WRRC
Bulletin 106

A HISTORY OF DRAINAGE LAW IN MINNESOTA WITH SPECIAL EMPHASIS ON THE LEGAL STATUS OF WET LANDS

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Limnological Contribution Number 11
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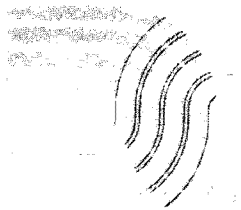

WATER RESOURCES RESEARCH CENTER
UNIVERSITY OF MINNESOTA
GRADUATE SCHOOL

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November 1980
Minneapolis, Minnesota

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ACKNOWLEDGEMENTS

Many people generously provided valuable information which greatly contributed to the accuracy of this work: Mr. Roy Nelson of the Minnesota Department of Natural Resources explained the application of drainage law in the protection of waters; Mankato attorney Charles Peterson summarized drainage procedures pursuant to Chapter 106 of the Minnesota State Statutes; Mr. William Maher outlined the action of the Minnesota Environmental Quality Board in situations involving environmental impact statements; Dr. Robert Moline provided information concerning the Minnesota Water Resources Board's involvement in drainage disputes. Lastly, Mr. Carl Conney offered invaluable insights into Minnesota case law.

I would also like to thank Mr. Milt Owens and the employees of the Blue Earth County Auditors Office for their assistance and cooperation in compiling the county drainage statistics.

Additionally, I am indebted to Rita McEvoy for her skills in typing rough manuscripts.

Finally, my special thanks to the indefatigable Dr. Henry W. Quade whose assistance in funding, constant help, ceaseless encouragement, and infectious enthusiasm inspired me to undertake and eventually complete this work.

The work upon which this publication is based was supported in part by funds provided to Dr. Henry W. Quade by the U.S. Department of the Interior as authorized under the Water Research and Development Act of 1978, P.L. 95-467. Further support was provided by Mankato State University. Contents of this publication do not necessarily reflect the views and policies of the Office of Water Research and Technology, U.S. Department of the Interior.

FOREWORD

This bulletin is published in furtherance of the purposes of the Federal Water Research and Development Act of 1978, P.L. 95-467. The purpose of the Act is to stimulate, sponsor, provide for, and supplement present programs for the conduct of research, investigations, experiments, and the training of scientists in the field of water and resources which affect water. The Act is promoting a more adequate National program of water resources research by furnishing financial assistance of non-Federal research.

The Act provides for establishment of Water Resources Research Centers at Universities throughout the Nation. On September 1, 1964, a Water Resources Research Center was established (under the Water Resources Research Act of 1964, P.L. 88-379) in the Graduate School as an Interdisciplinary component of the University of Minnesota. The Center has the responsibility for unifying and stimulating University research with water resources programs of local, State and Federal agencies and private organizations throughout the State; and assisting in training additional scientists for work in the field of water resources through research.

This Bulletin is number 106 in a series of publications designed to present information bearing on water resources research in Minnesota and the results of some of the research sponsored by the Center.

This Bulletin is related to:

OWRT Project No.: A-040-Minn

Project Title: The effect of county drainage ditches on water quality and quantity in south central Minnesota.

Principal Investigator: Henry W. Quade, Department of Biological Sciences, Mankato State University.

Project Began: October 1, 1977 Project Completed: September 30, 1980

FCST, COWRR Research Category: V-G; IV-A / 4

Publication Descriptors: *Drainage/*Drainage law/*Public Waters/Wetlands/ Agriculture

Abstract:

This work contains a capsulized view of the laws and attitudes that have shaped Minnesota's drainage history and formed the basis for the State's present drainage law. Special importance has been placed on the evolution of the law as it pertains to wet lands. Additionally, a set of appendices has been included in order to provide a more detailed view of certain laws and significant legal precedents. The intent of this publication is not to present a definitive statement on present or past law, but rather to provide an introduction to Minnesota's drainage law from which further investigations may begin.

A HISTORY OF DRAINAGE LAW IN MINNESOTA WITH SPECIAL EMPHASIS ON THE LEGAL STATUS OF WET LANDS

INTRODUCTION

To best explore the laws and attitudes that have shaped the history of drainage in Minnesota this discussion has been divided into three historical periods.1/ Although there were few distinct points in Minnesota's drainage history where abrupt attitudinal shifts or drastic statutory revisions occurred, i.e., regarding drainage or wetlands preservation, this division provides an effective method of grouping laws that have similar motives behind their development. Moreover, in each of these periods, the pervasive sentiments toward drainage differed noticeably, making this form of organization even more advantageous.

The first of these drainage periods includes a time from the inception of Minnesota's first drainage act in 1858 to approximately the year 1920--a time in which most drainage in the state was undertaken. The second period continued from about 1920 through the 1950's. The law during this episode of history illustrated a transition in peoples' attitudes towards drainage and the preservation of waters. Lastly, the third period of drainage extends from the 1960's to the present and is significant in that most environmentally oriented modifications in drainage law took place.

Additionally, in drainage law, certain legal precedents take on considerable importance. These include the constitutionality of drainage, the constitutionality of public waters designation, and riparian rights. Therefore, discussion of these are also contained in the appendix.

1/ In order to most succinctly present the evolution of the law it was necessary to introduce each act in its most abbreviated form. Because brevity was essential to the discussion, an appendix containing a chronologicaly-ordered-historical compendium of the law, was included in order to provide a more detailed view of the content of statutesand laws mentioned in the paper.

Finally, to illustrate the increasing complexity of pre-drainage procedures, a synopsis of these procedures from the dates of 1858, 1883, 1925, and 1979, have for the first three dates been presented in the compendium with the present procedures presented separately in the appendix.

DRAINAGE PERIOD I (1858-1920)

This period of Minnesota's history truly was a time of extensive drainage activity. Based on the total acreage of land incorporated into drainage enterprises by the year 1960, over 79 percent of this land was affected by ditching before the year 1920 (Moline, 1969). Furthermore, over 77 percent of this 1960 total was included in ditch sheds between the years of 1900 and 1920 (Moline, 1969). The extent of drainage activity in this period was also vividly reflected in the numbers of drainage petitions that were presented in Blue Earth County, Minnesota, a county whose drainage activity roughly paralleled that of the entire state (Burns, 1954). (Blue Earth County drainage statistics will also be sited in a subsequent section.) Out of the total of 132 petitions presented in Blue Earth County, for judicial and county ditches, 84 were presented in the time span from 1890-1920, representing 63 percent of the 1978 total. Even more astounding was the fact that 53 percent of the ditch requests in this county were presented from 1910-1920. As a further example of drainage activity, from 1901-1915 the state drainage commission authorized the construction of 76 state ditches (Palmer, 1915).

The primary reason for his massive drainage of course lies in the state's geologic history--i.e. glaciation. By some estimates Minnesota originally contained over 10,000,000 acres of swampland,[1] which covered approximately 19 percent of the total area of the state[1] (Palmer, 1915). Although much of Minnesota's marshlands were found in the northern counties, many southern counties also contained large areas of wetlands, and wet prairie regions of very poor drainage. As a result of this, abundance of surface water it is not surprising that massive land reclamation was desired, but there were also other factors that stimulated drainage in this period. One of these factors was based on contemporary attitudes towards waters. These beliefs were enunciated in the "common enemy" doctrine regarding surface water.[2] This doctrine was best exemplified in

[1] It cannot be determined just what types of land Palmer considered to be swampland, wet prairies, wetlands, temporary ponds, etc.

[2] "Surface waters" were generally considered swamps, sloughs, marshes, and bogs (Hartle v. Neighbauer 172 N.W., 498, 1919). (Schafer v. Marthaler 26 N.W., 726, 1886). Thus it can be inferred that much of what presently are considered "wetlands" would have been determined to be surface waters.

Pye vs. City of Mankato (1887) 31 N.W. 863 where the court declared, "surface water is a common enemy, which an owner, in the necessary and proper improvement of his land, may get rid of as best he may," providing that in the process he does not injure another party.

This common enemy doctrine was predicated on a number of beliefs: (1) that flooded lands or swamps provided breeding areas for diseases;[1] (2) that overflowed areas were agriculturally unproductive; (3) that surface waters hindered transportation; and (4) that shallow wetlands generally restricted human progress and development. Furthermore, the extent of his common enemy doctrine was epitomized in the words of Chief Hydrographer Leighton, of the United States Geological Survey (circa, 1915). In his comments, where he equated drainage to war against wet lands, he exclaimed: "If there lay off our coast such a wondrously fertile country inhabited by a pestilent and marauding people who every year invaded our shores and carried away thousands of our citizens, and each time shook their fists beneath our noses and cheerfully promised to come again, how quickly that people would be subjugated!" (Palmer, 1915). Moreover, to a lesser degree many of the early governors of the state wholeheartedly proclaimed the glories of swampland reclamation (Palmer, 1915).

Although people's negative attitudes towards "swamps" had great influence on the reclamation of wetlands, some demographic factors also stimulated drainage activity in this episode of Minnesota's drainage history. For example, Moline, in his doctoral thesis on wet prairie modification, noted that people wishing to farm often settled in wet prairie regions rather than in wooded areas, for in the former the land was usually relatively flat, no clearing was necessary, and therefore after drainage the land was immediately available for cultivation (Moline, 1969). Burns, in his doctoral dissertation on artificial drainage in Blue Earth County, Minnesota, also noted that as early as the 1870's wet prairie regions of that county contained more farms than the wooded areas. This settlement pattern was definitely one factor that gave impetus to drainage in early Minnesota. Another obvious reason for the great increase in drainage activity prior to the year 1920, was the increase in Minnesota's population. From 1860 to 1920, Minnesota's population rose from 172,000 to 2,387,000 (Atlas of Minnesota's Resources and Settlement). Furthermore, of this over 2 million people, 903,000 consisted of individuals who lived on farms (United States Bureau of Census, 1975).

Besides the foregoing demographic factors, there were also great economic incentives to drain during this period. Ben Palmer, in his excellent work on early Minnesota drainage history, elaborated on the value of drainage, in maintaining that it resulted in (1) a greater

[1] In the late 1800's, it was still believed that swamps emmited misamatic, diseases causing, gasses (petition BE Co #1, 1897). By the early 1900's, this falacy was disproved and drainage was justified by the contention that it destroyed swamps that bred malaria-carrying mosquitoes (Palmer, 1915).

certainty of a full crop because of a reduction in frost damage; (2) an increase in yield per care and a corresponding increase in the market value of land; (3) improvements in highway transportation; (4) increased profits by freight companies due to increases in the shipping of agricultural goods; (5) increased business in towns proximate to drained districts; (6) improvements in railroad transportation due to decreased losses from floods and softened roadbeds; (7) and improvements in public health by eliminating disease-breeding swamps and marshes. Moreover, from 1910-1920 high prices of agricultural commodities, lower operating costs, and pluvial climatic conditions further increased the desirability of wet land reclamation (Moline, 1969).

In light of these events and the prevalent attitudes towards surface waters, it is not surprising that drainage was undertaken with such great zeal. Drainage was definitely considered progressive and the benefits derived therefrom were considered enormous (Moline, 1969). Consequently, the drainage legislation during this period clearly reflected the desire to facilitate drainage. In contrast, and understandably so, the laws of this era generally provided little protection against the destruction of Minnesota's shallow waters.

Acts That Facilitated Drainage

Because of the great desire to drain that was expressed in this era, the Minnesota legislature enacted a number of laws that were designed to facilitate the process. One group of these laws, that were passed between the inception of the first drainage act of 1858 and 1920, was designed to eliminate or resolve potential conflicts that often arose during the establishment or construction of a public drainage enterprise. The first of these type laws, which was passed in 1866, permitted individuals to construct ditches through the lands of those persons who were opposed to the drainage project, by applying to a justice of the peace (Laws 1866, 627). The justice would then either dismiss the case or place it before a jury. Providing that the request was approved, the jury would determine if the ditch was "necessary and advantageous" and if they found it to be so, they would fix compensatory damages.[1/] Following this act in 1877, chapter 91 of the Minnesota State Laws allowed persons aggrieved over damage compensations to appeal to the district court. In 1882, a body of viewers was incorporated into the drainage proceedings to insure disinterested evaluations of the benefits and damages of a proposed drainage system (Laws 1883, c. 108). This was yet another example of the legislature's attempts at precluding or reducing disagreements in drainage disputes. A law similar to chapter 27 of the 1866 laws was enacted in 1887, although this later act permitted ditches to traverse lands of nonconsenting landowners* by action of the county commissioners rather than the justice of the peace (Laws 1887, c. 97).

1/ Apparently, even at this date before drainage was common and Minnesota's population was large, conflicts were of the frequency to warrant establishment of this act.

* Those opposed to the ditch.

Another provision of the 1887 act permitted appeals over the following issues: (1) whether the ditch would be conducive to the public health, convenience or welfare; (2) whether the route was practicable; (3) whether benefits exceeded costs plus damages; (4) the amount of damages awarded any person; and (5) whether the estimated benefits of the project exceeded the actual benefits. The last of these laws that were specifically designed to prevent conflicts, enacted in 1907, allowed petitioners to transfer their petitions to the district court in situations where the county board obstructed and delayed proceedings, or in cases where the board refused to establish the ditch (Laws 1907, c. 448).

Another group of laws that was enacted during this period included acts that delimited the powers of the governmental bodies that presided over drainage proceedings. Pursuant to Minnesota's first drainage act one needed only to present a copy of the proposed ditch location to the registers of deeds of the counties through which the proposed ditch would pass. By 1877, however, to construct a ditch, it was first necessary that they present a petition to the township supervisors (Laws, 1877, c. 91). Following this, in 1879, a very significant act was passed, authorizing the board of county commissioners to intervene in inter-township drainage proposals in order to aid cooperation between the township boards (Laws 1879, c. 38). This proved to be important because (1) it was the first time that the county commissioners were used in drainage proceedings, and (2) it illustrated that as drainage systems increased in size it was necessary to use governmental bodies with larger geographical jursidictions (Palmer, 1915). It can be assumed, however, that this act did not provide the most efficient method of establishing inter-township drainage systems, for by 1883 the petitioners could present their requests directly to the county board (Laws 1883, c. 108). Furthermore, at this date the county commissioners were granted authority to organize county drainage districts for "sanitary" and "agricultural" purposes. This was the first time that drainage was organized on the district level. As drainage projects became still larger, other means were implemented in order to organize drainage over larger areas. For example, in 1893, a commission was formed to organize drainage in an eight county region in the Red River Valley (Laws 1893, c. 221). Four years after this, in 1897, the state drainage commission was established (Laws 1897, c. 318). The formation of the commission represented the height of state efforts to organize and thus ease drainage. Apparently, even after the passage of this act, the legislature still felt that drainage should be further organized, because in 1902 the district courts were authorized to preside over the drainage proceedings of inter-county ditches (Laws 1902, c. 38). This was later amended in 1907 when the court was also permitted to receive ditch petitions in situations where the petitioners were not satisfied with the county boards handling of the request (Laws 1907, c. 448). The final act of this era that helped organize drainage, followed in 1919 in the form of the "drainage and conservancy act," which permitted the formation of drainage and conservancy districts, for purposes including drainage, through the district courts (Extra Session Laws 1919, c. 13). Therefore, by this date it was possible to construct ditches through the town supervisors, the county commissioners, the district courts, and the state drainage commissioner.

As a result of the popularity of drainage during this period, the preservation of the state's waters was not equally as popular. Until 1867, there were no laws in Minnesota that provided protection for any waters of the state.[1] At this time, however, an act was passed that forbid the drainage of any meandered water body, although this act did not prevent reasonable use of these lakes as reservoirs for milling and manufacturing, or for the purposes of driving logs, or for supplying water to any incorporated town or city (Laws 1867, c. 40). Considering the attitudes of this period towards surface waters, surprisingly this chapter provided an unusual amount of protection for the state's waters--this did not last.

In 1881, the legislature passed two acts that granted variances for the drainage of two meandered lakes, providing that all riparian owners agreed to the drainage plan (Special Laws, Chaps. 180 and 196).[2]

In 1883, the laws became even more lenient by permitting the county commissioners to authorize the drainage of "shallow, grassy, meandered lakes under four feet in depth"[3] (Laws 1883, c. 139). As with the variances granted in 1881, it was still necessary that all riparian owners agree to the drainage proposal.[4]

A law enacted in 1897 somewhat more clearly defined the public waters of the state[5] in declaring all meandered lakes that had surface areas greater than 160 acres and which were deep enough to support beneficial uses such as fishing, fowling, and boating, or were used for domestic, municipal, or agricultural water supplies, to be public waters (Laws 1897, c. 257). The primary intent of this law, however, was not to clarify the status of public waters, but to delimit a riparian owner's rights to use the land under a water body.

1/ There were laws that upheld the riparian owner's right to indemnification should a water body be drained or in some way damaged.

2/ The lakes that were to be drained included Mud Lake in Wright County, Butler Lake in Meeker County, and several other smaller lakes.

3/ This particular law will be discussed later in this section.

4/ Riparian rights had, in some situations, been upheld in these early times. Even in extreme situations such as Schafer v. Marthaler (1886), 26 N.W. 720 where the court held that a 4 and ½ acre pond which occupied a natural depression to a depth of five feet, and that was maintained by only rain and snow could not be drained without prior consent of all the riparian owners. (See also "Riparian Rights.")

5/ "Public waters" were waters in which the state took an active role in protecting, or controlling.

The beginnings of some concern for the preservation of Minnesota's shallow water bodies was reflected in the Minnesota Supreme Court case Witty et. al. v. Board of Commissioners of Nicollet County (1899) 79 N.W. 112. One of the major arguments of the case focused on the powers of the county commissioners to authorize the drainage of meandered lakes--the law has been previously explained, see Laws 1883, c. 139. On this issue the court observed that from 1883-1897 the state statutes were not clear in defining the powers of the county commissioners over public waters. Chapter 139 of the 1883 laws was generally interpreted by the county boards as granting them the right to determine the public value of each shallow meandered lake, and as a result they were implicitly declaring public waters in the process of their determination. In commenting on the board's authority to declare public waters, the court argued that if the legislature had intended to delegate this authority to the commissioners, they would have succinctly stated so in the Minnesota Statutes, in order "to prevent abuse of power."[1] In a further statement, showing unexpected environmental concern, considering the times, the court declared, "As it is now the preservation or destruction of public waters in the state is subject to the unrestricted discretion of the county commissioners."

Following this case the laws of 1905 again revised the legal status of meandered water bodies. Chapter 230 of these laws permitted the drainage of meandered lakes which were shallow, grassy, and marshy, or if they were no longer of sufficient depth to provide any beneficial public use such as fishing, boating, or public water supply.[2] However, no meandered lake could be drained if a remonstrance was signed by seventy-five legal-voting freeholders who resided within four miles of the lake, and whose lands were shown to be affected in the viewers' report. Furthermore, no meandered lake could be drained where a village adjoined the lake or was a riparian owner unless the project was approved by a majority of legal voters in a referendum. Additionally, any person or corporation aggrieved, or any taxpayer which resided within four miles of any meandered lake that was to be drained could appeal that order to the district court. It should be noted that with the passage of this act, it was no longer necessary that the drainge of a meandered lake be approved by all riparian owners. (As a result, this possibly could be considered an abrogation of riparian rights.) Moreover, in this act the

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1/ Laws 1883, c. 139 granted the county commissioners the right to approve of the drainage of meandered lakes which provided little beneficial public use, but it did not specify the methods by which the boards were to determine the public value of a water body.

2/ In this law, "fowling" was omitted from the beneficial public uses. It may be that different criteria for beneficial public use were used in drainage situations than in determining lake or stream bed ownership--see Laws 1897, c. 257. The "Witty" case, however, seemed to imply that the same criteria were used in both situations.

county commissioners were still implicitly granted the power to declare public waters. It was especially ironic that after the great environmental concern shown in Witty et. al. v. Board of Commissioners of Nicollet County that the drainage of certain meandered lakes would become even less restrictive.

As can be perceived from the preceding, with each consecutive act passed that affected the status of meandered lakes or wetlands, it was becoming increasingly less difficult to drain. Paradoxically, however, towards the end of this drainage epoch when drainage activity was at its very height, new attitudes began to emerge challenging the old concepts that drainage was always desirable, and that all shallow waters were undesirable.

One of the first instances where this "new" environmental awareness was expressed was in the previously mentioned case of Witty et. al. v. The Board of Commissioners of Nicollet County (1899), 79 N.W. 112, where the court showed surprisingly strong support for the judicious management of the state's public waters. Later, these same feelings were reaffirmed in Madsen et. al. v. Larson et. al. (1912) 135 N.W. 1003 where the court upheld a lower court order blocking the drainage of six small meandered lakes (80-100 acres in size) in Ottertail County. A further proclamation of these beliefs followed in the Minnesota Supreme Court case Troska et. al. v. Brecht et. al. (1918) 167 N.W. 1042, where the court affirmed a district court order forbidding the drainage of Minnesota Lake--a large lake in northern Faribault County--stating that the recession of the waters of a lake must be permanent in order to cause the lake to lose its public character. Indicative of even more concern for shallow waters was the fact that at the preceding district court proceedings, a remonstrance was presented which had been signed by 134 individuals.[1/] One year after this case, in 1919, a supreme court decision came out in even stronger favor of the protection of the states shallow water bodies. This case, In Re Co Ditch No. 34 (1919) 170 N.W. 883, concerned a meandered water body (Washington Lake) which had suffered from extreme fluctuations in its water levels having been dry two or three times in a period of 50 years, but also having been as high as 6-10 feet. The lake had well defined shores and a surface area of approximately 600 acres. One-third of the lake was overgrown with aquatic vegetation and the lake was considered worthless for swimming and difficult for boating, but it was used for hunting, ice cutting and rough fish spearing. In this case, the court first observed that in drainage matters the clash between private interests is usually given consideration, while the public's interests are often forgotten. The court also acknowledged that there are benefits gained from lake reclamation, but that these must be weighed against the destruction of public waters. Furthermore, finding that hunting, ice cutting and rough fish spearing represent significant public uses of the lake and also declaring that the project would only lower the lake and thus exacerbate any conditions that were presently unhealthful, the court felt that the benefits derived from drainage of Washington Lake would not outweight the losses. Moreover, the court held that a "meandered lake could not be drained or lowered if it yielded substantial public use, under the guise of protecting the public health, promoting public welfare, or reclaiming wastelands." In conclusion, the court believed

[1/] It should be noted that these individuals may have also had some economic objections to the proposed drainage.

that "it should be the concern of the county board and courts to guard the rights of the public, and to preserve for the enjoyment of this and future generations all bodies of water which have present or "potential" public value."

Conclusion

Although early in the twentieth century, some voices expressing environmental concern were heard, drainage was still predominantly favored by the public and liberally provided for by statutory law. Furthermore, despite these dissenting views towards protection of Minnesota's waters, it can be stated unequivocally that between the inception of the first drainage act in 1858 and 1920 drainage was preeminent over protection. As explained earlier, wet lands were considered useless, if not harmful to man. Moreover, in the minds of some drainage offered a veritable panacea for the maladies that hindered development and progress. But the voices of those concerned for the protection of Minnesota's waters soon would grow louder. What was expressed in the courts would soon be pronounced in the statutes.

DRAINAGE PERIOD II (1920-1960)

The period which continued from roughly 1920 to 1960 was a time of transition in Minnesota's attitudes toward drainage and water. This could be considered a time of change in people's sentiments towards drainage because this era represents the interlude between the "drainage mentality" of the early 1900's and the environmental consciousness that was manifested in the sixties.

The major shift that took place in drainage law between 1920 and 1960 related to the state's gaining a more active role in protecting its waters and in regulating drainage. The drainage activity of this period was moderated by a number of events. Although drainage activities did not drastically decline after the surge of the preceding decade, it did significantly decrease. Moline noted that an acreage representing only 13.3 percent of the 1960 total area of lands in drainage enterprises, was added between 1920 and 1930. In Blue Earth County, 19 petitions for new ditches were presented, representing 14.4 percent of the 1978 total.

Then, the Depression and drought followed causing drainage to come to an immediate halt (Burns, 1954). During the thirties, an area representing only 0.6 percent of the 1960 total of land in drainage enterprises in Minnesota was added (Moline, 1969), and in Blue Earth County not one petition for a new drainage system was presented during this decade. Following this decade, the Second World War and the high cost of construction that followed continued to dampen drainage. In the 1940's, only a 3.2 percent addition was made to the drainage acreage in Minnesota[1/] and in Blue Earth County only four petitions for drainage were presented, representing 3 percent of the 1978 total.

[1/] Based on 1960 figures of percent total (Moline, 1969).

Furthermore, some attitudes towards surface water may have been altered by the dry decade that had preceded. The old common law doctrine (diffused surface water being a "common enemy") was still undergoing the evolution that had been initiated in the early 1900's. This modification of people's views towards water was shown quite clearly in In Re Town Ditch No. 1 v. Blue Earth County (1940) 295 N.W. 47 where the court declared that as a result of the drought in the 30's, surface water was considered a "common friend" rather than a "common enemy."

A very slight rebound occurred in the 50's, where 3.5[1/] percent more land was included in drainage systems, and in Blue Earth County, eight petitions were presented representing 6.1 percent of the 1978 total. By 1950, many Minnesotans' views towards drainage could possibly have changed, considering that much of the lands that were economical to drain had been previously reclaimed.

As was mentioned earlier, during this period attitudes towards drainage were shifting and conservation of our waters was becoming more important. These new attitudes were increasingly reflected in the laws that were enacted during this era of drainage history. One such series of laws involved the state drainage commission. From 1919 to 1947, the legislature proceeded to realign state offices and redelegate drainage commission powers. The first of these changes occurred in 1919 when the state drainage commission was abolished and all its powers and duties were vested to the state drainage commissioner (Laws 1919, c. 471). Following this, in 1931, the office of state drainage commissioner was dissolved, and all its duties and powers were transferred to the division of drainage and waters of the newly established department of conservation (Laws 1931, c. 186). By passage of this act, the state's authority to drain was yielded to a department whose major charge was conservation.

Then in 1941, the division of drainage and waters was renamed the division of water resources and engineering (Laws 1941, c. 138). Finally in 1947, laws which had previously allowed the division of water resources and engineering to authorize the construction of state ditches and to petition through the district court for public ditches were repealed (Laws 1957, c. 142); so with the passage of this act, state organization of drainage was over, and now state concern for conservation of its waters had taken a symbolic step forward.

Another move towards conservation was exhibited in the state's gaining control of its valuable, or publically beneficial water bodies. In 1925, no meandered lake could be drained without permission of the state[2/] (Laws 1925, c. 415). Then in 1931, drainage of meandered lakes could only be undertaken when petitioned for by 60 percent of the legal-voting freeholders which resided within four miles of the lake, and whose lands were

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1/ Figure from Moline, 1969, based on 1960 total.

2/ In this case, the governor had authority to grant the drainage of shallow, grassy, meandered lakes which were no longer of sufficient depth or volume to provide any "substantial beneficial public use."

shown to be "affected" by viewers' report (Laws 1931, c. 350). By 1937, all waters whether meandered or not, which were "navigable in fact"[1/] were considered public waters, and the use of the waters within these streams and water bodies was regulated by the state (Laws 1937, c. 468). This act then expanded the state's protection to all waters of public value rather than just meandered lakes. Then in 1947, two different definitions of public waters existed within the Minnesota State Laws. Chapter 142 declared "all waters in lakes and streams that provided substantial beneficial public use" to be public waters and thus under state management (Laws 1947, c. 142). While Chapter 143 identified public waters as those "streams, lakes and bodies of water which are navigable in fact." Following this in 1957, the situation was further complicated when Chapter 142 of the 1947 laws was amended to read: "The public character of any waters shall not be determined by proprietorship of the bed or the surrounding land or whether the waters are navigable in fact or are used as highways for commerce" (Laws 1957, c. 502). The point that is immediately evident in reviewing these seemingly conflicting statutory sections is which definition of "navigable" or "navigable in fact" was used in the preceding laws. It seems as though Chapter 502 of the 1957 laws was attempting to clarify this by implying that the state considered waters "navigable in fact" to be synonymous with "public waters." If these two chapters (chapter 143 of the 1947 laws and Chapter 502 of the 1957 laws) had differed in their use of the term "navigable in fact" an abundance of conflicts undoubtedly would have arose.

1/ The major difficulty in dealing with the term "navigable waters" or waters that are "navigable in fact" results from the different definitions for these terms. The more restrictive test of navigability is the federal interpretation which demands that navigable waters be used, or be susceptible to use in their ordinary state, as highways of commerce. Furthermore, to apply the federal definition of navigability, one must determine if the waters were navigable at the time the state entered the union. The federal test of navigability, however, is concerned with the ownership of stream or waterbasin beds. In contrast, the Minnesota State Supreme Court has pursued a more liberal interpretation of the navigability question. For example, in Lamprey v. State (1893) 53 N.W. 1139, the court declared that "when lakes are capable of being put to any beneficial public use, they are public waters." The court further stated that "the test of navigability should be broad enough to include all public uses, including recreation." This decision was elaborated on in State v. Korrer (1914), 148 N.W. 617, where the court observed that the term "navigable" "has been extended beyond it stechnical significance, and embraces many bodies of water not navigable in the ordinary federal sense." In addition, it was held in this case that dividing waters into navigable and non-navigable is but a way of identifying public and private waters. In 1942, the Supreme Court of Minnesota again upheld the state view of navigable waters. (Nelson v. De Long (1942) 7 N.W. 2nd 342.) Besides reasserting the views held in State v. Korrer, the "Nelson" court proclaimed that "public use" means commerce "and other ordinary purposes of life such as boating, fishing, fowling, skating, bathing, taking of water for domestic or agricultural and cutting of ice."

In a further spirit of conservation, many other laws were passed in this period that either restricted or increasingly regulated drainage, or provided protection for public as well as nonpublic waters. As a possible method for protection of public waters--through riparian rights--all state lands that bordered meandered lakes and other public waters were withdrawn from sale in 1923) Laws 1923, c. 430).[1/]

Chapter 415 of the 1925 laws permitted the commissioners of drainage and waters and game and fish, plus the state forester to appear in drainage proceedings to "represent the interest of the state and the general public," and to present, when necessary, "evidence relating to the value of any body of water." Also at this date chapter 419 authorized the game and fish commissioner to acquire lands for public hunting grounds and game refuges, which obliquely permitted public acquisition of wetlands. Both these acts illustrated a desire by the state to protect all waters of potential public value. The next act that provided more protection for Minnesota's water occurred in 1963, when tax reductions were permitted for swamp or marsh lands which were designated as wild life preserves (Laws 1953, c. 688). Two years later, a potentially significant law was passed which commanded that in determining the present or future public benefit of a proposed drainage ditch, consideration must be given to "conservation of soil, water, forests, wild animals and related natural resources, and to other public interests" (Laws 1955, c. 681). This was the first time that the concept of conservation was implemented into the drainage code, and by this, the state's waters were tacitly granted a small but nonetheless noticeable standing in drainage issues.

By 1957, one needed to present a petition that contained a number of signatures that represented at least 60 percent of the lands that would be affected by the proposed ditch, or a majority of resident owners of these lands (Laws 1957, c. 638). Previously, the petition needed only be signed by a number of persons that represented at least 51 percent of the lands. By increasing the number of signatures needed, this act could have slightly restricted drainage. Also passed at this date was an act that authorized the water resources board to mediate in situations where apparent statutory contradictions, or conflicts, occurred in Minnesota water law (Laws 1957, c. 740). In passing this law, the legislature recognized two difficulties: (1) that there was no clear cut water policy in the state; and (2) that there was a need to coordinate federal, state, and local government in dealing with water problems (Laws 1977, c. 740). This was the first step towards judiciously managing the state's waters.

Drainage law evolved considerably during this period. Due to a number of reasons drainage had slowed dramatically as compared to the early 1900's. As water became more scarce, wet lands became more valuable, and to many people surface waters were no longer considered a common enemy. These attitudes were also reflected in the formation of state agencies.

[1/] The protection of public waters may not have been the primary legislative intent of this act. (See "Riparian Rights.")

No longer was the state greatly interested in the construction of ditches, but rather in conserving the remaining, irreplaceable waters. The legislature began to realize that our natural resources should be given consideration in determining the public benefit of a proposed drainage system. Moreover, our government began to recognize the need for improved administration of Minnesota's water policy so that the state's water resources could be better utilized.

DRAINAGE PERIOD III (1960-1979)

In this period, Minnesota very likely witnessed the most dramatic statutory changes that have occurred in its entire drainage history. The legislature and the judiciary displayed a strong desire to not only protect valuable water bodies, but also to promote sound management of all waters of the state.

The ecological awakening of the sixties had a noticeable impact on Minnesota's drainage law. Beginning in this decade, new legislation truly represented concern for a quality environment. In 1961 for example, Minnesota's precipitated water policy was promulgated voicing the state's desire to retain and conserve precipitated water in areas where it fell (Laws 1961, c. 754). The seeming contradiction between chapters 143 of the 1947 laws and chapter 502 of the 1957 laws concerning public waters were resolved in 1963 when public waters were redefined in the drainage code to comply with Minn. Stats. Sec. 105.38(1) (Laws 1963, c. 815).[1/] Then in 1969 an act was passed that provided for the establishment of scientific and natural areas (Laws 1969, c. 470). This was yet another method by which certain waters could be protected.

Although few revolutionary acts were passed in the sixties, the environmental consciousness spawned in this decade was clearly evident in the laws of the seventies. The environmental rights law, allowing civil actions to be brought to district courts in order to prevent certain ecologically destructive actions, including some drainage operations, was enacted in 1971 (Laws 1971, c. 952). In 1973 four more important additions were made to the statutes: (1) the state environmental policy act was announced, which mandated that environmental impact statements be completed prior to certain governmental or private actions--this sometimes applied to some drainage situations (Laws 1973, c. 412); (2) the Minnesota Environmental Quality Council was established, which was authorized to determine the need for environmental impact statements for proposed governmental or private actions (Laws 1973, c. 342); (3) a list of beneficial public purpose criteria were formulated, which was designed to aid in determining the public value of a water body (Laws 1973, c. 315); and (4) a set of criteria was added to insure that the possible ecological impacts of a public drainage system were investigated prior to its construction (Laws 1973, c. 479).

By 1976, the Minnesota Waterbank Program was implemented in order to compensate land owners who promised to preserve potentially arable wetlands under 50 acres in surface area (Laws 1976, c. 83). Chapter 83 of

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[1/] This statute conformed to Laws 1957, c. 502.

these same laws also authorized the department of natural resources to proceed with the state public waters inventory, a program which upon completion would hopefully have minimized if not climinated squabbles over public waters.

Although this period did mark great change in the attitudes and laws, the desire to drain wet land had not died. Because of inflationary times, high prices were being received for agricultural lands and commodities, making drainage still highly desirable. In Blue Earth County, for example, between 1960 and 1978, 17 new construction petitions were presented representing 12.8 percent of the total 132 ever filed in the county. A remarkable figure, considering how much land had already been drained in the previous hundred years.

As a result of the continued importance of wet land reclamation, and the increasing desire to protect these same lands, factional clashes soon arose and the new drainage law of this period soon faced serious challenge in the courts, and reevaluation, with regard to fairness and practicality, in the legislature. Unquestionably the most heated disputes arose over public waters designation, which was hardly surprising since it was governed by a set of confusing, ambiguous and almost unworkable laws and regulations (i.e, Commissioner's Order No. 1 which set guidelines for classifying public waters). The system was designed with the intention of easing the identification of public waters for the public waters inventory, and to provide protection for Minnesota's waters in the interim period prior to the completion of the inventory program. Unfortunately, the laws and regulations that pertained to public waters classification represented a bewildering labyrinth of criteria and definitions. In simple terms, the public character of any surface waters was determined by whether it was confined within a water basin which also served a beneficial public purpose (Minn. Stat. section 105.37).[1/] Because of the complexities involved in determining this, it was often difficult to prove or disprove, and numerous legal interpretations resulted in making it almost impossible for opposing sides to come to an agreement concerning the public value of a water body. These disagreements often lead to litigation, and again because of the ambiquities of the law, the courts did not always adjudicate public waters' cases in a consistant manner.

Possibly stemming from this dilemna, public waters were redefined again in 1979 (Laws 1979, c. 199). This time the cumbersome and ambiguous beneficial public purpose criteria were dropped, and wetland types 3, 4, and 5* were brought under explicit control of the state, and thus were offered a protection similar to that provided for public waters--that is, these wetlands could not be drained except with the permission of the department of natural resources commissioner.

1/ Some courts interpreted the law to read that wetlands, lacking definable banks, could not be considered water basins. Therefore, they could not be classified as public waters. Needless to say, most conflicts involved those bodies of water which resided in that hazy area: somewhere between obvious wetland and indisputable water basin.

* Classification from U.S. Fish and Wildlife Service Circular No. 39 (1971 edition).

Also revamped in 1979 was the state's public waters inventory. As a result of extreme polarization, agreements between the state and county boards, concerning the public character of each county's water basins proved nearly impossible and the process was hopelessly stalled. To remedy this, the legislature revised the previous statutes and incorporated the new public waters definitions as a basis for the new public waters inventory program. Moreover, in the new laws, persons owning types 3, 4, or 5 wetlands could gain payment from the state for preserving these waters or if they could not reach a satisfacotry payment agreement, they could drain the lands.

To even further reduce opposition to public waters designation, in 1979 two laws were passed to compensate individuals for preserving potentially arable marsh lands: the first, a revised version of the Minnesota Water Bank Program, was similar to the 1976 act, but allowed types 3, 4, and 5 wetlands greater than 50 acres in size, to be enrolled in addition to smaller waters (Laws 1979, c. 199); the second, a bill which provided landowners with a tax exemption for preserving drainable wetlands (Extra Session laws 1979, c. 303). Additionally, in this tax-credit bill, the legislature provided for counties to be compensated by the state for lost revenue resulting from when a tax exemption was allowed on a privately-owned wetland .

Also to encourage county cooperation in wetlands preservation, an act was passed that authorized the DNR to make payments to a county (in lieu of taxes) based on acreages of DNR administered land that lay within its bounds. As in the tax-credit bill, this also provided compensation that precluded erosion of a county's tax base (Extra Session Laws 1979, c. 303).

The flurry of acts that ended the seventies had made the period from 1960 to 1979 a particularly active time in Minnesota's drainage history, where the laws seemed to be in constant flux. In this period the Minnesota Legislature truly attempted to insure the safety of our valuable waters, yet also to equitably distribute the costs of the preservation among the entire population of the state. Through the various programs in which a landowner can be indemnified, the state has assured that a minority of people will no longer have to bear the entire financial burden of conserving a precious resource. Moreover, it was hoped that the laws enacted in this period will greatly mitigate the public waters controversy.

CONCLUSION

Drainage law in Minnesota has progressed considerably since the first laws of 1858. The law itself has evolved, where now it occupies a sizable portion of the Minnesota statutes. Furthermore, today drainage cannot be accomplished with the ease that it was in former years (see "Present Drainage Pursuant to Chapter 106 of the Minn. Stat."). As with other things in our society, it is a task that is now encumbered by a surfeit of rules and regulations.

On the other hand, it is also true that Minnesota does not possess nearly the number of wet lands that it did in 1858. According to some estimates, by 1966, 2/5 of our original marshland acreages had been lost

to urban or agricultural drainage.[1/] It is an obvious fact that we can not have unrestricted drainage, nor total protection of our waters.

Considering this, what lies ahead? Will the future bring a lasting security for Minnesota's shallow waters, or does it hold their final destruction? Of course, people have already expressed their dissatisfaction with the latest drainage legislation. They feel that the department of natural resources, through an active lobby, almost dictates the laws to the legislature, and that little sympathy is found in a Minnesota Supreme Court controlled by urbanites ignorant of agriculture and its problems and needs. They contend that the DNR has almost unlimited finances so that it can easily fight county board decisions which they find undesirable. Moreover, some find the payments of the water bank and tax exemption programs to be inadequate, and note that laws concerning public waters are still blatantly ambiguous. Others argue that landowners should be indemnified for the taking of all lands through public waters designation, not just for those classified as wetlands. This group maintains that drainage does not constitute a public harm, but rather a public benefit, because it is a reasonable and prudent use of land (see "Present Drainage Pursuant to Chapter 106 of the Minn. Stat.", and "Constitutionality of Drainage"). Other groups of disgruntled individuals believe that if shallow waters are so important, the legislature should grant eminent domain for their purchase. Then those waters would be permanently protected, with the costs being shared equally by the entire public.

On the other side of the drainage imbroglio many environmentalists are appalled at what they consider the present mercenary attitude toward land, where stewardship is dead, and ownership is a fiat for waste and destruction. The public has seen its riparian rights struck down by provincial district courts (see "Riparian Rights"). They have seen public waters be threatened with drainage by tendentious county boards. Moreover, public waters are sometimes drained without permission, and the DNR has too few officers to scrupulously police the entire state. Additionally, the department of natural resources has not, nor is it likely to have in the future, the funds to purchase all lands that lie adjacent to valuable shallow waters of the state, and even if it did, it would probably face serious opposition as often happens in present attempts at acquiring land for parks and trails.

The battle between wet lands reclamation and wet lands preservation is inevitable. As heretofore mentioned, it emerged even in the height of the drainage furor of the early twentieth century. Moreover, throughout Minnesota's history, the evolution of the drainage law has been towards preservation. The desire to conserve our waters has increased as the area of wet lands has decreased. With this in mind one may again ask, what is the future of Minnesota's wetlands? A recent United States Supreme Court case approved of "open space" zoning, which restricts land use. but does not provide for payment of compensatory damages (St. Paul Pioneer Press, June 11, 1980). Will the constitutionality of "open space" zoning, such as with public waters, be upheld in the future? Will the present

[1/] This figure was derived from Swamp Land Drinage With Special Reference to Minnesota by Palmer, and from Acquisition of Wildlife Land in Minnesota, published by the Outdoor Recreation Resources Commission.

system of compensation continue to satisfy the majority of affected landowners, or will it finally become necessary for the public to purchase wetlands in order to insure their existance? With an expanding population and the concomitant increases in food prices and land values, will drainage prevail over preservation? It cannot be known. What is evident, however, is that if present economic patterns persist, and landowners become dissatisfied with the present laws governing public waters, more drainage will be likely, and with each wetland drained, the battle over those remaining will escalate.

APPENDIX A

COMPENDIUM OF SIGNIFICANT DRAINAGE LEGISLATION

Public Statutes 1858, c. 128: This act entitled "An act to encourage the drainage of lands" was the first drainage act in Minnesota. The major provisions of this act were as follows:

(a) Persons wishing to cooperatively drain land could form a corporation;

(b) In order to construct a ditch, it was necessary that the corporation file a copy of the proposed ditch location with the registers of deeds of the counties which would contain the drainage system. Furthermore, the corporation was required to secure a majority of signatures from the owners and occupants situated along the proposed ditch site;

(c) A pro rata assessment was levied against the lands which benefited from the improvement;

(d) The corporation was held liable for all damages made as a result of the ditch construction, in addition to the cost of the ditch itself;

(e) Disputes concerning damages could be brought to court and settled by a jury.

The act offered no actual protection for water bodies, but it did provide for compensatory damages should they be lowered or drained without the riparian owner's consent.

Laws 1866, c. 77: As drainage projects became larger and the number of ditches constructed increased, the frequency of landowner opposition to the construction of public drainage systems also increased. The legislature responded to this problem by passing this act, which permitted ditches to pass through those persons' lands who were not in sympathy with the project.

Laws 1867, c. 40 made it a misdemeanor punishable by a fine of not less than twenty-five dollars and not more than 5000 dollars, to drain any lake that had been meander surveyed by a United States Government Survey--these water bodies were termed meandered lakes. This was the first act designed to protect water bodies in Minnesota, but its provisions did not prevent reasonable use of water bodies as reservoirs for milling and manufacturing, or for the purposes of driving logs, or for supplying water to any incorporated town or city.

Laws 1874, c. 57 authorized drainage through the board of town supervisors for the construction of highways. This was the first time that the town supervisors were permitted to preside over drainage proceedings, although this law did not permit them to act in situations where drainage was done for agricultural purposes.

Laws 1977, c. 91 authorized drainage through the town supervisors for (private) agricultural purposes, providing the project would benefit the public and improve the public health. With the passage of this act the defacto reason for the establishment of most drainage systems was statutorily recognized. (The reason being, of course, drainage for agricultural purposes.) Also another provision of this act allowed persons aggrieved over damage compensation, to seek redress through the district court.

Laws 1879, c. 38 provided for the use of county commissioners in intertownship drainage projects in order to aid cooperation between township boards. This was important for two reasons: (1) it was the first time that the board of county commissioners was used in drainage proceedings, and (2) it illustrated that as drainage enterprises became larger, there became a need to use governmental bodies with larger territorial jurisdictions (Palmer, 1915).

Special Laws 1881, chaps. 180 and 196: These two acts granted variances for the drainage of two meandered lakes, providing that before these lakes were drained permission was first secured from all riparian owners. These variances may have represented the beginning of a change in legislative sentiments towards drainage, possibly occurring as a result of Minnesota's burgeoning population.

Laws 1883, c. 108 provided for the use of the county commissioners in intra- and intercounty drainage systems. The key provisions of this act that pertained to drainage proceedings included the following:

(a) To initiate drainage proceedings, a petition was filed by one of the landowners who would be assessed for, or affected by the proposed ditch;

(b) With this petition a bond was presented, insuring that should the petition be refused, the petitioners would pay all costs that had accrued up to the point of dismissal;

(c) A survey was done along the proposed ditch site;

(d) A body of viewers was added to insure equitable judgements in determining the benefits and damages of the proposed drainage enterprise. It was necessary that the viewers were resident freeholders of the county--"resident freeholder" an owner or land or a party who holds land under contract of purchase, and who resides in the state of Minnesota;

(e) A notice was published listing the location of the lands affected by the proposed drainage system;

(f) A public hearing was scheduled, at which the county commissioners voted on whether to reject or approve the construction project. The viewres' statement and engineer's estimate of construction costs were used to determine if the benefits would exceed costs including damages. Usually if this was the case, the county board ordered the ditch to be established;

(g) Appeals to the district court were possible over (1) whether the proposed ditch will be of public benefit and improve the public health; (2) the route is practicable; and (3) the assessments of damages and benefits;

(h) If the ditch was established, the county auditor let the job to the lowest bidder;

(i) In order to insure repayment of all costs, a lien (a legal claim on the property of another as security against the payment of a debt) was filed against the properties of those persons benefited by the drainage improvement.

Laws 1883, c. 139 provided for drainage of shallow, grassy, meandered lakes under four feet in depth for the purposes of making land productive and removing certain causes of malaria, although all persons that lived adjacent or contiguous to such lakes had to sign a deed of consent in order to permit their drainage.

Laws 1887, c. 97: The population of Minnesota burgeoned during the 1880's and consequently a more effective method of dealing with nonconsenting landowners had to be implemented (Moline, 1969). For this reason, this act provided for the construction of ditches through the county board/county commissioners.

Other important aspects of this act were (1) it did not authorize the county boards to approve the drainage of public meandered lakes; and (2) it permitted appeals over whether the estimated benefits of the proposed drainage system exceeded the actual benefits that would be derived from construction.

Laws 1887, c. 98 permitted county drainage districts. This was the first district organization of drainage.

Laws 1893, c. 221 authorized the formation of a commission to supervise drainage of an eight county region in the Red River Valley, and to construct "state ditches" therein. This commission was the precursor of the state drainage commission (Palmer, 1915).

Laws 1897, c. 257: Under this act all meandered lakes which had surface areas greater than 160 acres and were deep enough to support beneficial uses such as fishing, fowling, and boating, or were used for domestic, municipal, or agricultural water supplies were considered public waters--specifically this act was passed in order to define ownership of beds, but it did have some influences on determinations in drainage litigation.

Laws 1897, c, 318 created the state drainage commission. The state drainage commission was established in order to organize drainage statewide and ease the construction of larger more complex drainage systems (Palmer, 1915). The commission initially consisted of the governor, the state auditor, and the secretary of state. At the height of its power the state drainage commission was authorized to undertake the following actions:

(a) To make topographical surveys of watersheds of the state and from these prepare maps, plans, and specifications of possible drainage projects (Palmer, 1915 and Laws 1907, c. 470);

(b) The construction of ditches, providing that prior to construction the commission presented a petition requesting the improvement to the district court which had jurisdiction over the areas involved in the proposed project;

(c) The construction of state ditches without need of a petition wherever there was sufficient reason and bodies of land.

State ditches were generally constructed on lands that would have been immediately available for cultivation. Additionally, where it was necessary to cross private lands in the construction of state ditches the commission had the right of eminent domain.

Laws 1902, c. 38 authorized the district judiciary to govern ditch proceedings that encompassed or affected two or more counties. This act was yet another illustration of the need to insure cooperation in the construction of large drainage systems, by expoliting the services of governmental bodies with greater geographical authority.

Laws 1905, c. 230: General repeal of the drainage laws.

Laws 1905, c. 230 provided for the drainage of meandered water bodies which were shallow, grassy, and marshy, or if they no longer were of sufficient depth to provide any beneficial public use such as fishing, boating, or public water supply. However, no meandered lake could be drained if a remonstrance was signed by seventy-five legal-voting freeholders who resided within four miles of the lake and whose lands were shown to be affected by the viewers' report. Furthermore, no meandered lake could be drained where a village adjoined the lake, or was a riparian owner unless the project was approved by a majority of legal voters in a referendum. Although remonstrances or appeals over the drainage of a meandered lake were possible, the law at this time was more lenient toward the drainage of meandered lakes than it had previously been. Still, compensatory damages were awarded for loss, or destruction, of riparian rights (Palmer, 1915).

It also should be noted that "fowling" was not included in the category of beneficial public uses, as it was in Laws 1897, c. 257. Additionally in this chapter, any person or corporation aggrieved or any taxpayer which resided within four miles of any meandered lake affected by the proposed drainage enterprise could appeal to the district court.

Laws 1907, c. 448 permitted the use of the district court by enabling the petitioners to transfer their petition to the court in situations where the county board obstructed or delayed proceedings, or in cases where the board refused to establish the ditch. (These judicial ditch proceedings were similar to the county ditch proceedings, but in the former the district court assumed the function of the county auditor and the county board.)

Extra Session Laws 1919, c. 13: "Drainage and Conservancy Act of Minnesota." To establish a drainage and conservancy district one needed to present a petition to the district court which had jurisdiction over the proposed district. This petition had to be:

> ... signed by not less than 25 percent of the resident freeholders of said district, but not in any event shall more than fifty (50), signers be required or be the proper officials of any county, city or village authorized by resolution duly passed by the governing board of said county, city or village. Said petition may be signed by one or more such counties, and if signed by one or more counties, or by five (5) or more cities or villages, then the same need not be signed by any of the freeholders of said proposed district.

The petitions could be filed for the following reasons:

"(a) For regulating streams, channels or water courses by channeling, widening, deepending, straightening the same or otherwise improving the use and capacity thereof;

(b) For reclaiming by drainage, or filling, dyking or otherwise protecting lands subject to overflow;

(c) For providing for irrigation where it may be needed;

(d) For regulating the flow of water in streams or water courses;

(e) For regulation and control of flood waters and the prevention of floods, by deepening, widening, straightening or dyking the channels of any stream or water course, and by the construction of reservoirs or other means to hold and control such waters;

(f) For diverting in while or in part streams or water courses and regulating the use thereof, streams so diverted shall follow the natural course of drainage and terminate the same natural outlet and as incident to and for the purpose of accomplishing and effectuating all the purpose of this act, may under the conditions specified herein, straighten, widen, deepen, or change the course or terminus of any natural or artificial water course and build, construct and maintain all necessary dykes, ditches, canals, levys, wall-embankment, bridges, dams, sluice ways, locks and other structures, including dams for power purposes and conserve and utilize such waters for any purpose consistent with the purpose of this act. Provided, however, that the provisions of this act shall not be construed to authorize the diverting of waters from one general water shed to another water shed."

It should be noted that nearly all of the preceding actions could have, under certain circumstances, affected water bodies. Therefore, some types of drainage were possible through this act.

If the district was determined by the district court to be a public benefit and also conducive to the public health and welfare, then commissioners for the drainage and conservancy district were appointed by the court. To initiate any improvements (construction undertaken in order to

accomplish the desires of the original petition for establishment) within the district a petition containing at least 25 resident freeholder signatures of the district or a number of signatures that represented at least 25 percent of the owners affected, had to be presented to the district court. Also a petition could be presented by the board of county commissioners of the council of any city or village likely to be affected. The general proceedings after the petition presentation were similar to the drainage proceedings of chapter 108, 1883 Laws. This act was yet another illustration of the state's desire to reclaim wet or frequently flooded lands.

Laws 1919, c. 471 abolished the state drainage commission and established the office of the state drainage commissioner.

Laws 1923, c. 430 forbid the sale of all state lands that bordered meandered lakes and other public waters.

Laws 1925, c. 415: General repeal of the drainage code.

Laws 1925, c. 415 authorized the drainage, in whole or in part, of meandered lakes which were "normally shallow and of a marshy character" or which were "no longer of sufficient depth or volume to be of any substantial public use." Also at this date, appeals (remonstrances) over the drainage of meandered lakes were still possible through procedures similar to those used in 1905. Furthermore, in this law the definition for substantial public use was deleted.

Another important provision of this chapter permitted the state forestor, the commissioners of drainage and waters, and game and fish to appear in drainage proceedings and represent the interests of the state and the general public. In addition, these officers had the right to present evidences concerning the relative value of any water body, although their recommendations were purely advisory.

In addition to some of the aforementioned changes, the general repeal of the drainage code in 1925 also revised some of the ditch establishment procedures. The procedures at this time were as follows:

(a) To initiate drainage proceedings a petition was presented to the county auditor;

(b) The petition had to be signed by a majority of residents within the affected area of the proposed ditch, or by the number of owners that represented at least 51 percent of lands affected by the proposed drainage enterprise. The petition had to be signed by only one of the affected individuals in 1883;

(c) A bond was presented, assuring that should be petition be dismissed, the petitioners would cover all costs that had accrued up to the point of dismissal;

(d) The engineer undertook a preliminary survey to determine if the site of the proposed ditch was "practicable" and "feasible";

(e) A preliminary hearing was scheduled, at which the county commissioners either continued the proceedings or dismissed the ditch proposal;

(f) On approval of the county board, a second more detailed survey of the proposed ditch site was made--in 1883 only one survey was made of the ditch location;

(g) Viewers were appointed for determining the parties that would be benefited and harmed by the drainage system. Their assessment of the damages and benefits of the project was presented to the county board for their analysis--to establish a ditch the monetary value of the land reclaimed had to exceed the costs of establishment and construction plus damages;

(h) On analyzing the viewers' and engineer's report, the county commissioners determined whether the ditch would be a public benefit and convenience, and whether the project would improve the public health;

(i) Appeals to the district court concerning the boards decisions could be made over the following issues: (1) the amount of benefits assessed, (2) the amount of damages assessed, (3) a refusal order (presumably one could not appeal the ditch construction on the grounds that it was not a public benefit, and that it did not improve the public health, as one could in 1883).

Laws 1931, c. 186 created the department of conservation and abolished the commissioners of forestry, fire prevention, game and fish, and drainage and waters.

Laws 1931, c. 350 forbid drainage of meandered lakes except where they were considered shallow, grassy, marshy and no longer capable of any beneficial public use of a substantial character for fishing, boating, or public water supply. Furthermore, this act did not permit drainage of these shallow lakes unless it was petitioned for by at least 60 percent of the legal voting freeholders who resided within four miles of the lake, and whose lands were shown to be affected by the viewers' report. Also reinstated in this chapter was the definition of "beneficial public use of a substantial character". These preceding provisions provided greater protection for Minnesota's waters and made the drainage of meandered lakes more difficult.

Laws 1937, c. 468 declared all waters in the state which were "navigable in fact" to be public waters. This act placed all public waters under the protection of the conservation department, which ironically, was also empowered to drain until 1947.

Laws 1941, c. 138: The division of drainage and waters, of the conservation department, was renamed "the division of water resources and engineering."

Laws 1946, c. 142 declared all waters which provided substantial beneficial public use to be public waters, and thus subject to the control of the state. "Public waters" were defined as streams, lakes and bodies of water which were "navigable in fact." Drainage of these waters

could only be undertaken after they were either deemed "non-public" or permission was acquired from the commissioner of conservation. Also of interest, chapter 142 repealed statutory sections that permitted the state conservation commissioner to establish state ditches.

Laws 1947, c. 143: General repeal of the drainage code.

Laws 1953, c. 688 provided for tax reductions in situations where swamp and marshlands were preserved as wildlife habitat areas.

Laws 1955, c. 681 mandated that in determining the present or future public utility, benefit, or welfare of a proposed drainage system, the county board should give consideration to the "conservation of soil, water, forests, wild animals, and related natural resources and to other public interests affected." This was the first time that such an act was passed in the drainage code, and wildlife was tacitly granted a standing in drainage issues.

Laws 1955, c. 664 formed the state water resources board. The water resources board was empowered to establish watershed districts, generally, to enable persons to implement improvements in areas where a specific water related problem or difficulty existed. Basically this chapter, and chapter 799 of the same laws, represented a revision of the 1919 "Drainage and Conservancy Act." In that act the district court was empowered to establish drainage and conservancy districts. Where with the watershed act (Laws 1955, c. 799) this power was redelegated to the water resources board. The legislature may have desired to relieve the district court of those duties, and place such decisions in the hands of persons possibly more knowledgeable in the area.

As with the "Drainage and Conservancy Act", the Minnesota Watershed Act also authorized the establishment of watershed districts for many purposes including drainage. (It should be noted, however, that the majority of watersheds are established for reasons other than drainage--ie. flood control, siltation, pollution, soil erosion, wildlife habitat improvement, etc.)

Presently, in order to form a watershed district, a petition must be presented by any one of the following:

> "(1) At least one-half of the counties within the proposed district;
>
> (2) Or by a county or counties having at least 50 percent of the area within the proposed district;
>
> (3) Or by a majority of the cities within the proposed district;
>
> (4) Or by a nominating petition also may be filed if signed by at least 50 resident freeholders of the proposed district, exclusive of the resident freeholders within the corporate limits of any city on whose behalf the authorized official has signed the petition." (M.S.A. sec. 112.37)

After the petition is presented the water resources board determines whether the watershed will be conducive to the public health and welfare, and whether the proposed district will satisfy the purpose specified in the petition. If the watershed is approved, the WRB (Water Resources Board) appoints a group of managers, whose duties include establishment and maintenance of all improvements within the watershed. Any improvement (ie. flood control, stabilization of soil, drainage, etc.) contemplated must be petitioned for by:

> "(1) Not less than 25 percent of the resident freeholders, or by the owners of more than 25 percent of the land within the limits of the area proposed to be improved, provided however if the project of improvement consists of a drainage proceeding as defined in chapter 106, such petition shall be signed by a majority of the resident owners of the land described in the petition or by the owners of at least 60 percent of the areas of such land. The lands described in the petition shall be those over which the proposed improvement passes or is located. For the purpose of this subdivision, holders of easements for electric or telephone transmission or distribution lines shall not be deemed freeholders or owners; or
>
> (2) A county board of any county affected; or
>
> (3) The governing body of any city lying wholly or partly within the area proposed to be improved. Provided, however, if the proposed project affects lands exclusively within a city, the petition shall originate from the governing body of such city." (M.S.A. sec. 112.48, subd. 1)

Furthermore, the petition shall state:

> "(4) The need and necessity for the proposed improvement;
>
> (5) That the proposed improvement will be conducive to public health, convenience, and welfare." (M.S.A. sec. 112.48, subd.1)

The proceedings prior to the approval of the watershed managers are similar to those done under Minnesota Statutes Chapter 106 (Drainage) involving the construction of a ditch--ie. surveys, hearings, viewers, pro rata assessments, appeals, etc.

Laws 1957, c. 740 authorized the water resources (WRB) board to mediate in situations (including drainage) where conflicts arose over Minnesota water law or in cases where there were seeming statutory contradictions. Presently, when such conflicts do arise the action of the board can be initiated through two methods:

> I. Petition for intervention. "The board's intervention is invoked by a petition addressed to it for referral of a question of water policy involved in the proceeding.* The petition must identify the proceeding in which it is made and state the grounds for referral generally but in sufficient detail to inform interested parties of the nature of the questions proposed to be presented to the board and the public importance thereof." (M.S.A. sec. 105.75, subd. 1) (The water resources board has dealt with only six or seven petitions for intervention since 1955). (Moline, 1978)
>
> II. Court referrals. "The court may refer any procedure before it under any of the laws enumerated in Section 105.74, to the board. This referral may be used in both original and appellate matters; it may be invoked by a petition of the court directed to the board. Any party to the procedure may request the court to refer the matter to the board." (M.S.A. sec. 105.75) (Only two court referrals have been acted upon since 1955.) (Moline, 1978)

If the board consents to intervene, a quasi-judicial hearing is scheduled. At this hearing, evidences are presented by both sides complete with testimonies, cross examinations, expert witnesses, etc. The recommendation of the board is based on "impartial scientific, and fully considered judgement." (M.S.A. sec. 105.77) The final "decision of the board is in the form of a written recommendation to the agency; it must recite controlling facts in sufficient detail to apprise the parties, the agency, and a reviewing court of the basis and reason therefor. In the proceeding and upon any judicial review the recommendation is evidence." (M.S.A. sec. 105.77)

Laws 1957, c. 502 announced that the public character of any waters in the state would not be determined by the proprietorship of the bed, or the surrounding land, or whether they were navigable in fact.

Laws 1957, c. 638 changed the number of signatures that are needed on a petition from a number that represented over 50 percent of the lands affected by thd drainage project to a number that represented 60 percent. This act slightly lessened the chance that a small group of people that owned large tracts of land could construct a ditch over the opposition of the general public in the areas that would be affected by the drainage enterprise.

Laws 1957, c. 644 authorized the commissioner to acquire by purchase, lease, gift, or easement, wildlife lands for preservation. This represented a revision of a similar act of 1925.

Laws 1961, c. 754 commanded that where practicable, all state offices and agencies should do their utmost to conserve precipitated water in areas where it fell.

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* "Proceeding" means any procedure, which involves a decision of a state agency, regarding water policy as it pertains to "water conservation, water pollution, preservation, and management of wildlife, soil conservation, public recreation, forest management, and municipal planning under any of the following: Sections 84.57, 97.48 (subdivision 13), 105.41, 105.43, 105.44, 105.64, 106.07, 106.671, 115.04, 115.05, and chapter 110." (M.S.A. sec. 105.73-4)

Laws 1963, c. 815 redefined public waters in Minnesota Statutes chapter 106 "Drainage", to comply with Laws 1957, c. 502. (See Laws 1957, c. 502)

Laws 1969, c. 470 provided for the acquisition of unique scientific and natural areas, which were protected against drainage.

Laws 1971, c. 785 authorized the establishment of joint ditches. This act eliminated the use of the district judiciary in inter-county drainage enterprises. This was done possibly for three reasons: (1) the legislature may have wanted to lighten the district courts workload; (2) the district courts sometimes had little understanding of the complexities of drainage issues; and (3) some individuals believed that this would eliminate judicial bias--many district court judges have been viewed as either "pro-ditch" or "anti-ditch." (Burns, 1954)

Laws 1971, c. 952 contained the "Environmental Rights Law," which permitted any Minnesota citizen to maintain civil actions against environmentally destructive acts. At the present, the provisions of this act could be exercised in situations where drainage was done without permits pursuant to 105.41 or 105.42, or where any other state regulation, rule, order, license, stipulation, agreement, permit standard or limitation was violated. (M.S.A. 116B.03, subd. 1)

Under chapter 116B of the Minn. Statutes any person residing within the state "may maintain a civil action in the district court for declaratory or equitable relief in the name of the state of Minnesota against any person, for the protection of the air, water, land, or other natural resources located within the state, whether publicly or privately owned, from pollution, impairment, or destruction;* provided, however, that no action shall be allowable hereunder for acts taken by a person on land leased or owned by said person pursuant to a permit of license issued by the owner of the land to said person which do not and can not reasonably be expected to pollute, impair, or destroy any other air, water, land, or other natural resources located within the state, provided further that no action shall be allowable under this section for conduct taken by a person pursuant to any environmental quality standard, limitation, regulation, rule, order, license, stipulation agreement or permit issued by the pollution control agency, department of natural resources, department of health or department of agriculture." (M.S.A. sec. 116B.03, subd. 1)

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* "'Pollution, impairment or destruction' is any conduct by any person which violates, or is likely to violate, any environmental quality standard, limitation, regulation, rule, order, license, stipulation agreement, or permit of the state or any instrumentality, agency, or political subdivision thereof which was issued prior to the date the alleged violation occurred or is likely to occur or any conduct which materially adversely affect the environment; provided that "pollution, impairment or destruction" shall not include conduct which violates, or is likely to violate, any such standard, limitation, regulation, rules, order, license, stipulation agreement or permit solely because of the introduction of an odor into the air." (M.S.A. sec. 116B.02, subd. 3)

Furthermore, "in any action maintained under section 116B.03, where the subject of the action is conduct governed by any environmental quality standard, limitation, regulation, rule, order, license, stipulation agreement, or permit promulgated or issued by the pollution control agency, department of natural resources, department of health, or department of agriculture, whenever the plaintiff shall have made a prima facie* showing that the conduct of the defendant violates or is likely to violate said environmental quality standard, limitation, regulation, rule, order, license, stipulation agreement, or permit, the defendant may rebut the prima facie showing by the submission of evidence to the contrary; provided, however, that where the environmental quality standards, limitations, regulations, rules, orders, licenses, stipulation agreements, or permits of two or more of the aforementioned agencies are inconsistent, the most stringent shall control." (M.S.A. sec. 116B.04)

"The defendant may also show, by way of an affirmative defense, that there is no feasible and prudent alternative and the conduct at issue is consistent with and reasonably required for promotion of the public health, safety and welfare in light of the state's paramount concern for the protection of its air, water, land and other natural resources from pollution, impairment, or destruction. Economic consideration alone shall not constitute a defense hereunder." (M.S.A. sec. 116B.04)

The interpretation of this act becomes especially important when one considers an injunction against drainage attempted through chapter 106. In County of Freeborn v. Bryon (1973) 210 N.W. 2nd 240 the court found that "from the language of the act, we conclude that the legislature intended in appropriate cases that the power of eminent domain possessed by governmental subdivisions--including the power of a county to condemn land for a public highway--was to be limited by the provisions of the act." Therefore even in drainage situations, that involve the use of eminent domain, concerned parties still have a right to maintain a civil action.

Laws 1973, c. 479: A set of criteria was added, in order to more closely examine the environmental effects of proposed drainage projects. The law presently reads:

> "County boards or courts must consider the following criteria when establishing and improving drainage systems for which a preliminary order pursuant to section 106.101, has not been issued prior to March 26, 1976:

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* A "prima facie showing" is something that establishes a fact. Two elements must be proved in this prima facie showing (1) a protectable natural resource, and (2) pollution, impairment, or destruction of that resource. The act includes within the definition of natural resources all animal, botanical, water, land, timber, soil, and quietude resources. As discussed above, pollution, impairment or destruction includes any conduct which has or is likely to have a materially adverse effect on the environment." (County of Freeborn v. Bryson, 1973, 210 N.W. 2nd 240)

(a) The private and public benefits and costs derived from the proposed project;

(b) The present and anticipated agricultural land acreage availability and use within the project area;

(c) The flooding characteristics of project lands involved;

(d) The alternative measures for the conservation, allocation, and development of the drainage waters;

(e) The water quality effects as a result of the proposed project;

(f) The fish and wildlife resources affected by the proposed project;

(g) The shallow ground water availability, distribution, and use in the project area;

(h) The overall environmental impact of all the criteria in items (a) to (g);

(i) The present and anticipated land use within the project area." (M.S.A. sec. 106.021, subd. 6)

Laws 1973, c. 315: In an attempt to clarify the term "beneficial public purpose", as used in public waters designation, the legislature developed the following criteria:

"Beneficial public purpose," in relation to waters of the state, includes but is not limited to any or all of the following purposes:

(a) Water supply for municipal, industrial, or agricultural purposes;

(b) Recharge of underground water strata;

(c) Retention of water to prevent or reduce downstream flooding, thereby minimizing erosion and resultant property damage;

(d) Entrapment and retention of nutrients and other materials which impair the quality of natural resources;

(e) Recreational activities such as swimming, boating, fishing, hunting;

(f) Public navigation other than for recreational purposes;

(g) Wildlife habitat areas for the spawning, rearing, feeding, and nesting of wildlife; or

(h) Areas designated as scientific and natural areas pursuant to section 84.033."

Laws 1973, c. 342 authorized the creation of the Minnesota Environmental Quality Council, (see also "Laws 1973, c. 412") whose name was changed in 1975 to environmental quality board (Laws 1975, c. 271 sec. 3,6).

Laws 1973, c. 412: The environmental policy act permitted individuals to request environmental impact statements for proposed projects which could be considered potentially damaging to the environment.

As of 1979, environmental impact statements (EIS) could be ordered by the Environmental Quality Board (EQB) in some drainage situations. The action of the EQB can be initiated in a number of ways: (1) by a petition containing 500 signatures requesting that an EIS be undertaken due to possible environmentally destructive consequences of a project (M.S.A. section 116D.04 subd. 6); (2) by request of project organizers or planners in situations "[W]here there is potential for significant environmental effects resulting from any major governmental action or from any major private action of more than local significance" (M.S.A. section 116D.04); and (3) by request of certain governmental agencies who are concerned over the potential results of an action.

After a request is made, the board gathers information to determine if the possible ecological effects of a project warrant an EIS. Should an impact statement be ordered, after its completion, the EQB will consider the sufficiency of the statement. Additionally, the sufficiency of an EIS can be challenged by other individuals, with judicial action being possible. In some instances where the adequacy or accuracy of the document is questioned, a review of the EIS is necessary.

When an impact statement has been determined adequate, it is sent to specific governmental agencies for their use in making decisions relevant to permit issuance. In addition, the results of the EIS are sent to parties involved in planning or construction for the project. Using this report, these people can design methods which would prevent or lessen potential environmentally destructive acts.

Laws 1976, c. 83: The water bank program was initiated to provide a method for preserving waters that were particularly desirable and economic to drain. (See Laws 1979 c. 199 for more information on the program's 1979 revision.)

Laws 1976, c. 83 authorized the department of natural resources to begin the state public waters inventory. (See Laws 1979 c. 199 for information on the 1979 revision.)

Laws 1979, c. 199 redefined public waters, and extended state control over waters to include some wetlands, which as with public waters, could only be drained with permission of the commissioner of the DNR (M.S.A. sec. 105.38).

With passage of this law,

"Public waters" includes and shall be limited to the following waters of the state:

(a) All water basins assigned a shoreland management classification by the commissioner pursuant to section 105.485, except wetlands less than 80 acres in size which are classified as natural environment lakes;

(b) All waters of the state which have been finally determined to be public waters or navigable waters by a court of competent jurisdiction;

(c) All meandered lakes, except for those which have been legally drained;

(d) All waterbasins previously designated by the commissioner for management for a specific purpose such as trout lakes and game lakes pursuant to applicable laws;

(e) All waterbasins designated as scientific and natural areas pursuant to section 84.033;

(f) All waterbasins located within and totally surrounded by publicly owned lands;

(g) All waterbasins where the state of Minnesota or the federal government holds title to any of the beds or shores, unless the owner declares that the water is not necessary for the purposes of the public ownership;

(h) All waterbasins where there is a publicly owned and controlled access which is intended to provide for public access to the water basin; and

(i) All natural and altered natural watercourses with a total drainage area greater than two square miles, except that trout streams officially designated by the commissioner shall be public waters regardless of the size of their drainage area.

The public character of water shall not be determined exclusively by the proprietorship of the underlying, overlying, or surrounding land or by whether it is a body or stream of water which was navigable in fact or susceptible of being used as a highway for commerce at the time this state was admitted to the union.

For the purpose of statues other than sections 105.37, 105.38 and 105.391, the term "public waters" shall include "wetlands" unless the statue expressly states otherwise. (M.S.A. sec. 105.37, subd. 14)

"Wetlands" includes, and shall be limited to all types 3, 4 and 5 wetlands, as defined in U.S. Fish and Wildlife Service Circular No. 39 (1971 edition), not included within the definition of public waters, which are ten or more acres in size in unincorporated areas or 2½ or more acres in incorporated areas." (M.S.A. 105.37, subd. 15)

"Type 3--Inland shallow fresh marshes. The soil is usually waterlogged during the growing season; often it is covered with as much as 6 inches or more of water. Vegetation includes grasses, bulrushes, spikerushes, and various other marsh plants such as cattails, arrowheads, pickerelweed, and smartweeds. Common representatives in the North are reed, whitetop, rice cutgrass, carex, and giant burreed. In the Southeast, maidencane, sawgrass, arrowhead, and pickerelweed are characteristic. These marshes may nearly fill shallow lake basins or sloughs, or they may border deep marshes on the landward side. They are also common as seep areas on irrigated lands.

Marshes of this type are used extensively as nesting and feeding habitat in the pothole country of the North Central States and elsewhere. In combination with deep fresh marshes (Type 4), they constitute the principal production areas for waterfowl. Florida and Georgia are the only States where the majority of the shallow fresh marshes are considered to be of lesser importance to waterfowl. Florida alone contains more than 2 million acres of this type.

Type 4--Inland deep fresh marshes. The soil is covered with 6 inches to 3 feet or more of water during the growing season. Vegetation includes cattails, reeds, bulrushes, spikerushes, and wildrice. In open areas, pondweeds, naiads, coontail, watermilfoils, waterweeds, duckweeds, waterlilies, or spatterdocks may occur. Water-hyacinth and waterprimroses form surface mats in some localities in the Southeast. These deep marshes may almost completely fill shallow lake basins, potholes, limestone sinks, and sloughs, or they may border open water in such depressions.

Deep fresh marshes constitute the best breeding habitat in the country, and they are also important feeding places. In the Western States they are heavily used by migrating birds, especially diving ducks. Florida and Texas are the only States in which the vast majority of these marshes are not rated as being of primary importance to waterfowl.

Type 5--Inland open fresh water. Shallow ponds and reservoirs are included in this type. Water is usually less than 10 feet deep and is fringed by a border of emergent vegetation. Vegetation (mainly at water depths of less than 6 feet) includes pondweeds, naiads, wildcelery, coontail, watermilfoils, muskgrasses, waterlilies, spatterdocks, and (in the South) water-hyacinth.

In the pothole country of the North Central States, Type 5 areas are used extensively as brood areas when, in midsummer and late summer, the less permanent marshes begin to dry out. The borders of such areas are used for nesting throughout the Northern States. Where vegetation is plentiful, they are used in all sections of the country as feeding and resting areas by ducks, geese, and coots, especially during the migration period." (U.S. Fish and Wildlife Service, Circular No. 39, 1971 edition)

"'Meander lakes' means all bodies of water except streams lying within the meander lines shown on plats made by the United States General Land Office." (M.S.A. sec. 105.37)

"'Water basin' means an enclosed natural depression with definable banks capable of containing water which may be partly filled with waters of the state and which is discernible on aerial photographs." (M.S.A. sec. 105.37, subd. 9)

Laws 1979, c. 199: Public waters inventory and classification: (From M.S.A. sec. 105.391)

"Subdivision 1. On the basis of all information available to him and the criteria set forth in section 105.37, subdivisions 14 and 15, the commissioner shall inventory the waters of each county and make a preliminary designation as to which constitute public waters and wetlands. The commissioner shall send a list and map of the waters which he has preliminarily designated as public waters and wetlands in each county to the county board of that county for its review and comment. The county board shall conduct at least one public informational meeting within the county regarding the commissioner's preliminary designation. After conducting the meetings and within 90 days after receipt of the list or maps, the county board shall present its recommendation to the commissioner, listing any waters regarding which the board disagrees with the commissioner's preliminary designation and stating with particularity the waters involved and the reasons for disagreement. The commissioner shall review the county board's response and, if he agrees with any of the board's recommendations, he shall revise the list and map to reflect the recommendations. Within 30 days after receiving the county board's recommendations, he shall also notify the county board as to which recommendations he accepts and rejects and the reasons for his decision. After the revision of the map and list, if any, or if not response is received from the county board within the 90 days review period, the commissioner shall file the revised list and map with the recorder of each county and shall cause the list and map to be published in the official newspaper of the county. The published notice shall also state that any person or any county may challenge the designation of specific waters as public waters or wetlands or may request the designation of additional waters as public waters or wetlands, by filing a petition for a hearing with the commissioner within 90 days following the date of publication. The petition shall state with particularity the waters for shich the commissioner's designation is disputed and shall set forth the reasons for disputing the designation. If any designations are disputed by petition, the commissioner shall order a public hearing to be held within the county within 60 days following the 90 day period, notice of which shall be published in the state register and the official newspaper of the county. The hearings shall be conducted by a hearings unit composed of one person appointed by the affected county board, one person appointed by the commissioner and one board member of the local soil and water conservation district or districts within the county who shall be selected by the other two members at least 20 days prior to the hearing date. The expenses of and per

diem payments to any member of the hearings unit who is not a state employee shall be paid as provided for in section 15.059, subdivision 3, within the limits of funds available from grants to the county pursuant to section 16. In the event there is a watershed district whose boundaries include the waters involved, the district may provide the hearings unit with its recommendations. Within 60 days following completion of the hearing, the hearings unit shall issue its findings of fact, conclusions and an order, which shall be considered the decision of an agency in a contested case for purposes of judicial review pursuant to sections 15.0424 and 15.0425. The commissioner, the county or any person aggrieved by the decision of the hearings unit may appeal from the hearings unit's order. Upon receipt of the order of the hearings unit and after the appeal period has expired, or upon receipt of the final order of the court in the case of an appeal, the commissioner shall publish a list of the waters determined to be public waters and wetlands. The commissioner shall complete the public waters and wetlands inventory by December 31, 1982.

Subd. 3. Except as provided below, no public waters or wetlands shall be drained, and no permit authorizing drainage of public waters or wetlands shall be issued, unless the public waters or wetlands being drained are replaced by public waters or wetlands which will have equal or greater public value. However, after a state waterbank program has been established, wetlands which are eligible for inclusion in that program may be drained without a permit and without replacement of wetlands of equal or greater public value if the commissioner does not elect, within 60 days of the receipt of an application for a permit to drain the wetlands, to either (1) place the wetlands in the state waterbank program, or (2) acquire it pursuant to section 97,481 or (3) indemnify the landowner through any other appropriate means, including but not limited to conservation restrictions, easements, leases, or any applicable federal program. If the applicant is not offered his choice of the above alternatives, he is entitled to drain the wetlands involved.

In addition, the owner or owners of lands underlying wetlands situated on privately owned lands may apply to the commissioner for a permit to drain the wetlands at any time after the expiration of ten years following the original designation thereof. Upon receipt of an application, the commissioner shall review the current status and conditions of the wetlands. If he finds that the current status or conditions are such that it appears likely that the economic or other benefits to the owner or owners which would result from drainage would exceed the public benefits of maintaining the wetlands, he shall grant the application and issue a drainage permit. If the application is denied, no additional application shall be made until the expiration of an additional ten years.

Subd. 9. In order to protect the public health or safety, local units of government may establish by ordinance restrictions upon public access to any wetlands from city, county or township roads which abut wetlands.

Subd. 10. Nothing in this chapter shall prevent a landowner from utilizing the bed of wetlands or public waters for pasture or cropland during periods of drought, provided there is no construction of dikes, ditches, tile lines or buildings, and the agricultural use does not result in the drainage of the wetlands or public waters. This chapter shall not prevent a landowner from filling any wetland to accommodate wheeled booms on irrigation devices so long as the fill does not impede normal drainage.

Subd. 11. When the state owns wetlands on or adjacent to existing public drainage systems, the state shall give consideration to the utilization of the wetlands as part of the drainage system. If the wetlands interfere with or prevent the authorized functioning of the public drainage system, the state shall provide for any necessary work to allow the proper use and maintenance of the drainage system while still preserving the wetlands.

Subd. 12. The designation of waters as "public waters" or "wetlands" pursuant to this section shall not grant any additional or greater right of access to the public to those waters, nor is the commissioner required to acquire access to those waters under section 97.48, subdivision 15, nor is any right of ownership or usage of the beds underlying those waters diminished. Notwithstanding the designation of waters or lands are public waters or wetlands, all provisions of Minnesota law forbidding trespass upon private lands shall remain in full force and effect."

Laws 1979, c. 199 slightly revised the original 1976 water bank program. This new program, like the original, provides protection for certain wetlands by paying landowners to lease the waters in their natural condition.

Portions of the law read:

"The commissioner shall have authority to enter into agreements with landowners for the conservation of wetlands. These agreements shall be entered into for a period of ten years, with provision for renewal for additional ten year periods. The commissioner may re-examine the payment rates at the beginning of any ten year renewal period in the light of the then current land and crop values and make needed adjustments in rates for any renewal period.

Wetlands eligible for inclusion in the waterbank program shall have all the following characteristics as determined by the commissioner: (1) types 3, 4, or 5 as defined in U.S. Fish and Wildlife Service Circular No. 39 (1971 edition); (b) its drainage is lawful, feasible, and practical; and (c) its drainage would provide high quality cropland and that is the projected land use. Waters which have the foregoing characteristics but are less than ten acres in size in unincorporated areas or less than 2½ acres in size in incroporated areas shall also be eligible for inclusion in the waterbank program, at the discretion of the commissioner." (M.S.A. sec. 105.392, subd. 2)

Extra Session Laws 1979, c. 303 authorized the DNR commissioner to yearly pay up to $3.00 per acre of natural resources administered land, to counties of the state. (M.S.A. sec. 477A.12)

Extra Session Laws 1979, c. 303 provided for wetlands exemptions. Wetlands eligible include:

"Land which is mostly under water, produces little of any income, and has no use except for wildlife or water conservation purposes. "Wetlands" shall be land preserved in its natural condition, drainage of which would be lawful, feasible and practical and would provide land suitable for the production of livestock, dairy animals, poultry, fruit, vegetables, forage and grains, except wild rice. "Wetlands" shall include adjacent land which is not suitalbe for agricultural purposes due to the presence of the wetlands. Excemption of wetlands from taxation pursuant to this section shall not grant the public any additional or greater right of access to the wetlands or diminish any right of ownership to the wetlands." (M.S.A. sec. 272.02, subd. 1(16))

APPENDIX B

CONSTITUTIONALITY OF PUBLIC WATERS DESIGNATION

The constitutionality of public waters designation involves the right of the state to control certain waters--in Minnesota this is authorized under Minnesota Statutes sections 105.38 and 105.42.

One Minnesota Supreme Court case which explicitly discussed the state's constitutional right to act under section 105.42 was State v. Kuluvar (1963), 123 N.W. 2d 699. The courts views and its holding were:

> "It is fundamental, in this state and elsewhere, that the state in its sovereign capacity possesses a proprietary interest in the public waters of the state. Riparian rights are subordinate to the rights of the public and subject to reasonable control and regulation by the state. Section 105.42 regulates the property rights of a riparian owner only to the extent of prohibiting any interference with the waters adjoining if such waters are public waters and if the interference is detrimental to public use. Such a regulation cannot be regarded as unreasonable and certainly not as taking property without compensation. When it is established that the public has access to waters capable of substantial beneficial use by all who so desire, the statute directs that the state fulfill its trusteeship over such waters by protecting against interference by anyone, including those who assert the common-law rights of a riparian owner. To permit such owners to interfere with the natural rights of the public to fish, hunt, swim, navigate, and otherwise enjoy such waters would result in subordinating public rights to private rights and in abdicating the state's trust over an incomparable natural resource. We find no difficulty in holding that the statute is a reasonable regulation and that it does not unconstitutionally infringe upon any rights of a riparian owner, including the rights to use his land above the ordinary low-water mark, the right to wharf out to the point of navigability, or rights arising because of the claimed ownership of the bed underlying any waters declared public by section 105.38."

This authority of the DNR commissioner to protect waters from degradation without compensation to a landowner is guaranteed through the state's right to exercise police power. It is necessary that police power be distinguished from the power eminent domain--a process which involves compensation. The differences in these two powers were clearly defined in the Wisconsin State Supreme Court case Just v. Marinette County, 201 N.W. 2nd 761:

> "[I]n distinguishing an unconstitutional taking from a valid exercise of police power, the necessity for monetary compensation for loss suffered to an owner by a police power restriction, arises when restrictions are placed on property in order to create a public benefit rather than prevent a public harm."
>
> "It may be said that the state takes property by eminent domain because it is useful to the public, and under the police power because it is harmful ... From this results the difference between

> the power of eminent domain and the police power, that the former recognizes a right to compensation, while the latter on principal does not."

Furthermore because drainage could be considered a public harm, the use of police power to protect waterbodies from drainage was sustained in Just v. Marinette Court. The court declared:

> "The changing of wetlands and swamps to the damage of the general public by upsetting the natural environment and the natural relationship is not a reasonable use of that land which is protected from police power regulation."[1/]

In even stronger terms the Court further declared that in situations involving the destruction of wetlands:

> "An owner of land has no absolute and unlimited right to change the essential natural character of his land so as to use it for a purpose for which it was unsuited in its natural state and which injures the rights of others... [W]e think it is not an unreasonable exercise of that power to prevent harm to public rights by limiting the use of private property to its natural uses."

In conclusion the Court observed that:

> "[Too] much stress is laid on the right of an owner to change commercially valueless land when the change does damage to the rights of the public."

1/ Besides the aforementioned case, there are many others which uphold the use of police power to regulate land use without compensation. These include: Village of Euclid, Ohio v. Amber Reality Co., 272 U.S. 365, 47 S.Ct. 114 (1926); Naegele Outdoor Advertising Co. v. Village of Minnetonka, 281 Minn. 492, 162 N.W. 2d 206 (1968); Perron v. Village of New Brighton, 275 Minn. 119, 145 N.W. 2d 425 (1966); State ex rel. Howard v. Village of Roseville, 244 Minn. 343, 70 N.W. 2d 404 (1955); Kiges v. City of St. Paul, 240 Minn. 522, 62 N.W. 2d 363 (1953); State v. Modern Box Makers, Inc., 217 Minn. 41, 13 N.W. 569 (1925).

APPENDIX C

CONSTITUTIONALITY OF DRAINAGE

The constitutionality of drainage deals with the right to appropriate lands for the construction of public drainage systems. "By virtue of its police power, the power of eminent domain, or the general taxing power"[1/] any state "may provide for the construction of [public] drains for draining marshy and overflowed districts" (Corpus Juris Secundum). There is one important aspect of these three powers, however, and that is that they can be exercised only in situations where the public will benefit. Therefore, for drainage to be constitutional it must be shown to be of potential public value.

In general, drainage undertaken for the purposes of improving public health,[2/] improving highways, preventing flooding, or increasing agricultural productivity is considered constitutional. Due to the fact that agricultural drainage often results in a direct pucuniary gain for a small portion of the population, rather than for the population as a whole, the constitutionality of this type of drainage has been contested.

In 1900, a Minnesota supreme court case was tried to determine the constitutionality of chapter 91 of the 1877 laws that permitted the taking of land for husbandry (in re Henge-Hendrum Ditch No. 1, 1900, 82 N.W. 1094).

1/ "Police power" is the power vested in the state legislature to establish laws, ordinances, and statutes not repugnant to the constitution and for the good and welfare of the subjects of the state or common wealth (Blacks Law Dictionary, Revised 4th edition). "Eminent domain" is the right of the state, through its regular organization, to reassert, either temporarilty or permanantly, its dominion over any portion of the soil of the state on account of public exigency and for the public good (Blacks Law Dictionary, Revised 4th edition). "Taxing power", as used in drainage, is the power of any government to levey taxes based on "assessments" which involves "impositions which are beneficial to particular individuals or property, and which are imposed in proportion to the particular benefits supposed to be conferred." These assessments are then used to finance the improvement (Blacks Law Dictionary, Revised 4th edition).

2/ Early in Minnesota's history the statutes implied that agricultual drainage was a secondary or incidental reason for drainage. This, however, was definitely not the case. As early as 1925 in Sellen v. McLeod County (1925) 205 N.W. 625, the court succintly declared the true reasons for drainage: "The matter of public health has been an unimportant factor of drainage proceedings in this state. While the statute requires that a proposed ditch will promote the public health, public health has not been the primary object of most drainage proceedings in this state, but rather the reclamation of waste lands."

The court found: "It does not matter than in accomplishing the public objects of the act private interests are [incidentally] advanced." The court also maintained that "[t]he fact that large tracts of otherwise wastelands may be thus reclaimed and made suitable for agricultural purposes is deemed and held to constitute a public benefit." In finding agricultural drainage to be a public benefit, and thus constitutional, the court concluded, "Where the laws have for their object the reclamation of large tracts of wet and swampy lands for agricultural purposes, they are sustained under the right of eminent domain."

In 1925, the public value of agricultural drainage again surfaced in the Supreme court case of Sellen v. McLeod County (1925) 205 N.W. 625 where the court declared, "Although it was doubted at one time, it is now fairly well settled that the reclamation of such lands for agricultural purposes, although inuring directly to the benefit of the [private] landowners, thereof, it is also a benefit to the prosperity of the community as a whole by enlarging the productive area of the state."

Fifteen years later the constitutionality of drainage undertaken for private purposes again was reaffirmed in In Re Town Ditch No. 1 v. Blue Earth County (1940) 295 N.W. 47 where the court upheld the decision in "Henge-Hendrum" which decided that it does not matter that private interests are benefited in drainage situations as long as the general public also benefits from the project.

APPENDIX D

RIPARIAN RIGHTS

As long as the state acquires land with the intent of preserving any adjacent waters, riparian rights, as it applies to a riparian owners right to use the entire surface of a water body, will be important, for by this the state can protect such waters from drainage.

As early as 1886 the Minnesota Supreme Court upheld the riparian owners right to use the entire surface of even the smallest water bodies. Shaffer v. Marthaler (1886), 26 N.W. 726 - (In this case, the water body covered only four and one quarter acres to a maximum depth of 5 feet.) More recently in Flynn v. Beisel (1960) 102 N.W. 2d 284, the court sustained the riparian owners right to use the entire water surface, regardless of the navigable or public character of the lake and the ownership of the bed. In Johnson v. Seifert (1960) 100 N.W. 2d 689 the court held the right of each riparian owner to use the entire surface of a 35 acre lake which was suitable only for duck hunting. Even in situations where the public is involved through a town or village as a riparian owner, or where a road right of way extends to a lake, the Minnesota Supreme Court has upheld the public's right to use the entire surface of the lake. Flynn v. Beisel, 102 N.W. 2d 284 (1960) and Troska v. Brecht, 167 N.W. 1042 (1918).

There are numerous other cases which sustain this aspect of riparian rights, but drainage of wetlands and water basins acquired through this act still occurs because, (1) many landowners drain without first acquiring consent from the state; and (2) many courts do not recognize the application of Minnesota's riparian doctrine when it comes to the individuals right to change the natural character of his land.

One example of the former problem involved the Willow Creek Wildlife Management Area in Martin County. In this incident the State owned half of an approximately 90 acre body of water, and the other half was owned by a private party. This private party decided to assert his ownership over the land under the water by bisecting the water body with a dam and subsequently draining his half.

An instance where the latter has occurred was found in Holden v. County of Le Sueur (1975) 232 N.W. 2d 806 where the Supreme Court had to reverse the decision of the Le Sueur County Board and the district court which would have resulted in damage to a 500 acre state wildlife management area. Unfortunately, in other situations Minnesota could not protect its conservation areas. An extreme example of judicial disregard for the protection of waters abutting upon state lands was mentioned in Stevens v. State by Head (1971), 190 N.W. 2d 482 where the state was forced to appeal to the Minnesota Supreme Court in order to receive redress for future damages to be done to a conservation area, after a district court had refused to recognize that the state would suffer a compensable loss.

APPENDIX E

PRESENT DRAINAGE PURSUANT TO MINNESOTA STATE STATUTES CHAPTER 106

County and joint* public drainage systems can be petitioned for through this chapter. A synopsis of the proceedings follows:

(a) Parties desiring to drain lands may file a petition with the county auditor--in joint ditches the petition is filed in the county which contains the largest area over which the proposed ditch passes. The petition "shall be signed by a majority of resident owners of the lands described or by the owners of at least 60 percent of the area of such land, exclusive of the holders of easements." Plus the petition shall "set forth the necessity for the ditch or improvement and that the same will be of public benefit and utility and will promote the public health (M.S.A. sec. 106.031);

(b) With this petition a petitioners bond is presented which guarantees that should the proceedings be dismissed, the petitioners will cover all costs that have accrued up to the time of dismissal (M.S.A. 106.041);

(c) Within thirty days of the presentation of the petitions a preliminary survey is made along the proposed ditch site;

(d) Following this, the engineer undertakes an investigation to determine the potential ecological impact of the proposed drainage system. (The investigation pertains to Minnesota Statutes section 105.37, subd. 14,, 105.38 clause (1) and 106.021, subd. 6.) The findings of this investigation are sent to the commissioner of the Department of Natural Resources;

(e) The commissioner then sends an advisory report to the county. This report contains the commissioner's judgements on the possible effects that the proposed drainage system may have on public waters--specifically his comments referring to provisions of Minn. Stats. secs. 105.37 subd. 14, 105.38 and 106.021 subd. 6, which he feels should be further investigated by the engineer;

(f) A preliminary hearing is held for the petitioners as well as other interested parties--"interested parties" generally means individuals whose lands may be affected or included in the proposed drainage enterprise. At this hearing the county commissioners determine if the proposed project will "be of public benefit and promote public health, based upon the criteria required to be considered by section 106.021, subd. 6" (M.S.A. sec. 106.101 subd. 5).

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* After July 1, 1971 any petition for the establishment of a public drainage system within two or more counties is presented to the county auditor rather than the clerk of district court. A joint county ditch authority is then formed which includes members from each affected county. In the establishment of these joint ditches, the joint ditch authority assumes all powers that the district court had had in judicial ditch proceedings.

(g) If the county board tentatively approves the ditch construction, they will order the engineer to undertake a second, more detailed survey:

(h) After this survey is completed, the engineer will send his results to the commissioner. From the engineer's data the commissioner will determine whether the proposed system will be a public benefit and utility pursuant to 106.021 subd. 6, supporting his findings on evidences he has been sent by the engineer or had gathered for him. As with his first report, this one is also strictly advisory;

(i) Also following the engineer's report a body of viewers is appointed to determine the lands that will be benefited and damaged by the improvement (M.S.A. sec. 106.151). (To quality as a viewer one needs to be a resident freeholder of the county where the petition was presented.) From this analysis the viewers decide whether the overall benefits exceed the total costs, including damages. The viewers' methods for assessing benefits are based on the value of the land before drainage and the predicted value of the land once reclamation has been completed. The value of the land before drainage is determined by a consensus between the viewers and each individual landowner whose lands are going to be assessed for benefits. To make this assessment the viewers apportion a benefited parties land into roughly four categories: (1) very wet, (2) wet, (3) in need of tiling, (4) naturally drained. Furthermore, in determining an individual's assessment they consider the amount of tiled land that would be benefited by the drainage system and the distance of each parcel of land from the proposed ditch;

(j) After the viewers have prepared their statement, a final hearing is held, where the engineer's viewers' and department of natural resources commissioner's opinions are recapitulated (M.S.A. sec. 106.171);

(k) Sometime after the final hearing, the county board makes their final decision on acceptance or rejection of the drainage proposal. The proposal is dismissed if benefits are not more than total costs including damages or the "proposed system will not be of public benefit and utility, or not practicable based upon the criteria of section 106.021, subd. 6" (M.S.A. sec. 106.201). The ditch is established if the board finds the proposed system will be a public benefit and utility and will promote the public health, and if it found that benefits exceed costs (M.S.A. 106.201 subd. 2);

(l) Any aggrieved party has the right to appeal the boards decisions on the following matters: ("Party" is considered to be one whose lands are affected by the drainage system.)

(1) The amount of benefits determined;
(2) The amount of damages allowed;
(3) Relative to the allowance of fees or expenses in any proceeding; and
(4) The sufficiency of the order in meeting the requirements of section 106.021, and any criteria promulgated pursuant thereto (M.S.A. 106.631).

(k) To defray all costs involved in the establishment and construction of the drainage system a lien (a legal claim on the property of another as security against the payment of a debt) is filed against the properties of those persons benefited by the improvement. This lien is paid back, with interest, like a tax;

Repairs (restoration of the ditch to a state that resembles its original condition) can be petitioned by any "party or corporation, municipal or otherwise, interested in or affected by a drainage system" (M.S.A. 106.471 subd. 4, subparagraph (a)). The petition must be signed by "the owners of not less than 26 percent of the area of the property affected by and assessed for the original construction of the ditch (M.S.A. sec. 106.741 subd. 4, subparagraph (c)). After the petition is filed the engineer inspects the ditch and determines whether the repairs are necessary. If the engineer determines the repair to be necessary, the county board holds a hearing. If after the hearing it appears that the ditch is in a state of disrepair the board makes arrangements to let a contract.

Improvements are also possible through section 106.501 of the Minnesota Statutes (M.S.A. 106.501). Persons wishing to improve present systems by tiling, enlarging, or extending may present "a petition signed by not less than 26 percent of the resident owners of the property affected or by the owners of not less than 26 percent of the area of the property affected by the proposed improvement or over which the proposed improvement passes" to the county auditor (M.S.A. 106.501, subd. 1).

After the petition is presented, the board shall appoint an engineer to examine the ditch. Thereafter the proceedings resemble those used in the original establishment of a ditch--from Section 106.051 et seq. It should be noted that a ditch improvement's proceedings are similar to those used in the establishment of an original ditch. although section 106.501 (improvements) only permits widening, deepening, straightening, enlarging, and extending of a ditch downstream (not exceeding one mile) to obtain a more adequate outlet. The improvement section does not authorize upstream extensions. These must be done through sec. 106.031 et seq. or sec. 106.015 of the Minnesota Statutes.

M.S.A. sec. 105.37 subd. 14: see "compendium" Laws 1979, c. 199 "public waters."

M.S.A. sec. 105.38.

"In order to conserve and utilize the water resources of the state in the best interests of the people of the state, and for the purpose of promoting the public health, safety and welfare, it is hereby declared to be the policy of the state:

(1) Subject to existing rights of all public waters and wetlands are subject to the control of the state.

(2) The state to the extent provided by law from time to time, shall control the appropriation and use of surface and underground waters of the state.

(3) The state shall control and supervise, so far as practicable, any activity which changes or which will change the course, current, or cross-section of public waters or wetlands, including but not limited to the construction, reconstruction, repair, removal, abandonment, the making of any other change, or the transfer of ownership of dams, reservoirs, control structures, and waterway obstructions in any of the public waters or wetlands of the state."

M.S.A. sec. 106.021, subd. 6. See Laws 1973, c. 479 in Appendix A.

M.S.A. sec. 106.011, subd. 13. "Public health" extends to and includes any act or thing tending to improve the general sanitary condition of the community; whether by drainage, relieving low, wet land or stagnant or unhealthful conditions or by preventing the overflow of any lands which produce or tend to produce unhealthful conditions.

M.S.A. sec. 106.011, subd. 14. "Public welfare" or "public benefit" extends to and includes any act or thing tending to improve or benefit the general public, either as a whole or as to any particular community or part, and is construed to include any works contemplated by this chapter which shall drain or protect from overflow public highways and which shall protect from overflow or reclaim and render suitable for cultivation lands normally wet and needing drainage or subject to overflow.

M.S.A. sec. 106.101, subd. 5. Findings and order. If the board or court shall be satisfied that the proposed improvement as outlined in the petition or as modified and recommended by the engineer is feasible, that there is necessity therefor, that it will be of public benefit and promote the public health, based upon the criteria required to be considered by section 106.021, subdivision 6, and that the outlet is adequate, the board or court shall so find and by such order shall designate the changes that shall be made in the proposed improvement from that outlined in the petition including such changes as are necessary to minimize or mitigate adverse impact on the environment. These changes may be described in general terms and shall be sufficiently described by filing with the order a map outlining the proposed improvement thereon. Thereafter the petition shall be treated as modified accordingly. When the ditch shall outlet into an existing county or judicial ditch, the board or court may find that the outlet is adequate subject to confirmation and permission being obtained in accordance with section 106.531. In such case the board or court shall assign a number to the ditch and the board or court shall proceed to act in behalf of the ditch to obtain outlet rights in accordance with section 106.531.

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