in Northeastern Minnesota are:

- Blandin in Grand Rapids, with a new 140,000-cord plant (1982);
- Potlatch in Cook, Bemidji and Cloquet, with two new 160,000-cord plants;
- Northwood Paperboard with a new 40,000-cord plant in Bemidji (1982);
- St. Regis with a new 60,000-cord plant in Sartell (1982);
- Boise Cascade at International Falls; and
- Louisiana Pacific with announced plans for a major investment in Two Harbors.

Of these developments, none is in the immediate area of Iron Range cities and towns. Smaller-scale lumber and wood products companies are widespread throughout the region, but the market for these products appears to be relatively unattractive for the near future.

None of the economic sectors is more fragmented than the tourism/recreation "industry."* Comprising resorts, beaches, ski slopes, sports facilities, restaurants, motels, campgrounds and more, the industry is ubiquitous, seasonal, and constantly changing. As a result, employment is very hard to measure, and there is no consistent measure of sector production. Competition for the tourist dollar is fierce among regions, and promotional activities abound. Wages are generally low throughout the industry, often including in-kind meals-and-lodgings compensation for service and maintenance work.

*Wood, Thomas J., Analysis of the Economic Impact of Travel on Minnesota Counties for 1983, Tourism Management and Development Center, School of Business and Economics, UMD, January 1985.

Several estimates of State-wide, regional and local employment have been attempted. A recent analysis* is very informative. Five metropolitan impact centers in the State were said to have drawn 70 percent of the $4.4 billion spent in Minnesota in 1983. The other 30 percent was sharply focused in three distinct regions: Area I, Brainerd/Crow Wing and Walker/Cass counties; Area II, Ottertail/Douglas/Becker counties; and Area III, the "North Shore Corridor" counties of south St. Louis, excluding Duluth (one of the metro impact centers), Lake, and Cook. Trade and tourism are the reported mainstays of the three areas' economic base (see Table I-4). Unfortunately, the Iron Range is:

> ...completely surrounded by abundant tourist and recreational amenities but is not itself, with its devastated land disturbance from a century of mining, either the kind of concentrated lake region for which Minnesota is famous, nor is it outstanding for scenic beauty of a kind that attracts the environmentally sensitive tourist. Moreover, while the six counties could claim 13,167 tourism employees, nearly <u>twice</u> the number in taconite mining and processing, the total wages of these widely-dispersed and largely seasonal service-type workers is probably less than one-half the total wages of mining industry workers. Hence, the economic multiplier effect of the tourism sector is sharply lower than is that of the mining sector activities. (Wood, 1985)

With the sharp downturn in mining, and the lack of major growth in the other major employment groups -- forestry and tourism -- there is evidence that labor-force withdrawal (probably out-migration) is occuring in the Iron Range. For instance, the seven-county labor force including Duluths declined from an annual average of 148,172 in 1982, to 140,463 in 1984 -- a drop of 5%. This decline in labor force size started as early as 1980 when the size of the labor force was 148,628.

B. ECONOMIC DEVELOPMENT STRENGTHS OF THE IRON RANGE

The Iron Range has many <u>positive features</u> critical for future economic growth.

1. <u>Natural Resources</u>:

   a. Mining -- After 100 years of mining, most of the iron ore in the region is gone--some 3.5 billion tons of its, shipped to the Nation's steel mills and worldwide markets. But taconite, the "soft" iron ore bodies generally occurring in deposits beneath the once thick seams of hematite iron ore, remains in abundance. Some say reserves are enough for up to 200 years at the Nation's current rate of declining demand.

TABLE I-4

TOURISM-GENERATED EMPLOYMENT BY COUNTY, 1983

Ranking	County	Employment	% Tourism Employment to Total Employment
1	Cook	1,207	60
3	Crow Wing	3,318	22
4	Aitkin	731	16
5	Lake	510	16
11	St. Louis	6,339	8
13	Itasca	1,062	7

Source: T. J. Wood, Analysis of the Economic Impact of Travel on Minnesota Counties for 1983, (January, 1985).

Other minerals may prove significant in the future of the Iron Range. There are known deposits of copper, nickel, manganese, uranium, gold, silver, platinum, titanium, aluminum, cobalt and graphite. The Duluth Gabbro complex, a formation lying along a 30-mile band between Ely and Hoyt Lake, contains large but low-grade copper and nickel deposits, the largest in the United States, with minable grades of material containing an estimated 4.4 billion tons of copper/nickel. These estimates do not include the Minnesota Greenstone formations, an extension of Canada's mineral wealth in lead, zinc, gold and silver. The Cuyuna Range is considered to have a high potential for manganese.

b. Forest Resources -- Nearly one-half of Minnesota is physiographically defined as a forest region, and one-third of the State's total land use--almost all in the northeastern quandrant--is classified by the State as forest land. In contrast to mining, timber harvesting under-utilizes this renewable resource, leaving an abundance of over-growth spruce, balsam fir, birch, aspen, and pine stands. The resource is also said to be relatively less prone to disease and insect infestation and thus to less resultant depletion than is timber in warm and humid forest regions of the Nation. Within this extremely favorable timber and wood products supply outlook for the State, the once-neglected but more recently sought-after aspen (the only significant hardwood) is over-mature and will die out unless harvested, and the forests will convert naturally to the softwood balsam fir and spruce.

c. Water -- Water is in abundance throughout the region; the potential for water-based recreational uses (including fishing and hunting, boating, swimming, and camping) is significant. Current requirements for industry and municipal-domestic use are minimal. While the immediate Iron Range environs are less well-endowed with recreational water bodies, an eleven-county Arrowhead Region defined by a tourism promotional group called the Minnesota Arrowhead Association contains over 4,000 lakes and 2,000 rivers and streams. Within this same region, there are over 100 State and National Parks, Campgrounds and Recreation areas.

2. Human Resources:

A common misconception is that the Iron Range work force is essentially several thousand high-paid miners, and little else. Perhaps understandable in view of its past single-industry dependence, the facts are quite different for the six-county Taconite Tax Relief Area. Tables I-5 and I-6 show percentage breakdowns of all employed persons by occupational classification and major industries in 1980.

TABLE I-5

EMPLOYED OCCUPATIONAL SKILLS, 1980
ARROWHEAD REGION COUNTIES

Classification	% Of Employed
Executive/Managerial	9.2
Professional Specialty	12.3
Administrative Support/Sales/Clerical	26.6
All Services	16.3
Farming, Fisheries and Forestry	1.9
Precision Production, Crafts, Repairs	16.0
Machine Operators, Fabricators, Assemblers	6.1
Movers, Transporters, Laborers	6.4
Handlers, Equipment Cleaners, Laborers	5.7
TOTAL	100.0

Source: State Planning Office, Minnesota.

TABLE I-6

EMPLOYED PERSONS BY MAJOR INDUSTRIES, 1980
ARROWHEAD REGION COUNTIES

Industry	% Of Employed
Farming, Fisheries, Forestry, Mining	12.6
Construction	6.4
Manufactured Goods	11.3
Transportation, Communications, and Public Utilities	8.4
Wholesale and Retail Trade	21.8
Finance, Insurance and Real Estate	3.9
All Services	30.7
Government	5.3
TOTAL	100.0

Source: State Planning Office, Minnesota.

These data do not separate out the City of Duluth (not in the Primary Taconite Tax Relief Area), nor the occupational and industry classes in St. Louis County; nevertheless, there is a remarkable diversity in skills and employment in all counties, irrespective of significant mining activities. Especially impressive is the level of precision production skills, which almost exceeds the sum of the last three listed occupations in the skills table (which are normally associated with mining).

The following local conversations offer the best insights on the quality of the labor force, necessarily a highly subjective matter:

- From a miner: "I've got 29 years in with the same company... one year to go. I'm a heavy equipment operator...hate to see the young men get laid off first, but I figure I can operate the heavy stuff better than they can, and they can adjust to other jobs better than I can. We'll never leave the Iron Range...best place in the whole State."

- From President of a large community-owned bank: "The range has a horrible image problem...but the workers here are tremendous...hard-working, diligent, intelligent, well-educated, eager to learn new skills. They are our greatest asset, thanks to a great school system."

- From President of a leading manufacturing firm: "I'm proud of my nearly 400 employees...can't say enough for them. They are loyal, conscientious, adaptive, industrious...great manual skills, and this includes the ex-miners...handy with any machine, precision tools. and that goes for the women too. A great work ethic up here...you wouldn't believe. I've got about 75 in night school right now, getting extra technical training."

3. Infrastructure and Utilities

a. Railways -- The Arrowhead Region has excellent rail service provided by seven rail carriers moving bulk commodities such as taconite and wood products. The future of passenger service (providing service to tourists and others) to Duluth from Minneapolis is uncertain due to loss of Amtrak funding.

b. Airports -- While scheduled air service is below average, facilities at 12 regional airports serving general aviation are relatively good.

c. Water Supply -- All communities in the Arrowhead Region have excess pumping capacity. The average monthly water bill of a sample of communities is lower than Minneapolis, but higher than St. Paul and potentially competing communities in Wisconsin.

d. Wastewater Treatment -- A majority of communities have excess sewage treatment capacity--with the exception of Aitkin, Bovey and Virginia. Treatment costs compare favorably with competitive locations in Minnesota and Wisconsin.

e. Electricity and Gas -- Most communities are served by Minnesota Power Company. Typical monthly Minnesota Power electricity bills are lower than average U.S. electric bills.

A majority of communities in the Arrowhead Region receive natural gas service from Inter-City Gas Company. Natural gas costs are well below costs in Minneapolis and St. Paul, and a number of locations in Wisconsin.

f. Secondary School Systems -- Regional secondary schools have a good reputation resulting in a well educated labor force; approximately 60 percent of high school graduates continue with some form of secondary education.

g. Voc-Ed and Higher Education -- There are 5 voc-ed colleges with enrollments over 100 students in the Arrowhead Region. In addition, there are 10 smaller voc-ed colleges located throughout the region.

There are three higher education institutions in the seven county region. These include:

- o University of Minnesota, Duluth--enrollment about 6,600;
- o College of St. Scholastica--enrollment about 1,000;
- o Arrowhead Community College with campuses located in:
  - Hibbing
  - Virginia
  - Ely
  - International Falls

Annually, about 250 students receive certificates from Arrowhead Community College.

Local industry representatives claim that they have been greatly helped by local vocational-technical schools.

C. ECONOMIC DEVELOPMENT WEAKNESSES OF THE IRON RANGE

Relative to other areas in Minnesota and the Nation, the Iron Range suffers from five primary constraints in relation to economic development:

1. Agricultural Land

With a single exception, agricultural land is relatively scarce in northern Minnesota's Arrowhead counties and in the immediate vicinity of the Iron Range townships. The reasons are clear: forest cover and water predominate and the climate is not favorable to crop production. A growing season of 100 to 125 days frost-free does not permit good cropping, even on lands free of swamps, peat bogs and timber stands. The exception is peat, a highly organic "soil" naturally occurring in abundance throughout the Arrowhead counties. Peat has long been a source of horticultural soil conditioning and as an in situ soil planted to specialty truck garden crops such as celery and onions. Recent experiments with peat as an alternative energy fuel, by pelletizing, and as a reductant in hot metal production have shown mixed results. In the Primary Taconite Tax Relief region, a scant three percent of all land was planted to agricultural crops, 90 percent of that planting was to hay, and almost none reported as planted to truck garden crops (1983). Also, an unusually high acreage is in public ownership. For instance in Cook, St. Louis, Aitkin and Itasca counties between 54 percent and 89 percent of the land is publicly owned.

2. Managerial Resources

The effective combination of natural and human resources is difficult if not impossible without bringing to bear the special skills of management. As the IRRRB outlines in its business loan program, management capacity and sound planning are prerequisites to the provision of project financing. Unlike the situation with respect to natural and human resources in the Iron Range community, there is said to be a definite shortage of managerial resources. Again, the reasons lie in the historical evolution of the community as a single-industry dependent economy that did not need a diversity of management skills from within the region. The major programs implemented in the Iron Range to help correct this long-standing problem are:

- The ARDC Small Business Assistance Network, emphasizing matching business needs with available skills;
- Entrepreneurial Program, offering free technical assistance; and
- Business and Technology Centers, providing "incubator" services under license by Control Data Corporation.

Each program has had mixed results, as outlined in Appendix A.

3. Wage Rates

Wage rates are generally much higher in Iron Range communities than in the State and Nation. In December 1984, the Fantus Company found that a representative sample of 12 manufacturing companies in the Arrowhead area paid hourly wages averaging $10.52, or about 15 percent above the national average and 9.0 percent above the state-wide average. A 1984 Minnesota Salary Survey by Area found even wider disparities for certain manufacturing wages -- from 16 percent to 38 percent higher than the Twin Cities and 40 percent higher than state-wide averages. Also, State offices report fringe benefit compensation from Iron Range industrial firms to be well above State and National levels.

4. Financial Resources

The Iron Range community has a broad range but apparently meager supply of private and public investment funds. The ARDC makes this point in its regional assessment of 54 banks throughout the region to determine statutory lending limits and to assess the banking communities "areas of concern" in community lending.

In the private sector there appears to be not so much a shortage of capital as a strong reluctance on the part of major banks to release an ample supply of capital for Iron Range investment (see Appendix A). In the public sector, a proliferation of some 25 types of financing in the past two decades from State and Federal sources were identified by the ARDC: venture capital funding, capital grants, interest write-downs, equity loans, loan guarantees, long-term financing, interim construction and working capital loans, among others. The problems here have not been reluctance to take high risks so much as:

- o Inadequate evaluation mechanisms;
- o Protracted review processes; and
- o Assistance size limits that preclude the larger, more significant investments needed.

5. Distance to Markets and Road Network

Principal roadways within the study area are:

- o US 51, following the Lake Superior shoreline from Duluth to Grand Rapids and on into Canada.
- o US 53, connecting Duluth with International Falls via Eveleth, Virginia and Cook.
- o US 2, connecting Duluth and Grand Rapids.

While the road network is adequate, highway access to major U.S. markets is relatively poor due to the remote location of the Arrowhead Region. Furthermore, lack of Interstate Highways reduces the amount of highway traffic passing through the region to Canada and to other portions of the United States.

In summary, as we view the economic base for the Iron Range, the four basic ingredients or "factors of production" as classical economics defines them, are mutually interdependent to a high degree. An abundance of land (i.e., the mines, forests) is no assurance of viable development, even when combined with a surplus labor force of good to excellent skills. This combination simply lacks the necessary managerial skills to carry out and sustain development, and the critical capital sources to sustain such growth.

D. POSSIBLE INVESTMENT AREAS

Among resource-based industries, the timber and wood products sector appears to offer some of the better prospects for near-term job creation, industrial diversification, and growth in the Iron Range. Within the non-resource-based sectors, electronics related production also seems to offer near-term economic development potential for a given investment of time and money. This low-tech/high-tech combination should be investigated further as sector-specific development strategies are explored. In what follows we also outline possibilities in: agriculture, mining, tourism, and financial industries (all of which are more fully explored in Appendix A). Our analyses of investment and development opportunities are not comprehensive given the time constraints of this study. What follows is our best judgment based on existing data and information sources (see Appendix F), our interviews (see Appendix E), and the knowledge of Arthur D. Little's Industry Experts. Most importantly, it is indicative of what the IRRRB needs to refine* in developing its investment strategies (see Chapter III).

1. Timber and Wood Products

Minnesota has a timber base of about 11.5 billion cubic feet of growing stock, about one-third softwoods and two-thirds hardwood. They are concentrated in maturing forests in the northeast region. the characteristics of the resource are:

- The availability of small diameter software and hardwood provide a good fiber source for printing paper mills.
- Shortage of large diameter logs has limited sawmill capacity.
- An abundance of aspen hardwood (a preferred species) has encouraged waferboard production.
- An abundance of small diameter logs suggests use in other reconstituted board products such as oriented strand board (OSB) and medium-density fiberboard (MDF).

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*As the IRRRB has already started--see IRRRB, Northeast Minnesota Economic (Protection Fund: Long-Range Plan.

Given these resources -- as examined in Appendix A -- four specific and interrelated activities could warrant investment priority:

- Maintaining the Eveleth Nursery, now targeted as surplus and for disposal by the U.S. Forest Service, as an Iron Range forestry research center and source of seedling stock for major reforestation programs.

- Aspen tree farming in the under-utilized agricultural lands in the immediate Iron Range community. Aspen is said to "grow like weeds" and is a preferred wood for high-grade, low-ash, high Btu content pellets. The Nursery might be a catalyst for locally-owned tree farming enterprises. The rationale is that lower-cost alternative fuels are vitally important to improved economic and social conditions.

- Expanded development and marketing of projects using wood fuels. The technology for production of wood pellets has been established for a number of years but the industry record has been one of limited success. High volume users often opt for less expensive wood chips, believing that benefits offered by pellets do not justify the added costs. Devices such as wood gasifiers may expand the use of wood fuels beyond the applications which require investments in new boilers or retrofits of existing solid fuel furnaces.

- Renewed efforts to "market" the Wood Industrial Park in Hibbing. The Park has all the necessary utilities, but is still without an occupant for dimension, structural, and specialty wood products and medium-density fiberboard production*.

2. Non-Resource-Based Manufacturing Sector

The second near-term opportunity sector which may hold promise for job creation and industrial diversification in the Range is the light electronics manufacturing industry. Light manufacturing is differentiated from heavy manufacturing by the ratio of assets to employees. Thus, the lower asset/employee ratio businesses of light manufacturing tend to create more jobs for a given size capital investment.

However, some of these business areas, like semiconductor fabrication, are asset intensive. Others, like information processing equipment, scientific instruments and assembly/production equipment design require large cadres of highly skilled, specialized engineers and workers. These business areas, therefore, are not likely investment targets for the IRRRB. Passive components and contract manufacturing

*See IRRRB, NEPF Long-Range Plan.

are two potentially attractive target areas for IRRRB economic development but competition will be extremely strong both from within the U.S. and from foreign suppliers. In this sector the IRRRB could:

- Help create a broad awareness in the electronics industry for Minnesota's capabilities in contract manufacturing. Promote the Iron Range as an "Electronics Contract Manufacturing Center."

- Encourage the development of supporting infrastructure, such as printed circuit board manufacturing, job training, plating facilities, and electronic parts wholesalers.

- Identify and promote a common, unique, valuable characteristic about Northeast Minnesota contract manufacturers, such as quality and zero-defects production.

3. Financial Services

Financial service opportunities typically encompass:

- Insurance Companies

- Insurance Third-Party Administration

The major criteria such companies use to differentiate areas are:

- Labor force characteristics;

- Operating costs;

- Industry specific factors;

- Infrastructure;

- Business environment; and

- Location or proximity to customers.

The IRRRB region does possess some of the attributes important for branch and claims office operations, such as low clerical labor cost and low rent. If telecommunications services and facilities can handle high speed voice and data transmission and if long-distance services are priced competitively with other parts of the country, this would enhance the attractiveness of the region. Good postal service would also be a positive factor.

Negative factors for this sector include the state's "comparable worth" law. The presence of this regulation in Minnesota will reduce the attractiveness of Minnesota as a site for clerical operations. It will have little or no effect on technical skills (actuaries, or EDP people). Other negative factors include the potential for unionization, the generally adverse corporate tax rates, and the potentially adverse cost structures created by mandatory health benefit regulations in Minnesota.

4. Agricultural Development

For many reasons, the Iron Range has experienced very little agricultural development compared to other regions within the State. Consequently, there is a shortage of some of the key resources required for development including experienced and/or innovative farmers, agricultural input industry support, knowledgeable financing organizations, and functioning market structures. Over time, many of these resource shortages could be alleviated with the appropriate public and private support if the other ingredients for a viable development opportunity are present. Perhaps the most serious deficiency is that involving marketing organizations and facilities. The fresh produce business is a very competitive industry and any new participant must be prepared to meet the needs of the marketplace for quality, packaging, service, and adequate supplies. It is doubtful that small farmers can compete in the marketing area independently so it may be necessary to form some type of joint corporate or cooperative marketing organization complete with the requisite cold storage and packing facilities.

As a catalyst for development of peatlands for agricultural production, the IRRRB could play several key roles:

- If farmers are successful in getting some peatlands approved for development and subsequent vegetable production, the IRRRB could provide the capital required for land development costs.
- IRRRB could also provide the funding to build and equip one or several cold storage and packing facilities that will be required to successfully market fresh vegetables.

5. Mining

The decline in taconite mining and processing activity over the past several years is a direct result of declining demand for iron ore by the U.S. steel industry. Over the next decade, domestic steel production is projected to be substantially below the average level achieved in the 1977-81 period; and domestic iron ore production will average about 50 percent of the average production in the earlier five-year period. Thus, the taconite iron ore reserves in Minnesota's Iron Range are unlikely to represent a realistic base for economic development.

While base metals (copper, lead and zinc) and precious metals (gold and silver) have been noted in the seven-county Iron Range region, none has justified commercial exploitation. Nevertheless, the bedrock geology of much of this region has been favorable to the development of base and precious metal deposits and, were it not for the fact that most of the area is overlain by 100 to 200 feet of glacial drift, it is likely that some commercial deposits would have been discovered. The problem is to judge what might be found in this region if exploration is encouraged and what this might mean to the region. There is little the IRRRB can do, until exploration proceeds, except to support private and public exploration and mapping efforts.

6. Tourism/Recreation

Almost all of the Iron Range community's 36 cities and towns have good but not exceptional recreational amenities and tourist attractions compared to those throughout the rest of northern and central Minnesota. Noteworthy exceptions are the Grand Rapids area and westward into Itasca County, which are prime tourism areas. There are several reasons for this general, region-wide appraisal:

- The Iron Range communities do not have the natural lakes, rivers, wilderness areas and scenic environments that other well-known "Lake Regions" have.
- The Iron Range is several hours driving time from midwestern States and four hours from the Twin Cities, while other resort areas are much closer to these major population centers.
- There are no interstate highways easily linking the Iron Range with major population centers.
- The season for outdoor recreation, except for skiing, is generally less favorable than in other parts of the State.
- There are very few developed facilities and attractions on the Iron Range that might provide the nucleus for a regional center for tourism.
- Many of the present accomodations for vacationers are limited and aging.
- Investment requirements for new resort-type developments are relatively costly per job created.
- The competition from other nearby Minnesota areas, not to mention out-of-state competitors, for the tourist dollar is fierce.
- Distant resorts are every year more readily accessible by low-cost air travel.

Many of these negative factors are exogenous to the region. Many however can be traced to the long history of the Iron Range as virtually a captive series of mining communities. This history, and the problems to be overcome, preclude early development of the Iron Range as a tourist industry center. Meanwhile, for the medium-to-longer-term, some interesting ideas, such as a theme park of historical interest, the ethnically-based "village" concept (as in Solvang, California and Helen, Georgia), and a winter sports complex, probably warrant a commitment of planning funds and market analyses (see Appendix A).

E. SUMMARY

From this brief overview of the Iron Range economy, several points stand out:

- The Range is suffering a major structural shift in its economy with the decline in taconite production. This decline is not a short-term phenomenon, but a direct result of the longer-term realignment of the U.S. competitive position in the steel industry.

- The Range has many economic strengths, such as a good rail system, a strong work ethic, and abundant natural resources. However, there are also significant weaknesses in the area -- lack of financial resources, high wage rates in certain sectors, and underdeveloped managerial resources.

- Given these strengths and weaknesses, there may be development opportunities in the forestry, tourism and non-resource/financial services sectors.*

- None of these will overnight absorb the economic slack from the decline of mining industry. Rather, these opportunities will be difficult to realize and will probably utilize non-mine-related labor at significantly lower wage rates.

While this picture may appear bleak, we believe the IRRRB is uniquely positioned to have a major impact on the economic development of the Iron Range, as we outline in the next Chapter.

*As many studies of the area, in general, support: see IRRRB, NEPF Long-Range Plan; N.E. Minnesota Task Force, Summary Report; and Fantus Company, Target Industry Identification.

CHAPTER II

DEVELOPMENT ACTIVITIES IN TRANSITION

The major problem facing the Range today, as Chapter I outlines, is the under-utilization of existing resources, primarily because of the difficulties in diversifying the local economy from mining to other activities. Ideally, regional groups -- like the IRRRB -- can help speed that transition through targeted, highly selective programs. While Chapter I outlined the opportunities and constraints in the Range, this Chapter examines the existing and potential interrelationships of local, regional and state groups in the Range which help determine the appropriate missing role, and scope of the IRRRB. Specifically, this chapter examines four questions:

- What are the future resources and plans of the IRRRB?
- What are the future activities and directions of the other major groups working with or alongside the IRRRB in the Iron Range?
- How can all of these groups best operate together?
- Given the IRRRB's resources and the capabilities of other groups, what should the IRRRB's principal missions be in the Range?

A. THE IRON RANGE RESOURCES AND REHABILITATION BOARD (IRRRB)

The current economic downturn is not unique to the recent history of the Range. In fact, the Iron Range Resources and Rehabilitation Board (IRRRB) was organized in 1941 in response to the severe economic problems then facing Northeastern Minnesota. With the Great Depression, lumber and mining employment dropped precipitously. So severe was the economic decline that in the late 1930s, northeastern Minnesota was named one of six permanently depressed areas in the United States. Designated a regionally based state agency, the IRRRB's "primary concerns and responsibilities are the development of the remaining resources" in the area statutorily defined as the Taconite Tax Relief Area "and the vocational training and rehabilitation of the residents of the region" (MS.298.22, 273.134). Under this broad and flexible mandate, the IRRRB has pursued a number of activities:

- During the 1940s, emphasis was on maintaining existing resource-based industries in the region and meeting the demands of the war effort;

- In the 1950s, the Board sponsored numerous research projects in forestry, taconite, and peat development;
- In the 1960s, with a decline in high-grade ore production, the IRRRB's emphasis shifted to business development and support loans;
- With taconite development and the rise in local employment, the IRRRB refocused its attention on tourism and human resource development, especially the creation of the Iron Range Interpretative Center in Chisholm; and two important new sources of revenue were established in 1977--the Taconite Area Environmental Protection Fund (TEPF) and the Northeast Minnesota Economic Protection Fund (NEPF).
- In the last several years, economic development aimed at "establishing a base for a diversified economy on the Iron Range"* has been the main focus of the IRRRB.

The catalyst for the most recent change in the Board's overall emphasis was the Legislature's appropriation of funds from the Northeast Minnesota Economic Protection Trust Fund (NEPF) to the IRRRB in 1982.

1. Fund Sources

IRRRB revenues come primarily from taconite production taxes levied on a per ton basis, in lieu of local property taxes. The state, to replace these local property tax revenues and "spread the wealth" among all the communities in the Iron Range, distributes the taconite production taxes to cities, townships, school districts, counties, and other organizations. Taconite production tax receipts to the IRRRB from FY81 to FY84 have ranged between 33 percent (FY81) and 11 percent (FY84) of the total taconite production taxes collected.**

The IRRRB specifically obtains funds through three accounts--the NEPF, the TEPF, and the Board Account--and combines these resources for use in three sets of activities--business loans, grants, and internal or agency projects. Appendix B provides an overview of the three types of project activities.

The Northeast Minnesota Economic Protection Trust Fund (NEPF), or 2002 Fund, was established in 1977 as a reserve to be utilized early next century when mineral reserves might be running down. With the more imminent decline in taconite production in the early 1980s, the 1982 Legislature empowered the IRRRB to:

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*IRRRB Action Plan, 6/1/84.

*See Department of Revenue, Minnesota Mining Tax Guide, December, 1984, Table 6.

- Spend $10 million of the accumulated corpus of the NEPF; and

- Spend $7.5 million of the Fund's interest and earnings.

Since then, an additional $13.2 million (as of 6/3/84) of interest and earnings from the NEPF has been received by the IRRRB. As of the end of FY1984, the NEPF had some $27 million in its corpus; annual receipts from the taconite production tax are projected to add $1.8 million in FY1985. The IRRRB is empowered to annually draw down the Fund's interest and earnings.

Total NEPF receipts that can be used by the IRRRB will vary with:

- NEPF taconite tax receipts into the corpus, which have varied between $1.8 million and $9.4 million;

- Interest and earnings yields from the corpus, equivalent to about $3 million/yr. at a 10% yield (withdrawals from the corpus itself require legislative approval);

- Loan repayments; and

- Carry-forwards from previous years, equalling $14 million from FY85.

Given these uncertainties, Table II-1 estimates the projected flow of funds from the NEPF for FY85 TO FY87. Revenues available to the IRRRB from this fund after FY87 are estimated to equal about $7 million/yr. assuming no significant changes in taconite production levels, taxes, or allocation formulae ("steady state").

The Taconite Area Environmental Protection Fund (TEPF) was added to the Board's resources in 1977 as a general use fund for projects ranging from mineland reclamation to local infrastructure grant projects. Funded primarily by taconite production taxes, the TEPF also receives:

- The return of the unallocated school index funds;

- Interest and earnings; and

- Carry-forwards from previous years.

However, varying taconite production levels have resulted in annual TEPF receipt fluctuations from $7 million to $22 million. Table II-2 outlines the projected flow of funds into the TEPF. About $9 million/yr. is estimated to accrue to the TEPF account from FY87 on, assuming a "steady state".

Both the TEPF and the NEPF receive their allocations as a residual after disbursements as made to other Iron Range organizations, such as

Table II-1

Projected NEPF Sources and Uses

(millions of $)

	FY 1985	FY 1986	FY 1987
A) Sources:			
Interest on Investments and Loan Repayments	4.8	6.3	7.0
Carry-Forwards (losses) from previous FY)	14.0	4.6	5.0
TOTALS	18.8	10.9	12.0

	FY 1985	FY 1986	FY1987
B) Uses:			
Grants & Loans	5.0	4.6	5.2[1]
Construction	3.6	0.8[2]	2.0[2]
Peat Project*	0.3	0.0	0.0[3]
Bond Fund	5.0	-	-
Other	0.3	0.5	0.5
TOTALS	14.2	5.9	7.7

[1] The level of funding is dependent on available funds and requests.

[2] Actual new construction for FY86 totals $1.2M, but $0.4M reallocated from Science and Energy Buiding FY87 funds for estimated construction costs for Glen Mine, Oldtown.

[3] Agency peat project is likely to be transferred to UM(D).

Sources: IRRRB estimates, and FY86 Budget (approved 5/85).

Table II-2

Projected TEPF Sources and Uses

(millions of $)

	FY 1985	FY 1986	FY 1987
A) Sources:			
Taconite Tax Receipts[1]	8.8	8.7	8.7
Interest	0.9	0.2	0.2
Carry-Forwards (losses) from Previous FY	7.3	2.6	1.4
TOTALS	17.0	11.5	10.3

	FY 1985	FY 1986	FY 1987
B) Uses:			
Grants and Loans	5.0	8.4[2]	6.0
Construction	4.1	0.0[3]	1.0
Mineland Reclamation	2.3	0.8	0.5
Railroad Construction	1.6	-	-
Other	1.4	0.9	0.9
TOTALS	14.4	10.1	8.4

[1] Actual receipts for FY85.

[2] IRRRB budget estimates for new and phased grants and loans as of May, 1985; these figures may change depending on availability of funds and requests..

[3] Funded out of NEPF.

Sources: IRRRB estimates, and FY86 Budget (approved 5/85).

municipalities and school districts.

The third source of funds, the Board Account, receives a fixed allocation of $1.25 million from taconite production taxes, plus a variable allocation of three cents/ton (taxable) of taconite produced. In addition, the Board Account receives:

- Net returns from agency operations and other sources; and
- Carry-forwards from previous years.

Table II-3 shows projected Board Account revenues; in the recent past, annual tax receipts have ranged from $2.0 to $3.5 million. Total revenues to the Board account are estimated to equal about $4 million/yr. in a steady state situation after FY87.

Finally, the IRRRB administers a small program for Carlton and Koochiching counties, funded by occupation taxes, for economic development loans or grants to businesses located within these two counties. Annual projected allocations are $368,000 per year for FY85 to FY87.

2. Uses of Funds

The IRRRB's mandated role is to help develop broader usage of the region's natural resources and to provide training and rehabilitation support for area residents when the Commissioner of the IRRRB determines "that distress and unemployment exists or may exist in the future...by reason of the removal of natural resources or a possibly limited use thereof in the future." (MS. 298.22). As Chapter I outlines, clearly such "distress" exists in the Range. While each of the funds has a slightly different focus, all contribute to helping offset the economic, environmental and social problems in the area.

NEPF appropriations should provide for "economic rehabilitation and diversification of industrial enterprises."* Projects must result in local job creation, and local economy diversification (especially related to other minerals, alternative fuels, forestry, tourism, and small business development). The tools available include loans, loan guarantees, interest buy-downs, and other forms of private-public financing options including industrial revenue or tax increment bonding authority. But, the Board may only approve those projects where:

- "the prospective benefits of the expenditures exceed the anticipated costs; and

*NEPF Long-Range Plan, 1984.

Table II-3

Projected Board Account Sources and Uses

(millions of $)

A) Sources:	FY 1985	FY 1986	FY 1987
Taconite Tax Receipts	3.4	3.2	3.2
Admissions, Rentals & Miscellaneous	0.5	0.4	0.7
Reallocated Indirect Costs	0.3	0.3	0.3
Carry-Forwards (losses) from Previous FY	3.1	0.6	0.2
TOTALS	7.3	4.5	4.4

B) Uses:	FY 1985	FY 1986	FY 1987
Gen. Support (and Shop)	0.9	1.1	1.1
Interpretative Center	0.7	0.5	0.8
Research Center	0.3	0.2	0.2
Planetarium*	0.2	0.0	0.0
Glen Building	0.4	0.6	0.7
Giants Ridge	2.3[1]	1.3	1.3
Grants	0.6	0.3	0.0
Other	1.3	0.3	0.3
TOTALS	6.7	4.3	4.4

* May be spun-off in 1985.

[1] FY85 includes developmental funds of $1.5M

Sources: IRRRB estimates, and FY86 Budget (approved 5/85)
1985-87 Biennial Budget (draft)

- in the case of assistance to private enterprise, the project will serve a sound business purpose." (MS. 298.296)

Up to June 1984, the main areas in which these funds have been used are:

- Common Bond Fund Reserve -- $5 million
- Bank Participation Loans -- $4.7 million
- Boiler Conversion Grants and Loans -- $4.1 million
- Construction of part of the Iron Range Interpretative Center -- $2.5 million
- Construction at the Giants Ridge Ski Area -- $2.3 million
- Peat research and development -- $1.8 million

In the future, the IRRRB is planning heavier emphasis on*:

- Business loans, especially more innovative financing options and higher risk loans;
- Completion of the Interpretative Center's and Giants Ridge's expansions and upgradings ($3.6 million, FY85); and
- Development of indigenous wood products, alternative energy (especially peat), high technology, tourism, and mining industries in the Iron Range, (grants and loans, together, $5.3 million, FY85).

Table II-1 shows the projected expenditures for the NEPF.

The TEPF, according to Statute, may support a wide range of projects including mineland reclamation, environmental studies, monitoring of work-related health problems among miners, and local economic development projects including, though not limited to, water, sewer, and public works projects (MS. 298.223). In the future, the main concentrations of TEPF expenditures is projected to be:

- Grants and loans to municipalities for infrastructure developments, though the Board wants to move away from

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*See NEPF: Long-Range Plan

general capital budget items to projects more strictly related to economic development (over $5 million, FY85);

- o Giants Ridge construction ($2.3 million, FY85);
- o Iron Range Interpretative Center construction ($2.2 million, FY85);
- o Mineland reclamation projects ($1.8 million, FY85); and
- o On-going upgrading, beautification projects ($0.6 million, FY85).

Table II-2 outlines projected expenditures for the TEPF.

The Board Account, the smallest of the three funds, is generally used for IRRRB's administration and support expenditures, both within the agency and for its different project operations such as in FY85:

- o $1.7 million for the Interpretative Center and related facilities;
- o $0.2 million for the Paulucci Planetarium; and
- o $0.75 million for Giants Ridge.

In addition, nearly $1 million in small grants and loans are to be made out of this fund for cities and towns in the area, and $2.3 million in total expenditures for Giants Ridge in FY85 (see Table II-3).

In general terms, the three funds are distinguished by the IRRRB staff as:

- o NEPF -- for economic development and business loans;
- o TEPF -- for grants to cities and towns, and large agency projects; and
- o Board Account -- for operating expenditures, and small, "quick-fix" capital grant projects.

As is readily apparent -- and generally accepted by the IRRRB staff -- the enabling legislation for the three funds is so broad and overlapping that the monies can more or less be considered as part of one pool. There appear to be few detailed, specific requirements governing budget allocations because:

- The actual fund amounts can vary so much from year-to-year;
- The enabling legislation is so broad; and
- The IRRRB needs to be flexible and pragmatic in dealing with changing business and economic needs in the Iron Range.

Thus, for example, Giants Ridge construction and municipal grants can be found in varying degrees in each of the three funds.*

3. Future Total Funds Available

Table II-4 shows the projected total sources and uses for the different IRRRB funds. As is readily apparent, the existing uses are close to balancing available (estimated) resources in FY 1986 and FY 1987. This assumes:

- Constant taconite tax receipts -- a highly uncertain assumption given domestic steel production uncertainties;
- Continuation of current legislation governing fund sources and uses;
- Expenditures occur as and when projected.

Making these assumptions, the IRRRB will have, by FY 1987, only about $6 million in available funds for new projects -- a surplus that could easily disappear with any further taconite industry downturns, or unforeseen needs such as construction cost overruns, local emergencies, or higher than expected operating costs. Currently, for example, Giants Ridge is close to covering its operating expenditures during the four-month prime ski season. However, ongoing operational activities at the Ridge during the rest of the year result in a projected $500,000 (approximate) operating deficit for FY86. The Interpretive Center, including Research Library, Photo Lab, and buildings and grounds, cost nearly $1 million dollars/year to operate, yet admissions, at least initially, are projected to be around $100,000 annually when the Center reopens in the Spring of 1986. At both facilities, planned new developments should narrow these deficits, by how much is difficult to estimate and it is doubtful that either facility will fully cover their respective operating cost.

The IRRRB is committing nearly all of its annual resources to its current and wide ranging activities. New programmatic thrusts will

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*However, business loans are primarily made from the NEPF.

Table II-4

Projected Total Fund Sources and Uses for the IRRRB

(in millions $)

A) Sources:	FY 1985	FY 1986	FY 1987
Tax Receipts	12.2	11.9*	11.9
Investment Interest, Loan Repayments, Miscellaneous, Indirect Costs	6.5	7.2	8.2
Carry-Forwards (from previous FY)	24.4	7.8	6.6
Carlton and Koochiching County Fund	0.4	0.4	0.4
TOTALS	43.5	27.3	27.1

B) Uses:	FY 1985	FY 1986	FY 1987
NEPF	14.2	5.9	7.7
TEPF	14.4	10.1	8.4
Board Account	6.7	4.3	4.4
Carlton and Koochiching Grants	0.4	0.4	0.4
TOTALS	35.7	20.7	20.9

*Assuming TEPF receipts are not reserved for the following year.

Source: IRRRB estimates, and FY86 Budget (approved 5/85).

either require retrenchments in existing activities, or deficit financing. Looking beyond FY 87, the IRRRB may have between $5 and $15 million a year annually to put into new projects depending on tax receipts, operating requirements for different agency projects (roughly $3 to $4 million/year depending on project profitability) and major construction commitments.

B. OTHER STATE, REGIONAL AND LOCAL INSTITUTIONS

There are six major groups whose responsibilities directly or indirectly overlap with those of the IRRRB: the Arrowhead Regional Development Commission (ARDC), the Department of Energy and Economic Development (DEED), the Department of Natural Resources (DNR), the Natural Resources Research Institute (NRRI), and the University of Minnesota, the Legislative Commission on Minnesota Resources (LCMR), and local groups including Chambers of Commerce, the Arrowhead Community Economic Assistance Corporation (ACEAC), and the Blandin Foundation. Their activities and policy directions are summarized below.

1. The Arrowhead Regional Development Commission (ARDC)

The ARDC is a regional planning and development agency serving the seven-county Arrowhead Region of northeastern Minnesota, including Duluth. ARDC's focus is to provide services, such as technical advice, coordination of available resources, and consulting services, to local units of government. In addition, ARDC is designated to serve the following functions:

- Regional development commission;
- Area agency on aging;
- Emergency medical services planning agency;
- Economic development district;
- Metropolitan planning organization;
- Developmental disabilities council;
- Certified development corporation;
- Regional census center;
- Community development block grant assistance provider;
- Regional transportation planning agency; and
- Clearinghouse for review of state and federal grant applications.

ARDC has a staff of 34 people and an operating budget of $1.6 million. $240,000 of the budget comes from local property taxes; the remainder is from public and private sector grants and contracts. Roughly $750,000 flows from state and federal sources (primarily EDA). While the ARDC is actively seeking contract work for cities, towns and private groups, it is heavily dependent on public funds, especially from Washington. Three ARDC staff currently work in economic development. In relation to IRRRB, ARDC currently has a contract to provide technical reviews of loan applications to IRRRB. The primary purpose of this review is to determine if the loan requests are for types of investments in basic, "leader" industries targeted by IRRRB (see Appendix B). A second purpose is to determine if the statistical information used in the loan applications is reasonable. ARDC also aids in packaging IRRRB loans with other sources of funding -- including loans and grants from federal agencies and DEED as well as private bank loans.

2. Minnesota Department of Energy and Economic Development (DEED)

DEED is responsible for administering a broad range of programs directly and indirectly affecting economic development. These programs are implemented by eight divisions which include:

- Energy--dealing with conservation, information and technical assistance.
- Tourism--dealing with marketing and providing travel information.
- Community Development--providing grants for local economic development (Small Cities Block Grant Program and Economic Recovery Grant Program).
- Policy Analysis--forecasting economic trends, and conducting research needed to formulate public policy.
- Financial Management--reviewing subsidized business and municipal loan and loan guarantee applications to DEED.
- Economic Development--providing financial incentives, tax credits, business and development agency assistance, and assistance in promoting state tourism and marketing economic development programs.

The total 1985 budget for DEED is projected to be approximately $88 million--of which $26 million is provided by the federal government and administered by DEED's Community Development Division. Staffing for the department is approximately 250. One hundred staff positions are involved directly and indirectly in the department's economic development programs.

The major programs administered by DEED's economic development division include the following four programs.

- Financial Incentive Programs. Central to the financial incentive programs is a $15 million Economic Development Fund. As of February 1985, there was an $8.6 million unencumbered balance in the Fund. Total bonding authority for the Fund is $30 million. Current uses of the fund include:

- Guarantee of tax-exempt bonds issued for small business loans;

- Subsidized loans to small businesses and start-up companies;

- Guarantee of industrial revenue bonds issued for small or large companies not qualifying for other assistance programs.

o Tax Incentive Programs. DEED is responsible for designation of enterprise zones in distressed areas. If a company locates in these zones, tax credits may be granted. According to legislation passed in 1983, up to $35.6 million in foregone tax revenues may be distributed to qualifying businesses.

o Assistance and Information Programs. These programs provide research, technical assistance and training to small businesses and local development agencies.

o Promotion Programs. Promotion programs run by DEED focus on promoting business retention and expansion through a $1.1 million advertising campaign.

As is evident, DEED has many overlapping functions and responsibilities to IRRRB -- particularly in energy, tourism, and economic development -- though with a statewide perspective. DEED has worked with the IRRRB in a number of areas, especially loan and grant support for new or expanding businesses in the Iron Range. In addition, DEED has directly aided a number of cities in the Range (such as Hibbing, Virginia, and Mountain Iron) to encourage new economic growth. However, from a number of interviews and a brief analysis of DEED programmatic grants,* our general sense is that DEED is not as active in the Iron Range as in other areas of the state primarily because of the IRRRB's own varied and extensive programs.

3. Department of Natural Resources (DNR)

The Department of Natural Resources (DNR) supports "the development, protection, and wise use of Minnesota's land, water, and wildlife resources." DNR with a budget of $86.6 million in FY 1982, has the following seven main departmental activities:

o Fish Management. The Section of Fisheries helps protect the fishing habitat, improve the game fish habitat, propagate

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*See Office of Legislative Auditor, Economic Development, Tables 4.1, 4.2, for examples.

and distribute fish, and rehabilitate lakes for fishing and recreational use. The Section also has an extensive survey program and research program to improve the state's fish populations.

- Wildlife Management. Primary activities include the acquisition and management of State Wildlife Management Areas, conducting flora and fauna surveys/research, developing hunting regulations, and environmental reviews.

- Ecological Services. The Ecological Services section provides technical support in biological and chemical laboratory services within DNR. The section has five working units: a biology laboratory, a chemistry laboratory, a monitoring and control unit, surveys and review unit, and special projects unit including lake mapping and stream flow analysis.

- Forest Resource Management. Major functions of the forest management program include: forest fire protection on 22.8 million acres; insect and disease protection on 16 million acres; management of 4.6 million acres of state-administered forest land; forest and shade tree management assistance; and assistance to improve the utilization and marketing of the state's timber resource.

- Minerals Resource Management. The Division manages 10 million acres of state-owned trusts and mineral rights, plus some 3 million acres of state and county peat lands. The Division is also responsible for mineland reclamation. Management activities focus on mineral and peat leasing, evaluation of mineral potential in the state, environmental reviews of mining projects, and the regulation of mining land use impacts. The Department owns more than 18 percent of the Mesabi Iron Range, a large share of the copper nickel resource in the Duluth Complex, and nearly one-half of the state's 6 million acres of peat land (in conjunction with state or county ownership).

- Parks and Recreation Management. The Division maintains and operates 58 state parks, 17 waysides, and 6 recreational areas. The Division also has the responsibility for acquiring, developing, maintaining, and grooming state trails, DNR trails, state forest trails, and state park trails. Over 1,000 water-access sites are operated by the Division, as well as various river-oriented recreation facilities.

- Water Resources Management. This includes: an hydrology section which provides technical analysis, investigations, and evaluations of ground water, surface water, and local climate regimes; a flood plain and shoreland management section; and a policy and planning section for the development and integration of water resources policy within the Division and the state.

In the future, DNR aims to complete a series of information systems (such as water and ground water); intensify lakeshore management; identify and develop new minerals potential; and develop a comprehensive, long-range plan for managing fish and wildlife. Of particular interest to the IRRRB are DNR's plans to: intensify forest management; promote the use of timber resources for economic development; help stabilize the commercial forest land base; promote mineral exploration; promote marketing and utilization of industrial minerals; accelerate the detailed inventory of peat land; and seek funding to accelerate the acquisition and development of recreational lands.

The IRRRB and DNR have worked together in a number of these areas in the past, such as Wilderness Valley Farms (a peat production demonstration project), mineland reclamation and timber inventories. Still, as with DEED, the IRRRB could be said to duplicate, and possibly displace, DNR activities in the Iron Range particularly in the areas of mineland reclamation, park management and environmental protection.

4. Economic Development Resources of the University of Minnesota

The University of Minnesota has been taking an active role in economic development in two general ways: The Natural Resource Research Institute and on-going faculty research.

a. Natural Resources Research Institute (NRRI). In 1983, the Minnesota Legislature and the University of Minnesota established the Natural Resources Research Institute, which is currently located at the Duluth Campus. The mission of NRRI is to create private sector employment through the development of Minnesota's natural resources. To do this, NRRI intends to cooperate with community, industry, state and university agencies to develop technologies that will allow Minnesota products to compete worldwide.

As part of this effort, NRRI will facilitate grant and contract research within the university to obtain scientific knowledge needed to support technologies being commercialized.

NRRI's two-year budget is $2.5 million. In addition to establishing research lab space, the budget is being used to hire a director and four associate directors. Associate directors are in charge of four primary areas of study which the NRRI will promote. These areas are:

- Energy--with focus on utilization of forest residues and renewable and consumptive uses of peat.

- Minerals--with focus on search for ways to make Minnesota's iron ore more competitive in the world marketplace and on exploration and development of nonferrous metals and industrial minerals.

- Biomass--with focus on development of new value-added forest products as well as horticultural, chemical and energy development of peat.

- Water--with focus on development of aquaculture and fisheries, attraction of industries with heavy volume water needs as well as expansion of tourism and recreation industries.

The IRRRB is particularly interested in working with the NRRI in the energy and minerals sectors.*

b. Other Economic Development Initiatives. Faculty members and their research expertise offer important development resources for the area. The University has particular strengths in the study of:

- Forest products and peat development;
- Agricultural development;
- Mineral development; and
- Tourism.

Such faculty resources are available for consultation individually, and occasionally collectively, such as through the Northeast Minnesota Task Force (see Chapter I). The Task Force, created in November of 1982, drew upon existing University of Minnesota resources to review the needs of the region and potential development alternatives, providing important data which helped the IRRRB establish its development strategies..

5. Legislative Commission on Minnesota Resources (LCMR)

The purpose of the LCMR is to provide the State Legislature with the background necessary to evaluate programs proposed to preserve, develop and maintain the resources of Minnesota. The projected budget of the LCMR for Fiscal Years 1986-87 is estimated to be approximately $22 million.

1985 appropriation recommendations related to issues of concern to IRRRB include:

- Quantitative estimation of minerals--$390,000;

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*See NEPF: Long-Range Plan.

- Recreation grants program--$4,000,000;
- Analysis of cost structures for blast furnace steel making using Minnesota Taconite--$50,000; and
- Assessment of forest product development opportunities for Minnesota--$200,000.

Past studies funded by LCMR have included:

- Peat industry studies -- $443,000;
- Peat and biomass energy studies -- $357,000;
- Direct reduction technology evaluation -- $213,000;
- Copper nickel study -- $150,000; and
- Evaluation of mineral potentials -- $530,000.

Between 1963 and 1983, LCMR was appropriated approximately $189 million. According to an LCMR 1984 Biennial Report to the Legislature, these funds have been used to leverage approximately $138 million in federal and local funds.

To establish its priority areas, LCMR conducts a series of Issues Seminars and public hearings every two years. These meetings review past programs supported by LCMR, as well as existing State programs of natural resource management. Issue areas are selected, and specific programs outlined for Legislative support.

6. Local Groups

There are a number of local development efforts throughout the Iron Range. For example, the Itasca County Development Corporation, based in Grand Rapids, seeks to provide assistance to local business start-ups in the area. The Corporation supports projects that will benefit the local economy and provide a revenue stream back to the Corporation. To date, the Corporation has helped open a business technology center both to advise new business start-ups and provide low-cost incubator space. They have also built a greenhouse alongside the local power plant in Grand Rapids utilizing recycled hot water for tree seedling development. The Corporation hopes to start a small investment or venture capital firm in the near future.

Several communities also have active Chambers of Commerce. The Hibbing Chamber, for example, has four staff people, several of whom devote a significant portion of their time to economic development activities. The Hibbing Chamber has worked with the IRRRB to set up a wood products industrial park. They also offer advice and provide referrals to start-up businesses.

Finally, there are several quasi-regional groups operating in the Iron Range such as the Arrowhead Community Economic Assistance Corporation (ACEAC), and the Blandin Foundation. The ACEAC serves Lake, Cook, and St. Louis counties (excluding the city of Duluth). Founded in 1982, it manages a revolving loan fund and offers assistance to communities, non-profits, and for profit businesses which substantially benefit low-income, unemployed, or minority persons. Projects can be industrial, retail, or commercial operations. To date, the Corporation has invested in:

- Peat harvesting;
- Secondary wood products manufacturing;
- A rafting operation; and
- A fiber fuels project.

The Corporation typically provides administrative support for project development, some direct financial support, and loan packaging depending on need and staff availability.

The Blandin Foundation, with an endowment of roughly $125 million, is a non-political organization with the following loan or grant criteria:

- Their projects cannot supplant projects that tax dollars should be supporting (such as building a fire house);
- Their projects should "raise the quality of life";
- They look to fund projects that ultimately are self-supporting;
- They serve Grand Rapids first (with some capital projects), then the region, and then the state;
- Their main areas of concentration are: the arts, education, economic development, health and human services, and leadership development.

In economic development, the Foundation focuses on small business development to increase local job creation. They recently helped set up a venture capital fund of roughly $4 million ($1 million from the Blandin Foundation and $3 million from the federal Small Business Administration). The Foundation is also working to:

- Establish an economic market for under-utilized tree species, especially related to furniture manufacturing;
- Coordinate all local tourism activities, and fund targeted marketing strategies;
- Promote the area as a second home area; and

- Bring more government offices into the Iron Range.

C. A REGIONAL ECONOMIC DEVELOPMENT MISSION FOR THE IRRRB

As is evident from the brief overview above, there are a variety of groups interacting in a multitude of ways in the Range. Activities range from job creation to research, cultural events to environmental protection, social services to infrastructure development. In a sense, all of these support the local and regional economy. For example, environmental pollution typically reduces not only the growth potential of existing firms but also of the region in its attempts to attract outside firms. But, as Chapter I outlines, the Iron Range is in such difficult economic straits today that local job creation and regional development must be the primary, overriding concerns.

One could argue that such a view is shortsighted: the economic problems of the Range could be seen as essentially externally induced and able to cure themselves in time. Some could say that right now, the emphasis should be on increasing the "quality of life" through investments in cultural preservation and recreational facilities, for example. Certainly such activities should not be excluded, but they cannot form the bulk of regional expenditures for the simple reason that people will not stay in an area because of its cultural base, but because there are good jobs. And, targeted investments can both bolster local firms -- as with Hibbing Electronics Company -- and be the necessary catalyst to attract new firms -- as with Louisiana Pacific.

Economic development should encompass these wider cultural, social and environmental issues, but within a framework that relates expenditures and activities to the growth or decline of an area's economy. While economic development offers no "quick-fix," it enables an area or region to build on its strengths and target those opportunities most likely to succeed. It offers tools to help an area like the Iron Range aggressively compete for new developments, and at least maintain existing activities.

1. Need for Economic Development

From this chapter's brief overview of the groups interacting in the Range, it is clear that leadership in regional economic development is lacking and many of the region's economic development needs are not being adequately addressed. For example:

- Even with its relatively high level of funding, and large economic development staff, DEED is not that "visible" in the Iron Range. This is not necessarily through any fault of DEED, but probably the willingness of the IRRRB to aggressively take on responsibilities that are typically handled by DEED in other areas of the state. Thus, it could be said that regional funds and activities may be supplanting rather than adding to state development support for the region.

- Tourism development and promotion in the Iron Range seems to be badly fragmented. Between the University of Minnesota at Duluth, the IRRRB, the Department of Tourism, and several local groups, there does not seem to be any clear allocation of responsibilities or direction.

Who can play such a regional economic development role?

- Universities and other academic institutions will continue to play a supportive role in economic development, primarily through technical evaluations and programmatic analysis (such as the Northeast Minnesota Task Force). Rarely will any academic or research institution be motivated or capable to take a leadership position in economic development.

- Communities, Chambers of Commerce, and quasi-regional groups such as the Blandin Foundation, have been quite effective in promoting economic development of their respective areas. However, they alone cannot provide the leadership necessary nor the resources required for the Iron Range region.

- The primary regional planning group, the Arrowhead Regional Development Commission, faces an uncertain funding future, is to some extent still refining its longer term mission, and includes Duluth in its planning territory. The city, while hurt by the decline in taconite production, is a major port with very different -- and often competing -- needs from those of the Iron Range.

The Iron Range region needs greater cohesiveness and direction to guide and support the economic development process, to provide a continuity of mission, and to maximize the opportunities for development. Because there are so many actors, cutting across each other in so many different ways, in a sense a void exists in economic development in the Iron Range region. Since the IRRRB has a relatively large income, strong leadership, and a distinct regional focus, it has begun to play more of an economic development role. As outlined in the Legislative Auditor's report (March, 1985), and as we examine more closely in Chapter III, the difficulty is that the IRRRB is not staffed or organized to shoulder a major economic development role. Indeed, the very attempt to do too much, without the necessary organizational structure, is a primary cause for this study. In addition, because of existing commitments, the IRRRB is relatively limited in its future ability to fund new activities directly linked to job creation, for example. As can be seen in examining the IRRRB'S wide range of projects, the agency sometimes addresses economic needs or objectives, sometimes social objectives, sometimes environmental concerns.

Each of these three objectives--economic, social, environmental--is a valid rationale for any governmental agency's existence. But, it has been learned in many natural resources-related public agencies that it is difficult to serve multiple objectives when public monies are being spent. The U.S. Corps of Engineers and the U.S. Bureau of Reclamation, two well-known federal resource-based development agencies, for example, found that attempts to maximize the benefits of national growth and income with federal funds might not always serve the best interests of a particular region without reducing regional benefits somewhere else. Similarly, they found that economic objectives were sometimes inimical to environmental improvements or social issues.

As a result, these agencies had to choose a primary objective, and a subsidiary objective for which limited accomplishments were set, subject to first achieving the primary goals. There are close parallels with the IRRRB, a State agency but with a strong sub-state regional orientation, empowered to commit what would essentially be local funds (the taconite production tax in lieu of local property taxes). Other State agencies typically have broader constituencies, and there are other sub-state regions with their own needs to consider, such as the farming communities of the southern counties in these times of acute economic distress.

2. Role of the IRRRB

The primary objective or role of the IRRRB can be narrowly or broadly defined. Typically, economic development involves two parts:

- Overall policy and leadership;

- Funding and technical evaluations of particular projects.

One extreme would be to accept the IRRRB as the regional development body in the widest sense: handling both parts of economic development, utilizing other group and agencies only marginally, and maintaining as extensively as possible the Board's full range of activities (social, economic and environmental). We do not support this approach because:

- While taconite production taxes in the past were distributed to "share the wealth" among all Primary Taconite Tax Relief Area communities, with the retirement of the taconite industry the aim now must be job creation and restructuring of the local economy;

- Because of the wide range of current IRRRB activities and the tenuous nature of the future income streams from taconite production taxes, the resources of the IRRRB are relatively limited;

- Towns and municipalities in the Iron Range, while using IRRRB grants for community development, already obtain a large proportion of the annual taconite production tax distribution;*

- o The problems of local job creation in the Iron Range are large (see Chapter I); and

- o There are many groups which can complement the IRRRB's efforts.

At the other extreme, the IRRRB could be seen as a very narrowly focused agency, concentrating on the funding/evaluation aspects of economic development. For example, the economic development process in the Iron Range could be divided in the following way:

- o Overall Policy Direction: DEED, in conjunction with the ARDC, could work to set the economic development goals and priorities for the Iron Range. The ARDC has already made a start with this in commissioning the large study on Economic Development Strategies for the Arrowhead Region (January, 1985).

- o Funding, Technical Evaluations: IRRRB could then be seen as primarily an economic development investment fund, drawing on the technical expertise of NRRI or DNR where appropriate.

While this is one possible approach, we do not support this extreme either because:

- o Successful regional development requires cooperation and agreement among the people of the region. Experience demonstrates that local residents can successfully undermine even the most thoughtful plans, if such plans are proposed by "outsiders". As our interviews indicate, Duluth and the ARDC are seen as very distinct from the Iron Range.

- o The ARDC has neither the funding nor the clearly agreed upon regional support to shoulder such a role.

- o The Iron Range has very difficult problems that need a regional, specific, long-term focus which the IRRRB can provide.

While not so narrowly focussed, the IRRRB does already play the role of the region's development fund. The IRRRB grants and loans, in many instances, bolstered economic growth through the provision of financing supported and leveraged by private funds. Particularly in the early 1980s, with high interest rates and the major economic downturns in the Iron Range, the IRRRB filled a gap in the financial system through its internal project grants and business loan program. Probably also by its carefully managed business loan program, it

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*Cities, municipalities, counties, and local schools receive the majority of taconite production taxes; see Department of Revenue, Minnesota Mining Tax Guide, December 1984, Table 6.

stimulated other lending agencies to take a more venturesome posture in the provision of debt capital in the Iron Range.

Today, spurred on by local initiatives and success stories such as Hibbing Electronics, local financial institutions are more aggressively providing investment capital in the Range. Also, lower interest rates have reduced the financial impact of the 8 percent differential in the business loans program. The IRRRB is therefore now in a position to emphasize new activities in performing the catalytic role it demonstrated in the provision of investment capital. Fortunately, the IRRRB has always been an organization in transition, and its enabling legislation is sufficiently broad to allow it the necessary scope for change. As the IRRRB has matured and expanded in size, it has constantly added to and modified the services it performs. We believe the IRRRB is ready again to refocus its range of services to include:

- Setting a specific economic development plan and strategy for the Range;
- Adopting a more aggressive policy toward capital provision;
- Supporting targeted research efforts in conjunction with groups like DNR and NRRI, to develop major new projects;
- De-emphasizing capital support grants to cities and localities, limiting its project and management and operational responsibilities, and minimizing social service activities;
- Creating an aggressive marketing and outreach program.

These efforts should not displace local efforts, on the one hand, nor Statewide activities, on the other. Rather, the aim must be to engage all groups within the Range in setting priorities, while utilizing DEED, ARDC, DNR, NRRI, local Chambers of Commerce, and others as much as possible.

D. MISSION OF THE IRRRB AND COORDINATION WITH OTHER INSTITUTIONS

The IRRRB should be first and foremost a regional economic development agency. It should concentrate on:

- Long-term job creation in the Iron Range;
- Broadening the economic base of the Iron Range;
- Leveraging state, federal and private funds in support of regional economic growth.

In order to focus its limited resources on economic development in the region, the IRRRB must build on the relative strengths of other groups as much as possible. In particular:

- Social, cultural and community development should be the principal responsibilities of state social agencies, the Minnesota Historical Society, local communities themselves, and groups like the ARDC or the ACEAC*;
- Resource management, development, and long-term utilization should be the principal responsibilities of DNR and LCMR, with UM(D) and NRRI providing research and testing support for natural resource development in northeastern Minnesota;
- Environmental protection and improvement in the Iron Range should be within DNR's statewide responsibilities;
- Support and coordination of local and regional (including Duluth) economic development efforts should be the primary responsibility of DEED and the ARDC.

The IRRRB can help these other efforts and should certainly tie in with them. Many groups, such as the ACEAC, may continue to be dependent on IRRRB financial support. And, while it may be easy to differentiate roles and responsibilities, it will mean a continuing effort on the IRRRB to ensure that these groups play as active a role as they can in the Iron Range. Given the relatively limited availability of IRRRB resources and the difficulties ahead in achieving real economic growth in the Iron Range, the IRRRB must concentrate on its overriding mission for the near term.

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*See T. Lussenhop, Community-Based Economic Development in Minnesota: An Update, March 1985.

CHAPTER III

ESTABLISHING THE IRRRB AS AN ECONOMIC DEVELOPMENT FUNDING AGENCY

The IRRRB is clearly at an important decision point. In the preceding Chapter, we conclude that the IRRRB should accelerate its current transition towards an economic development agency for the Iron Range, gradually spinning off or reducing other commitments of its unique resources. As indicated in the beginning of Chapter II, continuation of current activities will leave little new, investable funds to take on this more narrowly focussed mission.

A. A TARGETED ECONOMIC DEVELOPMENT PROGRAM AND STRATEGY

The Board and staff need to take a number of steps to provide for a more targeted economic development program and strategy, beginning as soon as possible and aiming to complete them in not less than a year:

Step 1. Prepare a more explicit economic development strategy (5-10 years) and short-range (1-2 years) and longer-range (3-5 years) economic development plan for the IRRRB[1]. This involves:

- o Short and mid range sector-specific development programs and strategies (e.g., for tourism, mining, electronics, forest products, etc.);
- o The basic economic development strategy that the Board will follow over the next 5-10 years; and
- o This statement should be reviewed and revised annually, but it must be established and adopted as soon as possible.

Step 2. Revise resource allocation process. This involves:

- o Allocating a specific annual sum for use in financing economic development in each of these years;

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[1] What is proposed here will differ substantially from the "Long Range Plan for the Economic Development and Diversification of the Taconite Relief Area" which the IRRRB submitted to Governor Perpich on January 1, 1984, pursuant to Chapter 46, Laws of Minnesota 1983. That Plan does not, for instance, include a specific budget by fiscal year, explicit allocations of funds among competing objectives, quantitative targets, and a management system for implementation.

- Within the sum allocated for economic development, first allocating specific sums for use in each principal sector (e.g., forest products, manufacturing, and tourism), and adjusting these sectoral allocations quarterly if necessary;

- Assigning the management of each sectoral allocation and sector development program to a specific program manager, a "sector champion" (some staff members could be asked to manage more than one sector program, at least initially); and,

- Requiring each program manager to present to the Commissioner for approval (a) a written action plan, and (b) a request for approval of any commitment of funds over some specified amount.

- Adoption of general resource allocation and program evaluation criteria consistent with the adopted economic development strategy and program.

Specific criteria may well differ for the different sectoral allocations, reflecting the needs and potentials in these groups.

Step 3. Institute a systematic and proactive project development program to support the sectoral program managers in preparing their annual Action Plans and developing their proposed project commitments.

- Focussed industry/technology targets

- Information network

- Project evaluation system

- Carefully evaluated research programs

Step 4. Create an aggressive marketing and outreach program.

- Attractive and flexible marketing packages (for existing and new companies)

- Regular contact with companies and allocations

- Coordination with other marketing organizations

Step 5. Reinforce and extend the Board's present policy of seeking maximum leverage for its funds from the utilization of other state, Federal and private sector monies or programs.

- Hard loans and soft loans

- Weighting criteria

- Aggressive outreach to other funding agencies

The following sections expand on each of these steps.

1. <u>Preparing the economic development strategy and program statement (Step 1)</u>

The starting place for the IRRRB's economic development strategy and program is the Board's development plan and investment strategy. These will take into account:

- The economic and employment outlook for the region;

- Economic development opportunities and priorities;

- The activities and programs of other local state and federal economic development agencies;

- Private sector requirements for assistance and incentives to expand or locate in the region;

- The Board's resources and potential for leveraging all other assistance programs and sources of capital; and

- Other relevant political and social considerations.

A sound economic development plan, and the related development strategy, must include a clear, current appraisal of the region's economy, its most likely future trends, and detailed specific implementation steps. Parts of such a development strategy are available. For example, the most rigorous analysis of the Iron Range's economy, and of the opportunities for economic development in the Range, is found in the Northeast Minnesota Task Force reports (1983/84). A recent Fantus report for the ARDC outlined the region's general development constraints, though it did not specifically cover the areas examined by the Task Force, and the report's implementation plan concentrated on the ARDC's role in the region. The first Chapter of our report, "The Iron Range in Perspective", outlines what a rigorous and updated analysis of the Iron Range economy should cover, but it is by no means sufficient. Until an analysis along these lines has been carried into considerably greater depth, the Board will not have the basic information that it needs for creating a sound investment development plan and the strategies for carrying it out. This can probably be accomplished primarily through a series of intensive study groups incorporating NE Minnesota Task Force members, DNR specialists, and others where specific technical or industrial expertise is required.

It is important that the IRRRB economic development effort have focus and this is best accomplished by establishing sector-specific development programs and priorities at the outset. This would normally include four steps:

(1) Establishing criteria for industry/technology selection;

(2) Identifying and assessing strategic development opportunities or challenges in each industry sector;

(3) Identifying and ranking target industries/technologies; and

(4) Establishing sector-specific development programs and priorities for industry/technology targeting and selection.

Criteria for industry/technology targeting and selection will vary by industry sector depending on the needs and opportunities of those sectors.* However, criteria designed to select both target industries and potential candidates should cover:

- Preference for "economic-driving or leader" industries, as in the present operations;
- Degree of "fit" with the region;
- Potential for growth and general financial health of the national/regional industry group;
- Financial health;
- Capital intensity;
- Cyclicality of sales and earnings;
- Technological, market, regulatory and political risk;
- Regional economic and employment impact potential;
- Infrastructure, training and local service requirements; and
- Need for economic development assistance.

In the identification and assessment of industry-specific development opportunities and challenges, the staff assigned to project development should be reviewing economic and industry forecasts. They should also seek outside expert advice on the major forces of change impacting on industry, the technology outlook, the industry makeup and

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* See Chapter I for a "first-cut" at the industrial sector analysis from which specific criteria should be developed.

bases of competition and major factors influencing choice of locations for investment (as outlined in Chapter I). Again, the IRRRB is to some extent doing this in their business loan program. The Technical Advisory Committee, for example, is a valuable source of external expertise. The process needs to be more systematically applied across all sectors, and broadened to include greater staff support as well as technical and economic development expertise.

2. Revised Resource Allocation Process and Criteria (Step 2)

Even a well-researched analysis of opportunities and constraints is not enough. The Board must also know what financial resources it will have at its disposal over the plan period -- both for economic development and for financing its other, on-going commitments -- to intelligently allocate these resources. As we outline in Chapter II, the demands on the Board's funds over coming years are likely to be so great as to require it to seek to spin off or otherwise limit its expenditures for competing uses to the maximum practical extent, assuming the IRRRB wishes to develop a meaningful economic development program.

Even when the difficult initial allocation between economic development and other uses has been accomplished and the funds available for financing economic development are identified and reserved for that purpose, there will remain the other formidable continuing task -- identifying and then choosing among the available opportunities for use of the economic development fund.

The Board and staff have clearly demonstrated in the Bank Participation Loan Program an understanding of how to proceed with establishing a strategy and communicating it to decision makers, formulating explicit criteria for measuring how a particular program conforms to that strategy, and applying these criteria to specific funding requests. What is needed is to extend these practices to all of the Board's economic development programs and to apply them rigorously in:

- Allocating economic development funds among the competing sectors; and

- Reviewing specific program and project proposals.

Broadly speaking, the strategy that the Board has increasingly been following -- concentrating on economic development and long-term employment creation -- is the appropriate primary strategy for the foreseeable future. Within such a strategy, the essential criteria will:

- Focus expenditures on the most promising sectors;

- Test the financial viability of all projects;

- Take account of opportunity costs when a particular commitment forecloses the chance to make alternative investments;

- Weigh economic benefits against economic costs to the extent possible:

- Require decision-makers to judge carefully whether a proposed subsidy to the private sector is absolutely needed to induce the desired outcome; and

- Utilize carefully evaluated technical research programs to explore longer range potentials for adding value to natural resource exploitation.

Since most of these criteria are being applied already in parts of the IRRRB's operations, it should not prove too difficult to extend their use across the board to all aspects of the economic development program.

3. Instituting a Systematic and Proactive Project Development Program (Step 3)

A well-organized and smoothly operating system aimed at developing projects suitable for investment of economic development funds and capable of evaluating projects -- whether internally generated or coming from outside institutions -- is a key requisite for success in economic development. Such a system does not yet appear to be in place, although elements of it can be seen in the way the Board has gone about its work in the Bank Participation Loan Program.

How well the project development and evaluation task is carried out is frequently the most important determinant of how successful an economic development agency will be in utilizing its resources to enhance economic activity and employment in a region. Many economic development agencies feel it sufficient to develop attractive assistance programs, advertise, and then react to proposals put forward. While this might be sufficient for economically-advantaged regions, it is not for the Iron Range; what is needed is very much a proactive and systematic approach to the business of developing and evaluating projects.

To be successful in the business of project development, it is important to have three pieces of information:

(1) Spacifically, what you are looking for;

(2) How and where to locate your prospects; and

(3) How to sell your prospects on your jurisdiction.

Most successful project development programs have the following common elements:

- o Focussed industry/technology targets;
- o An effective information network;
- o A strong marketing/outreach program, built on a commitment to cultivate potential investors;
- o An attractive package, coordinated with other development groups (such as DEED) and areas (such as Duluth), with sufficient flexibility to allow tailoring to address specific needs of the investor;
- o A reputation for clear-cut project evaluation criteria and for an efficient and prompt evaluation process; and
- o Political support at the state and local levels.

It is desirable that targets be developed for project development which are consistent with generating the level of activity necessary to realize the Board's objectives and which provide performance benchmarks. Management must establish targets in terms of:

- o Number of opportunities to be generated;
- o Total investment to be generated;
- o Jobs to be created or retained; and
- o Regional impacts to be realized, (e.g., activity multipliers and diversification of the economic base).

It is also essential to have a Plan of Action to implement the program. This should set out the specific tasks to be completed, with a time schedule, and the budget and staff responsibilities involved.

Assuming there is agreement that the project development effort will be proactive and focussed, there are two main components to the task:

(1) An effective information network to learn who is considering new plants or expansions; and

(2) A screening process whereby sufficient information about the company and the project is developed to provide perspective on how they fit with the Board's objectives and investment criteria.

An Effective Information Network

In developing an information network, one would look to establish linkages and possible joint ventures with other state and regional economic development agencies (see Chapter II). It is important to avoid the sense of competing for projects with other development agencies operating in the Board's jurisdiction. The IRRRB should work to include Duluth -- possibly through agencies external to the Taconite Relief Area, such as the ARDC -- in these informational efforts. This will minimize duplication with other groups (see Chapter II). More importantly, it will build a cooperative spirit with Duluth as many of the Range's projects may come from companies expanding out of Duluth, especially in the service/finance/insurance sectors. Similarly, communication links and regular contact should be established with federal development agencies as often they will be approached first for assistance and they keep abreast of company negotiations on plant location across the country.

An industry/company information monitoring system should be established. This does not have to be elaborate, and may simply involve an arrangement with a the state, or university library, or agency external to the IRRRB to track specific trade journals, trade directories, annual reports, or SEC Forms. Examples of information sources for different industries are shown in Appendix D. Maintaining regular contact with banks and the corporate development groups of the leading companies in the region, as the IRRRB is doing, is highly recommended.

A Comprehensive Project Evaluation System for the IRRRB

Closely linked to project identification is project evaluation. A development agency like the IRRRB typically evaluates whether or not to provide assistance to a company* (to finance a new business or a new facility or the expansion or modernization of an existing facility) based on an informed judgment on the following considerations:

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* Typically, economic development agencies in structuring their assistance programs consider:

- What is being offered in competing jurisdictions;
- The relative attractiveness of their jurisdiction as a location;
- The key determinants in the investment and location decisions of the different target industries;
- The opportunities to couple with other development agency programs to provide a comprehensive and tailored assistance package; and
- The limitations imposed by the conditions placed on their economic development funds by legislation or regulation.

- o The probability of longer-term economically viable operations at the facilities to be assisted;

- o Whether the level of economic benefits and job creation for the region is adequate given the level of assistance envisaged, including

  - quality and number of jobs created in the region,

  - level of economic impact,

  - diversification of the region's economic base,

  - technology transfer/enhancement of the region's science and technology capabilities;

3. The risk of default on obligations associated with the financial assistance contemplated; and

4. The "need" for assistance for the project to go ahead considering the level of company investment after debt financing and public assistance from grants and loans and tax credits are taken into account.

Targeting may sound simple, but it is not. Promotion of local investment is a competitive business: between countries, between states, between local and regional districts in a state. While the assistance package is only one ingredient in attracting investment or encouraging companies to expand in the region and not elsewhere, it remains important. The ingredients of a successful project development operation are first, to offer sufficiently generous terms to be competitive; second, to offer a package which addresses the specific needs of the investor. The latter in turn requires an understanding of the investor's industry and his particular situation, flexibility in the assistance programs, and above all imagination and skill -- as the IRRRB has demonstrated in the financial package developed for Louisiana Pacific, for example.

In Table III-1, we set out criteria one would normally wish to review to arrive at a judgment -- financial and other -- on individual proposed projects. Again, the IRRRB project reviews currently incorporate most of these points, but not in a systematic way across all projects.

The staff responsible for project evaluation requires a means of weighting the different criteria so as to be able to rank projects which score relatively high on some criteria but not on others and to consider the considerably different conditions that prevail in each sector. To illustrate, consider the project which scores favorably on Considerations 2, 3 and 4, above, but because there are serious doubts whether it will be economically viable three years hence, scores low

Table III-1

CRITERIA FOR EVALUATION OF
ECONOMIC DEVELOPMENT PROJECTS

CRITERION	INDICATORS
Economic Viability	o soundness of business plan o competitive position of product/ market risk o project rate of return on investment capital o capital intensity and cash-utilization ratio o debt-equity ratio and debt repayment schedule
Risk of Default	o project cash-flow o technological risk o management strength
Need for Assistance	o financial health indicators o historical profitability indicators o maturity of business sector o historical and projected sales growth o expected future financial performance o cyclicality of sales and earnings o credit rating o management strength
Economic Benefits	o quality and number of jobs created/retained o economic impact on region - construction stage - ongoing operation o potential to source goods and services from region o technological transfer

on Consideration 1. If economic viability is given a low weight, then such a project might well proceed in a year when there are relatively few good projects and there are institutional and political pressures for activity and placement of available funds.

Guidelines on weighting are absolutely essential for the project evaluation staff if it is to achieve reasonable consistency in its awards and be able to operate in an efficient manner. Decisions on weights are a responsibility of top management. The weighting profile should reflect the economic development priorities and needs of the region -- in a chronically high unemployment/depressed region, a higher weighting should be given to "economic benefits and job creation" than in a low unemployment region. The weighting profile will also need to vary between sector programs, reflecting differences in program objectives and in the characteristics of the business community to which a program is targeted. For example, for a program directed at supporting new start-ups in high-tech industries, one should give a higher weight to longer-term economic growth potential and acknowledge that the risk of failure is higher than one would expect in a mature industry like insurance company claim-processing operations.

The difficulty of establishing appropriate weights for different criteria is not to be underestimated. It brings to the surface differing views on priorities and opportunities, as well as vested interests. The weight which should be given to the "need for assistance" test, for example, is undoubtedly lower for a project development officer, who has made a considerable effort to sell an investor on the region and the support assistance available, than for top management who will be concerned that public funds not be used unless there is a clear need.

Once targets are identified, this does not preclude funding of projects in other industries when quality projects are presented that have important regional benefits. But in all decisions, finally, it is also useful to employ the concept of a "weighting hurdle" that all projects must achieve to qualify for assistance and, while this should be periodically reviewed, it should not be lowered because of unspent funds.

4. Establishing a Pro-Active Marketing and Outreach Program (Step 4)

As in the case of project identification and project evaluation, there does not yet appear to be in place within the IRRRB organization a well-organized marketing and outreach program although, again, elements of such a program are visible in activities of the Commissioner and other senior staff. Putting such a program in place, probably managed by a full-time executive with experience in marketing techniques, and linking it effectively to the activities of DEED and others, appears to be an essential step towards success in developing a stronger regional economy. As in most areas successful development will depend on a mix of retention/expression building on existing businesses -- all of which need to be supported by an effective marketing and outreach program.

Acknowledging the relatively limited resources of the Board, it is still important to be visible to leading companies in target industries both inside and outside the region, to create a positive image of the Iron Range as a place to invest, and to foster a view of the IRRRB as a responsive, pragmatic organization with which to do business.

To attain visibility, there are four relatively low-cost common routes:

- o Distribution of informative material on the region and on the economic assistance available;
- o Participation in promotion activities of the state;
- o Regular contact with industry associations; and
- o Regular contact with leading companies inside and outside the region in the target industries.

The IRRRB should certainly work closely with other groups, such as DNR, ARDC and the Department of Tourism, on developing promotional information. However, the IRRRB will probably have to take the lead in such an effort as:

- o It has the flexibility and potentially the resources to move quickly; and
- o It is the only group specifically focusing on the Iron Range.

Possibly most critical to the success of the marketing activity is the lead follow-up program, once a potential project in a target industry has been identified. The first step is to qualify the lead and screen it to see if it meets selection criteria. This would normally involve getting information on the size and scope of a prospective investor's project and its status. The second step is to determine if there is an opportunity to win the project and whether the benefits of winning are sufficient to justify the effort and resources that would be involved. To make this judgment, contact needs to be made with the potential investor to gain a good understanding of:

- o What is planned for the new location requirements;
- o What alternative locations are being considered; and

- What are the company's expectations/needs as to financial assistance and/or incentives.

Once the second hurdle is passed, the third and most critical step is for the marketing executive, supported by the project development staff, to work with the investing company to convince it that it should locate or expand in the region. This selling job may encompass exploring how to structure the investment, negotiating the establishment of any special concession, (e.g., a new enterprise zone) and even assisting the investor in securing the array of building permits and authorizations associated with a new physical plant. Experience shows that such direct interaction and cooperation with the investor is very important to securing a project, especially in situations where other jurisdictions are competing for the same investment.

5. Seeking Maximum Leverage (Step 5).

We have noted the Board's expressed intention to begin experimenting with subordinated lending in the Bank Participation Loan Program as a means of obtaining leverage for its own development funds. We believe that this policy should be extended whenever feasible to all other aspects of the economic development program. This means, among other things, taking advantage of every opportunity to involve other agencies in joint funding and actively exploring ways to assume risks that will encourage private investors to increase their participation in the finance of the IRRRB projects.

What we recommend is the creation of, in general terms, two loan tracks: "hard" and "soft." The hard loans would incorporate the current business loan program, offering eight percent monies on a portion of the total project, but consistent with the criteria and "weighting hurdles" mentioned earlier. The soft loans would involve more creative, riskier financing activities such as loan subordination, interest rate subsidies, re-payment grace periods, or even a grant/loan package -- depending on need. Several issues are critical in this effort:

- There must be a clear delineation of requirements to separate requests into the hard and soft track as every business -- irrespective of need -- will want cheap money;

- Even with decision rules, there will be an element of judgment in channeling projects into the different tracks, and ultimately developing a financial support package. The more the IRRRB policy-makers and senior management insulate themselves, through groups such as the Technical Advisory Committee, from the actual decisions on a case-by-case basis, the less likely it will be for charges of "politics" or "cronyism" to arise. Senior management, however, must monitor the decision criteria and operational structure.

- As indicated earlier, the IRRRB should not lower its criteria because of unspent funds. The aim is to carefully target resources, not blast away in the hope of "hitting something."

The IRRRB must also decide how to weight its portfolio. All development agencies are faced with finding an appropriate balance between the low risk, moderate job-generating projects and higher risk projects which have very significant economic generating potential. Influencing factors are:

- The agency's mandate and what other state and local development agencies are doing;
- The range and diversity of its assistance programs;
- The nature of its funding; and
- The specific economic development opportunities and priorities with which it operates.

For any development agency there are considerable political risks, due to the high visibility of failures, in heavily weighting the portfolio towards higher-risk, high-payout projects. In addition, the IRRRB is dependent on a declining resource (taconite production taxes) and must continue to support low-risk projects to ensure repayments for future investments. But to weight the portfolio primarily towards low risk projects -- and the culture of funding agencies tends to be conservative -- is inappropriate if the economic situation in the region demands that risks be taken. For an area like the Iron Range with high structural unemployment and few immediate job-creating opportunities, the portfolio of sponsored projects should unquestionably be weighted more towards higher risk projects.

B. STAFF SUPPORT AND INTERNAL REORGANIZATION FOR THE IRRRB

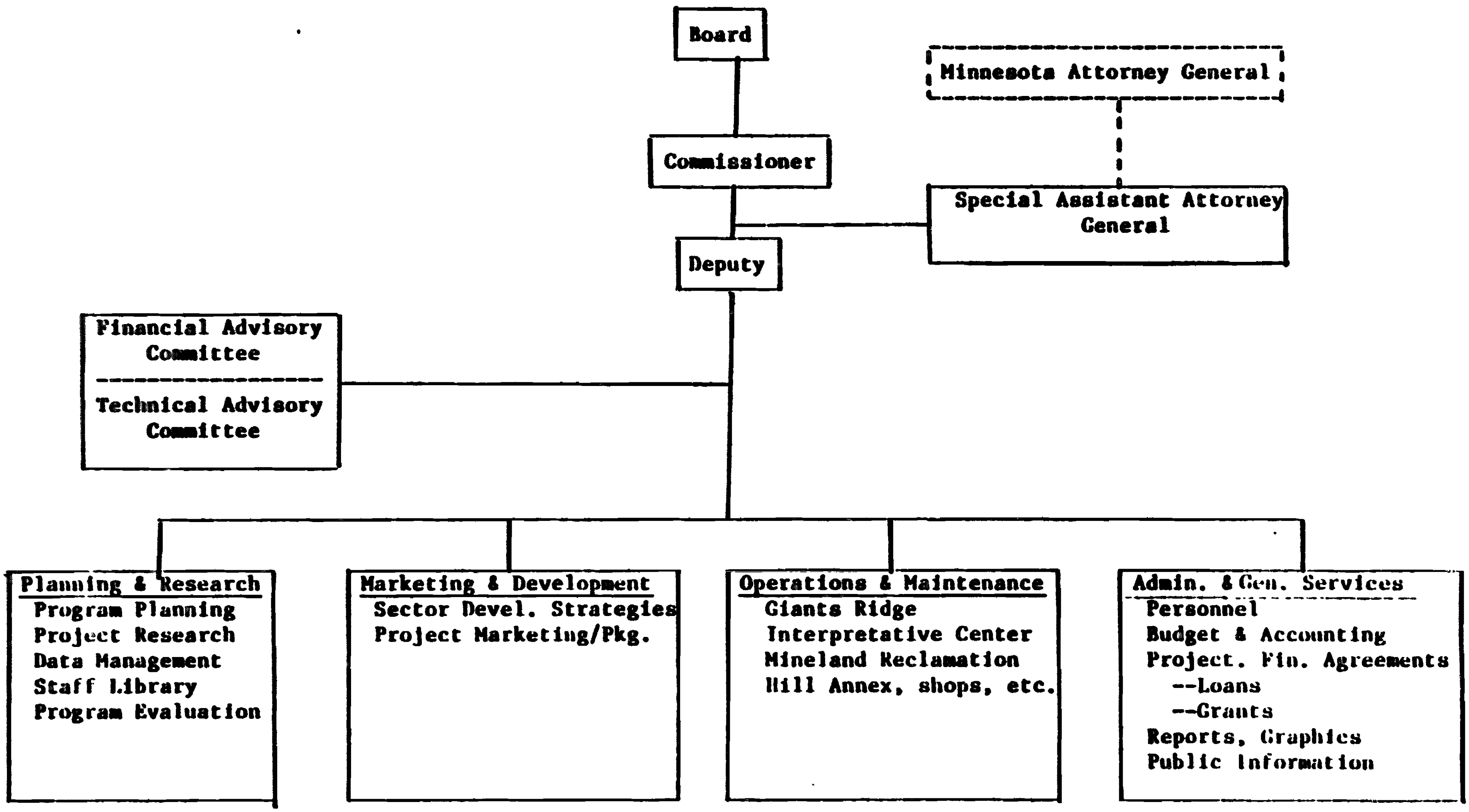
The staff organization described to us and charted in the Legislative audit Report is quite unorthodox (see Figure III-1). Three shortcomings seem most readily apparent:

(1) There is inadequate functional division of responsibilities;

(2) There is no apparent flow of work through the organization in keeping with the required sequence of events for "finding a deal, making a deal, and implementing a deal," as it is sometimes characterized; and

(3) Far too many staff members report directly to the Commissioner to permit maintenance of an effective span of control.

FIGURE III-1: PROPOSED IRRRB ORGANIZATION CHART



The accompanying proposed organization chart, Figure III-2, reflects a rearrangement of functions to overcome the shortcomings just mentioned: division of responsibilities, flow of activities, and span of control. In place of the amorphous spread of major and minor activities and sections or groups throughout the organization, four divisions are proposed, with a chief of each -- and no one else -- reporting to the Commissioner (or deputy). These division heads would also function as a senior staff policy group in conjunction with the Commission (or deputy) and in that capacity they would function as the sole advisory arm of the Board itself.

1. Division of Planning & Research

This division performs a program planning and project evaluation function. First, it prepares an annual program plan for seeking new investment opportunities consistent with adopted investment strategies by sector. Second, it conducts the in-house research on an array of potentials in various economic sectors, such that marketing and development efforts can proceed with a high degree of focus on carefully selected areas of investment promise. Data management and maintenance of a library of information are in the nature of supporting administrative work for the Division and the Commissioner's staff as a whole. Third, it periodically reviews past, current, and projected sectoral economic development efforts by the criteria used in agreeing to support different projects.

2. Division of Marketing and Development

This is the division in which the deals are packaged and made. First, it initiates an organized, definitive marketing plan, procedures, and evaluative criteria by sector, consistent with the overall goals and guidelines set by the Board. This is intended to produce the prospects and to rank them in order of expected benefits, returns, or merit -- consistent always with the mission of regional economic development. Second, it develops the grant and loan packages for review and actual closing of deals by the Division of Administration and Finance.

The division should to create "champions" or units responsible for particular investment areas. One set could be:

- Non-natural resources (such as high-tech, and financial services)
- Mining and other mineral resources (taconite, nickel, and so on)
- Other natural resources (timber, peat, agriculture, for example)

- Recreation and tourism (such as hotels, recreation centers, and related infrastructure)

These champions would be responsible for developing leads, reviewing results and pressing for support activities (such as research grants) in their area. This could create a healthy climate of internal competition within the IRRRB for resources. The Division's Director, and ultimately the Commissioner, would then decide between competing claims given annual budget constraints.

3. Division of Administration and Finance

This is the typical administrative arm of any organization -- the "camp" so to speak, as distinct from the "hunting party". In this instance, it consolidates many functions under one head of division, through whom all administrative support and "housekeeping" arrangements flow to managerial consideration in the Commissioner's office itself.

4. Division of Operation and Maintenance

This is the division which will continue the operational management of existing "internal" projects, so called to distinguish them from grant and loan program projects external to the operational control of the IRRRB. This Division should be actively involved in streamlining and spinning off its operational responsibilities.

These organizational adjustments to a clearly defined mission for the IRRRB strongly suggest the need for more professional and technical staff, and less administrative and operational staff. For example, at the professional level, while current staff are strong in their respective fields, there will be a need for more in-depth knowledge of financial and economic research and analysis. By adding these strengths in the Planning and Research Division -- or contracting out for it -- personnel now in the Economic Development Division will be relieved from much initial "leg work" in finding, sorting out and ranking promising ventures, and allow them to concentrate on a coherent, coordinated marketing effort.

But we believe staff savings should be available in paring back the IRRRB's operational responsibilities with several of the major, internal and research projects. We understand the IRRRB is examining possibilities for devolving direct operational responsibilities for Wilderness Valley Farms, and Paulucci Planetarium. We commend these initiatives. Under the new Division of Operation and Maintenance a complete review of all operating responsibilities should be conducted to determine:

- The rationale for continued the IRRRB operational responsibilities;

- How that rationale accords with the regional economic development mission of the IRRRB;

- Alternatives, including some continued the IRRRB funding support or leasing arrangements, to the IRRRB ownership, operation and maintenance of these agency projects. Negotiations should be undertaken with DNR (re: mineland reclamation, parks), Department of Tourism (re: tourist information services) NRRI (re: Wilderness Farms) and the Historical Society (re: Iron Range Interpretative Center) to outline the possibilities for devolution of the IRRRB operational responsibilities.

Such an effort is not a criticism of past the IRRRB investment decisions. The point is that in the future, the IRRRB must narrow its focus if it is to significantly impact the Range given the IRRRB's resources and the job ahead. The IRRRB must see itself as a catalyst in the Region, a developer of ideas, an investment fund -- the region's economic development leader. Operational responsibilities should be turned over to other groups so the IRRRB can continue on its course of identifying, pursuing and realizing new investment potential.

The net effect of these adjustments -- expanding the financial, economic and analytical staff skills while paring back on the administrative/operational roles -- should not then increase the costs of the IRRRB staff. This is an important consideration if the IRRRB is to maximize the economic impacts of the relatively limited funds the IRRRB has available.

C. THE ORGANIZATION OF THE BOARD AND ADVISORY COMMITTEE

1. Board

Since the Board is dominated by politicians, it leaves itself open to:

- Charges that the decision-making body is fundamentally motivated by partisan political considerations;

- Claims that the IRRRB is managed in a fundamentally different way than every other state agency or regional group in Minnesota; and,

- Arguments that the Board lacks the necessary expertise to understand and critique often highly technical points on resource utilization for economic development.

On the other hand, there are strong arguments for a politican-dominated Board:

- They represent "the people" of the Range;

- They potentially have more power to move the state's bureaucracy to help the Iron Range;

- They have a power base from which to shield the IRRRB from radical legislative changes that might limit the agency's flexibility and ability to direct its resources towards economic development.

As a result of our study, we do not believe that the Board should be radically changed. Within the confines of our study, we did not find the Board to be fundamentally flawed or abusive of its power. However, we do agree that the Board should broaden its representation for several very important reasons. First, there is a widespread sense that because the IRRRB has so aggressively tackled the region's problems, other state agencies and institutions have held back from helping the Range, preferring to direct their limited resources to other areas of the state or projects of less concern to the IRRRB. Especially with the new thrust in economic development, the IRRRB must liaise with, learn from, and leverage as much as possible DEED's expertise and financial resources. We thus recommend the Commissioner of DEED be appointed to the Board.

In the same way, the IRRRB as it more aggressively targets economic development needs to closely work with complementary research institutions to learn from and leverage these resources. Additional technical expertise on the Board would be helpful to work with the IRRRB staff and project directors in assessing new and on-going project investments. We recommend the Director of the NRRI also be appointed to the Board.

Finally, to analyze more aspects of economic development and their local impacts -- such as creative finance packages or large-scale economic development "loss-leader" investments -- the Board's leadership role in the region's economic development could be strengthened by adding a local financial/investment expert, and a regional industrialist. In order to maintain the current balance of Taconite Area representation, the legislators on the Board should appoint these new members by majority vote.

As we have argued before, if the IRRRB is to make an impact as a regional economic development agency, it must closely marshal its resources in that effort. The Board must agree to this, and protect the agency from the plethora of competing demands that are already apparent in IRRRB'S existing programs. However, we do not favor developing and adopting rigid rules for the IRRRB. The agency's flexibility and ability to respond to changing circumstances is one of its great strengths. Rather, what we propose is:

- Adoption by the Board that the primary mission for the IRRRB's is to be a regional economic development agency, at least for the foreseeable future;

- Adoption by the Board of the various decision criteria developed by the IRRRB to differentiate acceptable/non-acceptable projects (such as job creation, local impact and leverage factor); and

- Adoption by the Board that a three-quarters majority -- not a simple majority as at present -- must approve any project that does not meet the adopted criteria.

In this way, the Board can protect itself from the difficult trade-offs between local community development demands and longer-term economic development needs. And, it will send a clear signal to the region, as well as the state, that the IRRRB is on a new, more defined course to restructure and revitalize the Iron Range.

2. Advisory Committees

There are two types of advisory support the IRRRB should develop:

- Broadly-based, public participation workshops, possibly every two years; and

- Advisory services of financial and economic development experts as on-going advisors to the IRRRB.

On the first, the IRRRB has initiated public meetings in the past to explore new ideas, evaluate past performance and build community interest. Typically, though, these are irregularly scheduled and are built around particular projects rather than really being a planning/directional forum for all aspects of the IRRRB'S operations. The model of the LCMR'S biennial workshops is instructive. The IRRRB, as the region's economic development agency, should regularly schedule a similar set of workshops, possibly broken down into different subjects and occurring in various areas of the Iron Range over a several month period. The IRRRB may wish to jointly sponsor such efforts with the Blandin Foundation and the University of Minnesota (or the NE Minnesota Task Force), though the outputs must be regionally specific and usable by the IRRRB in its economic development efforts.

Second, the IRRRB needs to build in its successful use of the Technical Advisory Committee (TAC) as on-going advisors. The TAC is well-motivated, capable, and apparently efficient in its operations -- surprisingly so given the level of members' remuneration! However, members themselves stated that the main role of the TAC was "like a bank's loan committee checking on project feasibility", and that they should take on more of an economic development role involving higher-risk activities. the major problem is that the present loan program requires bank support for 50 percent of a project before submission to the TAC -- effectively screening out higher-risk projects. As outlined earlier, the IRRRB should develop a two-track lending program with "hard" (current program) and "soft" such as interest buy-downs or grant/loan mixes) monies. All of the IRRRB projects would then go to the TAC for their review and approval assuming:

- o Clear criteria and decision guidelines are given the TAC -- they should not be asked to develop these themselves;
- o The TAC is expanded to include members with economic development expertise;* and
- o The TAC become part-time staff to properly recompense them for the additional work in broadening their role.

In addition, we believe the IRRRB should establish a Financial Advisory Committee (FAC) to provide overall technical advice on various ways the IRRRB can best leverage its funds. The FAC should include a local banker, a senior investment analyst and an economic development expert. The latter two members need not be from the Iron Range -- though it would be best if they were to ensure adequate understanding of the area's needs and potential. This group must provide overall programmatic review consistent with the Board's economic development mission and specific investment criteria. In addition, the IRRRB needs on-going advice from the best financial minds available on creative financing as a spur to the Range's economic development.

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* As also recommended in: Legislative Auditor, Economic Development (March, 1985), pg. 183.

CHAPTER IV

RECOMMENDATIONS

During the course of this six-week study, we found the IRRRB--its senior staff and Board--to be of high quality and motivation. Some of our recommendations, especially the concentration on economic development activities, the IRRRB is already moving to implement. The aim of our recommendations is to help the IRRRB to systematically meet the major challenge of economic development in the Iron Range.

1. Officially adopt a clear mission statement focussed on economic development in the Iron Range that is endorsed by the Board, the Governor and key institutions involved.

   The IRRRB should be first and foremost a regional economic development agency. It should concentrate on:

   - Long-term job creation in the Iron Range;
   - Broadening the economic base of the Iron Range;
   - Leveraging state, federal and private funds in support of regional economic growth.

   In order to pursue this more focussed mission, the IRRRB will have to restate explicitly its mission in a policy document having the strong support of the Board, Staff, and Governor and the recognition by other institutions with which the IRRRB works to address its broader mandate (e.g., DNR, DEED, ARDC, etc.).

   This is potentially a high risk mission given the problems now facing the Iron Range. However, we believe the IRRRB--with its regional focus, its capable senior professionals, and its financial resources--can make a significant impact on the local economy in the Iron Range.

2. Prepared an explicit short range (1-2 years) and longer range (3-5 years) economic development program within the context of a longer range economic development strategy for the IRRRB with quantifiable targets and contingencies if opportunities do not materialize.

   Within the next 12 months the IRRRB should:

   - Produce an explicit and up-to-date statement of the basic economic development strategy the Board proposes to follow over the next 5-10 years;

- Out of this strategy, develop an economic development plan with explicit budgetary allocations, quantitative targets, contingencies, and management implementation steps;

- Conclude a clear, current appraisal of the region's economy, and its most likely future trends by economic sector, through a series of intensive study groups incorporating NE Minnesota Task Force members, DNR specialists, and others where specific technical or industry expertise is required;

- Review and develop "best case/worst case" budgetary assessments of projected IRRRB resources over at least the next five years;

- Allocate a specific annual sum or share of discretionary revenues for use in financing economic development in each of these years;

- Within the sum allocated for economic development, allocate specific sums for use in each principal sector (e.g., forest products, manufacturing, and tourism), and adjust these sectoral allocations quarterly if necessary;

- Establish clear targets or goals to be accomplished in certain periods of time (e.g., number of new jobs to be generated, total investment to be generated, regional impacts to be realized);

- Develop contingency plans to switch programmatic resources and direction if targets are not realized; and

- Outline specific staff and management responsibilities for implementing the plan.

3. <u>Prepared sector-specific development programs and strategies in potential growth areas such as tourism, mining, forest products, and electronics. These strategies must delineate clear priorities, impacts, and project review criteria for each sector, identifying highest priority investments and activities and best mechanisms for maximizing leverage of IRRRB funds.</u>

   Based on the explicit economic development program, the IRRRB should identify key investment sectors. For each sector, the IRRRB should:

- o Assign the management of each sectoral development strategy and preliminary resource allocation to a specific program manager, a "sector champion" (some staff members could be asked to manage more than one sector program, at least initially); and,

- o Require each program manager to present to the Commissioner for approval (a) an individually-tailored action plan delineating priorities, impacts and project review criteria; and (b) a request for approval of any commitment of funds over some specified amount.

4. Conduct an immediate and complete review of all operating responsibilities and assess alternatives to current IRRRB management.

As indicated in Chapters I and II, the economic problems of the Range are large and the actual resources of the IRRRB in the near future not that extensive. The IRRRB must direct its limited resources in a more targeted way to create more jobs. This means reviewing all major operating expenses to:

- o Reduce operating drains on available funds; and

- o Ensure that any operational expenditures have major employment impacts relative to other projects or ownership arrangements.

Such evaluations are already underway for Wilderness Valley Farms, Paulucci Auditorium and Croft Mine. They should also be undertaken as soon as possible for Giants Ridge and the Interpretative Center. Alternatives to IRRRB ownership and operation should be pursued whenever practical--including sale, leasing or devolution of responsibilities for these projects to private or public groups (such as DNR, Department of Tourism, and Minnesota Historical Society).

5. Reassess further development opportunities and investment requirements for Giants Ridge and the Interpretative Center in the context of the needs of the two projects and the broader economic development strategies of the IRRRB.

As indicated in Recommendation #4 above, the IRRRB should seriously evaluate devolving operational (and possible ownership) responsibilities of these projects. In the interim, ongoing or new expenditures should be consistent with a viable IRRRB tourism sector development program and overall economic development strategy. While we do not totally agree with the approach of past evaluations of the Interpretative Center and Giants Ridge--assessing them relative to their job creation and economic impacts when these projects were initiated for cultural and broadly defined tourism development needs--still these projects must now be reassessed in the context of a more narrowly defined mission for the IRRRB.

6. <u>Focus IRRRB resources on economic development, allocate by sector, and adjust quarterly.</u>

The IRRRB should progressively lower its annual budgetary allocations in the environmental, social and community development areas. Future allocations in those sectors should strictly meet economic development criteria. Only by setting such targets and sticking to them will the IRRRB be able to redirect its resources towards the problems of economic growth in the Iron Range.

7. <u>Institute a proactive project development approach to support the sectoral program managers or "champions" in preparing their annual Action Plans and developing their proposed commitments.</u>

Many economic development agencies feel it sufficient to develop attractive assistance programs, advertise, and then react to proposals put forward. While this might be adequate for economically-advantaged regions, it is not for the Iron Range. Successful, proactive project development efforts have the following common elements:

- Focussed industry/technology targets;
- An effective information network;
- A strong marketing/outreach program, built on a commitment to cultivate potential investors;
- An attractive package, coordinated with other groups and tailored to specific situation;
- A reputation for clean-cut evaluation criteria and an efficient evaluation process; and
- Political support at the state and local levels.

In developing this information network, the IRRRB should establish linkages and possible joint ventures with other states and regional economic development agencies. It is important to avoid the sense of competing for projects with other development agencies operating in the Board's jurisdiction. The IRRRB should work to include Duluth--possibly through agencies external to the Tocaonite Relief Area, such as the ARDC--in these informational efforts. This will minimize duplication with other groups (see Chapter II). More importantly, it will build a cooperative spirit with Duluth as many of the Range's projects may come from companies expanding out of Duluth, especially in the service/finance/insurance sectors.

8. Refine a comprehensive project evaluation system for the IRRRB and accelerate adoption of standards, criteria, and project review procedures for finding and packaging development deals and leveraging IRRRB resources.

Closely linked to project identification is project evaluation. Economic development agencies typically evaluate whether or not to provide assistance to a company based on a ranking of issues such as:

- The probability of longer-term economically viable operations at the facilities to be assisted;

- Whether the level of economic benefits and job creation for the region is adequate given the level of assistance envisaged, including

  - quality and number of jobs created in the region,

  - level of economic impact,

  - diversification of the region's economic base,

  - technology transfer/enhancement of the region's science and technology capabilities;

- The risk of default on obligations associated with the financial assistance contemplated; and

- The "need" for assistance for the project to go ahead considering the level of company investment after debt financing and public assistance from grants and loans and tax credits are taken into account.

Targeting may sound simple, but it is not. Promotion of local investment is a competitive business: between countries, between states, between local and regional districts in a state. The ingredients of a successful project development operation are first, to offer sufficiently generous terms to be competitive, second, to develop a package which addresses the specific needs of the investor. The latter in turn requires an understanding of the investor's industry and his particular situation, flexibility in the assistance programs, and above all imagination and skill--as the IRRRB has demonstrated in the financial package developed for Louisiana Pacific, for example.

9. <u>Establish measurable performance targets and monitor the effectiveness of various IRRRB activities in achieving these targets.</u>

Performance targets should be developed for project expenditures by sector consistent with generating the levels of activity necessary to realize the Board's objectives (as outlined in the economic development plan) and which provide specific performance benchmarks. Targets should be established by sector to include:

- o Number of opportunities to be generated;
- o Total investment to be generated;
- o Jobs to be created or retained; and
- o Regional impacts to be realized (e.g., activity multipliers and diversification of the economic base).

Management must periodically review sectoral results and report to the Board, probably quarterly.

10. <u>Pursue more aggressive marketing and outreach efforts tied to activities of others involved in marketing of northeastern Minnesota.</u>

These efforts will be needed to generate a positive image of the Iron Range as a place in which to invest, and to foster a view of the IRRRB as a responsive, pragmatic organization with which to do business. The IRRRB should certainly work closely with other groups, such as DNR, ARDC and the Department of Tourism, on developing promotional information. However, the IRRRB will probably have to take the lead. Three steps are critical in this effort:

- o Qualify the lead and screen it to ensure that it meets the economic development selection criteria;
- o Determine the chances of obtaining the project and the costs/benefits of such efforts; and
- o Work with the potential client convincing it to locate or expand in the Range.

11. <u>To help set targets and sectoral plans, the IRRRB should sponsor broadly based, public participation workshops on a regular basis (possibly every two years) and periodically review past decision criteria, sectoral allocations, and achievements through these workshops.</u>

The IRRRB, as the region's economic development agency, should regularly schedule public workshops like LCMR's biennial workshops, possibly broken down into different subjects and occurring in various areas of the Iron Range over a several month period. The IRRRB may wish to jointly sponsor such efforts with the Blandin Foundation and the University of Minnesota (or the NE Minnesota Task Force), though the outputs must be regionally specific and usable by the IRRRB in its economic development efforts.

12. <u>Within the next six months the IRRRB should internally reorganize itself into four divisions</u>: <u>Planning and Research</u> (performing a program planning and project evaluation function); <u>Marketing and Development</u> (handling the marketing, packaging, and deal-making); <u>Operation and Management</u> (covering the operational management of existing agency projects); and <u>Administration and General Services</u> (handling administrative support and housekeeping services for the IRRRB and staff).

Specific job descriptions should be established clearly outlining the unique responsibilities of the IRRRB staff, as shown in the recommended organization chart (Figure III-8). This should help the IRRRB move from an agency organized more by funding sources and major projects to one concentrating on sectoral development activities and investments.

13. <u>Establish clear relationships and memos of understandings with overlapping institutions.</u>

The IRRRB should develop and manage its own economic development strategy, limiting its investments to the Iron Range. Letters of understanding should provide guidelines so that:

- Social, cultural and community development should be the principal responsibilities of state social agencies, the Minnesota Historical Society, local communities themselves, and groups like the ARDC or the ACEAC;

- Resource management, development, and long-term utilization should be the principal responsibilities of DNR and LCMR, with UM(D) and NRRI providing research and testing support for natural resource development in northeastern Minnesota;

- o Environmental protection and improvement in the Iron Range should be within DNR's statewide responsibilities;

- o Support and coordination of local and regional (including Duluth) economic development efforts should be the primary responsibility of DEED and ARDC; and

- o Essential support services from the public sector (such as the Minnesota Attorney General) should be provided in the Iron Range.

14. <u>The responsibility of the Technical Advisory Committee (TAC) should be broadened to include all IRRRB project reviews and its membership should be expanded to include members with economic development expertise.</u>

    The IRRRB needs to build on its successful use of the Technical Advisory Committee (TAC) as ongoing advisors, but taking on more of an economic development role involving higher-risk investment programs. In addition, the IRRRB should develop a two-track lending program with "hard" (current program) and "soft" (such as interest buy-downs or grant/loan mixes) monies. <u>All</u> of the IRRRB projects would then go to the TAC for their review and approval assuming:

    - o Clear criteria and decision guidelines are given the TAC by senior management; and

    - o The TAC are properly recompensed for the additional work in broadening their role.

15. <u>The IRRRB should establish a Financial Advisory Committee (FAC) to provide overall technical advice on ways the IRRRB can best leverage its funds.</u>

    The FAC should include a local banker, a senior investment analyst, and an economic development expert. This group, which should probably all be from the Iron Range to ensure adequate understanding of the area's needs, must provide overall programmatic review consistent with the IRRRB's economic development plan. In addition, the IRRRB needs ongoing advice from the best financial minds available on creative financing as a spur to the Range's economic development.

16. <u>Expand the representation on the Board to include the Commissioner of the DEED, the Director of NRRI, a senior finance expert or banker from the Iron Range, and a senior business representative from the Iron Range.</u>

As explored in Chapter III, the reasons for this are:

- To enable the IRRRB to more closely liaise with DEED;
- To allow the IRRRB to more closely coordinate with and leverage complementary research institutions like NRRI:
- To strengthen the Board's leadership role in the region's economic development by including a senior financier and businessman.

To maintain the current balance of Iron Range representation, the latter two new members should be appointed by a majority vote of the legislators on the Board.

17. <u>The Board should establish the investment decision criteria and sectoral allocation by a majority vote; allocations for projects or activities outside of the agreed upon areas and a criteria should require a three-quarter vote rule.</u>

    The Board can thus protect itself from the difficult tradeoffs between local community development demands and longer term economic development needs. And, it will send a clear signal to the region, as well as the state, that the IRRRB is on a new, more defined course to restructure and revitalize the Iron Range.

Few of these recommendations will require legislative action. We do <u>not</u> recommend extensive legislative reform because:

- The IRRRB functioned as well as it has over the years because it has the flexibility to pursue a variety of goals depending on changing needs;
- The shift towards economic development should not be restrained while awaiting final legislative approval;
- Most of the recommendations can be taken account of under existing rules and regulations. The major recommendation which will require legislation involves expanding the membership of the Board. While awaiting the necessary legislative changes, the Board could invite the new members to participate at meetings, even though they would not be allowed to vote.

These recommendations will allow the IRRRB to narrow its focus so that it can significantly impact the Range given the IRRRB's resources and the job ahead. In this way, the IRRRB will become a catalyst in the region, a developer of ideas, an investment fund--the region's economic development leader.

APPENDIX A

OVERVIEW OF THE IRON RANGE ECONOMY AND INVESTMENT OPPORTUNITIES

A. ECONOMIC CONDITIONS

1. The Area

We define the Iron Range/Communities as three areas: (1) the Mesabi Range, a 100 mile-long by 10 mile-wide strip of land from about Grand Rapids at the southwest end to Hoyt Lake at the northeast end, (2) a smaller area, the Vermilion Range, between Tower and Babbitt to the south of Lake Vermilion, and (3) a third area, the Cuyuna Range, to the north of the Mississippi River near Aitkin (see Figure I-1). The three Ranges constitute a central, hard-core zone of hardship. This area produced the natural and human resources for a once-thriving regional community.

2. Mineral Resources

After 100 years of mining, most of the iron ore in the region is gone--some 3.5 billion tons of it, shipped to the Nation's steel mills and worldwide markets. But taconite, the "soft" ore bodies generally occurring in deposits beneath the once thick seams of hematite iron ore, remains in abundance. Some say reserves are enough for up to 200 years at the Nation's current rate of declining demand. The Cuyuna and Vermilion Ranges are no longer active producers of either; only the Mesabi continues to produce significant tonnage.

Other minerals may prove significant in the future of the Iron Range. There are known deposits of copper, nickel, manganese, uranium, gold, silver, platinum, titanium, aluminum, cobalt and graphite. The Duluth Gabbro complex, a formation lying along a 30-mile band between Ely and Hoyt Lake, contains large but low-grade copper and nickel deposits, the largest in the United States, with minable grades of material containing an estimated 4.4 billion tons of copper/nickel. These estimates do not include the Minnesota Greenstone formations, an extension of Canada's mineral wealth in lead, zinc, gold and silver. The Cuyuna Range is considered to have a high potential for manganese.

3. Forest Resources

Nearly one-half of Minnesota is physiographically defined as a forest region, and one-third of the State's total land use--almost all in the northeastern quandrant--is classified by the State as forest land. In contrast to mining, timber harvesting under-utilizes this renewable resource, leaving an abundance of over-grown spruce, balsam fir, birch, aspen, and pine stands. The resource is also said to be relatively less prone to disease and insect infestation and thus to less resultant depletion than is timber in warm and humid forest regions of the Nation. Within this extremely favorable timber and wood products supply outlook for the State, the once-neglected but more recently sought-after aspen (the only significant hardwood) is over-mature and will die out unless harvested, and the forests will convert naturally to the softwood balsam fir and spruce.

The commercial forest lands of the Arrowhead Region are estimated to be 7.8 million acres. State-owned forests and parts of the U.S. National Forest System almost completely surround the Iron Range, with County and private forest lands also in abundance. Unfortunately, the Iron Range itself is devoid of productive forest lands since virtually all forest land is in private mine-company ownership, and the mines have not developed these resources. Still, Superior National Forest encompasses 2.1 million acres in Cook, Lake and St. Louis Counties. The state manages 4.6 million acres of State Forests and other State-owned land and provides forest fire protection on 22.8 million acres. Thus, there is no shortage of wood within an average 20-mile truck haul to any Iron Range community location. Moreover, since 1936, the U.S. Forest Service has operated the Eveleth, Minnesota Nursery, now regrettably targeted for closure as part of the federal budget-cutting effort. Its annual seedling production capacity is 8.0 million, and State nurseries shipped 56,420,000 seedlings during FY 1984-1985. Surplus aspen acreage on State lands is projected at more than 300,000 acres by year 2000. Both Federal and State forests are active in marketing and sale of timber products, and programs of management and reforestation are significant.

4. Agricultural Land

With a single exception, agricultural land is relatively scarce in northern Minnesota's Arrowhead counties and in the immediate vicinity of the Iron Range townships. The reasons are clear: forest cover and water predominate and the climate is not favorable to crop production. A growing season of 100 to 125 days frost-free does not permit good cropping, even on lands free of swamps, peat bogs and timber stands. The exception is peat, a highly organic "soil" occurring naturally in abundance throughout the Arrowhead counties. Peat had long been a source of horticultural soil conditioning and as an <u>in situ</u> soil for specialty truck garden crops such as celery and onions. Recent experiments with peat as an alternative energy fuel, by pelletizing, and as a reductant in hot metal production have shown mixed results. In the Primary Taconite Tax Relief region, a scant three percent of all land was planted to agricultural crops; 90 percent of that planting was to hay, and almost none reported as planted to truck garden crops (1983). Also, an unusually high acreage is in public ownership. For instance in Cook, St. Louis, Aitkin and Itasca counties between 54 percent and 89 percent of the land is publically owned.

5. Water Resources

Water is in super-abundance throughout the region; the potential for water-based recreational uses (including fishing and hunting, boating, swimming, and camping) is significant. Current requirements for industry and municipal-domestic use are minimal. While the immediate Iron Range environs are less well-endowed with recreational water bodies, an eleven-county Arrowhead Region defined by a tourism promotional group (the Minnesota Arrowhead Association) contains over 4,000 lakes and 2,000 rivers and streams. Within this same region, there are over 100 State and National Parks, campgrounds and recreation areas.

6. Human Resources

From 1960 to 1980, the region more than kept pace with the State, achieving overall growth of 12.2 percent, excluding Duluth, compared to the State's growth of 7.1 percent. The opposite is forecast for the years to 1990, however, with the region just about holding level; the State is expected to continue a 7.0 percent growth (see Table A-1).

The projected stability of the population within the region is surprising, in a way, given the sharp turn-down in Iron Range mining activities during the past three years.

In recent months, there is evidence that labor force withdrawals (probably out-migration) is occurring. The seven-county labor force including Duluth declined from 155,324 in July 1982 to 136,522 in April 1984, a drop of 22 percent, although employment dropped less than five percent from 124,616 to 119,000. The job-rate decline had begun somewhat earlier, from a 1980 level of 128,115, followed by improvement as call-backs to mining have occurred.

Wage rates are generally much higher in Iron Range communities than in the State and Nation. In December 1984, the Fantus Company found that a representative sample of 12 manufacturing companies in the Arrowhead area paid hourly wages averaging $10.52, or about 15 percent above the national average and 9.0 percent above the state-wide average. A 1984 Minnesota Salary Survey by Area found even wider disparities for certain manufacturing wages -- from 16 percent to 38 percent higher than the Twin Cities and 40 percent higher than state-wide averages. Also, State offices report fringe benefit compensation from Iron Range industrial firms to be well above State and National levels.

The Taconite Tax Relief Area's labor force participation rates are distinctly lower than are those of the State, but much lower for the female than for the male population. This is said to be typical of the region and its distinct background of nationalities, where women have traditionally been much less inclined to seek employment than females in other more urbanized areas (see Table A-2).

Apart from the nearly 7.5 percent lower total participation rate in the region than in the State, it is noteworthy that the female participation rates for both the region and State grew rapidly in parallel during the 1970's. This may suggest a different mix of labor skills for the years ahead.

A common misconception is that the Iron Range work force is essentially several thousand high-paid miners, and little else. Perhaps understandable in view of its past single-industry dependence, the facts are quite different for the six-county Taconite Tax Relief Area. Table A-3 and Table A-4 show percentage breakdowns of all employed persons by occupational classifications and by industries in 1980.

These data do not separate out the City of Duluth (not in the Primary Taconite Tax Relief Area), nor the occupational and industry classes in St. Louis County; nevertheless, there is a remarkable diversity in skills and employment in all counties, irrespective of significant mining activities. Especially impressive is the level of precision production skills, which almost exceeds the sum of the last three listed occupations in the skills table (which are normally associated with mining).

Given these county-level demographic and labor characteristics, what of the 37 Iron Range townships and unorganized territories, as well as the 36 small cities and towns, where transitional adjustment impacts are most keenly felt? Unfortunately, at the mid-point in the dicennial U.S. census-taking efforts, detailed data are not currently available at the community level. However, from 1970-80 trends and with county-level estimates for 1985 from UM(D) and the Arrowhead Regional Commission, we can infer township-level aggregates with accuracy, assuming that community trends closely follow county-wide trends (see Table A-5).

One final comment on the quality of the labor force, necessarily a highly subjective matter. The following local conversations offer the best insights:

- From a miner: "I've got 29 years with the same company ... one year to go. I'm a heavy equipment operator ... hate to see the young men get laid off first, but I figure I can operate the heavy stuff better than they can, and they can adjust to other jobs better than I can. We'll never leave the Iron Range ... best place in the whole State."

- From President of a large community-owned bank: "The range has a horrible image problem ... but the workers here are tremendous ... hard-working, diligent, intelligent, well-educated, eager to learn new skills. They are our greatest asset, thanks to a great school system."

- From President of a leading manufacturing firm: "I'm proud of my nearly 400 employees ... can't say enough for them. They are loyal, conscientious, adaptive, industrious ... great manual skills, and this includes the ex-miners ... handy with any machine, precision tools. And that goes for the women too. A great work ethic up here ... you wouldn't believe. I've got about 75 in night school right now, getting extra technical training."

Unfortunately, with the current economic malaise in the Iron Range, all of the above resources are under-utilized.

7. Managerial Resources

The effective combination of natural and human resources is difficult if not impossible without bringing to bear the special skills of management. As the IRRRB wisely outlines in its business loan program, management capacity and sound planning are prerequisites to the provision of project financing. Unlike the situation with respect to natural and human resources in the Iron Range community, there is a definite shortage of managerial resources. Again, the reasons are in the historical evolution of the community as a single-industry dependent economy that did not need a diversity of management skills from within the region.

Three programs have been implemented with mixed results in the Iron Range community to correct this long-standing problem and to assist in providing the crucial managerial input to job creation and investment diversification ventures. They are described in the IRRRB's Long-Range Plan for the Economic Development and Diversification of the Taconite Tax Relief Area, and summarized here.

a. The ARDC Small Business Assistance Network

This program, established in 1982, enabled the ARDC to work closely with a network of management assistance professionals, business educators and development specialists on identifying and improving business opportunities. The network exchanged information, referrals, and problems, with emphasis on matching business needs with those best able to assist professionally in meeting them.

b. Entrepreneurial Program

This is an IRRRB funded program under administration of the Minnesota Development Association (MDA), offering free technical assistance and evaluations for starting and expanding business ventures. During 1982 and 1983, 24 seminars were held in 18 cities, resulting in client identification and technical assistance to 116 clients in business plan development. The program is not currently funded.

c. Business and Technology Centers

Under license by Control Data Corporation, Business and Technical Centers (BTC's), located in Duluth and Grand Rapids, were designed to provide space, services to new small business, and "direct access to facilities, equipment and technology". Additional BTC's have been planned, with priority to a Hibbing location.

These are modest efforts, and seem to have been started more or less experimentally, without a concentrated focus and perhaps adequate funding. The hope is that expanded activities and greater involvement of business community leaders can be achieved in all phases of "deal finding and deal packaging". One industrialist in the region strongly urged that educational institutions expand their curriculum to include:

- More managerial and professional training, in keeping with the excellent technical training available in such places at the Hibbing Vocational and Educational school;
- More participation of bankers and manufacturing managers in "finding deals and putting them together for promising new ventures" in the Iron Range; and
- Marketing the region's positive attributes to dispel adverse and damaging images and the bad press given the region from outside its borders.

The problem has been the lack of local initiative and locally sponsored development given the externally perceived unattractiveness of the region with its relatively high labor costs and unionization, surplus resources, and distant markets.

8. Financial Resources

The Iron Range community has a broad range but apparently meager supply of private and public investment funds. The ARDC makes this point in its regional assessment of 54 banks throughout the region to determine statutory lending limits and to assess the banking community's "areas of concern" in community lending.

In the private sector, it seems to us, there is not so much a shortage of capital as a strong reluctance on the part of major banks to release an ample supply of capital for Iron Range investment. Two aspects are seemingly prevalent: the larger State-wide "city" banks--Northwest Bank Corporation and First Bank--are accused of "redlining" the Iron Range as a high-risk area for any kind of loan. Even though these banks have the largest of the region's deposits, their loan-to-deposit ratios are the lowest. The smaller but still sizable locally-owned banks, despite a desire to assist the region financially, are reluctant to commit funds to the many small ventures ($50,000 to $100,000, five to 25 jobs) that seek funds often because of a perceived lack of necessary managerial skills. Also, such institutions cannot commit the kind of capital needed for very large ventures ($6 million to $10 million, 100 to 200 jobs). While some local pooling of resources by these local banks has been tried, the banking community appears reluctant to enter into such arrangements with their competitors.

In the public sector, a proliferation of some 25 types of financing in the past two decades from State and Federal sources was identified by the ARDC: venture capital funding, capital grants, interest write-downs, equity loans, loan guarantees, long-term financing, interim construction and working capital loans, among others. The problems here have not been reluctance to take high risks so much as:

- Inadequate evaluation mechanisms;
- Protracted review processes; and
- Assistance size limits that preclude the larger, more significant investments needed for the economy.

In summary, as we view the economic base for the Iron Range, the four basic ingredients or "factors of production" as classical economics defines them, are found to be mutually interdependent to a high degree. An abundance of land (i.e., the mines, forests and farms) is no assurance of viable development, even when combined with a surplus labor force of good to excellent skills. This combination simply lacks the necessary managerial skills to carry out and sustain development, and the critical capital sources to sustain such growth.

9. Employment and Production

Based on our evaluation of the Iron Range's economy, there are four major economic sectors that will figure importantly in the future of the Iron Range: mining, forest products, tourism, and non-resource based manufacturing. In northeastern Minnesota, the magnitude of all other employment will rise or fall, according to the health of these basic sector activities. The best measure of trends in the Iron Range communities from Grand Rapids to Ely are data for St. Louis and Itasca Counties, excluding the Duluth area.

Overall, in the past five years, the economic situation has deteriorated sharply following a decade or more of prosperous times on the Iron Range. In addition to adverse impacts of the national recession, the Iron Range communities have been hard hit by sharp cut-backs in metals mining and taconite pellet production, by a major curtailment and closure in wood products production, fierce competition for the tourist dollar, and by a struggle by new non-resource based industries to survive in volatile business climates. Unemployment is unacceptably high, as Table A-6 shows, relative to the State and the Nation; Table A-7 outlines estimated unemployment numbers for the Range.

In the <u>mining sector</u>, production dropped sharply in recent years. The Minnesota Mining Directory shows taconite production <u>capacity</u> of 60 to 65 million tons. However, actual production declined from 56.2 million tons in 1979 to 25.1 million tons in 1982, slightly increased to 25.2 million tons in 1983, expanded to 35.7 million tons in 1984, and is projected to be 34.5 million tons in 1985.

As a result, employment contracted drastically during the past six years: from a high of 16,450 in August 1979, to a low of 4,960 in November 1983, nearly a 70 percent drop. Since then, the level has recovered over two years to about 7,500 with the recent increase in taconite production. Very recent events are not favorable, however; for example, the bankruptcy of the Wheeling-Pittsburgh Steel Company has direct impacts on the Butler Taconite mining operation near Babbitt. The Bureau of Business and Economic Research, UM(D), calls the outlook for jobs in mining "uncertain" in its <u>Forecast 1985</u>. The most optimistic statement it could make was that no increase could be expected in 1985 over the 7,500-job level of 1984. The Bureau's longer range projection (3 to 5 years) for the Iron Range region closely resemble the expected growth pattern of the entire State. But, it also asserts that the presently ailing mining industry will continue to be an important industry to northeastern Minnesota for many years to come.

Turning to <u>the timber and wood products industry</u>, precise and up-to-date information on employment and production are difficult to measure because of the mix of commercial forest land ownership and the mix of products. From standing timber to markets, the forest industry is generally labor intensive. Within the seven-county Arrowhead Region, pulp and paper production provide the most jobs--an estimated 5,000 to 6,000 in 1983, with lumber and wood products about 1,700 jobs, and forestry itself less than 400. Major manufacturers are:

- Blandin in Grand Rapids, with a new 140,000-cord plant (1982);
- Potlatch in Cook, Bemidji and Cloquet, with two new 160,000-cord plants;
- Northwood Paperboard with a new 40,000-cord plant in Bemidji (1982);
- St. Regis with a new 60,000-cord plant in Sartell (1982);
- Boise Cascade at International Falls; and
- Louisiana Pacific with announced plans for a major investment in Two Harbors.

Of these developments, none is in the immediate area most of Iron Range cities and towns. Smaller-scale lumber and wood products companies are widespread throughout the region, but the market for these products is relatively unattractive for the near future.

About 90 percent of the region's forest products are sold outside the region; 69 percent outside the State. One of the peak years was 1975, when 1.73 million cords were harvested, primarily from State forest lands. In a recent reporting period, FY 1984-1985, the DNR's Division of Forestry, listed as its first "major accomplishment" the sale of 1,061,000 cords of wood, but from 4.6 million acres of State-owned and managed forest lands. This constitutes a very thin harvest from what is generally considered an over-grown and under-utilized resource. The U.S. Forest Service Superior National Forest is also a seller, but the Chief District Ranger in Virginia believes that twice as much could be sold with the Forest remaining "legal, environmentally sound, providing all recreational needs, and improving the timber stands as well." The Forest Service programmed sales offering plan for the 1981-1990 period is 97 million board feet, rising to 117 million board feet during 1991-2000, and to 132 million board feet as a long-term average annual allowable sales quantity on a sustained yield basis. Actually, with all the surplus of publically-held forest land, most harvesting and sales are from county, local, and privately-owned forest tracts of the pulp and paper companies within low-cost hauling distance from the mills.

None of the economic sectors is more fragmented than <u>the tourism/recreation "industry</u>." Comprising resorts, beaches, ski slopes, sports facilities, restaurants, motels, campgrounds and more, the industry is ubiquitous, seasonal, and constantly changing. As a result, employment is very hard to measure, and there is no consistent measure of sector production. Competition for the tourist dollar is fierce among regions, and promotional activities abound. Wages are generally low throughout the industry, often including in-kind meals-and-lodgings compensation for service and maintenance work.

Several estimates of State-wide, regional and local employment have been attempted. A recent analysis* is very informative. Five metropolitan impact centers in the State were said to have drawn 70 percent of the $4.4 billion spent in Minnesota in 1983. The other 30 percent was sharply focused in three distinct regions: Area I, Brainerd/Crow Wing and Walker/Cass counties; Area II, Ottertail/Douglas/Becker counties; and Area III, the "North Shore Corridor" counties of south St. Louis, excluding Duluth (one of the metro impact centers), Lake, and Cook. Trade and tourism are the reported mainstays of the three areas' economic base (see Table A-8). Unfortunately, the Iron Range is:

> ...completely surrounded by abundant tourist and recreational amenities but is not itself, with its devasted land disturbance from a century of mining, either the kind of concentrated lake region for which Minnesota is famous, nor is it outstanding for scenic beauty of a kind that attracts the environmentally sensitive tourist. Moreover, while the six counties could claim 13,167 tourism employees, nearly twice the number in taconite mining and processing, the total wages of these widely-dispersed and largely seasonal service-type workers is probably less than one-half the total wages of mining industry workers. Hence, the economic multiplier effect of the tourism sector is sharply lower than is that of the mining sector activities. (Wood, 1985)

Turning to the non-resource-based sector, our focus is primarily on the technologically advanced kind of light manufacturing that has occurred in Silicon Valley, the Boston area, and Austin, Texas. It is a well-known "law" of modern economies that a product of high value, low weight, and small bulk is not in the least location-dependent in today's world of rapid transportation and instant communication. That is, plant location can be independent of both raw material supply location and market location. In the world of electronics gear, Minneapolis can compete with Tokyo, or with Frankfurt, and so forth. The question becomes: if Minneapolis can compete, how about Hibbing and Virginia on the Iron Range?

Hibbing Electronics Corporation is such a success story on the Iron Range. This company did not exist less than 10 years ago. Today, it employs nearly 400 skilled production workers, technicians, and engineers. It has annual sales of $34,000,000, and ships its many products to major centers from coast to coast. It has found a market

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*Wood, Thomas J., Analysis of the Economic Impact of Travel on Minnesota Counties for 1983, Tourism Management and Development Center, School of Business and Economics, UM(D), January 1985.

niche in the sub-assembly phase of electronics systems production with an outstanding record for quality. Its clients include the 3M Company, Xerox, IBM, GE, Western Electric, Control Data Corporation, all of the regional Bell telephone companies and many others. It is expanding to possibly 600 employees and has started a related subsidiary metals fabrication company. It was locally initiated, is locally owned and managed, and has drawn entirely upon the local labor force.

A second fledgling electronics firm in the Iron Range community is Virginia Electronics Corporation, smaller and younger than the one in Hibbing, but with an apparently promising start. It is about six months to a year into full operation, and is engaged in operations similar to those that Hibbing Electronics has been so successful in launching. Future plans may diverge into component manufacture.

Another non-resource based industry which may have growth potential in the Range is the financial service industry. Financial service companies are very labor intensive, as compared with manufacturing or extractive industries. In the insurance industry, labor is the largest single item of operating costs (i.e., costs excluding claim payments) followed by EDP and telecommunications costs. The same is true generally for other financial service companies. However, these sectors are already automated to some degree and additional automation will occur in the future. Increased automation does two things:

- Reduces the total labor content of financial service cost; and
- Requires clerical staff who can be trained to use computer data entry and perform related tasks.

In addition to clerical labor, financial service companies require people with data processing skills (system design, computer programming, and technicians) as well as specialized and professional training (such as actuaries, underwriters, claim adjusters, loan officers, and trust officers). Thus, the supply and cost of labor is important to many functional activities.

In addition to a large labor force, and its associated costs, other factors important to financial service companies include:

- Other facility operating costs (such as telecommunications and rent);
- Industry specific regulations, enticements or constraints;
- Infrastructure (such as high quality telecommunications, good postal service, and availability of technical training facilities or institutions);

- The general business environment (including the tax treatment of corporations in general, the threat of unionization and other forces which affect the cost of doing business);

- For some operations, the proximity to corporate headquarters; and

- For corporate headquarters, the proximity to customers or major financial centers.

With the exception of the two electronic firms discussed above, we have not found in the Range any embryonic electronics-related, technologically oriented financial service firms. Almost all companies--and there are 50 or more well-established and locally-owned firms--are mining-related (iron castings, fabrications, drills, welders, machine shops) or forest products-related (wood furnaces, snow fence, wood building materials, cabinet and furniture, waste-wood pelletiers). For non-resource-related enterprises to take hold, the Iron Range must correct the misconceptions and erroneous images that outsiders have about the area. Section B, below, assesses the extent and quality of local infrastructure, community facilities, and basic services that will be important in supporting a new and different Iron Range community in the future.

B. SOCIO-CULTURAL AND ENVIRONMENTAL CONDITIONS

1. Public Works

a. Transportation

(1) Roads--Principal roadways within the study area are:

- US 51, following the Lake Superior shoreline from Duluth to Grand Rapids and into Canada;

- US 53, connecting Duluth with International Falls via Eveleth, Virginia and Cook; and

- US 2, connecting Duluth and Grand Rapids.

While the road network is adequate, highway access to major U.S. markets is relatively poor due to the remote location of the Arrowhead Region. Furthermore, lack of Interstate Highways reduces the amount of highway traffic passing through the region to Canada and to other portions of the United States.

(2) Railways--The Arrowhead Region has excellent rail service provided by seven rail carriers moving bulk commodities such as taconite and wood products. The future of passenger service (providing service to tourists and others) to Duluth

from Minneapolis is uncertain due to Amtrak funding cutbacks.

(3) Airports--Four communities within the Arrowhead Region (Duluth, Hibbing, Grand Rapids, and International Falls) have scheduled air service. Service to Duluth and Hibbing has been recently reduced due to deregulation. According to a 1984 Fantus Report, the amount of scheduled air service to and from the region is below scheduled service levels provided to other randomly selected regions with comparable size (250,000 to 300,000 population). While scheduled air service is below average, facilities at 12 regional airports are relatively good.

b. Utilities

(1) Water Supply--According to the 1984 Fantus Report, all communities in the Arrowhead Region have excess pumping capacity. The average monthly water bill of a sample of communities is lower than Minneapolis, but higher than St. Paul and potentially competing communities in Wisconsin. To reduce cost, companies using large volumes of water may have the option of developing independent ground and surface water supply sources.

(2) Wastewater Treatment--A majority of communities have excess sewage treatment capacity with the exception of Aitkin, Bovey and Virginia. Treatment costs compare favorably with competitive locations in Minnesota and Wisconsin.

(3) Electricity and Gas--Most communities are served by Minnesota Power Company. Hibbing, Moose Lake, Mountain Iron and Virginia are served by municipal electric utilities and Aitkin is served by a rural cooperative. Typical monthly Minnesota Power electricity bills are lower than average U.S. electric bills. Average West North Central monthly bills are slightly lower than Minnesota Power bills, while Northern States Power (which is the major competing Minnesota utility) electricity bills are 15-25 percent below Minnesota Power electricity bills.

A majority of communities in the Arrowhead Region receive natural gas service from Inter-City Gas Company. Hibbing, Two Harbors, and Virginia operate municipal gas systems. According to the 1984 Fantus Report, natural gas costs are well below costs in Minneapolis and St. Paul, and a number of locations in Wisconsin. The exception to this cost advantage is the fact that at higher levels of consumption (20,000 mcf), Wisconsin gas costs are below average costs in the Arrowhead Region.

(4) Communications--Northwestern Bell Telephone Company serves the Grand Rapids area with basic phone service, including low-cost, high-volume discount service. High speed voice and data transmission is most likely available in the Iron Range. Availability would need to be reviewed on a case-by-case basis.

2. Community Services

a. Educational and Cultural Services

(1) Secondary School Systems--Regional secondary schools have a good reputation resulting in a well-educated labor force. Approximately 60 percent of high school graduates continue with some form of higher education.

(2) Voc-Ed and Higher Education--There are 5 voc-ed colleges with enrollments over 100 students in the Arrowhead Region. Two of these colleges are in Duluth, the remaining colleges are located in:

- Itasca County;
- Eveleth; and
- Hibbing.

In addition, there are 10 smaller voc-ed colleges located throughout the region.

On-the-job training resources are available as a result of Federal Job Partnership Act (J.T.P.A.) and the Minnesota Emergency Employment Development Act (MEEDA). JTPA provides full reimbursement to employers for pre-job training and will cover 50 percent of hourly wages for on-the-job training for up to six months. MEEDA allows state subsidy of up to $5.00 an hour for wages and fringe benefits of persons employed under the program.

There are three higher education institutions in the seven county region. These include:

- o University of Minnesota, Duluth--enrollment about 6,600;
- o College of St. Scholastica--enrollment about 1,000;
- o Arrowhead Community College with campuses located in:
  - Hibbing
  - Virginia
  - Ely
  - International Falls.

Annually, about 250 students receive certificates from Arrowhead Community College.

Local industry representatives claim that they have been greatly helped by local vocational-technical schools. It has been reported, however, that the engineering program at the University of Minnesota could be strengthened.

(3) Museums and Tourist Attractions--Northeast Minnesota has a diversity of museums and exhibits located throughout the Arrowhead region. These are listed in Table A-9. Major attractions include the Iron Range Interpretative Center and the Hull-Rust-Mahoning Mine in Hibbing. Both are listed in the American Automobile Association Tour Book as having "particular or exceptional interest and quality."

b. Outdoor Recreation

Northeastern Minnesota contains numerous lakes, abundant wildlife and varied resources for outdoor recreation in all seasons of the year. The Arrowhead Region includes 12 State Parks: seven along the coast of Lake Superior, two in the central Mesabi Range, and three in the west. Virtually all offer facilities for camping, hiking and fishing; the majority also maintain trails for snowmobiling and cross-country skiing. Inland parks are more likely to provide facilities for swimming and boating (mainly canoeing) than are those on the Lake.

Federal lands include Voyagers National Park, on the Canadian border near International Falls; Superior National Forest, which covers about 1 million acres in the Central Mesabi Range; and Chippewa National Forest, toward the western side of the Range. In addition to a full range of facilities for outdoor recreation, each of these sites also offers one or more Visitor Centers, lodges and cabins, and food service. Grand Portage, Minnesota, is also the closest land point to Michigan's Isle Royale National Park.

At least five commercial ski areas operate in the region, including: Spirit Mountain in Duluth (which we understand was initially developed with federal money), the Lutsen Ski Area, Quadna Mountain Resort at Hill City, Sugar Hills near Grand Rapids, and the IRRRB's Giants Ridge Ski Area at Biwabik.

Each of these resorts offers facilities for both alpine and cross-country skiing. The Minnesota terrain allows only a modest vertical drop for alpine skiing (450' at Giants Ridge), but the cross-country potential is exceptional, with trails interconnecting both public facilities and commercial resorts. The Giants Ridge Ski Area promotional brochure claims that over 200 miles of groomed snowmobile trails are connected to the Giants Ridge facility, running from Grand Rapids, Minnesota to the Boundary Waters Canoe Area.

Giants Ridge has been officially designated as an Olympic Training Center by the United States Ski Association, an honor shared with only two other ski areas: Lake Placid, NY and Squaw Valley, CA (the latter is currently inactive).

Current development at all of the ski areas except Giants Ridge includes condominiums as well as lodges and other transient support facilities.

3. Environmental Conditions

a. Amenities

(1) Air and Water Quality.

Most of the Iron Range counties meet primary and secondary Environmental Protection Agency National Ambient Air Quality Standards. Exceptions to this include portions of St. Louis County which do not meet secondary Total Suspended Particulate (TSP) Standards.

According to the Environmental Protection Agency 305 B Report on water quality in Minnesota, water quality in Northeastern Minnesota is quite good. The only exception to this is an elevated level of taconite fibers in Lake Superior. This problem is being reduced due to Reserve Minings' switch to discharge of taconite tailings to an inland lagoon rather than to Lake Superior.

(2) Waste Disposal and Aesthetics.

Disposal of overburden resulting from mining activities occurs in a zone of mining activity in Itasca and St. Louis counties. The zone is approximately 100 miles long and 15 miles wide. Given that the overburden has not been returned to its original contour, the existence of mining activity is noticeable. This is due both to the low relief of the area and the fact that it takes approximately 25 years for natural restoration of vegetation on areas disturbed by mining activities.

It is important to note that none of the major mining activities are located in scenic areas along the North Shore of Lake Superior, the Boundary Waters Canoe Area along the Canadian Border, or adjacent to the Giants Ridge Ski area.

As of 1982, capacity for solid waste disposal for cities and towns in the area was limited to less than five years in St. Louis and Lake Counties. All other Iron Range Counties have more than five years capacity for solid waste disposal.

b. Problems Related to Land Reclamation.

Reclamation of areas disturbed by mining is very costly; however, planting and contouring of disturbed areas can accelerate the restoration of disturbed mining areas.

C. POSSIBLE INVESTMENT AREAS

The timber and wood products sector may offer the best prospects for near-term job creation, industrial diversification, and growth. The non-resources-based sector, specifically electronics-related production, also seems to offer near-term economic benefits for a given investment of time and money. In what follows, we outline--as indicative of the work the IRRRB needs to do--possibilities and constraints in: timber and wood products, non-resources-based light manufacturing, financial services, agriculture, mining, and tourism.

The Timber Base and Wood Products

Minnesota has a timber base of about 11.5 billion cubic feet of growing stock, about one-third softwoods and two-thirds hardwood. They are concentrated in maturing forests in the northeast region. The characteristics of the resource are:

- The availability of small diameter softwood and hardwood provide a good fiber source for printing paper mills;
- Shortage of large diameter logs has limited sawmill capacity;
- An abundance of aspen hardwood (a preferred species) has encouraged waferboard production; and
- An abundance of small diameter logs suggests use in other reconstituted board products such as oriented strand board (OSB) and medium-density fiberboard (MDF).

Intensive forest management has been limited since pulp and paper companies only own 5 percent. About 40 percent of the timberland is under private non-industry ownership and these owners may play a significant role in the future improvement of the state's timber resources. Policies that make timber growing more profitable, and assistance on forest management to these owners, will help achieve a more favorable timber outlook.

The forest products industry is the third largest manufacturing sector in Minnesota, with the following major products and their markets:

a. Pulp and Paper

This segment in particular has made major contributions to the state's economy. Over 100 million cubic feet of roundwood and plant residues are used. Mills in the region produce printing papers which take advantage of the lower-cost aspen hardwood which can be blended with more expensive softwoods. Boise Cascade, Blandin and Potlatch operate pulp and paper mills which, although not new, are generally well maintained and competitive in today's market environment. Boise Cascade and Blandin have studied the addition of new papermaking capacity, but projects have been postponed.

The coated printing papers are used in printing magazines, catalogs, and brochures. Uncoated papers are used for printing, business forms and envelope converting. These mills have access to major print markets in the Chicago area with reasonable transportation rates. New capacity to produce coated printing papers has been announced for mills in Wisconsin and the South. The future competitive position of both Blandin and Potlatch, who produce coated papers, will depend on their ability to be equal or lower on a delivered cost basis. Boise Cascade is particularly vulnerable to several large commodity size facilities now under construction in the South which are expected to become price leaders for uncoated printing papers. Wood fiber and energy will continue to be the most important elements in mill manufacturing costs. Typically, mills use waste wood as a fuel, which is very plentiful in the Range.

b. Reconstituted Wood Products

The large volume of aspen available in Minnesota is a valuable resource for production of waferboard, a reconstituted structural wood product. Lower quality trees can be used in the manufacturing process and demand for the product is expected to grow. Production of reconstituted wood products such as waferboard and OSB (oriented strand board) requires reasonably good wood, and fiber characteristics especially size and fiber orientation are carefully controlled in the finished board. In contrast to a plywood plant, where wood is typically 60 percent of the total panel cost, wood cost in waferboard or OSB can be 25-30 percent of the total panel cost. Both of these products are very cost competitive compared with softwood plywood.

c. Products and Markets

Reconstituted boards are relatively new products which compete directly with softwood plywood in the construction markets. In 1984 in the United States, about 20 billion square feet (3/8") of softwood plywood was used compared to 2 billion square feet (3/4") of reconstituted board products. However, all growth in the structural wood products market resulted from consumption of reconstituted board. This trend is expected to continue as demand for these lower-cost substitutes grows at the expense of softwood plywood. The market for waferboard and OSB is closely tied to residential housing activity and interest rates. Although about 25 percent of the market is associated with remodeling and additions, the largest share is associated with new construction activity, and as such has highly cyclical and seasonal patterns of consumption and production. Nationally, housing starts jumped 16.2 percent in March 1985.

Because of building codes and industry standards, final products tend to be physically and structurally identical to one another. These are true commodity products and price is frequently the sole decision criterion. Having a "better product" does not mean increased market share. Sales are very sensitive to price differences among manufacturers and price increases over market levels due to adverse transportation requirements (such as distance from major markets) can seriously affect market share assuming no availability problems.

The advantages of using some of the smaller hardwood trees available in the region for manufacturing reconstituted board products has been recognized by the IRRRB. The increase in Southern OSB capacity would affect the future role of waferboard versus OSB and the type of product best suited to manufacture in Minnesota.

d. Medium-Density Fiberboard (MDF)

MDF is a reconstituted board product that is primarily used in furniture and cabinets. This product showed good growth over the past two years and over 600 million square feet (3/4") were produced in the U.S. in 1984, predominantly in Southern mills. Capacity increases are underway including plants in Michigan, Pennsylvania, New Mexico and Arkansas. There are no MDF plants currently operating in Minnesota; however, the IRRRB is seeking private investment for a plant in the Wood Industrial Park in Hibbing. Bark and wood residues from the plant would be used in the city's steam boilers. Given the availability of low-cost roundwood, a major consideration for such an operation would be the market opportunity within a reasonable transportation distance from the plant.

Four specific and interrelated activities could warrant investment priority:

(1) Maintaining the Eveleth Nursery, now targeted as surplus and for disposal by the U.S. Forest Service, as an Iron Range forestry research center and source of seedling stock for major reforestation programs.

(2) Aspen tree farming in the under-utilized agricultural la[illegible] in the immediate Iron Range community. Aspen is said [illegible] "grow like weeds" and is a preferred wood for high-gra[illegible] low-ash,

high Btu content pellets. The Nursery might be a catalyst for locally owned tree farming enterprises. The rationale is that lower-cost alternative fuels are vitally important to economic and social conditions.

(3) Expanded development and marketing of projects using wood fuels. The technology for production of wood pellets has been established for a number of years but the industry record has been one of limited success. High volume users often opt for less expensive wood chips, believing that benefits offered by pellets do not justify the added costs. The American Bio Energy Company, near Virginia, stresses a high quality product made of higher grade raw wood resources. The company's expansion potential is considerable. However, there appears to be a lack of technical development projects which might expand the market for conventional wood fuels. Such projects might include the development of wood gasifiers which could be used to retrofit gas and oil-fired packaged boilers or perhaps even find application in direct-fired dryers or sludge incinerators. Such devices will ultimately expand the use of wood fuels beyond the applications which require investments in new boilers or retrofits of existing solid fuel furnaces.

(4) Renewed efforts to "market" the Wood Industrial Park in Hibbing. The Park has all the necessary utilities, but is still without an occupant for dimension, structural, and specialty wood products production as well as a medium-density fiberboard plant.

2. Non-Resource-Based Light Manufacturing Sector

The second near-term opportunity sector which holds promise for job creation and industrial diversification in the Range is the light electronics manufacturing industry. Light manufacturing is differentiated from heavy manufacturing by the ratio of assets to employees. Heavy manufacturing industries have high asset to employee ratios ($1 million/employee) as are common in steel-making, mineral extraction and petro-chemical refining businesses. Asset/employee ratios of light industries are more likely to be $15,000 to $20,000/employee as exemplified by medical equipment, electronic component, furniture, and industrial equipment manufacturing. Thus, the lower asset/employee ratio businesses of light manufacturing tend to create more jobs for a given size business.

The U.S. electronics industry has a mix of very large (General Electric, IBM, GTE) and very small business (Hibbing Electronics, Virginia Electronics). It is also very diversified: military/government, consumer, active (semiconductor) components, passive components, medical, communications, industrial control, information processing and instruments, plus a broad range of supporting products industries like electronic/electrical chemicals, wire and cable, contract manufacturing, printed circuit fabrication, assembly/production equipment, and electronic "hardware" (fasteners, cabinets, fans, motors).

Some of these business areas, like semiconductor fabrication, are asset intensive. Others, like information processing equipment, scientific instruments and assembly/production equipment design require large cadres of highly skilled, specialized engineers and workers. These business areas, therefore, are not likely investment targets for IRRRB. Passive components and contract manufacturing are two potentially attractive target areas for IRRRB economic development.

a. Electronic Contract Manufacturing

Electronic contract manufacturing has always been an electronic industry supporting business as: a subcontractor for military products, a provider of additional capacity for companies like IBM, and a supporter of smaller companies with limited manufacturing facilities. In more recent times, electronic contract manufacturing has become a major growth business sector driven by the high growth rates, short product life cycles and changing manufacturing practices in the communications and information processing industries. For example, IBM extensively contracted-out for the PC junior and has for years subcontracted much cable assembly work. All aerospace companies, and some military agencies, utilize electronic contract manufactures. Virtually all electronics companies use outside printed circuit board manufactures (a specialized contract manufacture).

Like general light manufacturing, electronic contract manufacturing makes small production runs, must be flexible and adjust to changing contract jobs, and employs hand and semi-automated production techniques. Electronic contract manufacturing is therefore a good match to Iron Range resources of:

- available unskilled and semiskilled labor;
- attractive financial incentives; and
- available transportation, and community support.

The IRRRB has supported two electronic contract manufacturing operations already: Hibbing Electronics and Virginia Electronics.

Despite these attractions, which help to qualify the Iron Range for location considerations, they are probably not enough to sway many final decisions. Again, something differentiating, unique, is needed to offer prospective companies, especially those considering a move to the area. For example, the primary motivation for Hibbing and Virginia Electronics to locate in the Iron Range is that the owners had lived in the region previously. They did not relocate there without a personal link to the area. What can the IRRRB do?

- o Help create a broad awareness in the electronics industry for Minnesota's capabilities in contract manufacturing. Promote the Iron Range as an "Electronics Contract Manufacturing Center;"

- o Encourage the development of a supporting infrastructure; printed circuit board manufacturing, job training, plating facilities, and electronic parts wholesalers; and

- o Identify and promote a common, unique, valuable characteristic about northeast Minnesota contract manufacturers, such as quality and zero-defects production.

There are some important hurdles. The electronics industry is temporarily down, and stimulating new contract manufacturing start-ups or encouraging relocations will be very difficult for the next two years. However, this could also be an opportunity for IRRRB to get its programs and promotion in place and timed for the next upswing. A second hurdle is remoteness. Contract manufacturing like to be close to their customers, although this is somewhat less important if good truck and air transportation are available. Targeting electronic companies in the Twin Cities or Chicago for business should therefore be a first priority.

b. Electro-Mechanical Electronic Components

Electro-mechanical electronic components are connectors, relays, timers, switchers, keyboards, and transducers. These products share characteristics common to contract manufacturing:

- o Semi-automated production;

- o Unskilled and semiskilled assembly;

- o Packaging test and inspection;

- o Small production runs; and

- o Moderate technology content (compared to computer design or semiconductor fabrication). Production requires general electronic assembly, machine tool (screw machine, stamping), and plastic molding capability

The Iron Range's general advantages are the same as for contract manufacturing: available labor, good transportation, financial incentives, community support. However, this business sector requires capabilities in machine tool, molding operation, and tool, die and mold design and fabrication. The availability of this important capability in

Iron Range will take time to develop. The electro-mechanical components part of the electronic industry is relatively mature and well established in current locations. Providing incentives to relocate will be difficult. Some promotional ideas that could help overcome these hurdles are:

- o The availability of non-union labor;
- o Developing facilities to process plating chemicals; and
- o Supporting "technology center" to focus on improving small-scale, flexible, electronic manufacturing.

3. Financial Services

Financial service opportunities typically encompass:

- o Insurance Companies
  - Home Office
  - EDP Facilities
  - Regional Office
  - Claim Office;
- o Insurance Third-Party Administration
  - Headquarters Office
  - Check Processing, etc.
  - EDP Facility
  - Credit Card Operations.

The major criteria companies use to differentiate areas are:

- o Labor force characteristics;
- o Operating costs;
- o Industry specific factors;
- o Infrastructure;
- o Business environment; and
- o Location or proximity to customers.

Some insurance companies are growing rapidly due to their line of business mix or marketing emphasis. These companies will open new offices, principally in the South and Southwest--i.e., higher than average growth areas. If location conditions are right, a company may consider opening a new office in a slow growth region like northeastern Minnesota.

Insurance companies locate regional offices (100-400 people) and claim offices (20 to 200 people) away from their corporate headquarters.

Data processing facilities are being relocated by many companies from downtown to suburban locations, but generally within the same metropolitan area. Some insurance companies will probably relocate corporate headquarters from large urban areas to suburban or other metropolitan areas. However, the type of labor force and other requirements necessary to support a data processing facility and home office are quite different from those of a branch or claims office. For example, one moderately large property casualty company relocated its home office from Los Angeles to Cincinnati in the mid-1970s and, as a result, lost most of its actuaries and many underwriters. It took several years for the company to rebuild its actuarial and underwriting staffs due to a lack of these skills in the Cincinnati area. The seven county area of the Iron Range is considerably less likely to have adequate technical skills.

The IRRRB region does possess some of the attributes important for branch and claims office operations, such as low clerical labor costs and low rents. If telecommunications services and facilities can handle high speed voice and data transmission and if WATTS-type services are priced competitively with other parts of the country, this would enhance the attractiveness of the region. Good postal service would also be a positive factor.

Negative factors include the state's "comparable worth" law. Minnesota passed a law last year that by October 1985 all public entities must have a "pay equity" program in place. A specific example of what this means is that a public agency needs to rank jobs based on criteria like supervisory responsibility and other factors so clerical workers could be compared to other groups; then adjustments in pay scales would be made to assure that "comparable" jobs paid the same wage.* The intent of "comparable worth" regulations is to equalize pay differences, which are apparently gender-based at present. While the regulation only applies to public entities now, it could be extended to private firms or affect wage levels in occupations which currently pay lower wages.

The presence of this regulation in Minnesota will reduce the attractiveness of Minnesota as a site for clerical operations. It will have little or no effect on technical skills (actuaries, or EDP).

4. Agricultural Sector

The adaptation of peat (organic) soils for agricultural uses is a commonly accepted practice in many areas of the Nation. In fact, for several of the high value fresh vegetable crops, muck soils are the preferred medium. Large acreages in Florida and New York are devoted

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*Greg Sandbulte, Arrowhead Regional Development Commission.

to vegetable production as well as smaller areas in Wisconsin and Michigan. Some peatlands have been drained and developed for agricultural use in Minnesota, but these have been mostly in regions south and west of counties targeted by the IRRRB and the utilization has been mostly for field crops.

Even though Minnesota ranks third nationally in the production of processed vegetables, fresh vegetable production is almost nil. There is a growing desire among state agricultural leaders to increase fresh vegetable production and the development of even a small portion of the peatlands would contribute significantly to increased state production. The Iron Range has a climate characterized by a short (100+ days) growing season, cool temperatures, and long periods of daylight. These climate conditions are compatible with the growing requirements of numerous vegetables commonly grown on mucklands such as iceberg and leaf lettuce, day and green onions, carrots, radishes, and potatoes.

a. Type of Development Possible

For many reasons, the Iron Range has experienced very little agricultural development compared to other regions within the State. Consequently, there is a shortage of some of the key resources required for development including experienced and/or innovative farmers, agricultural input industry support, knowledgeable financing organizations, and functioning market structures. Over time, many of these resource shortages can be alleviated with the appropriate public and private support. Perhaps the most serious deficiency is that involving marketing organizations and facilities. The fresh produce business is a very competitive industry and any new participant must be prepared to meet the needs of the marketplace for quality, packaging, service, and adequate supplies. It is doubtful that small farmers can compete in the marketing area independently so it may be necessary to form some type of joint corporate or cooperatives marketing organization complete with the requisite cold storage and packing facilities.

Some of these difficulties might be by-passed by attracting out-of-state operators into Minnesota to develop the peatlands. It may be possible to interest, for example, large and sophisticated Florida farmers (growers and marketers) in establishing a summer season operation in Minnesota. This has occurred in Michigan where A. Duda & Sons, large, diversified farming and agricultural operators from Florida, opened up considerable acreage. These operators have the experience of growing vegetables on muck, and perhaps more importantly, the market contacts and acumen required to successfully sell their production. Thus, they do not need to be educated or supported in any way and they can serve as examples for local entrepreneurs to emulate. The risk is that the local populace and/or political structure will resent the importation of outsiders into their local industries.

b. Development Constraints

Undoubtedly, there are physical limitations and problems that will prevent any agricultural development on at least some of the peatlands. However, the greatest constraint to development may be the regulatory environment prevailing in Minnesota. It appears that at least four separate permits will be required prior to the development of any land including:

1. Water Appropriation Permit (Department of Natural Resources);

2. Protected Water Permit (Department of Natural Resources);

3. MPDS Permit (Minnesota Pollution Control Agency); and

4. Environmental Review Permit (Minnesota Pollution Control Agency).

Each of these procedures lasts 90-180 days and is judged on site specific data. The outcome can be go, no go, go with conditions and limitations, or start over and prepare an environment impact statement. The risks of having onerous conditions placed on approvals (e.g., water treatment plants) or having to prepare an expensive environmental impact statement will certainly inhibit development. In fact, the whole permit approval process presents a serious barrier to individual farmers. Gathering the data required by the state agencies, presenting it in the required format, guiding the application through a remote bureaucracy (150 miles away) and responding to the inevitable public interest group challenges are more than most farmers are capable of. In addition, agriculture is a very risky investment and the addition of this incremental expense and contingent risk is probably enough to make agricultural development unattractive.

c. IRRRB Role

As a catalyst for development of peatlands for agricultural production, the IRRRB could play several key roles:

- Since the permit approval process may effectively block any peatland development by individual farmers, the IRRRB could assume an "ombudsman" or "advocate" role for the farmers by actively assisting them in filling out applications, gathering required data, and shepherding the application through the approval process;

- If farmers are successful in getting some lands approved for development and subsequent vegetable production, the IRRRB could provide the capital, either as a grant or low-interest loan, required for land development costs. These include land clearing, drainage, leveling, liming, and irrigation development; and

- IRRRB could also provide the funding to build and equip one or several cold storage and packing facilities that will be required to successfully market fresh vegetables.

5. The Mining Sector

For many years it has been recognized that iron ore could not forever be the basis of a strong economy in northern Minnesota. After the depletion of the high grade direct shipping ores, a combination of technical developments in ore processing, and public policy decisions, resulted in the development of the taconite mining and processing industry. Taconite reserves in the Iron Range were conservatively estimated to be sufficient to last well into the 21st century. However, changes in iron ore demand, first noticeable in the 1975-78 period, and accentuated beginning in 1982, have cast serious doubt on whether iron ore mining and processing can continue to be a major contributor to the economic base of northern Minnesota for the next twenty to fifty years.

a. Iron Ore Demand

The decline in taconite mining and processing activity over the past several years is a direct result of declining demand for iron ore by the U.S. steel industry. In the period from 1979 to 1983, U.S. iron ore production declined from 85.7 million tons to 38.0 million (39 percent of consumption) to 13.3 million tons (35 percent of consumption). Iron ore mining has essentially ended in the western U.S., with the closures of mines formerly operated by Kaiser Steel (Eagle Mountain, California), CF&I Steel (Cedar City, Utah and Sunrise, Wyoming) and U.S. Steel (Wyoming and Utah). Virtually all domestic iron ore mining activities are now in the Lake Superior District (including the Upper Peninsula of Michigan and northern Minnesota).

The major trends affecting the iron ore business in the United States are:

- Declining demand for domestic steel as a result of increased competition from many foreign nations, especially the developing world;

- Increasing imports of steel-containing manufactured products (cars, machine tools, fabricated structural steel for buildings) and components (auto engines);

- Increasing use of electric arc, scrap-fed furnaces for steelmaking; and

- Increasing yield of finished products from raw steel (resulting in lower iron and molten steel requirements for the same level of finished products).

Additional factors which many, in the near future, have further negative effects on the Iron Range are:

- Increasing imports of semi-finished steel from low-cost foreign producers by the domestic steel industry; and

- Increased imports of low-cost iron ore from countries such as Brazil and Venezuela.

Over the next decade, domestic steel production will continue to be substantially below the average level achieved in the 1977-81 period; domestic iron ore production will average about 50 percent of the average production in the earlier five-year period.

b. Iron Ore as the Basis for Regional Revitalization

The taconite iron ore reserves in Minnesota's Iron Range are unlikely to represent a realistic base for economic development, even with new iron or steelmaking technology. While we have not conducted a major study on the location effects on the economics of iron production by new methods, there are a number of common sense reasons why substantial increases in iron ore and steel-related activity in Minnesota's Iron Range may not be achieved in the foreseeable future:

- Substantial over-capacity in iron ore smelting and steelmaking exists and will continue to exist in the U.S., making investment in new capacity unlikely; and

- Availability of ferrous scrap in North America continues to be more than adequate and represents the lowest cost (and investment) source of cold iron units for steelmaking. Directly reduced iron, if desired by arc-furnace steel producers for metallurgical reasons, is and will continue to be available from foreign producers in low energy cost locations (e.g., Trinidad, S.E. Asia, Venezuela).

The mining and processing of taconite will certainly continue, albeit at lower levels than in the 1970's. However, holding out much hope for major downstream activity in processing of ores to iron or steel under the economic conditions which the Nation, the steel industry, and northern Minnesota are likely to experience is probably highly speculative.

c. Other Minerals

While a number of occurrences of base metals (copper, lead and zinc) and precious metals (gold and silver) have been noted in the seven-county Arrowhead Region, none has justified commercial exploitation. Nevertheless, the bedrock geology of much of this region has been favorable to the development of base and precious metal deposits and, were it not the fact that most of the area is overlain by 100 to 200 feet of glacial drift, it is likely that some commercial deposits would have been discovered. The problem is to judge what might be found in this region if exploration is encouraged and what this might mean to the region.

Exploring for minerals is a high-risk proposition. The glacial drift greatly complicates geological investigations, and over much of the region bedrock geology is not well delineated. In the 1960's, improved methods were developed for investigating the mineral potential of bedrock overlain by thick glacial drift. As a result, areas that previously were ignored because of a lack of knowledge about their mineral potential are now of potential interest.

To illustrate, what are the chances that one or more commercially viable base-metal deposits will be found in the "greenstone" areas of the region? Greenstone is the most economically promising type of rock known to occur in this region and the type found in mineral-rich regions in Canada, just north of the border.

Typical airborne surveys include magnetic (for iron ore), radiometric (for uranium) and electromagnetic (for base and precious metal) surveys. Conducting airborne surveys on an "average" 800,000 acres typically would reveal about 2,000 anomalies, three-quarters of which would be found to have been caused by man-made cultural features. Examination of the remaining 500 anomalies would permit the geologist to reject 80 percent as resulting from structural geological features, leaving 100 anomalies to be investigated by ground geophysical techniques. Such techniques would enable 70 of these to be rejected, leaving 30 anomalies to be investigated by drilling. Of the 30 that might be drilled, 19 would typically prove to be graphite, 10 iron sulfide or low-grade base metal occurrences, and only one would prove to be a commercially viable base-metal sulfide deposit.

About 1,200,000 acres of land are underlain by greenstone in the Iron Range, which suggests that, on average, one could expect to discover 1.5 major commercial deposits in the region. Such a deposit might yield 2.5 million tons per year of copper-zinc ore that could be treated to produce an annual net smelter return of $125 million, and a 5 percent royalty on the net smelter return would yield the owner of the mineral rights $6.25 million per year.

If such a deposit were discovered today, it would require on the order of 10 years to develop an operating mine. Assuming the mine operated for 20 years and an interest rate of 15 percent--the total royalty of $225 million would have a present value of the landowners of [illegible] million, or an average of $12 per acre over the entire greenstone area. Such a per-acre valuation is consistent with the valuations of local geologists.

Another type of rock that is of interest in the search for nonferrous metals is metasediments, which are sediments altered by some geologic process. Such rocks, which also underlie portions of the seven-county region, most frequently have yielded uranium, copper, gold and silver, although exploration in this type of rock in this region of the United States has tended to concentrate on uranium.

The potential value of metasediments generally is considered to be less than that of greenstone. Using a value of $10 per acre, which again is consistent with valuations by local geologists, the estimated present value of the 1.7 million acres of metasediments that are believed to underlie the seven-county region is $17 million, again if the deposits contained therein were discovered today.

The last type of rock that is of potential interest for nonferrous metals is in the iron formations since commercial quantities of copper, gold and uranium sometimes are associated with such formations. To put the potential for this type of rock into perspective, we have applied a value of $7 per acre to the approximately 150,000 acres of iron formation located in the seven-county region, for a present value of $1 million.

Thus, in total, the present value of the land underlain by rocks that are potentially favorable to occurrences of base and precious metals is about $33 million, if all the deposits were discovered today. Exploitation of all these deposits might employ on the order of 1,000 persons over a 20-year period, starting about 20 years after the deposits are discovered. Thus, while the Iron Range may in the long-term develop new mining industries, in the foreseeable future, a major role for the IRRRB could be in aiding public and private exploration and mapping efforts.

6. Tourism/Recreation Sector

Almost all of the Iron Range community's 36 cities and towns cannot escape the fact that their recreational amenities and tourist attractions are inferior to those throughout the rest of northern and central Minnesota. Noteworthy exceptions are the Grand Rapids area and westward into Itasca County. There are several reasons for this general region-wide appraisal:

- These communities do not have the natural lakes, rivers, wilderness areas and scenic environments that other well-known "Lake Regions" have;

- The Iron Range is several hours driving time from midwestern States and four hours from the Twin Cities, while [illegible] resort areas are much closer to these major population centers;

- The season for outdoor recreation, except for skiing, is generally less favorable than in other parts of the State;

- There are very few developed facilities and attractions on the Iron Range that might provide the nucleus for a regional center for tourism;

- Many of the present accommodations for vacationers are limited and aging;

- Investment requirements for new resort-type developments are relatively costly per job created;

- The competition from other nearby Minnesota areas, not to mention out-of-state competitors, for the tourist dollar is fierce; and

- Distant resorts are every year more readily accessible by low-cost air travel.

Many of these negative factors are exogenous to the region. Many, however, can be traced to the long history of the Iron Range as virtually a captive series of mining communities. This history, and the problems to be overcome, preclude early development of the Iron Range as a tourist industry center.

However, there are some possibilities for the medium-to longer-term.

a. Four Season Resort (probably at Giants Ridge)

We believe that the feasibility of a four-season resort at Giants Ridge should be tested. The idea for the resort would be grounded in its designation as an Olympic training camp by the U.S. Ski Association, which would lend appeal for recreational as well as competitive skiers. The fact that Olympic training would hold prospective competitors in residence over an extended period is especially attractive, providing stability to counterbalance the inevitable uncertainty of resort operations.

Complementary development possibilities that would enhance feasibility and potential four season impacts might include one or more of the following mutually reinforcing elements:

- A corporate fitness center. The possibility of tie-in with an existing medical center, possibly the Mayo Clinic or the University of Minnesota Medical School, should be investigated;

- A conference or convention center;
- A second-home and/or retirement community might be developed near the resort; and
- Expansion of Olympic training activities to incorporate a broad range of winter and summer outdoor field events; for example, speed skating, dog sledding, biathalon, other rifle events, distance running, etc.

b. Four-Season Theme Town or Village

We agree with the IRRRB that a theme town or village would complement and provide a focus for existing development in the Arrowhead Region. The theme for the village and its most advantageous location (i.e., at the Iron Range Interpretative Center or elsewhere) should be thoroughly tested. The theme must be consistent with the personality of northeastern Minnesota and of sufficient scope to attract markets from outside the area.

A village based on Lake Wobegon, the imaginary hometown of the popular radio show "Prairie Home Companion", comes immediately to mind. Perhaps the idea has already been implemented elsewhere in Minnesota, or there might be problems with licensing. An alternate possibility would be a Scandinavian village where accommodations, restaurants, and retail establishments are designed in Nordic architecture and feature Nordic goods. Models for this approach would be Helen, GA (Alpine theme) and Solvang, CA (Danish). Both of these developments are similar to northeastern Minnesota in their relative remoteness from metropolitan areas. In all cases, we would suggest that the theme might be implemented in an existing town, rather than creating an entirely new theme park.

c. Circuit Development

We heartily endorse the IRRRB effort to interconnect over 200 miles of cross-country ski trails. The idea should be further pursued to design a complete system, with accommodations at appropriate intervals for hiking, cross-country skiing, and possibly biking and horseback riding as well. The concept is particularly appealing in that it could utilize the existing plant of small and/or modest facilities. Possibly a central reservation service would facilitate bookings. Once the product has been fully defined and developed, it should then be widely promoted.

TABLE A-1

POPULATION TRENDS AND FORECASTS
ARROWHEAD REGION COUNTIES AND STATE OF MINNESOTA

Areas	1960	1970	1980	% Change 1970-80	1985	1990
Aitkin	12,162	11,403	13,404	17.5	13,727	14,094
Crow Wing	36,500	34,826	41,722	19.8	44,200	46,500
Cook	3,377	3,423	4,092	19.6	4,255	4,411
Itasca	38,006	35,530	43,069	21.0	45,730	48,479
Lake	13,702	13,351	13,043	-2.3	12,564	12,100
St. Louis (excl. Duluth)	106,588	120,115	129,918	8.2	125,000 *	122,000 *
Regional Total	210,335	218,648	245,248	12.2	245,476	247,584
State Total	3,554,000	3,806,103	4,077,148	7.1	NA	4,362,548**

*Extrapolated from 1970 to 1980 trend in absence of projection without Duluth.

**Assuming 7% growth

Source: ARDC

TABLE A-2

LABOR FORCE PARTICIPATION RATES, 1970 AND 1980
ARROWHEAD REGION COUNTIES AND STATE OF MINNESOTA

Area	1970			1980		
	Male	Female	Total	Male	Female	Total
Crow Wing	60.8	38.2	51.4	56.3	43.7	52.4
Aitkin	63.1	32.0	47.5	58.9	36.1	47.4
Cook	70.0	45.6	58.2	71.8	50.1	61.1
Itasca	68.6	31.3	49.9	71.1	40.2	55.5
Lake	79.1	33.4	56.6	80.5	39.4	60.6
St. Louis (excl. Duluth)	72.9	33.0	52.9	73.8	41.7	57.8
Regional Averages	72.1	33.5	52.7	72.2	41.6	56.9
State Averages	77.1	43.5	59.6	77.1	54.0	65.2

Source: Duluth Business Indicators, Bureau of Business and Economic Research, University of Minnesota, Duluth; ARDC.

TABLE A-3

EMPLOYED OCCUPATIONAL SKILLS, 1980
ARROWHEAD REGION COUNTIES

Classification	% Of Employed
Executive/Managerial	9.2
Professional Specialty	12.3
Administrative Support/Sales/Clerical	26.6
All Services	16.3
Farming, Fisheries and Forestry	1.9
Precision Production, Crafts, Repairs	16.0
Machine Operators, Fabricators, Assemblers	6.1
Movers, Transporters, Laborers	6.4
Handlers, Equipment Cleaners, Laborers	5.7
TOTAL	100.0

Source: State Planning Office, Minnesota.

TABLE A-4

EMPLOYED PERSONS BY MAJOR INDUSTRIES, 1980
ARROWHEAD REGION COUNTIES

Industry	% Of Employed
Farming, Fisheries, Forestry, Mining	12.6
Construction	6.4
Manufactured Goods	11.3
Transportation, Communications, and Public Utilities	8.4
Wholesale and Retail Trade	21.8
Finance, Insurance and Real Estate	3.9
All Services	30.7
Government	5.3
TOTAL	100.0

Source: State Planning Office, Minnesota.

TABLE A-5

POPULATION TRENDS, 1970 TO 1985
IRON RANGE CITIES, TOWNS, TOWNSHIPS AND TERRITORIES

Area	Actual 1970	Actual 1980	Inferred 1985	% Change 1970-85
St. Louis County				
19 Cities & Towns	61,846	68,972		
18 Townships & Territories	15,027	15,588		
	76,873	84,560	82,657	7.5
Itasca County				
11 Cities & Towns	13,890	13,718		
9 Townships & Territories	18,409	21,345		
	32,299	35,063	37,230	15.3
Aitkin County				
2 Cities & Towns	1,702	1,923		
7 Townships & Territories	2,811	2,885		
	4,513	4,808	4,924	9.1
Crow Wing County				
4 Cities & Towns	3,251	3,805		
3 Townships & Territories	500	550		
	3,751	4,400	4,661	24.3
Total, Iron Range Community	117,436	129,831	129,472	10.2

NOTE: The State Demographic Unit estimates for St. Louis, Itasca, Aitkin and Crow Wing Counties changes of -2.25 percent, 6.18 percent, 2.41 percent and 5.94 percent respectively from 1980 to 1985. These were applied to county totals for 1980 to infer the sub-regional area totals.

Source: ARDC

TABLE A-6

PERCENTAGE UNEMPLOYED, 1981 - 1984

Area	July 1981	Jan 1982	July 1982	Jan 1983	Nov 1983	April 1984
Arrowhead Region	7.0	12.8	18.5	22.1	16.0	12.8
State of Minnesota	4.9	7.4	7.4	10.4	6.8	6.5
United States	7.3	9.4	9.8	11.4	8.1	7.6

Source: ARDC

TABLE A-7

ESTIMATED UNEMPLOYMENT TRENDS
IRON RANGE COMMUNITIES
(Number Unemployed)

Year	St. Louis	Itasca	Total
1978	2,826	1,220	4,046
1979	3,319	1,440	4,759
1980	5,936	2,429	8,365
1981	4,843	2,096	6,939
1982	7,535	2,411	9,946
1983	12,807	3,017	15,824
1984*	7,535	3,411	10,946

*Preliminary, for February only

Source: Department of Employment Security, Minnesota.

TABLE A-8

TOURISM-GENERATED EMPLOYMENT BY COUNTY, 1983

Ranking	County	Employment	% Tourism Employment to Total Employment
1	Cook	1,207	60
3	Crow Wing	3,318	22
4	Aitkin	731	16
5	Lake	510	16
11	St. Louis	6,339	8
13	Itasca	1,062	7

Source: T. J. Wood, Analysis of the Economic Impact of Travel on Minnesota Counties for 1983 (January, 1985).

TABLE A-9

PRINCIPAL ATTRACTIONS IN NORTHEAST MINNESOTA

	Location
Central Mesabi Range	
Iron Range Interpretative Center*	Chisholm
Minnesota Museum of Mining	Chisholm
U.S. Hockey Hall of Fame*	Eveleth
Hull-Rust-Mahoning Mine*	Hibbing
Hibbing-Chisholm Pit Crossing	Hibbing
Paulucci Planetarium	Hibbing
Soudan Iron Mine	Soudan
Mine View in the Sky	Virginia
North Mesabi Range	
Grand Mound Interpretive Center	International Falls
Koochiching County Historical Museum	International Falls
Western Mesabi Range	
Forest History Center	Grand Rapids

* Attractions rated by AAA as "of particular or exceptional interest and quality".

Source: AAA Tour Book -- North Central, American Automobile Association, 1984; and Jeanne V. Beekhuis & Co.

APPENDIX B

PROGRAMMATIC OVERVIEW OF THE IRRRB

The IRRRB has three major areas of activity:

- Business development loans;
- Grants to cities and localities;and
- Agency, or internal projects.

The business development and support programs, to date, primarily involve bank participation loans, industrial revenue bonds, and interest buy-downs. The bank participation loan program is by far the largest activity, though all have the expressed purpose "to create and maintain productive, permanent skilled employment" through the establishment of new businesses or the expansion of existing businesses in the private sector located within the primary Taconite Tax Relief Area. As the guidelines for the IRRRB's financial assistance loan program state:

> ...primary emphasis will be placed on projects which promote or further develop technologically innovative businesses, minerals, alternative energy sources utilizing indigenous fuels, forestry and wood products, small business and tourism. The primary focus of the program will be to assist those businesses and industries which have a primary economic impact and are viewed as "leaders" of the economy, rather than businesses and industries which are predominantly "followers" of the overall economy. Furthermore, this program is designed to increase, expand and diversify the area's economic base by creating new private investment in the region, as opposed to further subdividing the existing economic base.

Businesses considered to be "followers" of the economy, because they are deemed not to help diversify or expand the area's economic base, are:

- Retail/Service;
- Construction;
- Media;
- Transportation;
- Professional Offices;
- Speculative Real Estate; and
- Agricultural.

Under the bank participation loan program, the IRRRB is allowed to provide up to half of the principal cost of a loan at an 8 percent interest rate, in conjunction with a private bank's provision of the other half at market rates. Loan terms have generally ranged from 7 to 15 years with servicing performed by the participating bank (at a cost of 0.5 percent interest charged the IRRRB). The IRRRB can also issue up to $25 million in industrial revenue bonds with or without the use of a common bond reserve fund. Bonds that can be privately placed will not use the reserve fund; more marginal undertakings will rely upon a $5 million common bond reserve established by the IRRRB. Finally, the IRRRB staff hope to make greater use of interest buy-downs and other financing mechanisms for attracting new businesses from outside the Iron Range.

The local development grants, one of the longest running programs of the IRRRB, have historically helped local governments within the Primary Taconite Tax Relief Area meet their infrastructure needs. Increasingly, however, the program is becoming more closely associated with economic development. Criteria for project approval now include:

- The job intensity of the developments served by the local project;
- The level of "emergency need" for the local project; and
- The "leverage ratio" of the project, covering the additional financing tied to the provision of requested IRRRB funds.

Finally, internal or agency projects, such as Giants Ridge and the Iron Range Interpretative Center, emphasize investments in the following five areas:

- Energy development and alternative fuels;
- Timber and wood products;
- Tourism and resort renovation;
- Mining and natural resource development; and
- Business diversification and new technologies.

Within each of these sectors, the IRRRB has established the following priorities:

- Permanent job creation;
- Economic diversification of the local economy;
- Strong technical, financial and economic project feasibility; and,
- Private sector participation in project financing.

Agency projects can cover all stages of project development from research to construction and actual operation, depending on need. Specific allocations range from capital and operating grants for the construction and operation of major facilities (such as the Iron Range Interpretative Center); a series of smaller projects such as a fish-stocking program for lakes in abandoned mine pits; conversion of boilers in Iron Range schools and other public buildings to burn locally available alternative fuels such as peat or wood; and, research project grants (such as the plasma smelt project, peat gasification tests and mini steel mill marketing study) typically undertaken in conjunction with business and university support and expertise.

APPENDIX C

BRIEF DESCRIPTIONS OF COMPARABLE GROUPS TO THE IRRRB IN OTHER STATES

1. WYOMING SEVERANCE TAX AND ITS UTILIZATION

The Wyoming Severance Tax is a tax raised on the minehead price of coal and other minerals, extracted within the state. Its collection and distribution are administered separately: collection is administered by the Department of Revenue and Taxation, which then distributes it to various state-run funds according to a formula set by the State Legislature. These funds, numbering six in total, have more or less specific goals within the broad context of the development of the State of Wyoming.

Each fund will be discussed separately below. It is important to note that July 1, 1985 marks a timely point in state sponsored economic development initiatives in Wyoming. A bill passed in the State Legislature on March 5, 1985 will restructure the former Department of Economic Planning and Development as an Economic Planning and Stabilization Board. This Board will encompass three divisions: Economic Development; Mineral Development; and Water Development.

The state derives a large proportion of its revenues from sources related to mineral extraction. Inevitably the ways in which the taxes are used, what organization is administering them, the priorities for use and therefore the evaluation criteria will be affected by the changes outlined above. However, it is useful to review the manner in which the funds are administered and used presently.

Currently, the Wyoming Severance Tax amounts to 10.5 percent of the value of coal and other minerals at the minehead which in 1982 amounted to $389 million. The 10.5 percent tax is distributed among various state funds in the following manner which is set by the State Legislature:

- 2.5 percent: Permanent Wyoming Mineral Trust Fund
- 2 percent: Wyoming General Fund
- 2 percent: Coal Impact Tax
- 1.5 percent: Wyoming Water Development Account
- 1 percent: Wyoming Highway Fund
- 1.5 percent: Capital Facilities Revenue Account

a. Permanent Wyoming Trust Fund

This money is kept in a fund "replacing an irreplaceable resource". At present it is inviolate. It could only possibly be used by the passing of an appropriation bill by the Legislature. It is valued at $700M. While the body of the fund is inviolate the interest can be, and is, used. The interest is transferred directly into the Wyoming General Fund.

b. Wyoming General Fund

This fund is administered by the State Legislature. It is not earmarked for use in any specific economic or geographic area within the State.

c. Impact Tax

These monies go into a revenue account. At the time at which collections started in 1975 this amounts to 4/5 percent and increased to 2 percent of the 10 percent Severance Tax by 1978, at which level it has remained to date. Initially it was targeted for use in the form of grants for provision of infrastructure in towns, counties, and communities that could prove need due to coal development. Now it has evolved into a fund not specifically tied to coal development, but to any development provided necessity can be proved. For example, Cheyenne was allocated monies from this fund due to impacts from the sitting of MX missiles there.

The fund is administered by the Farm Loan Board which is made up of the Governor, the Secretary of State, the Auditor, the Treasurer, and the Director of Education.

In 1984 the income was $23M. All revenue is distributed as grants. The fund reached a total of $160M. In the Legislation that set up this fund in 1975, it was stated that the collection would cease upon the fund reaching a total of $160M. Legislation is pending to try to prolong the collection of this portion of the severance tax.

d. Wyoming Water Development Account

Presently there is $250M in this account. During fiscal year 1984, there probably was not more than $40M spent. The fund is specifically earmarked for water projects. The funds are provided from this account by legislative authorization and are allocated for use by the Water Development Division of the Department of Economic Planning and Development which consists of a three person advisory council, and four person professional staff. Projects range from feasibility studies through various levels up to construction phase. Funds are provided in the form of 50 percent loans and 50 percent grants.

e. Wyoming Highway Fund

This fund must be used for all roads and related facilities including both construction and maintenance of city streets and country roads. Expenditures are overseen by the Highway Department.

f. Wyoming Capital Facilities Revenue Account

This fund is distributed in the following manner (as set by the Legislature): 30 percent school construction, 10 percent community college construction, 60 percent highway construction (in addition to the Wyoming Highway Fund).

2. MONTANA COAL SEVERANCE FUND

a. Mission

Since 1976, the Fund's mission has been "to assist local governmental units which have been required to expand the provision of public service as a consequence of large-scale development of coal mines and coal using energy complexes".

The provision of basic public services remains the responsibility of local government, unless these basic public services were not in existence prior to coal mine development.

b. Structure

The severance fund is administered by a seven member citizen board. This board is appointed by the governor. Two members must have experience in education, two members must be from the impacted areas and three other members with business experience.

At present the board is made up of:

- A county commissioner;
- A farm wife;
- Two people from education;
- A CPA;
- A business woman; and
- Another county official (i.e., two elected officials are serving on the board).

The board is charged to meet quarterly, although on average it meets seven times per year. The members serve four-year terms.

c. Funding

Funds are derived from the coal severance tax, which equals 30 percent of the mine mouth price of coal. Of these funds, 8.75 percent is allocated to the Local Impact Assistance Program. In Fiscal year 1984 this program had $7.7m in funds. Projected FY 1985 levels are $9m.

The coal board awards grants and can make loans. Historically, all funds have been distributed as grants because loans cannot be made to school districts without changing the state law. The first grant was made in January 1976.

Distribution of funds is as follows:

- 54 percent to schools;

- o 20 percent on expenditures on capital and equipment, e.g., city buildings, sewer cleaners, dump trucks, jails, and law enforcement;

- o 12 percent strictly on water projects; and

- o 7 percent on sewer projects.

d. **Distribution**

The funds are distributed to geographically specific areas, i.e., areas of coal development. To be designated, an area must demonstrate a 10 percent increase in population over a three-year period directly attributable to coal development.

There are 19 designated areas located in three counties in the SE part of the State (including all of Rosebud County). Any area is potentially eligible providing it can demonstrate population growth due to coal development.

e. **Criteria for Project Evaluation**

Once the area has demonstrated a need, its allocation depends on:

- o The degree of severity of impact from coal development;
- o The availability of funds; and
- o The degree to which local efforts can fulfill the need.

The committee makes decisions on a simple majority vote. All members of the board have an equal voice. There exists an unwritten law that members who are from an impacted area in question abstain from voting.

Coal development has tapered off recently. As a consequence, there is a bill pending in the Legislature that would cut funds to the program by reducing the share of Coal Severance Funds from 8.75 percent to 3 percent of the total. This would mean that the funds for next year, projected at $9m, will be reduced to $3.06m. There is a very good chance that this bill will be passed by the Legislature.

APPENDIX D

INDICATIVE DATA SOURCES*

A. General Industry Information

Census of Manufacturers, Census of Wholesale Trade, Census of Retail Trade, Census of Construction Industries, Census of Service Industries, Census of Transportation (Bureau of the Census, U.S. Department of Commerce).

Concentration Ratios (Department of Commerce).

Census of Business (Department of Commerce).

U.S. Industrial Outlook (Department of Commerce).

Robert Morris Associates Annual Statement Studies.

Conference Board, Inc.

Chase Econometrics Associates.

Standard & Poor's Industry Surveys.

Worldcasts.

Predicasts.

Frost & Sullivan and other studies.

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*This appendix is meant to give an indication of some of the so.. available and is not intended to be a complete listing.

B. Examples of Industries and Their Related Information Sources

Industry Category	Bound Sources: Industry Facts	Bound Sources: Company Facts	Data-Base Sources
Agriculture/food	Census of Agriculture (U.S. Department of Commerce) Agriculture Statistics (U.S. Department of Agriculture) Frozen Food Pack Statistics (American Frozen Food Institute) Frozen Food Almanac (Quick Frozen Food)	Almanac of Canning, Freezing, Preserving Industries (E.E. Judge & Sons) Candy Marketer Almanac & Buyer's Guide Directory Thomas Grocery Register	Agricola CAB Abstracts (Commonwealth agricultural bureaus) Foods Ad Libra Food Science & Technology Abstract
Motor vehicles	Automobile Facts & Figures (Motor Vehicle Manufacturers' Association of the U.S.) Ward's Automotive Yearbook World Automotive Market Auto News: Market Data Book Issue	Almanac Issue (Automotive News-last April issue) International Automotive Industries Annual Suppliers Financial Analysis (June)	SAE (Society of Automotive Engineers)
Chemicals	Facts and Figures for the Chemical Industry (Chemical & Engineering News-first June issue)	Chemical Week 300 (Chemical Week-April issue) Kline Guide to the Chemical Industry Kline Guide to the Paint Industry (Patricia Noble, editor) Chemical Week Buyer's Guide	Chemical Market Abstracts Chemical Abstracts CIN (Chemical Industry Notes)
Petroleum/gas	Oil & Gas Journal Forecast/Review (January)	LP Gas Buyer's Guide (March issue) National Petroleum News Fact Book (Mid-June issue) Keystone Coal Industry Manual	APILIT P/E News Tulsa

Arthur D. Little, Inc.

	Bound Sources		
Industry Category	Industry Facts	Company Facts	Data-Base Sources
Plastics	Plastics World Reference File	Directory of Custom Plastics Processors (Organization of Plastics Processors)	RAPRA Abstracts
Paper/packaging	Marketing Guide to the Paper and Pulp Industry C.H. Kline & Co.	Pulp & Paper Buyers Guide Modern Packaging Encyclopedia and Buyers Guide Lockwood's Directory of Paper & Allied Trades	PIRA Paperchem Abstracts
Pharmaceuticals/drugs	Prescription Drug Industry Factbook Pharmaceutical Manufacturers Association	Chain Store Age Drug Edition (April) Drug Topics Red Book Cumulative Supplement	Pharmaceutical News Index International Pharmaceutical Abstracts
Electronics/appliances	Home Furnishings Daily Electronics (January) Electrical World (June) Merchandising	Consumer Electronics Monthly (January) Appliance Manufacturer Annual Directory (June issue)	PROMPT INSPEC
Banking	U.S. League of Savings Associations Savings and Loan Fact Book National Association of Mutual Savings Banks (Annual Report of the President) (National Fact Book of Mutual Savings Banking) Bankers' Desk Reference	Forbes Annual Banking Issue (April) Finance Annual Commercial Banking Edition (July-August) Business Week Annual Banking Survey	ABI/INFORM EIS nonmanufacturing establishments S & L Data Base Bancall II Bancompare FDIC Tapes FSLIC Tapes

Industry Category	Bound Sources: Industry Facts	Bound Sources: Company Facts	Data-Base Sources
Other industries	Railway Age (January) DataPro (DataPro Research Corporation-hardware/software reference service)	Datamation (June) Building Supply News (Retail/Wholesale Giants Report) January (Buyer's Guide) November Guide to Scientific Instruments (American Association for the Advancement of Science) Journal of the American Water Works Association Buyers Guide (November) Aviation Week & Space Technology Marketing Directory Issue (December) Greetings Magazine Buyers' Guide Directory Modern Office Procedures Buyers Planbook Security World Annual Security Product Directory	
Canadian industry	Canadian Packaging (July) Canadian Pulp & Paper (May)	Canadian Plastics (Fall)	CNI CBPI
Miscellaneous useful sources	Sales & Marketing Management: Survey of Buying Power; Survey of Industrial Purchasing Power Guide to American Directories (Klein) Business Information Sources (Lorna Daniells) Statistical Information Sources: A Guide for Financial Industries (Bank Administration Institute)	Institutional Investor Annual Financing Directory Ad Age: 100 Leading National Advertisers: U.S. Agency Profiles Money Market Directory	

APPENDIX E

CONTACT AND INTERVIEW LIST

A. GOVERNOR'S COMMISSION ON THE IRON RANGE RESOURCE AND REHABILITATION BOARD

Mr. David M. Lilly, Chairman of the Commission and
V. P. for Finance and Operations, University of Minnesota

Dr. John Adams, Professor, Geography Department, University of Minnesota

Mr. William Andres, Chairman of the Executive Committee, Dayton Hudson Corporation

Ms. Kathryn Keeley, Director, Women's Economic Development Center

Mr. Jack Ruttger, Owner, Ruttger's Resort

B. IRON RANGE RESOURCES AND REHABILITATION BOARD (IRRRB)

Senator Douglas J. Johnson, Chairman of IRRRB and
Chairman Senate Tax Committee

Representative Joseph Begich, Board Member, IRRRB

Phillip Bakken, Assistant Director of Economic Development

Bryan Hiti, Grants Program

Harold Hultberg, Technical Advisory Committee

Paul Kovakovich, Grants Program

Gary Lamppa, Commissioner

Phillip Lanbourg, Deputy Commissioner

Dick Lorass, Technical Advisory Committee

Bonita Maxwell, Principal Accountant

Mark Phillips, Director of Economic Development

Nick Zuber, Technical Advisory Committee

C. GENERAL

Robert Alexander, Senior V.P., Merchants & Miners State Bank

Russ Allen, Timber Producer's Association

John Baker, Director of Corporate Staff Support for the Arrowhead Community Economic Assistance Corporation

Bill Blank, Resort Owner, Lutsen, Minnesota

Roger Brooks, Legislative Auditor, Program Evaluation Division, Office of the Legislative Auditor

Arne Carlson, State Auditor

Mark Dayton, Director of Department of Energy and Economic Development

Martin English, Department of Energy and Economic Development

R. F. Fischer, President, Security State Bank

Robert E. Hansen, Executive Director, Legislative Commission on Minnesota Resources

Dr. Robert L. Heller, Chancellor, University of Minnesota, Duluth

Richard A. Korte, Executive Director, ITASCA Development Corporation

Fred Krohn, Deputy State Auditor, State of Minnesota

Dick LaBorde, President, Hibbing Electronics Corporation

Dr. Michael Lalich, Director of the Natural Resources Research Institute, University of Minnesota, Duluth

Paul Lundgren, Chief Forester, Superior National Forest, U.S. Service, Virginia, Minnesota

Dave Martin, Director, Arrowhead Regional Development Commission

Mary Mathews, Hibbing Chamber of Commerce

James Nobles, Legislative Auditor

Paul Olson, Executive Director, Blandin Foundation

Steve Reckers, Minnesota State Department of Planning

Greg Sandbulte, Director Business Development Division, Arrowhead Regional Development Commission

Charles T. Sickel, Director Economic/Development, Minnesota Power

Steven G. Thorne, Deputy Commissioner, Minnesota Department of Natural Resources

Frank and Don Thronson, Bio Energy Company, Virginia, Minnesota

Henry R. Todd, Jr., Director, Minnesota Office of Tourism

Thomas Triplett, Director of the State Planning Agency

John H. Yunker, Program Evaluation Coordinator, Office of the Legislative Auditor

Dr. Thomas Wood, Director of Tourism Management and Development Center, University of Minnesota, Duluth.

APPENDIX F

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