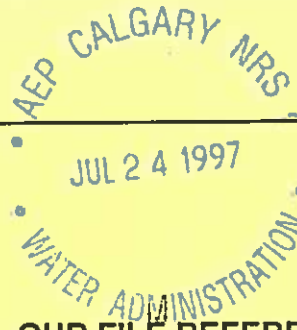




NATURAL RESOURCES SERVICE



Water Management Division

FROM: Cindy Robinson
Licensing & Permitting
Standards Branch

OUR FILE REFERENCE:

YOUR FILE REFERENCE:

TO: Randy Poon, P.Eng.
Water Administration Branch

DATE: July 21, 1997

TELEPHONE: 427-9497

FAX: 422-0262

SUBJECT: MICHICHI CREEK BASIN- WEST BRANCH

Further to your memo of July 07, 1997, the policy on licensing in the Michichi Creek Basin, known as Water Administration Criterion #5, is attached. Irrigation applications will be considered subject to the hydrological constraints outlined in Criterion #5.

Bolter Parish Trimble Ltd. Consulting Engineers were engaged in November of 1981 to undertake a study of the Michichi Creek Basin. The results of the study showed short term runoff periods in the basin with limited quantities of water remaining to be allocated. A policy was adopted to provide orderly allocation of remaining resources under the provisions of the Water Resources Act in recognition of the hydrological characteristics of the basin as determined in the study.

If you have any further questions please do not hesitate to contact me at 427-9497.

Original signed by:

Cindy Robinson

Enclosure

WATER RESOURCES ACT

WATER ADMINISTRATION CRITERION #5

MICHICHI CREEK BASIN - WEST BRANCH

WATER RESOURCES ADMINISTRATION DIVISION

WATER RESOURCES MANAGEMENT SERVICES

ALBERTA ENVIRONMENT

WATER RESOURCES ACT
WATER ADMINISTRATION CRITERION #5
MICHICHI CREEK BASIN, - WEST BRANCH

PREAMBLE:

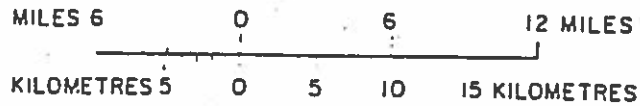
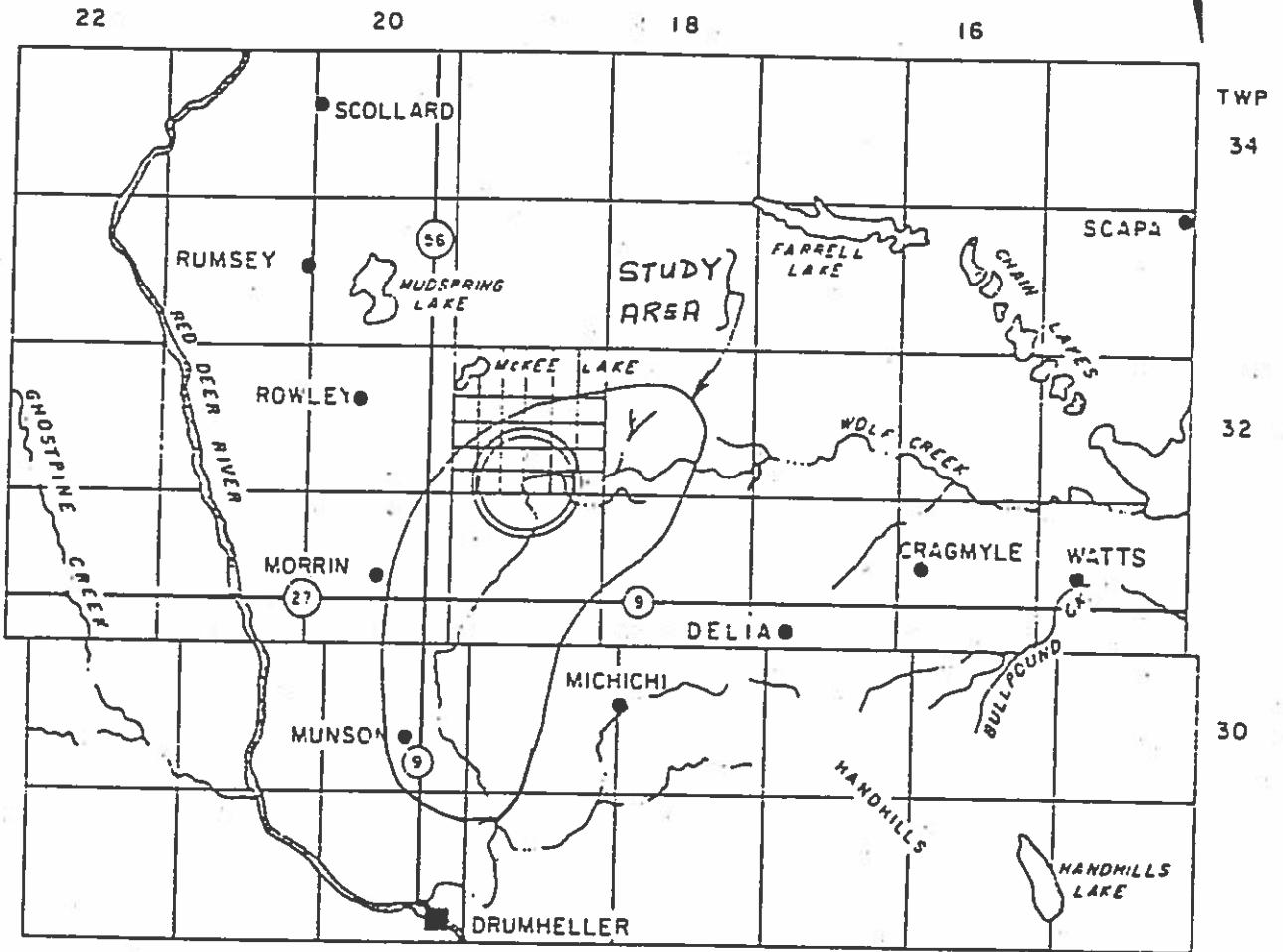
As a result of routine advertizing of an application under the Water Resources Act to divert water for irrigation purposes in the Michichi Creek Basin, local residents expressed the concern that the development of large scale water diversion projects may unreasonably affect domestic water supplies. After reviewing the available information the Controller of Water Resources decided in April, 1981 to place a short term moratorium on the approval of irrigation and storage projects and in November 1981 engaged the services of Bolter Parish Trimble Ltd. - Consulting Engineers - to undertake a study in the area. The results of the study showed short term runoff periods in the basin with limited quantities of water remaining to be allocated. The following policy is recommended to provide for orderly allocation of remaining resources under the provisions of the Water Resources Act in recognition of the hydrological characteristics of the basin as determined in the study.

V. Carlson

V. Carlson, P. Geol.

Controller of Water Resources

DATE:



KEY PLAN

WATER RESOURCES ACT
WATER ADMINISTRATION CRITERION #5
MICHICHI CREEK BASIN - WEST BRANCH

IMPLEMENTATION DATE:

1. DOMESTIC AND AGRICULTURAL APPLICATIONS FOR CONSTRUCTION OF DAMS:

- will be considered only where storage capacity is 20 acre-feet or less and will be given consideration subject to normal licensing procedures.
- licensee may be required to provide outlet facilities for the release of water.

2. MUNICIPAL APPLICATIONS:

- will be considered only where adequate and secure storage is provided so that the facilities are capable of:
 - (a) storing sufficient water for the entire community to meet at least one (1) year's requirement or such longer period as may have been required by Municipal Engineering Branch, Standards and Approvals Division;
 - (b) securing sufficient water for the community's storage requirements during a maximum withdrawal period of twenty (20) days, during the spring run-off period;
 - (c) storing water with minimal evaporation losses. A storage capacity to surface area ratio less than six (6) will have to be supported by evidence that clearly and conclusively indicates that no other sites are available which will provide minimal losses; and,
 - (d) providing adequate outlet facilities for the release of water in any instream works such as dams, weirs and dykes.

- may have time restrictions for water withdrawal from the stream.

3. IRRIGATION APPLICATIONS:

- will be considered only if the water supply (run-off) at the project location has a probability of occurrence of not less than 75% (i.e. water will be available 3 out of 4 years), after allocations for previously licenced projects have been deducted;
- where storage is provided:
 - (a) the project must be designed to minimize evaporation losses. A storage capacity to surface area ratio less than six (6) will have to be supported by evidence that clearly and conclusively indicates that no other sites are available which will provide minimal losses;
 - (b) the project must be designed to be capable of securing its water requirements during a maximum withdrawal period of twenty (20) days during the spring runoff period; and,
 - (c) adequate outlet facilities for the release of water must be incorporated in any instream works such as dams, weirs and dykes.
- will have time restrictions for water withdrawal from the stream.

4. INDUSTRIAL APPLICATIONS:

- will be considered only if the water supply (run-off) at the project location has a probability of occurrence of not less than 80% after allocations for previously licenced projects have been deducted.
- will be considered only where the proposed project design incorporates sufficient storage to secure the necessary water supply for efficient operation of the project 100% of the time. The facilities must be capable of:
 - (a) storing sufficient water to meet carry-over requirements;

- (b) securing sufficient water for the project during a maximum withdrawal period of twenty (20) days during the spring runoff period;
- (c) storing water with minimal evaporation losses. A storage capacity to surface area ratio less than six (6) will have to be supported by evidence that clearly and conclusively indicates that no other sites are available which will provide minimal losses; and,
- (d) providing adequate outlet facilities for the release of water in any instream works such as dams, weirs and dykes.

- will have time restrictions for water withdrawal from the stream.

5. STORAGE APPLICATIONS (FISH PONDS, RECREATION):

- will be considered only where the storage capacity is 20 acre-feet or less and will be given consideration subject to normal licensing procedures.
- will require outlet facilities for the release of water where deemed necessary.

6. DUCKS UNLIMITED APPLICATIONS:

- exceeding 20 acre-feet in gross diversion will be considered only where the project will also be operated to provide releases to downstream water users or if multi-purpose benefits such as irrigation, domestic, etc., are included and will be given consideration subject to normal licensing procedures;
- will be considered only where the project is designed to minimize evaporation losses. A storage capacity to surface area ratio less than six (6) will have to be supported by evidence that clearly and conclusively indicates that no other sites are available which will provide minimal losses.

- adequate outlet facilities must be incorporated in the works.

7. AGRICULTURAL (FEEDLOT) APPLICATIONS:

- will be considered only if the water supply (run-off) at the project location has a probability of occurrence of not less than 75% after allocations for previously licenced projects have been deducted.
- will be considered only where adequate storage and a secure source of water supply can be provided for efficient operation of the proposal.

The facilities must be capable of:

- (a) storing sufficient water to meet at least one (1) year's requirement;
- (b) securing sufficient water for the project during a maximum withdrawal period of twenty (20) days during the spring runoff period;
- (c) storing water with minimal evaporation losses. A storage capacity to surface area ratio less than six (6) will have to be supported by evidence that clearly and conclusively indicates that no other sites are available which will provide minimal losses; and,
- (d) providing adequate outlet facilities for the release of water in any instream in works such as dams, weirs and dykes.

- time restrictions for water withdrawal from the stream will apply.

8. COMMUNITY PROJECTS APPLICATIONS:

- will be considered only where multi-purpose benefits will be obtained by a number of land owners and will be given consideration subject to normal licensing procedures.
- will be considered where the project is designed with outlet facilities, criteria for minimizing evaporation losses.

9. APPLICATIONS IN NON-CONTRIBUTING AREAS

Where it can be clearly and conclusively demonstrated by the applicant that the project is in a non-contributing area of the Basin, applications will be considered for any type of project and given consideration subject to normal licensing procedures.

WATER RIGHTS BRANCH

WATER RESOURCES ADMINISTRATION DIVISION

ALBERTA ENVIRONMENT

SUBMITTED BY: A.J. Ferrett and *A. J. Ferrett*
Hamid Rahim *Hamid Rahim*

FORWARDED BY: V. Carlson *V. Carlson*
Controller of Water Resources

ESTIMATED MONTHLY RUNOFF VOLUME, WEST BRANCH MICHIGAN CREEK AT MOUTH

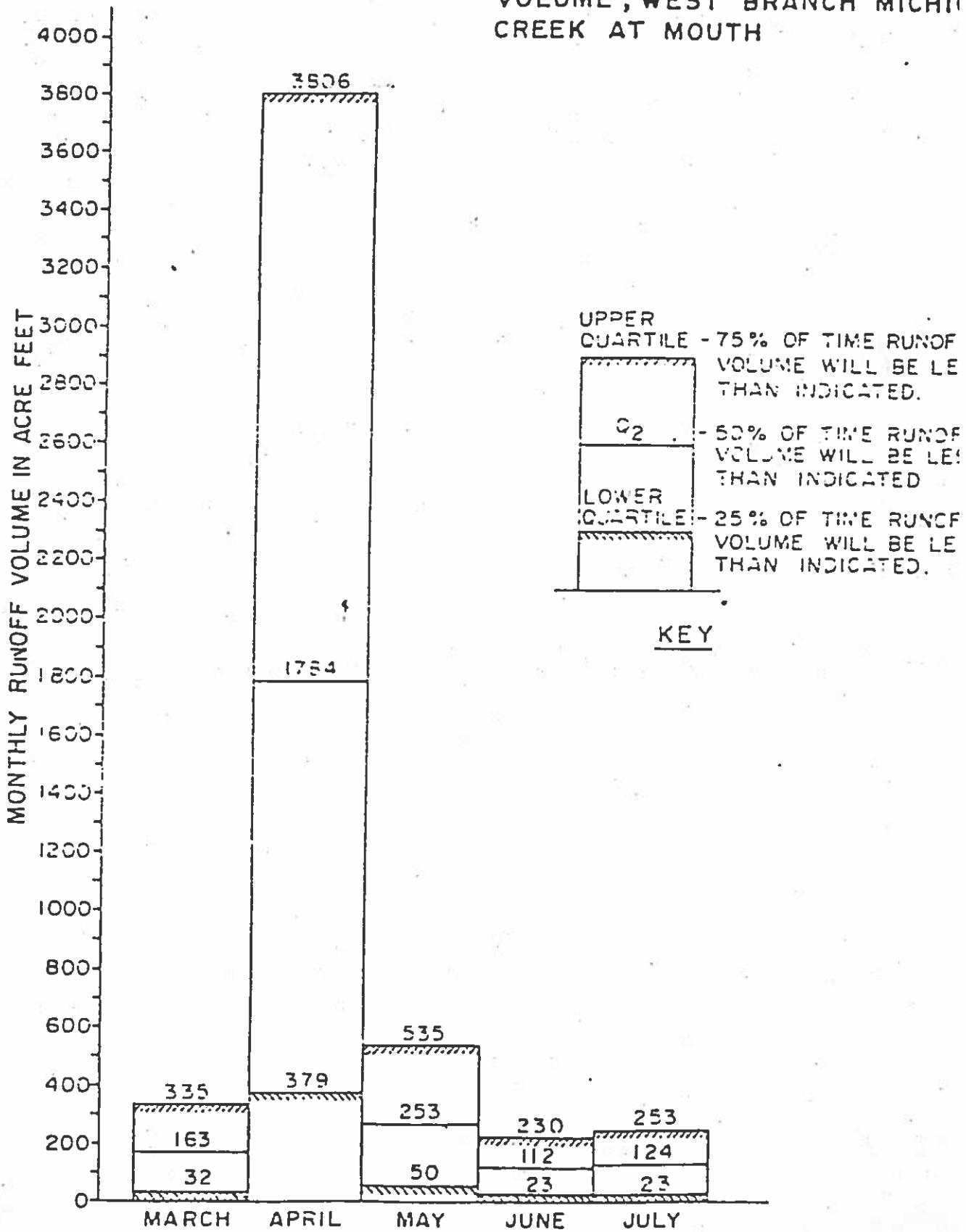


FIGURE '1'