HT
395
C344
P4
V.2

DEPARTMENT OF REGIONAL ECONOMIC EXPANSION

PRAIRIE FARM REHABILITATION ADMINISTRATION

INFORMATION SYSTEMS STUDY

VOLUME II

DETAILED STUDY RESULTS

September 1975

DEPT. OF REGIONAL ECONOMIC EXPANSION
LIBRARY
JUL 5 1976
OTTAWA
BIBLIOTHÈQUE
EXPANSION ÉCONOMIQUE RÉGIONALE

PEAT MARWICK AND PARTNERS

Contract 2303

PEAT, MARWICK and PARTNERS

DEPARTMENT OF REGIONAL ECONOMIC EXPANSION

PRAIRIE FARM REHABILITATION ADMINISTRATION

INFORMATION SYSTEMS STUDY

VOLUME II

DETAILED STUDY RESULTS

TABLE OF CONTENTS

	Page
INTRODUCTION	I-1
Background	I-1
Objectives of the Study	I-4
Study Considerations	I-5
STUDY PROCESS	II-1
Steering Committee	II-1
Phase I	II-2
Phase II - First Stage	II-5
Phase II - Second Stage	II-7
Phase III	II-10
Phase IV	II-11
STUDY FINDINGS	III-1
Financial Management Information System (FMIS)	III-1
Project Implementation Management Information System (PIMIS)	III-2
Prairie Farm Rehabilitation Administration (PFRA)	III-3
Department of Regional Economic Expansion, Western Region	III-7
Department of Regional Economic Expansion, Headquarters	III-8
Summary	III-9
CONCLUSIONS	IV-1
Financial Management Information System (FMIS)	IV-1
Project Implementation Management Information System (PIMIS)	IV-2
Prairie Farm Rehabilitation Administration (PFRA)	IV-4

TABLE OF CONTENTS

CONCLUSIONS (cont'd)

Department of Regional Economic Expansion, Western Region IV-7
Department of Regional Economic Expansion, Headquarters IV-8
Summary IV-8

RECOMMENDATIONS V-1

Liaison Function V-1
Status Reporting V-2
Financial Reporting V-3
Use of PIMIS V-4
Use of FMIS V-6
Documentation V-7
Information Systems Development V-7
Planning Function V-8
Tree Nursery V-8
Summary V-8

FIGURES

1. Stated DREE & PFRA Information Requirements III-9
2. Consultants' Perception of Information Requirements . IV-8
3. Recommended Reporting Structure V-5

TABLES

1. Phase I - Interview List II-3
2. Phase II - First Stage Interview List II-6
3. Phase II - Second Stage Interview List II-8
4. Phase III - Interview List II-10
5. Evaluation of Computer Costs IV-5
6. PIMIS Implementation Criteria - Trial Basis V-5

APPENDICES

A. Phase I - Workshop Summary
B. Phase II - Stage I - Workshop Summary
C. Revised Reporting Guidelines (Exhibits 1 - 7)

I - INTRODUCTION

This introductory section presents the background leading up to the initiation of the study, the objectives of the study and the key considerations reflected in the study process.

BACKGROUND

The Prairie Farm Rehabilitation Act was passed in 1935 to assist in the reclamation of agricultural lands within the three Prairie Provinces.

In 1969, the body responsible for administering the Act, the Prairie Farm Rehabilitation Administration (PFRA), was transferred from the Department of Agricultural to the auspices of the newly formed Department of Regional Economic Expansion (DREE). During 1972/73, a policy review of the Department's operations was conducted to review current policies and programs and to investigate and formulate new ones. One of the main conclusions was that for DREE to plan, formulate, implement and administer the development efforts in the best way, would require a substantial decentralization of its activities and decision-making to Regional and Provincial offices.

The policy to decentralize was agreed, and PFRA became a part of DREE, Western Region. One of the major requirements for the successful decentralization of operations was the provision for departmental information systems monitoring programs between Ottawa and the Regional and Provincial offices.

Departmental Information Systems

In 1974, it was decided to design and implement two major systems within DREE to provide information on the current status of both financial and project implementation activities.

1. The Financial Management Information System (FMIS).

   FMIS was conceived to meet a wide range of financial reporting requirements. The system was to be developed on a modular basis comprising 15 sub-systems. The stated objectives for the development and use of FMIS are as follows:

   - to provide Provincial and Regional management with the information necessary to fulfill their responsibilities for the financial management of all Provincial and Regional activities, and to provide Headquarters management with the information necessary to ensure overall control on a national basis

   - to provide an open-ended system capable of modification as experience of operating in a decentralized environment increases, with particular emphasis on flexibility and availability of output.

2. The Project Implementation Management Information System (PIMIS)

   PIMIS was designed to meet the following objectives:

   - to provide to the Provincial, Regional and Headquarters implementation management a system for the exchange of management information at all operating levels

   - to provide the capability to satisfy specific requests for information, for example, in response to Parliamentary questions and requests from other government departments

- to permit local office implementation officers to exercise their own management methods while retaining consistency in overall reporting.

Both FMIS and PIMIS are designed to use slow speed Vucom terminals linked to a computer service bureau in Ottawa, where the data is processed. The use of this terminal equipment allows the input of data and retrieval of information within specified limits at the local level.

PFRA Involvement

PFRA were not represented during the initial design stages of the two systems although it was intended that PFRA, as a constituent part of Western Region, would make full use of the FMIS and PIMIS systems. For this purpose a Vucom terminal was installed at the PFRA Headquarters in Regina.

Prior to the planned implementation of the FMIS, it was discovered that the volume of data transactions from PFRA would considerably overload the slow speed terminal system. Moreover, the majority of financial data from PFRA would be at such a low reporting level that it would not be relevant to the needs of DREE management. In addition, the initial modules of FMIS would not provide sufficient useful information for PFRA to warrant the expense and effort required to input the data. Therefore, it was decided to input only daily summary PFRA totals into FMIS to accurately maintain Western Region expenditures against allotment.

A similar problem was encountered when evaluating the input from PFRA into PIMIS. If the theoretical system functions were applied by PFRA, it would involve entering and updating a large volume of rapidly changing project data at levels below the information requirements of DREE management. For this reason the implementation of the PIMIS at PFRA was postponed.

It was as a result of these system implementation problems that the management of DREE and PFRA agreed to obtain management consulting services to evaluate PFRA management information requirements and to assess the need for formal reporting links between PFRA and DREE, Western Region and Headquarters management.

OBJECTIVES OF THE STUDY

The primary objectives of the study were discussed and agreed with the management of DREE and PFRA prior to the commencement of the study and are outlined below:

- to give PFRA information reporting systems that will provide PFRA management with information possessing the degree of detail, accuracy and timeliness necessary
- to organize the information systems so that the information can be aggregated and reported to the Western Region and Headquarters with the detail accuracy and frequency required by Regional and Headquarters management
- to relate these requirements to existing and potential system capabilities
- to recommend the most suitable approach to satisfying the operating needs and overall management requirements

- to provide details suitable for implementing the recommended approach.

STUDY CONSIDERATIONS

During the course of the study, in the evaluation of our findings and in the determination of the recommendations, close attention was paid to the fundamental study considerations which were stated in our proposal to PFRA dated May 2, 1975. These considerations were identified as follows:

- any proposed system must be consistent and compatible with other regional and departmental systems
- PFRA services to the agricultural community must not be adversely affected by any system changes
- proposed systems or changes must provide benefit to the operational areas
- duplication of input must be avoided
- development of any new systems design must involve members of all functional areas within PFRA
- recommendations must be made with an understanding of the operational needs of DREE and PFRA.

It was felt that, significant to the success of this study, was the need to both reflect these considerations and to provide a management analysis, not simply a computer systems review. This would entail recommendations that not only reflect the stated requirements of users, but that were in accordance with sound managerial practices. During the study, particular emphasis was placed on this point.

PRAIRIE FARM REHABILITATION ADMINISTRATION

PHASE II

SECOND STAGE INTERVIEW LIST

PFRA STAFF

Director: W. Thomson

Land Use Service

M. Aaston
J. Bell
R. Gordon
J. Hockley
T. Jermyn
R. Lodge
J. Seiferling

Water Development Service

G. Brown
W. Crane
B. Krieger
F. Misiurski
W. Pope
D. Smith
G. Telfer
R. Whitton

Engineering Service

W. Bailey
W. Berry
D. Curtain
G. Forsythe
B. Hall
L. Johnson
B. Kobe
B. Lukey
V. Lysark
R. McIntyre
J. Perkins
S. Ringheim
M. Stilwell
L. Swann
D. Winton
J. Wise
J. Wittersrand

Administration Division

W. Ames
T. Birch
C. Peterson
W. Smith
G. Wagner

Finance Section

G. Bassendowski
W. Frasz
E. Snell
D. Stein
J. Summer

PEAT MARWICK AND PARTNERS

documented survey of the current information systems within PFRA. After analysis, this formulated the basis of recommendations on improved management information flow and management information reporting capabilities.

Interviews

Interviews were held with the Director of PFRA, the chiefs and senior management of the Service Areas and Administration. A detailed list of the participants can be seen in Table 2 opposite.

The objective of the interviews was to acquire the following information:

- a general understanding of the function, organization and management control within each area of PFRA operations
- a knowledge of control information flow within each of the Services with particular regard to financial and project data
- an understanding within each Service of the information and reporting links with the other operating areas of PFRA
- an appreciation of any known problems or areas of concern with current information or operations
- a knowledge of future developments in operations or systems that could have a bearing on the findings of the study.

Documentation

Copies of reports currently in use by the management of PFRA were reviewed during this stage to assist in determining the level and utilization of existing financial and project management information.

It was also intended to review procedures documentation within each Service. However, in the majority of operational areas, these did not exist.

Workshop Summary

The workshop session at the conclusion of this stage of the internal PFRA survey was attended by members of each of the Services, the Administration Division and the Steering Committee.

The workshop was instigated for two main purposes:

1. To ensure that the interview objectives, as detailed above, had been met.

2. To present details of specific areas within PFRA which required an in-depth investigation in the second stage of this phase. The main reasons for this further study were as follows:

   - lack of available procedure and documentation manuals
   - diversity of PFRA activities and operational systems
   - need to cover operating areas that could not be contacted during initial phase
   - requirement to further evaluate the possible use of FMIS and PIMIS within PFRA.

A summary of the workshop presentation is given in Appendix B.

PHASE II - SECOND STAGE -
DETAILED INVESTIGATION

The conclusion reached in the workshop session at the end of the first stage was that further detailed investigation of certain areas was required and this was undertaken as the second stage of Phase II.

PRAIRIE FARM REHABILITATION ADMINISTRATION

PHASE II - FIRST STAGE INTERVIEW LIST

PFRA HEADQUARTERS

Director:	W. Thomson
Land Use Service	
	M. Aaston
	T. Jermyn
	R. Lodge
Water Development Service	
	G. Brown
	R. Whitton
Engineering Service	
	W. Berry
	G. Forsyth
	S. Ringheim
	D. Winton
Administration	
	W. Frasz
	R. Nakamura
	W. Smith

PEAT MARWICK AND PARTNERS

The development and consequent documentation of the Personnel System was limited at the time of our study and therefore no detailed investigation of this system was possible.

Workshop Summary

The workshop session, at the conclusion of Phase I, included the key personnel involved in the development, implementation and operation of FMIS and PIMIS. The main body of the workshop concentrated on reporting on findings as to the concepts, organization and current status of these systems to ensure that an accurate understanding had been achieved.

A copy of the workshop presentation is shown in Appendix A.

PHASE II - DETERMINE REQUIREMENTS OF PFRA OPERATIONAL MANAGEMENT - FIRST STAGE

Phase II of the study was divided into two separate stages. The first stage was concerned with developing a sound background knowledge of the organization, operations and management philosophy existing within PFRA. The other objective during this stage was to determine whether the information requirements of PFRA management were well-defined and readily available.

The second stage of this phase involved an in-depth investigation into those areas of PFRA which the initial study had pinpointed as requiring detailed analysis.

The combined results of these two stages created a comprehensive,

- requirements for the future development of FMIS
- requirements for information from PFRA. Also, whether present levels of data received from PFRA were satisfactory
- involvement with the use of PIMIS and relationships with the financial reporting within PIMIS to FMIS.

Program Review Division have considerable input into the design and development of PIMIS. Also, the Branch has been working closely with the Regional and Provincial offices of DREE concerning the collection and input of initial data into PIMIS. The interviews with members of the Division concentrated on these points plus additional information on known requirements within PFRA.

Documentation

Detailed documentation containing specifications of PIMIS and the first two system modules of FMIS were made available. The documentation was reviewed in detail and covered:

- systems objectives and concepts
- system specifications
- program specifications (FMIS)
- input data formats
- data file formats
- report layouts.

Documentation relating to DIDS and PFMS was also studied, although it was felt by personnel interviewed that PFRA would not require the use of these systems.

opposite. In addition to information gathering, a further objective of these and other interviews held during the study was to develop a working relationship with the people interviewed.

Management Information and Computer Services Branch interviews were held with management and development staff and were concerned with obtaining the following information:

- in-depth understanding of the objectives, organization, current status, development and operations of FMIS and PIMIS
- knowledge of planned amendments and enhancements to the above systems, giving completion time estimates where known
- details of other systems operating within DREE, including:
  - (i) Departmental Incentives Data System (DIDS).
  - (ii) Project Formulation Management System (PFMS).
  - (iii) Personnel Information System.
  - (iv) Department of Supply and Services expenditure reporting (as used by all government departments).
- involvement within the Branch regarding PFRA systems and requirements
- reporting relationships with other relevant operating areas of DREE.

Financial Services Branch interviews were held with management and development staff closely involved with aspects of FMIS. The information gathered from these interviews concerned:

- current and proposed use of FMIS within DREE Headquarters

PRAIRIE FARM REHABILITATION ADMINISTRATION

PHASE I - INTERVIEW LIST

DREE HEADQUARTERS, OTTAWA

Management Information & Computer Services Branch

W. Arrowsmith

K. Burnett

V. Shapiro

K. Singer

A. Tateishi

Financial Services Branch

D. Kelso

D. MacLaurin

J. Middleton

Program Review Division

I. Ellis

J. Miller

M. Pajot

PEAT MARWICK AND PARTNERS

II - STUDY PROCESS

The study was based on a four-phased approach, each phase having a specific objective to be achieved. The four phases were determined as being:

Phase I	-	Review existing DREE departmental information systems.
Phase II	-	Identify PFRA operational requirement.
Phase III	-	Identify information requirements for PFRA senior management and DREE Regional and Headquarters management.
Phase IV	-	Develop systems design.

Within each phase of the study, interviews were conducted with management and operational staff of PFRA and/or DREE. Workshop sessions were conducted prior to the completion of each phase to ensure that a thorough and correct understanding of the requirements of the phase had been achieved. The use of the workshops provided a forum for the discussion of findings and also proposals for the implementation of the next stage of the study. In this way, a continuous involvement of operational and management personnel within PFRA and DREE was maintained throughout the whole of the study.

STEERING COMMITTEE

A Steering Committee was formed to monitor progress and provide an additional control and reporting function. The committee consisted of one member from each of the main areas of involvement within the study, namely; PFRA, DREE, Western Region and the Management Information and Computer Services Branch at DREE, Headquarters. A member, or

members of the committee, attended each workshop session. In addition, written summaries of the results of each phase were circulated to committee members.

The following pages detail the investigation and interviews conducted within each phase of the study.

PHASE I - REVIEW EXISTING DREE DEPARTMENTAL COMPUTER SYSTEMS

Phase I of the study was conducted at DREE Headquarters in Ottawa. The main objective of the phase was to acquire an in-depth understanding of the available computer-based information systems operating within DREE and those systems under development or planned for future implementation. The information obtained during this phase was later used to assess the relevance of these systems to the information requirements of PFRA.

Specific tasks undertaken during this phase were as follows:

- interviews with Management Information and Computer Services Branch personnel
- a review of all available documentation on existing major departmental systems
- interviews with existing users of FMIS and PIMIS
- a review of all planned changes to FMIS and PIMIS
- a workshop session to ensure our understanding of the system was correct.

Interviews

Interviews were conducted with the personnel listed in Table I

Interviews

Over forty interviews were held during the second stage of our study into PFRA operations. As can be seen from Table 3 opposite, interviews were conducted with management and operational personnel within each Service area and the Administration Division. The interviews were at PFRA offices in Regina, Winnipeg, Swift Current and Indian Head.

As a result of these interviews, coupled with earlier findings, a comprehensive document of PFRA information systems currently in operation was produced.

Documentation

A considerable amount of documentation was collected for review during the second stage of the PFRA study. The documentation can be considered to fall within the following classifications:

- standard input documents used within current systems
- copies of current reports with details of use, frequency of issue and distribution
- existing procedure manuals and flow charts, where available
- test data produced by PFRA for input into PIMIS
- internal correspondence relating to systems requirements.

Workshop Summary

At the end of the detailed investigation into PFRA systems,

individual workshop sessions were held with each Service area and with the Finance Section. These individual sessions were held to ensure that all current systems and information requirements within each Service area had been correctly interpreted.

At each workshop session, a manual was discussed containing the following documentation:

- summary descriptions of the activities within the Service area giving details of systems and reports currently in use
- copies of reports
- flow charts of specified systems and activities
- input documents originating from the Service area.

As a further check, a copy of the manual was kept within each Service and circulated to all operating areas to ensure that all data was correctly and completely defined. When this process had been completed, the manuals were amended according to any comments received from the operating areas.

This working paper documentation has been assembled into four separate volumes to represent the three Service areas and the Finance Section. These volumes form part of the final report as follows:

Finance Section	-	Volume III
Land Use Service	-	Volume IV
Water Development Service	-	Volume V
Engineering Service	-	Volume VI

PRAIRIE FARM REHABILITATION ADMINISTRATION

PHASE III - INTERVIEW LIST

DREE HEADQUARTERS, OTTAWA

Financial Services

H. Braginetz
R. Champagne
D. Franklin
G. Hussey
D. Kelso
D. McLaurin
J. Middleton

Bureau of Management Consulting Services

J. Duggan
O. Kelley

Program Review and Evaluation

I. Ellis
R. Ray
*D. Tate

Analysis and Liaison

*D. Husband
N. Mulder

*Indicated that they had no specific requirements from PFRA during telephone conversation.

DREE WESTERN REGION, SASKATOON

Assistant Deputy Minister

J. MacNaught

A.D.M.'s Office

K. McNabb

Administration & Program Services

R. Forer
W. Frances
C. Krause
R. Lagimodiere
R. Sohnle

Program Coordination

B. Dobing
D. Hughes
R. Letilley
A. Rand
M. White

Development

K. Keeler
L. Pratt

DREE WESTERN REGION - PROVINCIAL OFFICE, REGINA

W. Harringer
(for W. Lane)

Specific copies of these volumes can be obtained on request from the Administration Division of PFRA.

PHASE III - IDENTIFY INFORMATION REQUIREMENTS FOR DREE REGIONAL & HEADQUARTERS MANAGEMENT

This phase of the study was undertaken at the DREE offices in Ottawa, Saskatoon and Regina.

The main objective of the phase was to obtain, after discussion with both DREE management and operational staff, their information requirements with regard to PFRA operations and to analyze these requirements to ensure compatibility at all levels of reporting.

Interviews

Interviews were conducted with the DREE Headquarters, Western Region and Saskatchewan office personnel, shown in Table 4 opposite, to obtain the following information:

- details of information currently received from PFRA
- specific DREE requirements for information from PFRA, indicating the utilization of the required data. Also, to suggest to DREE personnel possible information requirements perceived during our investigations into PFRA operations
- details of the formal and informal reporting links between DREE and PFRA
- the current status of development and implementation of FMIS and PIMIS at Headquarters and Regional offices.

Documentation

The collection of DREE or PFRA generated documentation was not a primary function of this phase. The main use of documentation was in the presention to DREE management, examples of the types of information currently available within PFRA to see whether current data would completely or partially satisfy DREE operating requirements.

Workshop Summary

At the conclusion of Phase III, the workshop session involved the discussion of our understanding of the stated DREE requirements for information from PFRA, together with the current formal and informal reporting links existing between DREE and PFRA. In addition, preliminary study findings and conclusions were discussed during the workshop to provide initial feedback and comment.

PHASE IV - DEVELOP AND DOCUMENT SYSTEMS DESIGN

Phase IV was the final phase of the current study and was concerned with the design and documentation of systems to meet both DREE and PFRA information requirements. The following sections of this report contain the findings, conclusions and recommendations which meet these requirements.

III - STUDY FINDINGS

The findings detailed in this section result from our fact-finding during Phase I,II and III of the study. They are ordered by the main functional areas of our study, as follows:

- Financial Management Information System
- Project Implementation Management Information System
- Prairie Farm Rehabilitation Administration
- DREE, Western Region
- DREE Headquarters

Our conclusions resulting from an analysis of these findings can be found in Section IV.

FINANCIAL MANAGEMENT INFORMATION SYSTEM (FMIS)

Development of FMIS remained relatively static during the course of our study. The current status of the system is as follows:

- only two of the system modules covering financial allotment control and project control are operational within DREE
- the development of a third module covering commitment control has not materialized. We feel that it is unlikely to be available until mid-1976
- the remainder of the system modules are still in a conceptual stage of development. These include budgets, program forecasts, cash flow forecasts, audit programs, manpower control, revenue/recoveries and loans
- there are over 30 amendments and enhancements to be implemented within the two existing modules of FMIS before development work on the remaining 13 modules will commence. These enhancements include essential items such as year-end processing routines.

The only use made of FMIS by PFRA is to input daily, eleven transactions giving expenditure totals, by province, for:

- operations and maintenance vote
- capital vote
- Indian lands (no total for Alberta)
- loans vote.

These transactions are input for the sole purpose of maintaining control of the DREE, Western Region allotment, of which PFRA is a constituent part. Approximately two hours of clerical effort are required each day within the Finance Section of PFRA to accumulate the eleven expenditure totals and enter them through the Vucom terminal. PFRA currently receive no financial report from FMIS.

Users in both PFRA and Western Region have expressed concern with the present operations of the system. In particular, they detailed problems with inadequate reports, high running costs, limited application and computer prompting delays.

PROJECT IMPLEMENTATION MANAGEMENT INFORMATION SYSTEM (PIMIS)

The current status of the development and implementation of PIMIS, with respect to PFRA and Western Region is as follows:

- narrative data input routines and a centrally printed dump report are operational. Narrative data on DREE programs (excluding PFRA) is being prepared in DREE regional and provincial offices

- at this time, there is no formal link to enter the financial data held in FMIS into PIMIS. Initially, financial data will be manually transferred between the two systems by personnel within the Program Review area in Ottawa, although this procedure is not yet finalized

- apart from the "dump" report required to check the validity of input, none of the remaining specified print reports in PIMIS are currently available. At present, the reports are being programmed and are expected to become operational during the last quarter of 1975

- formal operating documentation for users of PIMIS is not available

- prospective users in PFRA and Western Region appear to have a general lack of understanding regarding the use to which the system should be put.

In early 1975, the Engineering Service of PFRA produced a small amount of narrative test data to evaluate the use of PIMIS. This data was never entered into the system. However, we have noted that the basic narrative details of the Saskatchewan and Manitoba Agricultural Service Centres are currently on file within PIMIS, although these were entered by Headquarters personnel.

PRAIRIE FARM REHABILITATION ADMINISTRATION

The findings related to PFRA have been divided by major area within the organization.

Director

Control is maintained by the Director through both formal and informal contact pertaining to all aspects of PFRA. Weekly meetings are held with senior management. Financial status reports are received on a monthly basis, while some formal monthly project status reporting has recently been instigated.

In general, the Director is satisfied with the level and content of reporting received. Personal contact is also maintained with management staff on a day-to-day basis.

Land Use Service

The main functions of the Land Use Service are concerned with the operations and development of community pastures, as follows:

- pasture operation
- pasture allocation
- pasture improvement and development
- bull acquisition
- range and pasture management.

Management and senior operating personnel within the Service are satisfied that the present systems and reporting meets their requirements for controlling the running of the Service. The main aspects of reporting are listed below:

1. Financial Data is produced in detail and summary form on a timely and regular basis. Monthly financial statements are produced for each of the ninety-five community pastures currently operated.

2. Project Control Reporting is produced within the service on both a formal and informal basis. All areas of operations are covered.

3. Historical Records are maintained within all areas of the service.

Water Development Service

There are four separate functional Divisions operating within the Water Development Service, each with their own operating and

reporting systems. The Divisions within the Service are as follows:

- Water Development Division
- Construction Equipment & Service Division
- Tree Nursery
- Southwest Saskatchewan Irrigation Project.

As with the Land Use Service, management are satisfied that current systems and reports satisfy their operational needs. The only exception being that the Tree Nursery is currently evaluating the need for acquiring data processing facilities to meet its operational needs.

The main aspects of reporting are listed below:

1. Financial Reporting summaries within each Division have been standardized into one format. In addition, each Division monitors its own budget and produces internal reports on expenditure against budgets.

2. Project Control reports are produced monthly by each Division and summarized into a monthly report for the Service. Each Division also maintains detailed reports on projects and programs under its control.

3. Historical Data is maintained within each Division. In the case of the Water Development Division and the Tree Nursery, these records go back to 1935 and 1901 respectively.

Engineering Service

Engineering Service is engaged in the investigation, planning, design, construction and maintenance of a variety of work covering water development, irrigation and infrastructure programs. The Agricultural Service Centre program, operated by the Engineering Service, covers assistance in the areas outlined above to many communities in the

Prairie Provinces. Special engineering units provide services in hydrology, soil mechanics and materials, geology and air surveys and legal surveys.

Like the other PFRA service areas, Engineering Service are satisfied that their present systems and reports meet their operational needs.

The main aspects of reporting are listed below:

1. Financial Reports are produced for the main projects in which the Service is engaged showing expenditure against current budgets. Additionally, detailed statements are prepared for Agricultural Service Centres and also projects charged to organizations outside PFRA.

2. Project Data is maintained for all projects from their planning stages through to completion. Progress on construction projects is reported weekly. However, except for an annual report, there is no formal reporting within Engineering Service from the specialist units (e.g. hydrology, soil mechanics).

3. Historical Data is maintained within the Service. Copies of all project files and reports are kept, with plans being held on microfilm.

Finance Section

The Finance Section operates within the Treasury Board guidelines and departmental procedures. A wide range of financial and budgetary reports are produced for senior and operating management of DREE and PFRA.

The following observations were made with regard to the working of the Section:

- all reports are produced manually, with the exception of the computer produced DSS expenditure report, which is received too late to be of significant benefit to PFRA

- all internally produced reports are made available on a timely basis

- all internally produced reports are used. There is no redundancy of information reports.

Summary

The key findings with respect to PFRA, including ones related to the overall operation, are summarized below:

1. There is a considerable amount of operating information produced on a timely basis.

2. All information currently produced by PFRA has a specific valid use.

3. The systems presently in operation meet PFRA stated management requirements.

4. There is some evidence of duplication in manual systems.

5. Much of the present reporting to the PFRA Director is conducted on an informal basis.

6. There is a lack of information available concerning the future program plans and role of PFRA.

7. Formal operating documentation and procedure manuals are lacking in many areas of PFRA.

8. PFRA personnel have not been involved in the development of departmental information systems.

DREE WESTERN REGION

Within the reporting structure of DREE, Western Region have responsibility for PFRA. During our study within Western Region, we were concerned to note the lack of understanding and interest by regional

personnel in PFRA operations (with the exception of Agricultural Service Centres). In particular, we noted the following:

- regional operating management were satisfied with the small amount of information currently provided by PFRA. This comprises the following:
  - monthly financial summary of expenditures
  - Agricultural Service Centre statements and reports
  - annual budgets.

  Western Region personnel were unaware of the potential information already produced by PFRA for their own internal control
- no additional requests for information from PFRA were received
- apparent lack of regional personnel assigned specific responsibilities for liaison with PFRA.

DREE HEADQUARTERS

Our investigations into the PFRA information requirements for DREE Headquarters in Ottawa, produced the following findings:

- there appears to be a lack of appreciation for the structure and operations of PFRA within Headquarters
- PFRA financial information received was satisfactory. At present, this comprises details of budgetary forecasts and expenditure totals from Western Region, which include PFRA expenditure
- Program Review area in Ottawa requested summary project information from PFRA, ideally using PIMIS. There were no other information requirements.

STATED DREE & PFRA INFORMATION REQUIREMENTS

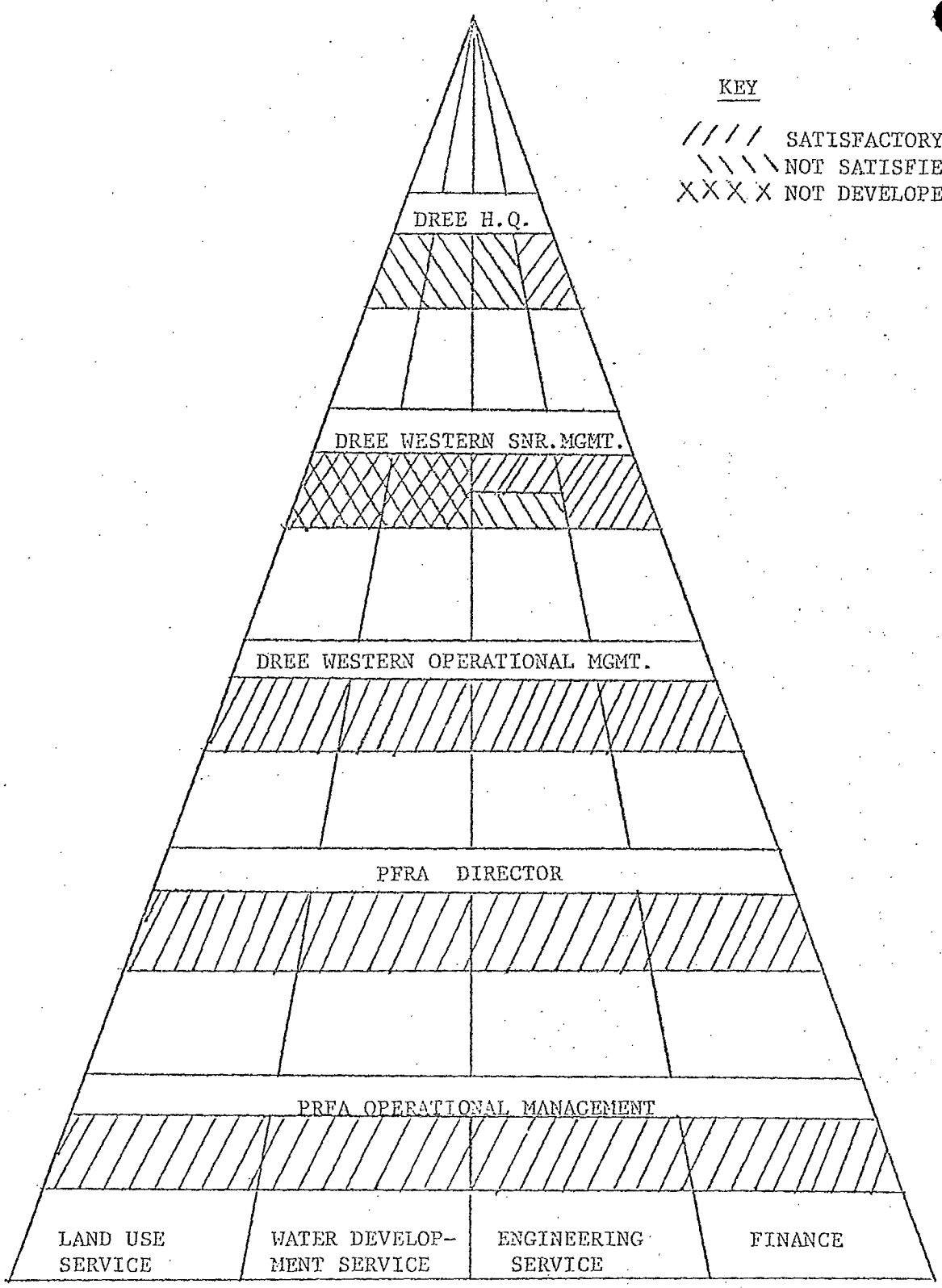

FIGURE 1

PEAT MARWICK AND PARTNERS

SUMMARY - DREE AND PFRA STATED INFORMATION REQUIREMENTS

Figure 1 opposite summarizes the current stated information requirements of DREE and PFRA senior and operational management. The chart emphasizes the following points:

1. All stated information requirements are met within:
   - PFRA Operational Management
   - PFRA Director
   - DREE, Western Region - Operational Management.
2. The information requirements of senior management within Western Region are not fully developed. The Assistant Deputy Minister required more information on projects undertaken by Engineering Service as well as the Agricultural Service Centres. Also, he requested project information from the Land Use and Water Development Service, although the specific requirements in these areas were not fully developed.
3. Headquarters are satisfied with the Financial Information currently received from PFRA. However, Program Review require summary reporting on PFRA projects within all the Services.

The findings shown in this summary can be compared with our perception of the requirements as shown in the similar summary chart in Section IV.

IV - CONCLUSIONS

The conclusions in this section are ordered in a similar manner to the findings as contained in Section III. They result from an analysis of these findings and reflect our detailed appreciation of PFRA and related Western Region operations.

FINANCIAL MANAGEMENT INFORMATION SYSTEM (FMIS)

The key conclusions with respect to FMIS as it relates to PFRA and Western Region are as follows:

- PFRA are currently obtaining no benefit from the use of FMIS
- FMIS is not currently meeting user requirements or expectations
- no benefit to PFRA or Western Region would be gained by any expanded use of FMIS within PFRA
- the use of FMIS at present is serving a valid purpose for allotment control.

Use by PFRA

Within PFRA, no report is currently produced from FMIS, but as a result of this study, a specific request has been made by PFRA - Finance Section to the Manager Data Services, Western Region for monthly summary expenditure reporting by province and vote.

To further expand the use of FMIS in PFRA would require the entry of approximately 7,000 transactions per month while gaining no additional benefit in the way of extra reports. Such benefit could only be gained by the expansion of the applications in the FMIS by developing

the 13 remaining sub-modules.

Summary

Our conclusions reflect the fact that the development of FMIS has not proceeded at the pace anticipated during its initial design stages, nor has it achieved the conceptual goals established at the outset. This has caused frustration on the part of users within Western Region and PFRA and, to this point, no manual systems have been replaced by FMIS.

PROJECT IMPLEMENTATION MANAGEMENT INFORMATION SYSTEM (PIMIS)

The key conclusions concerning PIMIS, with respect to PFRA and Western Region, are:

- PIMIS will not become a proven, working system until the beginning of 1976 at the earliest
- the introduction of PIMIS in its current state would serve no useful purpose and, in fact, could cause some disruption in PFRA operational procedures should it be implemented at this time
- serious reconciliation problems could ensue in financial information unless there is one common source of financial data
- PIMIS has the potential to be a useful management aid and could provide an information link between PFRA and DREE, Western Region and Headquarters.

Current Status

PIMIS is currently only in the testing stage and key conditions which must be satisfied before it becomes a proven working system have

not been met. These include:

- availability of retrieval modules
- complete testing and availability of user output reports
- financial data interface resolved
- user procedure documentation available
- the user understands the use to which the system should be put.

It will take several months of "trial" operation to satisfy these conditions, together with intensive work on user documentation and education. It is to be expected that this will not be completed until January, 1976 at the earliest. Specific introduction of the test system into PFRA at this time could possibly cause disruption to current operating procedures by removing personnel from their present tasks and problems encountered during this process may have an adverse effect on any longer term success within PFRA.

Financial Interface

Uncertainty currently exists over the input of financial data into the PIMIS system. There are two options for this input at the moment:

- a direct link to the FMIS computer system
- manually keyed input directly into the PIMIS system using information produced from financial reports, either computerized or manual.

Until there is one common source of data into the computerized systems, serious reconciliation problems could ensue between the DSS computer system, the FMIS, the financial reports within PIMIS and manual

systems. Such problems would be caused by errors in input to one or more of the systems and could only be eliminated effectively if there is one common source of financial data.

Summary

Given that the numerous problems currently apparent within PIMIS are resolved within the near future, PIMIS has the potential to become a useful management aid and to act as a vehicle to facilitate the provision of information from PFRA to both Western Region and Headquarters. As such, our recommendations contained later in this report are structured to provide PFRA with the smoothest possible transition to the PIMIS system, providing it meets current expectations.

PRAIRIE FARM REHABILITATION ADMINISTRATION (PFRA)

The key conclusions with respect to PFRA are:

- the present information systems within PFRA are performing a valid function
- no significant benefit would be obtained by computerizing current information systems
- more formalized status reporting is required to the Director level
- more PFRA involvement is required in the development of departmental information systems
- more emphasis should be placed on the program planning function for PFRA
- lack of documentation poses potential risk to PFRA in the transfer of responsibilities and employee training.

TABLE 5

PRAIRIE FARM REHABILITATION ADMINISTRATION

EVALUATION OF COMPUTER COSTS

A. Estimated Staff Savings	Minimum	Maximum
Financial Reporting & Ledger Control	7	11
Water Development Grant System	1	2
Tree Nursery Operations	1	3
TOTALS:	9	16

Assume average salary costs @ $11,000 per annum.

Estimated staff savings between $100,000 - $180,000 per annum.

B. Computer Running Costs		$
Lease equipment @ $5,000 per month x 12 =		60,000
Staff		
Manager @ $23,000	$ 23,000	
2 Programmer/Analysts @ $15,000	30,000	
1 Operator @ $12,000	12,000	
4 Data Preparation Operators @ $9,000	36,000	
1 Data Control @ $9,000	9,000	
STAFF TOTAL:	$110,000	110,000
ESTIMATED OPERATING COSTS:		$170,000 per annum

C. Once only system development costs estimated at $50 - 75,000.

PEAT MARWICK AND PARTNERS

Information Systems

Present manual information systems are providing PFRA operating management with the detail, accuracy and timeliness of information necessary for them to perform their particular functions. No major change is required to meet any current or perceived requirements of operating management. Only in the reporting to the Director, where currently informal or unstructured reporting is used, is there a requirement for more formalized status reporting. Such reporting should be consistent with a predefined structure.

Electronic Data Processing

An evaluation was conducted of the possible use of electronic data processing systems within PFRA. The following areas were identified as being suited to computer based systems:

- financial ledger maintenance and financial reporting
- Water Development Division grant system
- tree nursery operations and reporting.

Table 5 opposite details the theoretical maximum and minimum staff savings in the three areas, given the change to computerized systems. It also shows the anticipated costs of computerization, including the development of computer systems. As can be seen from these approximate calculations, no significant financial benefit would accrue from the application of computers.

In addition, the use of computerized systems within those areas would not provide any specific advantage in additional reporting,

processing efficiency or turnaround of information. However, in the future, it may be possible that new systems requirements emerge and increased operating costs justify the utilization of computer equipment.

The Tree Nursery organization at Indian Head is currently investigating the possibility of using computer equipment to control its day-to-day operations, involving the processing, allocation and distribution of tree requests. As an independent operation with unique problems of seasonal peaking, there appears to be realistic requirement for the use of electronic data processing to assist in the daily operations.

Systems Development

In the past, PFRA involvement in the development of computerized information systems has only been of an after-the-fact basis as systems were being implemented. It is essential that more PFRA involvement in the design and development process take place to ensure the unique operating requirements of PFRA are recognized in the development of major departmental systems.

Program Planning

Greater emphasis should be placed within PFRA on the program planning function to ensure that the future role of PFRA is commensurate with longer term federal goals. For example, this would be of significance in the area of planning for community pastures, where at the moment, both the federal government, through PFRA, and the provincial government through grants from the federal government, are both

involved in the development and maintenance of community pastures.

We appreciate, however, that such a role is being considered under the wider auspices of DREE and this fact is reflected in our recommendations.

Documentation

The lack of documentation on PFRA operations and procedures poses a potential risk in such areas as the transfer of responsibilities within PFRA and the training of new PFRA employees. This will be particularly relevant to PFRA in the future as emphasis moves from one program to another and staff transfer between program areas or new staff are hired.

Summary

No major operational change is required within PFRA to meet current or perceived operating requirements. Only minor changes are required in the areas detailed above to ensure that, in the future, the PFRA operation remains as smooth as it has been in the past.

DREE, WESTERN REGION

A summary conclusion with respect to DREE, Western Region is that the Assistant Deputy Minister's future information requirements regarding PFRA would not be met by the existing information systems between Western Region and PFRA. These revised information requirements are caused primarily by the changing climate within the federal government in general, and specifically within DREE, necessitating the

PRAIRIE FARM REHABILITATION ADMINISTRATION

CONSULTANTS' PERCEPTION OF INFORMATION REQUIREMENTS

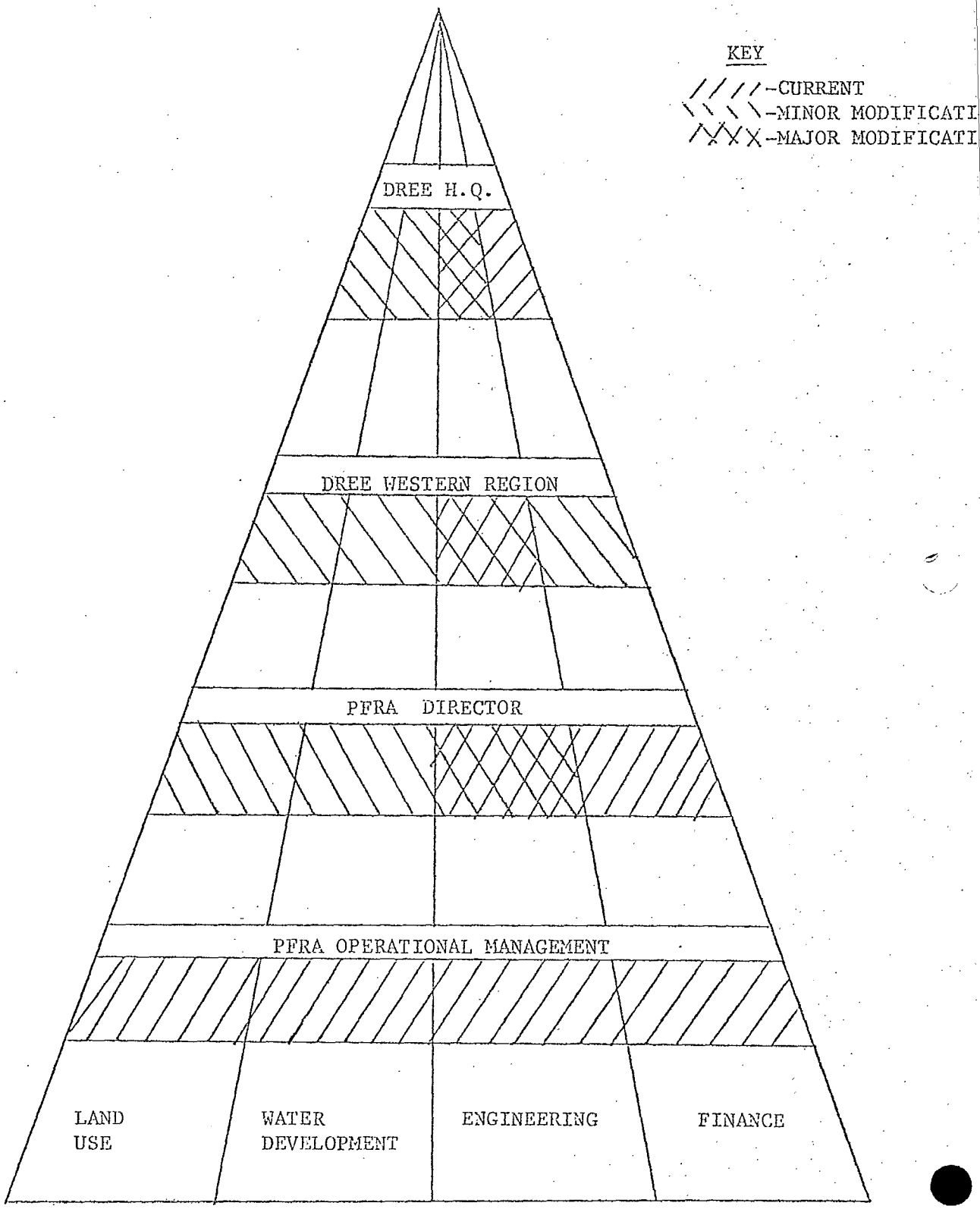

FIGURE 2

provision of more formal information in all areas of the Department. To this point, the smooth operation of PFRA has ensured that little involvement has been required by Western Region in its overall direction and planning. As more planning management is introduced into the Department to ensure optimum use of financial and other resources, more specific and detailed information will be required to assist in this process.

DREE HEADQUARTERS

Our conclusions with respect to the Headquarters operation of DREE are that:

- no major change is required in financial reporting
- the project status information should flow from the Western Region to the Headquarters Program Review area through normal information channels.

Regardless of the type of information, any information regarding PFRA operations should flow through Western Region to the appropriate area in Headquarters, whether it be financial or of the program nature.

SUMMARY

Figure 2 opposite illustrates our perception of what is required in management information reporting within PFRA and DREE. It is similar in format to the chart in Section III which shows the stated information requirements of PFRA and DREE. Specifically, Figure 2 indicates the modifications which we believe should be made to current information reporting systems to meet the anticipated requirements of both PFRA and DREE.

Starting at the bottom of the chart and working upwards, it can be seen that:

- PFRA Operational Management requires no change in current reporting systems to meet our perception of their requirements. Both their current and future requirements are being met by the systems they have in place at this time.

- PFRA Director requires, in our opinion, a significant increase in the formal reporting relating to engineering service, particularly to the Agricultural Service Centres. In the Land Use and Water Development sections, more formalized reporting against a standard structure is required to meet the overall requirement of formal reporting to the Director. Such reporting would be more structured than is currently available from these two areas.

- DREE, Western Region requires major modifications to the formal reporting received in the Engineering Services area and minor modifications in the Land Use Service and the Water Development Service. In the Financial area, we perceive that more information is required on both commitments and cash flow reporting.

- DREE Headquarters again require more formal reporting on Engineering Service and modifications to formal reporting in the Land Use and Water Development Services. Financial reporting on this level should remain as at present.

The specific details and outlines of the reports that will be required to meet our perception of the information requirements within the chart shown on Figure 2 are described in detail in the Recommendations section. However, it can be seen that this chart reflects the conclusions reached as described in detail in the earlier part of this section.

V - RECOMMENDATIONS

This section contains our recommendations based on the findings and conclusions discussed earlier in this report and reflects specific actions required by PFRA and DREE, Western Region.

The recommendations detailed below have been categorized by their subject matter content, but are all interrelated in that the adoption of all recommendations is required to ensure meaningful management systems and information flows within PFRA and related areas of Western Region.

In each area, the specific recommendation has been highlighted and followed by background information on the manner in which it should be implemented.

LIAISON FUNCTION

Develop the formal PFRA liaison function within Western Region.

The existing liaison function should be more formally developed to reflect the future requirements for closer information links between PFRA and Western Region. Specific actions which should be undertaken include:

- formalize the identification and location of the liaison function within Western Region and ensure all interested parties are aware of the focal point of contact
- formalize terms of reference for the liaison function and circulate these to interested areas within DREE Headquarters, Western Region and PFRA

- ensure all reporting and communications from PFRA, including the recommended revised status reporting, is provided to this function

- ensure that the liaison function is represented at regular PFRA management meetings on at least a monthly basis to ensure effective personal communications exist between this function and PFRA.

The adoption of such conditions will enhance the opportunity for success for this extremely important role for Western Region and PFRA.

STATUS REPORTING

Establish formalized status reporting within PFRA service areas, using predefined guidelines.

Specific details on the guidelines for each report are contained in Appendix C (Exhibits 1 through 4). These Exhibits cover:

- Land Use Service
- Water Development Service
- Engineering Service
- Agricultural Service Centres.

For each area, the guidelines state the frequency, objective, responsibility for preparation, staff requirements, distribution and content of the report.

In all cases, these reports will present a concise narrative and numeric summary of current operations, problem areas and anticipated events within each Division of the appropriate service area.

The provision of formalized status reporting will provide the first step necessary to convert to any future management information system using narrative status information such as PIMIS. The second step, which will only come after the formalized status reporting is functioning to the satisfaction of the key individuals, is the computerization of the information and its ready access through computer terminals and reports. It is vitally important to the success of any such computerized information system that the first step, the formalized status reporting, is well established before any computerization step is undertaken.

In addition, we recommend that a minor change be made in the Water Development Service report concerning grants paid lists, by location. In this report, a total of projects and grant value should be incorporated into the list for control purposes. This would only require 10-20 minutes of effort per month.

FINANCIAL REPORTING

Modify financial reporting to Western Region from PFRA in the area of cash flow forecasting and commitment reporting.

A combination of the expenditure report currently provided to Western Region and an existing internal PFRA expenditure report is recommended to fulfill the requirements of both PFRA and Western Region. A specific layout of this report can be found in Appendix C - Exhibit 5. From this, it can be seen that PFRA will break out commitments outstanding including contracts already signed by the individual responsibility centre and record all figures to the nearest dollar. Before this report

is provided to Western Region, it is recommended that any negative variances or free balances be annotated by notes on the report, explaining the reason for such a negative situation or referencing the appropriate area in the formal status report for that responsibility centre, explaining such a position.

In the area of cash flow reporting, it is recommended that a quarterly report be prepared by the Service and Divisional heads in consultation with the Director of PFRA and the Finance Section. This format is shown in Appendix C - Exhibit 6. These individual reports would then be consolidated by the Finance Section into a PFRA cash flow forecast as shown in Appendix C - Exhibit 7.

These cash flow reports will assist in long-range planning, by providing greater detail than is currently available on the anticipated cash flow by responsibility centre over a five-year period. The estimates would be allocated by quarter for the current and next fiscal year and then annually for the following three years. It is realized that many areas of operation within PFRA have difficulties in forecasting due to the climate, both physical and economic, and the fact that budgets are not known except on a current year basis. However, we feel that the provision of this data will enhance the ability within Western Region and PFRA to realistically forecast financial plans and allocate workable budgets.

USE OF PIMIS

Use the PIMIS system on a trial basis with a sub-set of

PRAIRIE FARM REHABILITATION ADMINISTRATION
RECOMMENDED REPORTING STRUCTURE

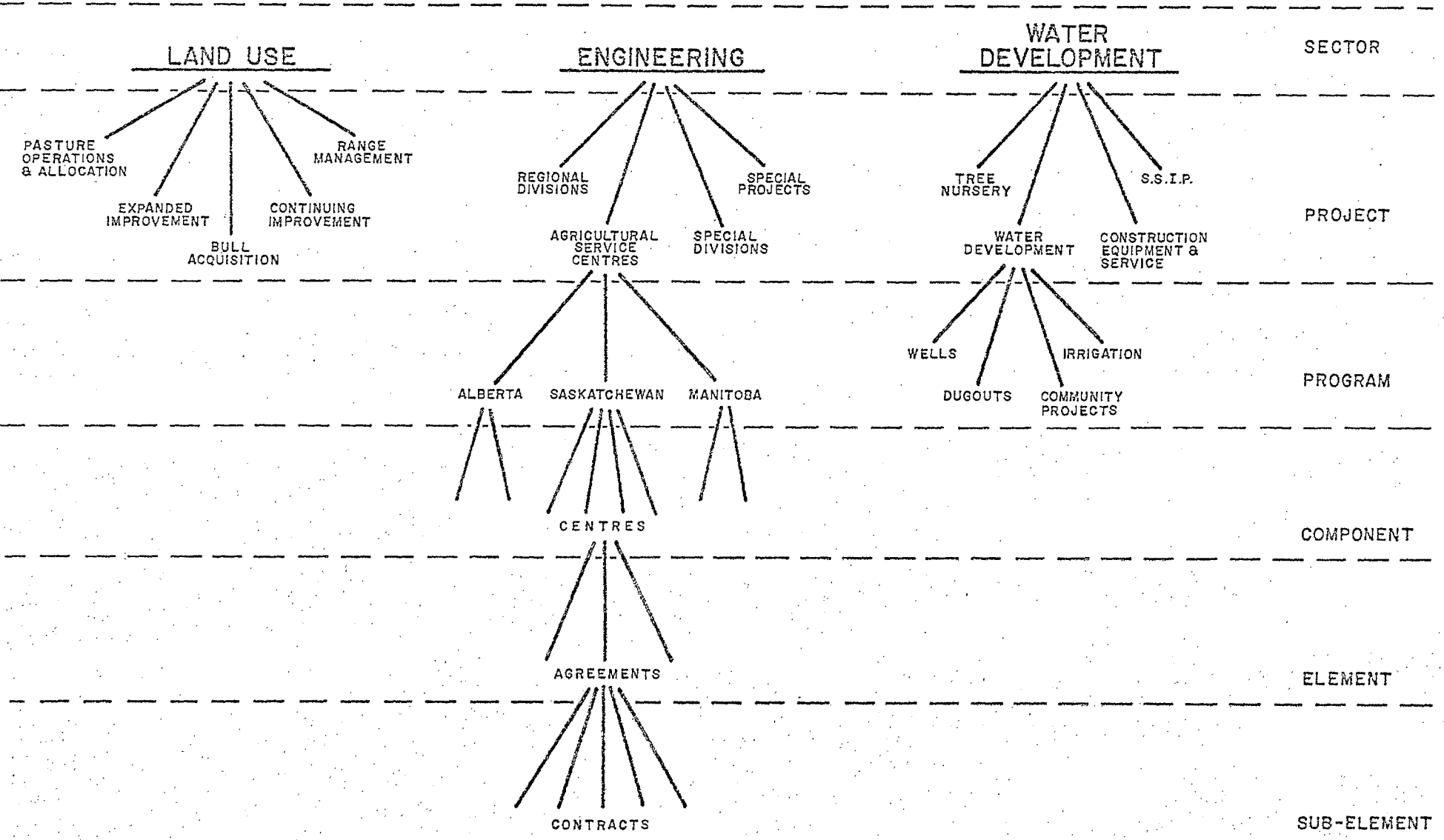

FIGURE 3

TABLE 6

PRAIRIE FARM REHABILITATION ADMINISTRATION

PIMIS IMPLEMENTATION CRITERIA

TRIAL BASIS

- Establish Implementation Team:
  - PFRA Management Services Analyst (Leader)
  - Manager, Data Services, Western Region
  - Junior Program Coordinator, Western Region
  - Representative - Engineering Services.
- Narrative data modules covering input and retrieval are operational.
- Financial data modules are operational.
- All aspects of system have been tested; and system used by Western Region personnel on a normal basis for three months.
- Detailed procedure manuals for PIMIS available.
- Implementation team to meet monthly to determine start date.

Agricultural Service Centres.

PIMIS should only be introduced into PFRA on a trial basis following the satisfaction of specified criteria. Such criteria for the implementation, using a sub-set of Agricultural Service Centres, are shown in Table 6 opposite.

The establishment of an Implementation Team, as detailed in the criteria, will ensure that experience is gained and maintained on the operation of PIMIS and its application to PFRA. This will set a firm base for any expanded use of PIMIS within PFRA in the future. The choice of a sub-set of Agricultural Service Centres will also demonstrate the applicability of information contained in the PIMIS system to both PFRA Management and Western Region. This will assist in the eventual evaluation of the usefulness of the PIMIS system and its applicability to PFRA and Western Region. This overall applicability should be determined by the Implementation Team as specified, together with other interested parties who the team may consider appropriate.

Only following the successful use of PIMIS on the trial basis can the next recommendation concerning PIMIS be considered, that is:

Reevaluate the use of PIMIS for all service areas.

The use of PIMIS for all service areas within PFRA will follow the levels of formalized status reporting detailed earlier in these recommendations. These individual levels of reporting for each service area are shown summarized in Figure 3 opposite together with a definition

of the PIMIS level to which each reporting level within PFRA corresponds. It can be seen that, in some areas, reporting is only at the Division level, whereas in the Agricultural Service Centres it is down to the detailed contract level. It is recommended that Figure 3 form the basis of the complete PIMIS system when such is deemed to be viable by the Implementation Team. Other requirements for the implementation of this full system, include:

- input requirements and costs determined by Manager, Data Services, Western Region (PFRA manpower requirement is currently estimated at less than one man-year for input)
- liaison position functioning within Western Region
- financial interface problems fully resolved.

As it appears that the most benefit from the expanded use of PIMIS will be obtained by Western Region in its access to formal PFRA status reporting, consideration should be given by Western Region to the funding of all additional manpower and other expenditure required to implement and maintain the computerized system.

USE OF FMIS

Continue in the use of FMIS in its current mode of operation.

The current application of FMIS is utilizing approximately two hours per day of PFRA time and is serving a useful purpose to Western Region and Headquarters, in that the Western Region allotment is complete and includes PFRA expenditures. However, no benefit would be obtained by the expansion of the system at this time. Our recommendation

should therefore be adopted until a major review and reevaluation of the current state and future of FMIS is made by DREE Headquarters.

DOCUMENTATION

Assign responsibilities to provide and maintain PFRA operating documentation.

In each Service and the Finance Section, a working document was produced as part of Phase II of this study, showing the information flow for each area, specifically detailing information reports produced. Such documentation should be used as a basis for the provision of specific operating documentation within all areas of PFRA. As such, a coordinator should be assigned to develop the appropriate content specifications and guidelines. Following this, the individual Services and the Finance Section should allocate manpower to complete the documentation. An ongoing maintenance role for such documentation should also be established.

INFORMATION SYSTEMS DEVELOPMENT

Nominate PFRA representative to participate in Departmental Information Systems design meetings and committees.

The lack of PFRA representation during the development of DREE departmental information systems in the past has led to problems as outlined earlier. Specific representation from PFRA on all Information Systems design and development committees and other meetings should occur to ensure that the unique operating requirements of PFRA are

considered and met as appropriate.

PLANNING FUNCTION

Develop a formal planning function to assist PFRA.

Following discussions with Western Region's Senior Management, we are advised that the development of long-range planning, as it effects PFRA, and its programs within the agricultural community, is actively under review.

TREE NURSERY

Conduct a detailed study of the application of automated operating techniques in the Tree Nursery.

Although a preliminary feasibility study is already underway on the application of automated techniques in the Tree Nursery, we feel that some automated operating techniques will be appropriate and that this study should be pursued at the detail level to provide a specific recommendation of equipment and techniques necessary.

SUMMARY

We believe that the implementation of the specific recommendations concerned with information reporting and closer liaison between PFRA and the remainder of DREE, Western Region is important to the ongoing development and success of PFRA programs. Without such implementation, the management within Western Region and PFRA will be seriously hampered during the emerging changes in programs and management processes within the Federal Government.

PRAIRIE FARM REHABILITATION ADMINISTRATION

INFORMATION SYSTEMS STUDY

APPENDIX A

PHASE I - WORKSHOP SUMMARY

PEAT MARWICK AND PARTNERS

PHASE I - WORKSHOP SUMMARY - JUNE 17, 1975

FINANCIAL MANAGEMENT INFORMATION SYSTEM (FMIS)

Objective: To facilitate the decentralization of financial decision making while still providing Ottawa management control information.

Concept: Functional Files based on logical breaks

- control (common)
- geographic (e.g. Regional, Provincial)
- transaction (common).

Individual program modules utilize the appropriate file configurations.

Inputs:
- allotments
- encumberance
- expenditures
- control ceilings
- corrections and adjustments
- data requests.

Updates: Transaction oriented system. Error data is not posted. Batch control is exercised, including control of value fields.

Outputs: Over forty fixed format reports available, including:

- Standard reports by user orientation
  - provincial
  - regional
  - national
- Processing reports
- Audit reports
- Exception report
- Detailed financial report.

Operating Philosophy:

- On line editing
- batch transactions
- file updates on two hour turnaround
- project ledger on twenty-four hour turnaround
- report requests by terminal
- report receipts by terminal
- some automatic reports are generated.

Security: Oriented to user location.

Problems:

- Processing cost
- prompting delays
- no interface with PIMIS.

Current Status: (a) Fifteen identified modules

- two implemented nationally, encumberance and year end routines under development
- one module (commitments) under systems development
- balance of modules are conceptual.

(b) Data being entered at various levels.

PROJECT IMPLEMENTATION MANAGEMENT INFORMATION SYSTEM (PIMIS)

Objective: To provide information to all levels of management on the status of DREE projects (narrative and financial data).

Concept: 'Tree' type structure to allow the capture and presentation of information at required level.

Inputs:

(a) Narrative
- objectives
- authority
- general status
- conditions.

(b) Financial
- expenditures
- forecasts
- controls.

Updates: (a) Narrative - any field.

(b) Financial - adjustments at working block level automatically rolled up

- flags set if controls exceeded.

Output:
- Verification report
- status report
- conditions report
- project implementation report
- action report
- termination report
- index report
- forecast accuracy report.

Operating Philosophy:
- Daily input from terminals
- batched input on punched cards under development
- nightly update of files
- direct retrieval of limited information (six data fields).

Potential Problems:
- Extended detailed information requirements
- slow speed retrieval
- storage requirements
- not a totally interactive system
- no interface with FMIS.

Security: Oriented to user location.

Current Status:
- narrative information being entered at Ottawa
- first office on line in July 1975

- financial information to be input by mid-September 1975
- reports to be available during September 1975.

PEAT MARWICK AND PARTNERS

PRAIRIE FARM REHABILITATION ADMINISTRATION

INFORMATION SYSTEMS STUDY

APPENDIX B

PHASE II STAGE I - WORKSHOP SUMMARY

PHASE II STAGE I - WORKSHOP SUMMARY

PFRA

1. Land Use Service

2. Water Development Service

3. Engineering Service

4. Administration Division

1. LAND USE SERVICE

ACTIVITY	COMPONENTS	REPORTS
Request Feasibility	- consultancy	
Development	- technical - clearing - construction	- financial by project expenditure commitment and estimates
Improvement	- fence building - water development - warehouse	
Operations	- allocation - grazing	- financial expenditure commitment vs budgets pasture statements
Maintenance	- breeding - haying - revenue collection	operations summary

SYSTEM CHARACTERISTICS

- manual
- period reporting
- formal
  - financial development and operation
  - pasture control
- informal
  - development projects.

STAGE II ACTION

Flow chart financial operations.

Review operations control.

Evaluate project control requirements.

Evaluation use of PIMIS and FMIS.

Review management reporting summaries.

2. WATER DEVELOPMENT

ACTIVITY	COMPONENT	REPORTS
Water Development (technical and grants)	- dugout - stockwatering dam - irrigation - drainage - community projects - wells	financial - expenditure - budget - grants project - services - staff history files
Tree Nursery	- shelter belts - snow brakes - industrial reclamation	financial - expenditure - budgets project
Construction Equipment & Services	- vehicle maintenance - trucking - engineering and fabricating - electrical/carpenter/plumbing - rental guides	- financial expenditure - staff reporting
Southwest Saskatchewan Irrigation	- irrigation - water supply - demonstration farm	- financial expenditure - staff reporting

SYSTEM CHARACTERISTICS

- manual
- period reporting
- formal - financial and project
  - Water Development Division
  - Tree Nursery
  - Construction Equipment and Services Division
  - Southwest Saskatchewan Irrigation Project.

STAGE II ACTION

Interview C.E.&S.D., Tree Nursery, SSIP.

Check file security (water development).

Check management requirements - summary reports.

Flowchart selected activities.

Evaluate possible use of PIMIS and FMIS.

3. ENGINEERING SERVICES

ACTIVITY	COMPONENT	REPORTS
Technical Service - PFRA - Province - Federal - Other	- General engineering - Geology and air survey - Design - Hydrology - Legal surveys - Soil Mechanics	- technical reports - chargeable costs (optional)
Project Management - planning - contract tenders - award of contracts - implementation	- Special projects - Agricultural service centres - Community water development	- forecasts - contract planning - contract expenditure commitment vs estimates - project progress

SYSTEM CHARACTERISTICS

- manual
- matrix management
- period reporting
- formal
  - financial project
  - project planning
  - project documentation
  - project implementation
- informal
  - technical management
  - reporting.

STAGE II ACTION

Evaluate contract filing and reporting.

Interview technical service groups.

Interview regional office (remote) and project engineers.

Evaluate technical service control and cost procedures.

Evaluate use of PIMIS and FMIS.

Review management reporting summaries.

4. ADMINISTRATION DIVISION

- Provides services to operating areas of PFRA.

Comprises

General Services - includes Central Records

Finance

Information

Land Registry

Management Services

Materials

Library

FINANCE SECTION

RESPONSIBILITIES

- develop financial forecasts
- control expenditure and commitments against budgets
  - responsibility centre
  - cost centre
- produce financial reports for operating management
- produce financial reporting for DREE (FMIS).

SYSTEM CHARACTERISTICS

- formal manual and computer reporting
- 'heavy' clerical activities.

STAGE II ACTION

Detail report breakdown to determine data flow.

Flowchart financial reporting system.

Evaluate manual operations.

Evaluate use of FMIS and impact on PIMIS.

Check on provincial coding routines.

PRAIRIE FARM REHABILITATION ADMINISTRATION

INFORMATION SYSTEMS STUDY

APPENDIX C

REVISED REPORTING GUIDELINES

EXHIBITS

1 - LAND USE SERVICE

2 - WATER DEVELOPMENT SERVICE

3 - ENGINEERING SERVICE

4 - AGRICULTURAL SERVICE CENTRE

5 - EXPENDITURE REPORT

6 - CASH FLOW FORECAST - SERVICE AREA

7 - CASH FLOW FORECAST - PFRA

EXHIBIT 1

PRAIRIE FARM REHABILITATION ADMINISTRATION

LAND USE SERVICE - NARRATIVE STATUS REPORT

Frequency: Monthly

Objective: - To present a concise narrative and numeric summary of current operations, problem areas and known future events within each Division of the Land Use Service. The Report would replace the present monthly report produced by the Chief of the Land Use Service and the Director of PFRA.

Prepared by: - Initial reports will be produced by the heads of each Division within the Service. These reports will then be checked, summarized and additional comments added, where appropriate, by the Chief of the Land Use Service.

Staff Requirements: - As the report replaces an existing monthly summary, it is envisaged that no additional effort will be required to produce this new report.

Distribution:
- Land Use Service - internal copy.
- Director, PFRA.
- DREE, Western Region (received after the report has been reviewed by the Director of PFRA).

Content:

1. Summary

   a) major highlights
   b) problems
   c) future development forecasts.

2. Pasture Operations

   a) number of cattle/bulls/calves - as monthly summaries
   b) pasture meeting highlights
   c) major summaries narratives
   d) forecasts.

3. Pasture Allocation

   a) number and details of requests, deposits, applications, cattle allocated, allotment problems
   b) narrative summaries.
   c) forecasts.

4. Pasture Improvements

   a) summary figures - continuing/extended program major events narrative summaries.
   b) new projects, completed. Value data.
   c) forecasts.

5. Bull Acquisition

   a) bull inventory data
   b) narrative summary.
   c) forecast.

6. Range and Pasture Management

   a) narrative summaries of studies.
   b) forecast.

7. Staff

   major appointments or changes.

EXHIBIT 2

PRAIRIE FARM REHABILITATION ADMINISTRATION

WATER DEVELOPMENT SERVICE - NARRATIVE STATUS REPORT

Frequency: - Monthly

Objective: - To present a concise narrative and numeric summary of current operations, problem areas and known future events within each Division of the Water Development Service. As with the Land Use Service, this report would replace a report currently being produced by the Service Chief.

Prepared by: - Initial reports will be produced by the heads of the four service divisions. These reports will then be checked, summarized and additional comments added, where appropriate, by the Chief of the Water Development Service.

Staff Requirements: - No additional effort will be required to produce this report as it will become a direct replacement for the current monthly report.

Distribution:
- Water Development Service.
- Director, PFRA.
- DREE, Western Region (received after the report has been reviewed by the Director of PFRA.

Content:

1. Summary

   a) major highlights
   b) problems.
   c) future development

2. Water Development Division

   a) main events
   b) project summaries, e.g. number and value of wells, dugouts, etc., current month/year-to-date
   c) main new projects
      closed projects
      special events
      forecasts.

3. Construction Equipment and Service Division

a) main events
b) new projects
c) closed projects
   - number and value of projects
d) narrative summaries
   - Field Construction
   - Moose Jaw.
e) forecasts.

4. Tree Nursery

a) main events
b) statistical data on
   - production
   - distribution/allocation
   - applications
c) narrative summaries
d) forecasts.

5. Southwest Saskatchewan Irrigation Project

a) main events
b) revenue report summary
c) forecasts.

6. Staff

- major appointments or changes.

EXHIBIT 3

PRAIRIE FARM REHABILITATION ADMINISTRATION

ENGINEERING SERVICE - NARRATIVE STATUS REPORT

Frequency: - Monthly

Objective: - To provide a concise narrative and numeric summary of current operations, problem areas and known future events within the following areas of Engineering Service.

- general overall summary
- Regional Division
- Specialist Division (e.g. hydrology, soil mechanics)
- Special Projects (e.g. Alberta Irrigation Rehabilitation Act).

Prepared by: - Divisional summaries will be prepared by the heads of each division. The special project summaries will be produced by the respective assistant chief engineer responsible for the project. These reports will then be checked, summarized and additional information added where appropriate by the Chief of the Engineering Division.

Staff Requirements: - The following additional effort will be required to produce the report:

- Service Chief, two or three hours per month
- Assistant Chief Engineer, one hour per month for each special project controlled
- Regional Division Heads, no additional effort. The new summary will replace an existing monthly report
- Specialist Division Head, one hour per month.

Distribution:

- Divisional Heads (own summary only).
- Assistant Chief Engineers (2).
- Chief Engineer.
- Director PFRA.
- DREE, Western Region (received after PFRA Director has reviewed the report).

Content:

1. Summary - Head Office Functions

   a) narrative summary
   b) details of new, amended and major updates to projects within Head Office. There should show the following:

      - responsibility
      - time scale
      - value.

   c) special assignments
   d) major reports
   e) future developments.

2. Regional Divisions

   a) narrative summary
   b) details of new, amended and major updates to projects. These should show the following:

      - responsibility
      - time scale
      - value.

   c) special assignments
   d) major reports
   e) future developments.

3. Specialist Groups

   a) one paragraph narrative summary to highlight major events within each month
   b) special assignments
   c) future developments.

4. Staff

   major appointments or changes.

PRAIRIE FARM REHABILITATION ADMINISTRATION

ENGINEERING SERVICE - AGRICULTURAL SERVICE CENTRE STATUS

Frequency: - Monthly

Objective: - To provide PFRA Headquarters and DREE, Western Region management with a summary status for each Agricultural Service Centre.

Prepared by: - Individual summaries will be produced by Regional Engineers responsible for coordinating the ASC program within each Province. A brief summary will be produced by each Regional Division Head with a final summary from the Chief or Assistant Chief Engineer.

Staff Requirements: - These monthly summaries will replace the monthly reporting currently forwarded by each Regional Division to DREE, Western Region. We estimate that there will be an additional clerical workload of between three to six hours on alternate months. In addition, up to two hours per month will be required from the Regional Division Head and the Chief or Assistant Chief Engineers.

Distribution:
- Regional Divisions (provincial data only).
- Chief Engineer.
- Director, PFRA (provincial and total summaries only).
- DREE, Western Region..

Content:

a) summary of major activities - total
b) summary of major activities - provincial
c) status reports of each ASC. Format as present bi-monthly reporting. (See attached existing report for an example). These reports are only prepared for ASC where contract details as important amendments have been made during the current period.
d) list of ASC where no update reports have been submitted.

On receipt of this report, DREE, Western Region will collate the updates relating to each ASC into a file which is held in Centre within Province sequence. In this way, a file showing the past and current development status for each Centre will be created.

Date: February 28, 1975

SASKATCHEWAN AGRICULTURAL SERVICE CENTRES AGREEMENT

STATUS REPORT

CITY OF SWIFT CURRENT

		Subsidiary Agreement #1	Subsidiary Agreement #2	Subsidiary Agreement #3	Subsidiary Agreement #4
Signed by Federal Minister		27 March 1973			
Amendments to Subsidiary Agreement	#1	23 May 1974			
	#2				
	#3				
Funds Allocated by Subsidiary Agreement	ASC Program Funds	$ 626,000			
	Provincial Contribution (CMHC, Centre)	$ 194,000			
	Total Funds in the Agreement	$ 820,000			
Engineering Fees Committed by Way of Service Contract *		$ 64,367.75			
Total of Construction Contracts Awarded *		$ 533,165.06			
Land Costs *		$ 10,500			

* Includes Final Contract & Purchase Amounts Where Applicable

Subsidiary Agreements

Subsidiary Agreement No. 1 as amended by Amendment No. 1, provides funds for a new treated water reservoir complete with booster station, connecting trunk mains and supply mains, supply of materials for five and the conversion of six raw water filters, improvements to the North Hill pressure zone system, a booster station for main water distribution network, replacement of obsolete sewage pumping stations Nos. 5 and 6, supply of standby pump, addition of flow controls in the water treatment plant, pump controls in the North Hill Pump Station, extension of the sewage lagoon and payment for the supply and conversion of two raw water filters under the retroactive clause of the Master Agreement.

Engineering Studies

Reid, Crowther and Partners Limited concluded their study of Swift Current's sewerage and waterworks facilities 1974, 75 and 76 programs and submitted a letter report 16 November 1973. A report on Extension to Sewage Treatment Facilities was submitted on 20 November 1973 and a further memorandum report on this matter on 3 January 1974.

Reid, Crowther and Partners Limited have completed designs for the water storage reservoir.

Reid, Crowther and Partners Limited have completed the detailed designs for pump controls and booster station.

Reid, Crowther and Partners Limited have completed detailed designs, specifications and cost estimates for sewage pumping stations Nos. 5 and 6, extension of sewage lagoon, water trunk mains and supply mains, pumps, piping and superstructure related to the booster station, and supply of standby pump.

On 20 September 1974, PFRA engaged Reid, Crowther and Partners Limited to provide engineering service during construction of 1974 program in the City. This work is now underway.

On 30 January 1975, Reid, Crowther and Partners Limited submitted a proposal to provide engineering services in connection with the disposal of treated sewage effluent by spray irrigation. An agreement in this regard is expected in the near future.

CITY OF SWIFT CURRENT

Tendering and Construction

C1 - Construction of South Hill Reservoir is complete.

C2 - Supply of Filter Media - Neptune Meters Limited have delivered the material to the City.

C3 - Pump Control, North Hill Pump Station - Melhoff Electric Limited have completed this contract.

C4 - Supply and Installation - Booster Station - MacWilliams Construction Limited have completed this contract.

C5 - Conversion of Raw Water Filters - The City of Swift Current have complete this contract.

C6 - Sewage Lagoon Extensions - The single bid received 19 June 1974 was rejected. There are not sufficient funds in the existing Subsidiary Agreement to permit a retendering of this project.

C7 - Pumping Stations - Baker's Electric have completed approximately 64% of the work on this contract.

C8 - Watermain Extension 1974 - Benkendorf Construction Limited has completed approximately 72% of the work for this contract.

Canada / Saskatchewan
Province

Agricultural Service Centres Program

COMMITMENT SUMMARY AS OF March 3 /75

City of Swift Current, Saskatchewan
Town / City Centre Province

Subsidiary Agreement No. 1

Amendment No. 1

A. Project Commitments and/or Expenditures

	Initially Committed	Final
Service Contracts (Consultants)		
RCP - Regina - 23/10/72	$ 3,000	
RCP - Regina - 18/06/72	$ 6,500	
RCP- Regina - 19/09/73	$ 7,500	$ 6,712.18
RCP - Regina - 18/03/74	$ 30,000	28,155.57(Part CMH
RCP - Regina - 20/09/74	$ 20,000	(Part CMH
	$ 64,367.75	
Construction and Supply Contracts		
City (Retroactive)	$ 3,000	
C1 - Pigott	$ 162,328	$ 150,035.02
C2 - Neptune	$ 8,484.45	$ 8,484.45
C3 - Melhof	$ 1,294	$ 1,094.00
C4 - MacWilliams	$ 37,260	
C5 - City	$ 6,000	
C7 - Baker	$ 112,000	
C8 - Benkendorf	$ 215,291.59	
Subtotal (including final)	$ 533,165.06	
Others (e.g. Construction Orders)	-0-	-0-
Land Costs		
- City (CMHC)	$ 10,500	

Total (including Finals where known) $ 608,033

B. Summary

	By Agreement	Committed To Date
To be financed by Province a) CMHC	$ 194,000	$ 17,000
b) CENTRE	-0-	-0-
To be financed by Canada	$ 626,000	$ 591,033
Totals	$ 820,000	$ 608,033

PEAT MARWICK AND PARTNERS

APPENDIX C - EXHIBIT 5

DEPARTMENT OF REGIONAL ECONOMIC EXPANSION

Expenditure Report

(Nearest $)

FOR THE MONTH ENDING _____ 197 OFFICE PFRA

STANDARD OBJECT DESCRIPTIONS	1975-76 BUDGET	ACTUAL EXPENDITURE CU. MO.	ACTUAL EXPENDITURE Y.T.D.	Y.T.D. BUDGET	Y.T.D. VARIANCE	O/S COMMITMENTS CONTRACTS SIGNED	O/S COMMITMENTS OTHER	FREE BALANCE	1975-1976 CASH FLOW
VOTE 1 -- OPERATIONS & MAINTENANCE									
1 - Personnel									
2 - Transportation & Communications									
3 - Information									
4 - Professional & Special Services *									
5 - Rentals									
6 - Purchased Repair & Upkeep									
7 - Utilities, Materials & Supplies									
12 - All other expenditures									
TOTAL: VOTE 1									

* FOR PFRA ONLY, combine Standard Objects 2 to 12 under Other.

NOTES:

PEAT MARWICK AND PARTNERS

5-2

APPENDIX C - EXHIBIT 5

DEPARTMENT OF REGIONAL ECONOMIC EXPANSION

Expenditure Report
(Nearest $)

E MONTH ENDING _____ 197 OFFICE PFRA

STANDARD OBJECT DESCRIPTIONS	1975-76 BUDGET	ACTUAL EXPENDITURE CU. MO.	ACTUAL EXPENDITURE Y.T.D.	Y.T.D. BUDGET	Y.T.D. VARIANCE	O/S COMMITMENTS CONTRACTS SIGNED	O/S COMMITMENTS OTHER	FREE BALANCE	1975-1976 CASH FLOW
1 -- OPERATIONS & MAINTENANCE - ANALYSIS BY RESPONSIBILITY CENTRE									
Administration									
Community Pastures									
Water Development									
Tree Nursery									
Irrigation Projects, S.W. Sask.									
Construction & Equipment Ser.									
Engineering Services									
Alta. Irrigation Rehabil-itation									
Agricultural Service Centres									
South Sask. River Project									
Shellmouth-Portage									
Assiniboine & Qu'Appelle									
TOTALS:									

PEAT MARWICK AND PARTNERS

APPENDIX C - EXHIBIT 5

DEPARTMENT OF REGIONAL ECONOMIC EXPANSION

Expenditure Report
(Nearest $)

FOR THE MONTH ENDING _____ 197 OFFICE PFRA

STANDARD OBJECT DESCRIPTIONS	1975-76 BUDGET	ACTUAL EXPENDITURE CU. MO.	ACTUAL EXPENDITURE Y.T.D.	Y.T.D. BUDGET	Y.T.D. VARIANCE	O/S COMMITMENTS CONTRACTS SIGNED	O/S COMMITMENTS OTHER	FREE BALANCE	1975-1976 CASH FLOW
VOTE 5 - CAPITAL EXPENDITURES									
- Administration									
- Community Pastures									
- Water Development									
- Tree Nursery									
- Irrigation Projects, S.W. Sask.									
- Construction & Equipment Ser.									
- Engineering Service									
- Alta. Irrigation Rehabilitation									
- Agricultural Service Centres									
- South Sask. River Project									
- Shellmouth-Portage									
- Assiniboine & Qu'Appelle									
TOTAL: VOTE 5									
VOTE 20 -- LOANS									
Agricultural Service Centres									
TOTAL: VOTE 20									
TOTAL: ALL VOTES									

NOTES:

PEAT MARWICK AND PARTNERS

Appendix C - Exhibit C

P F R A - CASH FLOW FORECAST (CAPITAL)

SERVICE:

DATE:

TO:FINANCE SECTION

Responsibility Centre	CURRENT FISCAL YEAR 19 - 19					FISCAL YEAR 19 - 19					Fiscal Year Forecast 19 -19	Fiscal Year Forecast 19 -19	Fiscal Year Forecast 19 -19
	1st.Qtr. Forecast Actual*	2nd.Qtr. Forecast Actual*	3rd.Qtr. Forecast Actual*	4th.Qtr. Forecast	Annual Forecast Total	1st.Qtr. Forecast	2nd.Qtr. Forecast	3rd.Qtr. Forecast	4th.Qtr. Forecast	Annual Forecast Total			
TOTALS:													

*Delete as applicable.

PEAT MARWICK AND PARTNERS

Appendix C - Exhibit 7

P F R A - CASH FLOW FORECAST (CAPITAL)

DATE:

Responsibility Centre	CURRENT FISCAL YEAR 19 - 19					FISCAL YEAR 19 - 19					Fiscal Year Forecast 19 -19	Fiscal Year Forecast 19 -19	Fiscal Year Forecast 19 -19
	1st.Qtr. Forecast Actual *	2nd.Qtr. Forecast Actual *	3rd.Qtr. Forecast Actual*	4th.Qtr. Forecast	Annual Forecast Total	1st.Qtr. Forecast	2nd.Qtr. Forecast	3rd.Qtr. Forecast	4th.Qtr. Forecast	Annual Forecast Total			
TOTALS:													

* Delete as applicable

PEAT MARWICK AND PARTNERS

HT
395
C344
P4 Author/*Auteur*
v.2
Title/*Titre*
Date
0133-34.3 (10/70)

HT Peat, Marwick & Partners
395
C344
P4
v.2

INDUSTRY CANADA/INDUSTRIE CANADA
54070