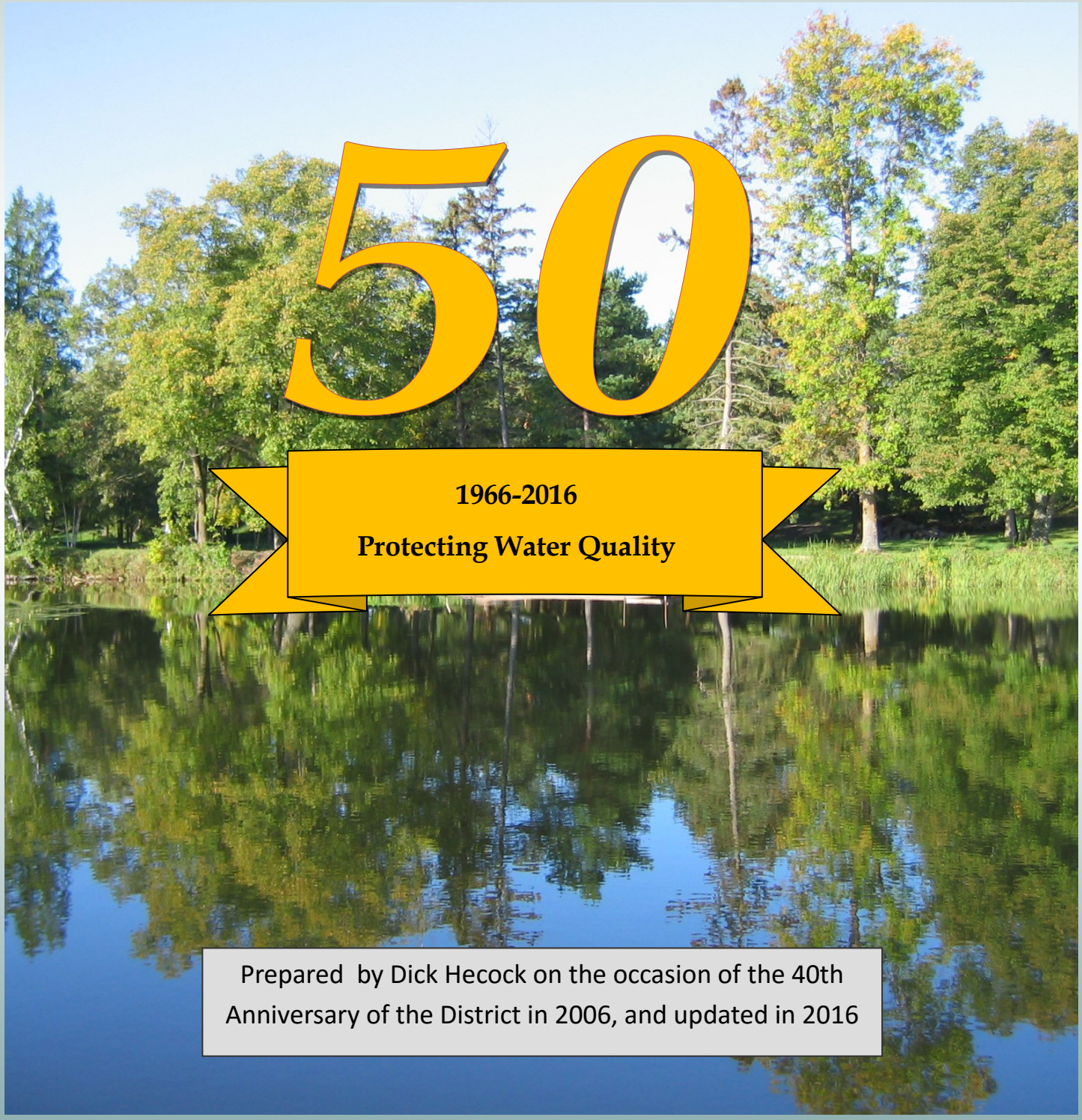
Pelican River watershed district



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1966-2016

Protecting Water Quality

Prepared by Dick Hecock on the occasion of the 40th Anniversary of the District in 2006, and updated in 2016

Early History of the Region

For hundreds of years prior to the arrival of Europeans, various native tribes established scattered villages in the vicinity of the Pelican Chain of Lakes. In the 1700 and 1800's population was still sparse, and there was very little disturbance of natural systems. With permanent European settlements arriving in the 1870's, logging and agriculture began. By 1900 the area that would become the Pelican River Watershed District had experienced significant deforestation. Lakes had been dammed and rivers straightened for the Pelican River Navigation System, which was responsible for stimulating a tourist industry based upon summer cottages and resorts. With the arrival of the automobile, the tourist business exploded, so that the area's population reached 5000 by 1920. At about the same time, major ditching to enhance agriculture caused further and quite profound changes to the lakes, streams and wetlands.

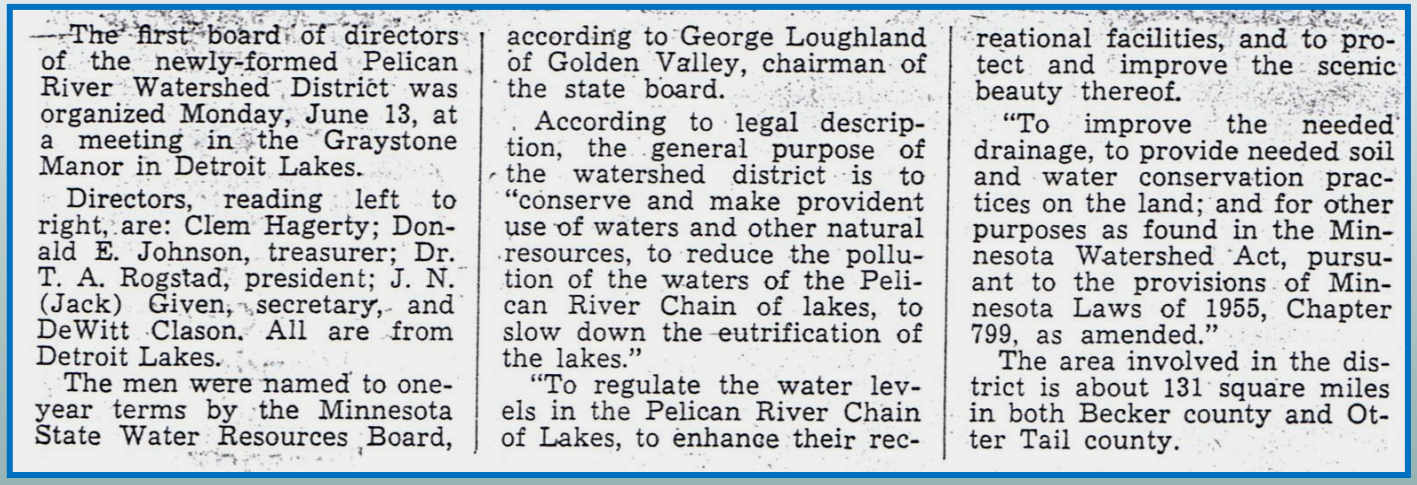
Local awareness of lake water problems began in the late 1940's as lake use intensity and shoreline densities increased. In the 1950's and 1960's, as the area's population reached 9500, instances of algae blooms and nuisance weed growth began to interfere with recreational use of lakes. There was growing suspicion that inadequate sewage treatment were major culprits. Desperate lake dwellers formed lake associations, started lawsuits, and experimented with chemicals to treat the symptoms of lake deterioration. Business leaders, as well as city and county officials, feared negative impacts on lake-oriented tourism.

Establishment of Pelican River Watershed District

In 1965, both the Melissa and Sallie Improvement Association and the Lake Detroiters, advocated for a governmental unit that would be able to address lake problems. Dr. Tom Rogstad, President of Lake Detroiters, led a delegation, including Attorney Robert Irvine and Detroit Lakes City Engineer Winston Larson, to St. Paul to seek enabling legislation that would make it possible to create a local government unit for purposes of "finding causes and solutions for lake eutrophication problems". They brought a draft bill to Senator Norman Walz of Detroit Lakes, but soon learned that a watershed district created under the auspices of the State's 1955 Watershed Act, would serve the purpose if that Act was slightly amended to allow lakes and the lands that drained to them, to be defined as a watershed. The necessary amendments were enacted, and the PRWD was the first watershed district to organize under the amended law.

On September 15, 1965 a copy of a petition asking for the creation of the Pelican River Watershed District was filed with the Minnesota Water Resources Board. The petitioners, seeking to slow down the eutrophication of the lakes, among other purposes, were the Becker County Commissioners. After public meetings and discussion where local officials and the business community offered strong support, the petition was amended slightly and submitted by both the Becker and Otter Tail County Commissioners.

The proposed boundaries of the District were subsequently reviewed in detail and modified by the Director of the Division of Waters. This process was based upon existing maps and detailed field surveys in the fall of 1965 and winter of 1966. The Director considered several lakes included in the original petition as having doubtful surface water links to the main chain of lakes; these included Spear, Pearl and Loon lakes, west of Lake Sallie, and Wine, Brandy, and several others lying west of highway 59 and North of Highway 10. On the other hand, the Director recommended inclusion of those lakes, as well as Mill Lake and Buck's Mills Dam, and some additional tributaries to Lake Melissa and Mill Lake, including some in Otter Tail County.



The first board of directors of the newly-formed Pelican River Watershed District was organized Monday, June 13, at a meeting in the Graystone Manor in Detroit Lakes.

Directors, reading left to right, are: Clem Hagerty; Donald E. Johnson, treasurer; Dr. T. A. Rogstad, president; J. N. (Jack) Given, secretary, and DeWitt Clason. All are from Detroit Lakes.

The men were named to one-year terms by the Minnesota State Water Resources Board, according to George Loughland of Golden Valley, chairman of the state board.

According to legal description, the general purpose of the watershed district is to "conserve and make provident use of waters and other natural resources, to reduce the pollution of the waters of the Pelican River Chain of lakes, to slow down the eutrification of the lakes."

"To regulate the water levels in the Pelican River Chain of Lakes, to enhance their recreational facilities, and to protect and improve the scenic beauty thereof.

"To improve the needed drainage, to provide needed soil and water conservation practices on the land; and for other purposes as found in the Minnesota Watershed Act, pursuant to the provisions of Minnesota Laws of 1955, Chapter 799, as amended."

The area involved in the district is about 131 square miles in both Becker county and Otter Tail county.

On March 30, 1966 the Water Resources Board held a hearing at the Becker County Courthouse. The Director's report was presented and oral testimony on it and other matters was heard. At the May 27th meeting of the Water Resources Board, the Pelican River Watershed District, as previously defined and delimited by the Director, was ordered. The order specifically noted that addressing pollution would be central to the District's mission. It also noted that navigation, soil erosion, and fish and wildlife enhancements, would be District purposes.

The official order also appointed Thomas Rogstad, DeWitt Clason, John Given, Clem Hagerty, and Donald Eugene Johnson to one-year terms as managers of the new District.

The board of managers of the Pelican River Watershed District are pictured abov
Left to right are: J. N. Given, Clem Hagerty, Donald Johnson, DeWitt Clason a
Dr. T. A. Rogstad.

The first Meeting of the Managers of the Pelican River Watershed District took place at the Graystone Manor Hotel in Detroit Lakes at 6 PM on June 13, 1966. The previously mentioned managers were all present. Also present were Erling Weiberg, Administrative Secretary of the Minnesota Water Resources Board, Jim Dixon, of the Melissa Sallie Improvement Association, and Dick Hecock. Officers were elected as follows: T.A. Rogstad, President, J.N. Given, Secretary, D.E. Johnson, Treasurer. There was discussion of the preparation of the District's Overall Plan, the appointment of an Advisory Committee, development of by-laws, and the identification of source of funds.

Why does the PRWD not include all of the Pelican River watershed, and why, in particular, was PRWD not combined with Cormorant Lakes WD which was created at about the same time and for the same purposes? According to a 1970 letter written to a Pelican Lake resident by Erling M. Weiberg of the Minnesota Water Resources Board, the decision had to do with two main factors:

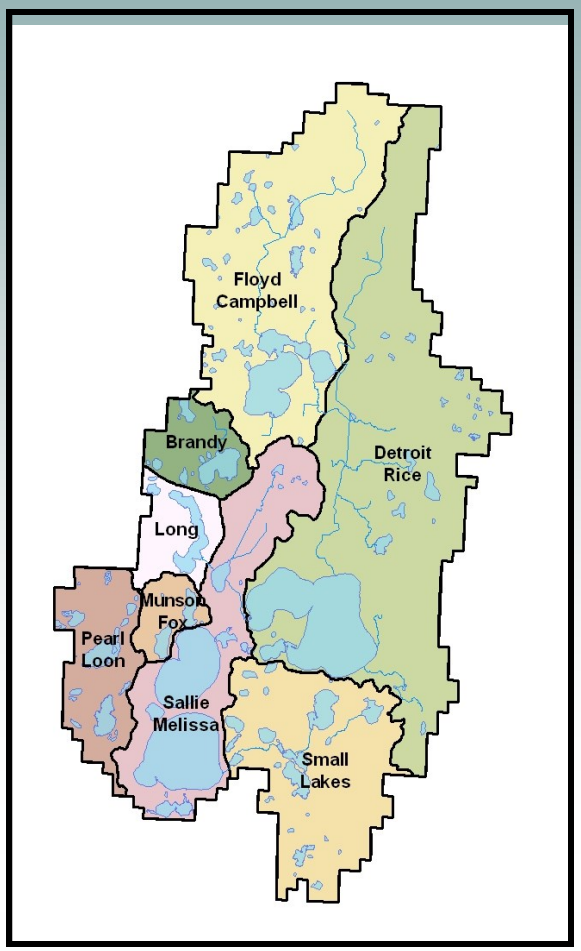
the original petition for establishment of WD was urged by residents of Detroit, Long, Sallie, Melissa, and Floyd; no other area interests were presented by petition, or advocated by testimony at public hearings which were noticed to all residents of Becker and Otter Tail Counties. The Water Resources board took the position that they could not define a watershed district to include areas from which no petition was received, especially when the area was in a different county.

In fact, the petitioners for Cormorant Lakes and Pelican River watershed districts had been urged by the Water Resources Board to form a single watershed district; this suggestion was rejected on grounds that the problems were different between the two proposed districts (PRWD was more "urban" vs. and Cormorant Lakes "more rural"); moreover, residents near Lake Eunice and Maud, located between the two proposed districts, were adamantly opposed (in hearings) to inclusion in any watershed district.

The Mission

Acting on a nominating petition submitted on September 15, 1965, the Minnesota Water Resources Board (MWRB) established the Pelican River Watershed District (PRWD) on May 27,1966. In explaining its action, the Board found that the...

> *"principal bodies of water in the upper reaches of the watercourse of the Pelican River, Detroit Lake, Lake Sallie and Lake Melissa, have become at certain times during the summer recreational months, unhealthy and unsightly due to excessive weed and algae growths. Such undesirable growths along the shores of the above lakes have interfered with boating, fishing and swimming; and have denied lake home owners the enjoyment of water scenery. In addition, weeds and algae growths have affected lake property value." (MWRB, 1966)*



The perception that water quality conditions of area lakes were rapidly deteriorating was the primary motivation for proposing a watershed district, and guided formulation of the District's **1967 Overall Plan** and the subsequent efforts of the District Managers (PRWD, 1967). These efforts have included research, advocacy of sewer projects and improvement of sewage treatment facilities, aquatic plant harvesting activities, control of exotic aquatic species, and many other conservation and enhancement activities.

On March 17, 1994, the District Managers formally adopted a **new mission statement**. Rooted in its original MWRB charge, and sustained for 50 years by 29 Managers and their advisors, the District affirms its central interest in the water quality of the Upper Pelican River chain of lakes:

> *"The mission of the Pelican River Watershed District is to enhance the quality of water in the lakes within its jurisdiction. It is understood that to accomplish this, the District must ensure that wise decisions are made concerning the management of streams, wetlands, lakes, groundwater, and related land resources which affect these lakes."*

A Cooperative Spirit

The District owes its origins to the concerns and visions of a broad range of people and organizations. City and County officials, local representatives of state and federal governments, lake associations, lake property owners, businesses and local professionals, were all part of the effort to establish PRWD.

In subsequent years, this ethic continued in several forms. The early managers, themselves broadly representative of the local business and professional community, recruited an advisory committee comprised of 21 people, including governmental officials, elected representatives, businessmen, lakeshore property owners, and lake association members. The advisory committee prepared the Overall Plan which governed the activities of the District for a large part of its history.

Most of the District's projects and other activities were jointly conceived and funded. Especially noteworthy was the involvement of the City of Detroit Lakes. For example, the City worked closely with the District in developing its state-of-the-art sewage treatment plant and evaluating its impact. Extending sewage treatment areas, and storm water treatment, and water quality monitoring often have been joint efforts. Similarly, the District worked closely with County officials in its acquisition of land for Dunton Locks Park and road-upgrading projects. Weed harvesting projects were advocated and paid for by lakeshore residents, sometimes with support from State and local governments. District managers and staff often were called upon by state and local governments to review proposals that might have some impacts on area lakes. Local politicians were often instrumental in obtaining funds for District efforts.

From its inception, the District has perceived itself as a coordinating agency. Not only were the District's goals of protection of lake water quality, and its enhancement widely-shared, but they usually have been accorded a high priority among residents and officials. Only rarely in its 50 years did the District's programs or practices become the target of citizen or governmental animus.

Managers

The affairs of Watershed Districts are conducted by managers, normally appointed by County Commissioners for three-year terms. PRWD has had 29 Managers since its inception. The five original Managers, appointed by the state, served one-year terms, and were then reappointed by county commissioners. Many of the District's managers were appointed for multiple terms. The average length of service has been a little over 10 years. Four managers died during their terms; Don Klomstad, a manager from1978 to 1979, resigned as manager to become the District's Executive Secretary, a position which he held until 1989.

In 1988 the number of managers was expanded from five to seven.

Current District managers already have served a cumulative total of 115 years. Okeson and Kral with 28 years each, have served the longest, while Imholte has served 25.

The first harvester was purchased by the District in 1968, shown here with the Board of Managers at that time.

50 Years of PRWD Managers

	Start year	End Year	years of service	offices t=treas s=sect p=pres
Tom A. Rogstad	1966	1978	13	p
Clem Hagerty	1966	1969	4	
Donald E. Johnson	1966	1977	12	t
Dewitt Clason*	1966	1968	3	
John (Jack) Given	1966	1978	13	s
Clarence Nelson*	1968	1971	4	
Al Leighton	1969	1975	7	
Ron Schur	1971	1982	12	t,p
Dave Fihn	1975	1991	16	s
Pete Caron	1977	1989	13	t,p
Roger Hesby*	1978	1991	14	t,p
Don Klomstad	1978	1979	2	
John Youngquist	1980	1988	9	p
Charlie Roper*	1981	2004	23	
Orin Okeson	1988		28	s
Dennis Dovre	1988	1998	11	
Dennis Kral	1988		28	p
Tim Bergien	1990	1995	6	t
Ginny Imholte	1991		25	s,t
Dave Cox	1992	1995	4	
Bob Mullikin	1995	2008	14	
Bill Jordan	1995	2013	19	
Doug Friendshuh	1997	1999	3	
Dave Brainard	1999		17	s
Janice Haggert	2005		12	
Bill Wickum	2008	2012	5	
Gary Nansen	2012	2015	4	
Rick Michaelson	2013		4	t
Curt Noyes	2015		1	

**Died during term of office*

Advisory Committee

Minnesota watershed law requires that each watershed district have an advisory committee appointed annually by the Managers. The committee is responsible for advising and assisting the managers on all matters affecting the interests of the District, and to make recommendations to the managers on all contemplated projects and improvements.

As previously mentioned, the Advisory Committee played a key role in formulating the District's 1967 Overall Plan. The committee's membership was comprised of community leaders, many of whom served the district over several years. Indeed, in 1970, three years after the 1967 plan, the advisory committee still included 13 of the original 16 members, and 10 years after that, 11 of the original advisory committee were still members.

The Current Advisory committee numbers eight, and includes representatives from several lake associations as well as representatives of key agencies.

Meetings

Throughout its history, the Managers have held regular monthly meetings. In the early days, 1966 – 1968, the Managers' Meetings were usually held in the basement of the Graystone Manor Hotel. Beginning in 1969, and continuing until 1981, most meetings were held in Rogstad-Cherry dental offices at 1136 Washington Ave. (The District began paying rent to the Dental Building at the rate of $10 per month in 1974, later raised to $30 per month in 1979.)Other meeting venues included City Council Chambers, the County Court House, KDLM, and the Larson Engineering Associates building.

Starting in 1981, and continuing through 1994, nearly all of the regular Manager meetings were held at the Larson Engineering Associates building at 522 Main Street in Detroit Lakes (also known as the Engineer's Office, and Larson-Peterson Associates). Special meetings were held at the Holiday Inn, and at various other public venues.

Some meetings were held in private homes in association with pontoon inspection trips around District Lakes. Office space was provided by Rural Minnesota CEP after 1990.

From 1994 to 1998, the official meeting place was changed to the City Council Chambers in order to provide more access to the public. In 1998, the District secured office space at 801 Roosevelt, and held meetings there until the District moved to its current location in 2008 in the Wells Fargo Bank Building at 211 Holmes St. West. Meetings are now held in the bank's second floor conference room.

Watershed District Plans

Managers are required to prepare, and then operate within, the general framework of their Overall Plan, now called the Watershed Management Plan or the Revised Watershed Management Plan. The law requires such plans to be revised at least once every ten years.

The first District plan was prepared in 1966 and 1967 by the Managers with the direct assistance of an Advisory Committee.

Comprised of a wide range of community leaders, the Advisory Committee included City and County officials, local businessmen and professionals, federal and state officials, lake association representatives, and educators. The committee was divided into work groups which prepared portions of the plan (modeled after existing Watershed district plans). The notes and recommendations for the various parts of the plan were pulled together by Reverend Emerson Harris (Detroit Lakes Congregational church) who wrote the final draft of the plan.

Advisory Committee, 1966-1967

Bill Corwin, Emerson Harris, John Johansson, Tom Keenen, Jr, Winston C. Larson, Duane Lidstrom, Irvin Lidstrom, Frank Long, Mrs. E. S. Lorentzen, Ernest Nelson, Orville Nordsletten, John Pearson, Carl Randolph, Donald CV. Reedstromg, William Reid, Wayne Ruona, Parnell Sanford, J.A. Sauer, Jr, Jack Baker Smith, Jerry B. Stroud, Clem TeVogt, Al M. Ungerecht, Arlo Weimer, A.R. Bergeson, Allan Rice, John Rutledge.

The 1967 plan focused on eutrophication problems of area lakes; it noted the gaps in information and indicated that a principal task of the District would be to conduct basic research and obtain data on the nature and causes of the water quality problems. A hearing was held on October 19, 1967; very strong community support for the plan and District's managers was reported by city and county officials, lake association groups, and other citizens. The County Auditor noted that property values had decreased on those lakes which had deteriorated the most, and that the community would be threatened if steps were not taken to correct the problems. The District's Overall Plan was approved by the State in December, 1967, and served the District for almost 27 years.

Over time, the original plan no longer seemed to serve the needs of the District. For that reason, and in order to comply with State Law, the District began to consider revisions to its management plan in the late 1980's. From 1990-1992 several different drafts were prepared for agency review. In each instance, the draft was found to be deficient in some respect.

In the meantime the District had entered into a Clean Lakes Partnership with the Minnesota Pollution Control Agency, an arrangement that lead to significant improvement in understanding of lake water quality problems and their causes. Therefore, it was decided to postpone the preparation of the District's Revised Water Management Plan (RWMP) until it had completed comprehensive diagnostic study for the MPCA.

Accordingly, in mid-1994, a RWMP revision, bearing little resemblance to earlier versions, was finally prepared and sent to BWSR for review. It reflected major re-thinking of District goals and the status of various programs. It benefited substantially from the completion of a report for a Clean Lakes Partnership which assisted the District in assessing the condition of lakes, identifying certain problems, and the developing of goals, strategies, and measures to address the problems. The new plan utilized a geographic information system (GIS) approach which facilitated data retrieval, mapping and analysis. The plan received expedited review and was approved in December, 1994.

In 1997, the Revised Water Management Plan was amended, mainly to account for the County's assignment of responsibility for four public ditches to the District. The Amendments also enabled the adoption of a new funding approach, charging fees for storm water discharge, a practice which began in 1998.

A complete revision of the Water Management Plan was approved in 2005. This relied heavily upon strategies previously adopted by the District, but added considerable detail in the form of implementation plans tailored to each of eight Lake Water Quality Management Areas.

Aquatic Plant (Weed) Harvesting Projects

Aquatic plant harvesting has been a very important activity for the District, and has consumed a significant amount of time and resources throughout its history. Within a few months of the inception of the District, a petition from Melissa-Sallie residents called for establishment of a project to remove lake weeds. It was conventional wisdom among limnologists of the time that the most practical way of reducing nutrient levels in lakes was to remove plant material (which contains large quantities of nutrients). Indeed, the 1967 Overall Plan prominently featured mechanical removal of excess aquatic plants as a means to address lake "eutrophication". In 1968 the District established the first of three projects (Watershed District Project 1) aimed at removing aquatic plant material from Sallie and Melissa. Originally funded in large part by grant money and donations from the City, County and lake associations, Project 1 operated off and on until 1978. It was succeeded by Project 1a in 1978, and 1b in 1985; successor projects relied heavily upon donations from the District general fund, as well as direct assessment to affected lakeshore property owners.

After several years of systematic evaluation which received national attention from limnologists, research by Dr. Joe Neel (UND) concluded that significant nutrient reduction could not be brought about by harvesting. In the early 1970's the District shifted its harvesting emphasis towards reducing aquatic plants in order to enhance boating and swimming. A Detroit harvesting project (1-c) was established in 1990, with the added control of the exotic plant, Flowering Rush, to its project purpose.

The harvesting projects continue today, but their scope has been considerably narrowed under the direction of Minnesota Department of Natural Resources which has generally discouraged broad applications of mechanical harvesting to lakes. Beginning in 2003, the District began experimenting with herbicides to control Flowering Rush under the auspices of the Harvesting Projects. In 2013, after protracted negotiations with the DNR, and elaborate research efforts by national experts and the Army Corps of Engineers, the District began aggressive control measures using the herbicide Diquat. Control efforts have been widely seen as successful, but research continues on impacts to native plant species.

In 2016 chemical treatment of Curlyleafed pondweed began on Lakes Detroit, Curfman, Sallie and Melissa.

District Engineering and Legal Staff

The District has been served by five attorneys: Robert Irvine (1966-1970), William Briggs (1970-1986), and Charles Ramstad (1986-2011), and later by Lisa Tuffs, and currently by Karen Skoyles. This legal team has provided invaluable on-going service regarding the interpretation of watershed and ditch laws, as well as supervising procedures having to do with creating and implementing projects, and carrying out other business of the District. Only rarely has the District sought some remedy in court, most notably in connection with a breach-of-contract dispute with a dredging company in the early 1980's. Other instances have included condemnation and rules enforcement.

For most of its history, the District's (Head) Engineer was affiliated with the Larson firm (also known as Larson Associates, and later Larson-Pederson and Associates). The record shows that in many ways, Winston Larson, who also served as the Detroit Lakes City Engineer, played a very strong role in shaping the direction and business of the District. Though Larson associates, Peterson and Bakken, served for short periods, Gary Nansen* succeeded Winston Larson after 1986, and was himself replaced by another Larson-Peterson engineer, Dave Grinaker, from 1991 until his sudden death in 2002. He was replaced for a short time, by Larson-Peterson associate Jim Schulz, but since 2003 the District has been represented by engineers from the Wenck Engineering Firm.

*Nansen also served as Manager from 2013-2015

District Administration

For much of its early history, administrative activities, aside from the engineering and legal ones, were carried out by the Managers themselves. In 1974 the District hired high school science teacher, Cal Berman, to supervise the harvesting operations, and to attend to some other details of the operation of the District during the summer months. This arrangement continued until 1982.

Meanwhile, in late 1979, Donald Klomstad resigned as a manager to become the District's Executive Secretary. Paid an hourly wage ($10), he assumed much of the day-to-day administrative responsibility, though Cal Berman continued to supervise the harvesting activities until 1982 when he was succeeded by Morrie Estenson, whose position was often described as "Assistant Executive Secretary" (he later assumed the title Aquatic Plant Harvest Supervisor). Klomstad continued his part-time work as Executive Secretary until late 1990. Peter Waller was named as Klomstad's full-time replacement, and served from 1991 to early 1993.

Dick Hecock was named as the District's full-time administrator effective May, 1993; beginning in 1994, Hecock's position was reduced to part-time at his request. Terry Anderson assumed the duties of Aquatic Plant Supervisor when Estenson retired in 1995. In 1999, Tera Guetter joined the staff as a full-time Assistant Administrator. She became Administrator in 2001, at which time Hecock assumed responsibilities as "senior advisor", continuing in that role until 2013.

During most of the history of the District, secretarial and accounting services were either performed by the Managers or by part-time personnel (sometimes managers' spouses). Joanne Thompson was appointed as a part-time clerk in 1994. After her resignation in 2000, she was succeeded by several part-time office assistants. Denise Baer took over office supervisor and accounting duties in 2001; in recent years the position has been transitioned to Office Manager, currently held by Benda Moses whose duties include a broad range of educational and public relations activities, as well as financial duties.

Brent Alcott joined the staff as Assistant Administrator in the fall of 2014 and oversees the District's water monitoring program as well as a variety of other duties.

Current Full time staff includes Tera Guetter, Administrator; Brent Alcott, Asst. Administrator, and Brenda Moses, Office Mgr.

Dick Hecock takes Concordia College students on a tour of the District.

District Finances

Watershed districts are authorized to obtain general operating funds from an annual tax on properties lying within its boundaries. This taxable amount is based upon the property's value and is limited to 2.4 mills up to a maximum dollar amount (which has changed over the years, but currently stands at $250,000). Actual District general fund levies have usually been in the range of 55 to 80% of the maximum allowed, and in 2006 was 1.9 mills, about 75% of that allowed by state law.

The District may assess landowners for the extent to which they benefit from projects. This option has been used to underwrite many of the costs of the harvesting projects. Landowners deemed to benefit from the harvest projects have usually paid in the range of $50 to $100 per year for harvesting in their lakes.

Managers also may receive funds from grants; over the years, grant funds have been used to support harvesting activities as well as data collection and diagnostic work. For example, in 1974 the District's share of a $75,000 project was $3906. However, most of the cost-share arrangements for state and federal grants have required a 50% match from local funds.

Because of year-to-year variability in funding and expenses, as well as accounting practice changes, it is difficult to make direct comparisons over time. However, anecdotal reports indicate that in the late 1960's, the managers levied (and spent) in the range of $10,000 to $12,000 annually for general administration, with total annual revenues and expenditures around $15,000 (these amounts did not include federal grant funds or donations by the City of Detroit Lakes in support of the harvesting projects).

District revenues and expenditures grew slowly, but steadily; by the early 1980's, the Managers were levying in the range of $30,000 for general operations, with total revenues and expenses about twice that amount. In 1990-91, the operations fund levy was just under $60,000 with total expenses of $195,000, including almost $100,000 for harvesting equipment.

Since the mid-1990's, Managers have adopted an elaborate monitoring program, constructed storm water treatment, and adopted a permit system, among other expensive activities. Funds in the range of about $25,000 per year have been obtained from a special general levy category to pay for survey and monitoring work. Since 1998, a small district-wide fee, ranging from $8 to $40, is charged to property-owners proportional to the amount of nutrients discharged in the form of runoff from their properties. Storm water fees are used to pay for storm water treatment efforts.

In 2005 and 2006, the ad valorem levy for the general fund was just under $200,000 and in 2016 it is at $247,000.

The District updated its Website in 2014. A new platform was built which included technology improvements including data management capabilities. The site is scalable on mobile and website browsers.

The District moved to its current office space in the Wells-Fargo Building in late 2014. The new space is similar to the square footage of the old office space however, the new office provides a monitoring equipment / supply room, a small conference room, an additional office and overall provides a more efficient room layout. There is an elevator in the building, making it accessible to all.

A History of Firsts

The Pelican River Watershed District (PRWD) was the first watershed district in Minnesota whose primary concern was with water quality of lakes. Indeed, PRWD has a history of "*firsts*"! It was the *first* to conduct a scientific study on the role of septic tanks on the pollution of lakes, and the *first* to evaluate the effects of weed cutting on nutrient budgets of a lake. It was the *first* watershed district to assess properties on the basis of recreational benefits. In 1969, it sponsored the *first* statewide conference dealing with lake eutrophication.

Some Major Events in PRWD History

Year	Event
1965	Petition to form District to Water Resources Board
1966	Order to establish PRWD
1967	Completed Overall Plan
1968	Established Harvesting Project, Melissa and Sallie
1969	Sponsored Lake Eutrophication Conference
1974-1982	Cal Berman hired to supervise weed harvesting programs
1976	Spearheaded, and secured funds for, the purchase of Dunton Locks County Park
1979-1990	Donald Klomstad served as District's Executive Secretary
1982-1995	Morrie Estenson is weed-harvesting supervisor
1983	Study of Main District Lakes by Instrumental Associates
1988	Expanded Board of Managers to 7 Members
1989	First Clean Water Grant received
1990	Established Detroit harvesting Project
1991-1993	Peter Waller served as full-time Executive Secretary
1992	Began financial support of Water Watch Program at DL Junior High School and later the Senior High School
1993-2000	Dick Hecock becomes full-time, then half-time Administrator
1993	State designates Flower Rush as a nuisance exotic plant
1994	Revised Management Plan
1994-1999	Built Storm water treatment facilities
1995	Established monitoring program
1995	Terry Anderson becomes Harvesting Director
1997	County assigned management of 3 public ditches to PRWD
1997	Amended Management Plan (to accommodate ditch responsibilities and establish storm water utility)
1998	Established Storm water Utility
1999-2000	Tera Guetter serves as full-time Assistant Administrator
2001	Tera Guetter becomes Administrator, Hecock Senior Advisor
2003	Rules Revised, adopted permit system
2005	Revised Management Plan
2008	Highway 10 Overlook Restoration Project
2010	Flowering Rush Research Begins
2012	Campbell Creek Agricultural BMP's installed
2013	Flowering Rush in-lake operational herbicide treatments begin
2016	Curlyleafed Pondweed herbicide treatments begin
2016	Received $1.5 million in grant funds to complete Rice Like Restoration

PRWD Highlights by Decade

The First: 1966-75

This was an organizational period, marked by enormous outpouring of community support and energy. In addition to the five managers, an advisory committee, comprised of over twenty representatives of city and county government, local business interests, the professions, and lake associations, shaped the District's world view. The Advisory Committee figured prominently in the preparation of the District's Overall Plan, which greatly influenced the program and the strategies of the Managers for over twenty years. Weed harvesting was a major focus of nutrient management efforts, but the District got involved in quite a varied list of other activities.

In May, 1968, in its first systematic data collection effort, the Managers entered into a cooperative agreement with the U.S. Geological Survey USGS) to obtain stream flow and lake level information. In 1969, the District was the host for a Statewide Conference on lake eutrophication that brought experts from all across the nation; this quickly stimulated a series of research efforts aimed at understanding nutrient budgets and hydrology, the efficacy of weed harvesting, and the impact of septic systems on lakes. These efforts, funded to a large extent by federal grants and led by Dr. Joe Neel of University of North Dakota, also spawned numerous masters and doctoral theses.

Near the end of the first decade, the District advocated for the diversion of Detroit Lakes sewage effluent from the Ditch 14 system, plans were laid to upgrade the City of Detroit Lakes sewage treatment plant, and to secure funds to evaluate the impact on downstream lakes.

Throughout this period, nearly all of the administrative activities were performed by Managers, though Cal Berman was hired in 1974 to supervise summer weed harvesting operations and to perform other tasks assigned by the Managers.

The Second: 1976-85

During this period limnologists rapidly improved their understanding of the nature and extent of lake problems, causes, and solutions. Managers in turn expanded their own data collection efforts (the first comprehensive assessment of all the major District lakes was completed in 1983), but they struggled with consideration of numerous competing and expensive suggestions for addressing lake problems. Among other things, dredging of nutrient enriched sediments (on lakes St. Clair, Muskrat and Sallie), and upstream dams (including one at Rice Lake) were given special attention.

Early in the decade, Managers also negotiated the purchase of Dunton Locks park. In 1976, the District secured funds from the USGS for a $30,000 study of the impacts of the new sewage-treatment plan on downstream lakes by Joe Neel. Later the managers pressed for the expansion of the Detroit Lakes sewage system to include more lake residents. They also supported and permitted the construction of three ball fields on the Pelican River floodplain in the DL industrial park. The weed harvesting project was re-authorized for $60,000 in 1977, but the nutrient reduction rationale was abandoned.

Flowering Rush was first identified in the mid-1970's in Deadshot Bay; the plant subsequently spread through Detroit Lakes, and down the Pelican River to Muskrat, Sallie and Melissa. For several years the District attempted to control this exotic plant with various herbicide and mechanical treatments.

The District hired its first employees to undertake harvesting activities in the late 1960's, but it was only in its second decade that it turned most administrative activities over to staff. Donald Klomstad began service as Executive Secretary in 1979.

A project undertaking the dredging of the Shoreham channel between Melissa and Sallie, and the sandbar channel between Little and Big Detroit was established in 1981. The District eventually became embroiled in a legal battle over a contract default; the dispute was eventually resolved in the District's favor, and the dredging was completed.

The Second: 1976-85 (continued)

Since the District's overall plan had not been given a ten-year update, the Managers received some pressure to revise its overall plan early in 1981, and again in 1982, but took no action. Though the Managers often advocated for the enforcement of other agencies rules, it is interesting that the District had never adopted its own Water Management Rules in accordance with Watershed Law. Legal counsel also brought this deficiency to the attention of the Managers on several occasions during this decade.

The Third Decade: 1986-1995

In 1988 the District's Board of Managers was expanded from five to seven members in response to a County Board decision to give more representation to agricultural interests.

Don Klomstad left the position of Executive Secretary in 1990. He was replaced by a full-time Executive Secretary in 1991, Peter Waller, who was in turn, succeeded by Dick Hecock, who became administrator in 1993.

The harvesting projects, and related aquatic plant management activities, continued to occupy a central place in the District's thinking during this period. The Sallie-Melissa project had been reauthorized in 1985, and the Detroit project began in 1991. For several years harvesting was tried on Deadshot Bay. In the meantime, Flowering Rush became increasingly problematic. From 1986-1991 various herbicides were tested, and handpicking of flowers and hand-digging were also tried. Eventually the DNR included Flowering Rush on its Exotic Species List, and promulgated a management plan, which featured mechanical harvesting.

During this decade the Managers reviewed quite a broad range of actions or proposals (boat ramps, silt basins, retaining walls, animals in waterways, and special runoff situations), but it was not until 1991 that it adopted its first Water Management Rules in accordance with the Watershed Law. The Rules were controversial, especially so a general permit requirement which elicited strong opposition especially from the City of Detroit Lakes. The new Rules also required a special permit for land application of septage. Towards the end of the period, the permit system was determined to be too broad for consistent enforcement, so the rules were significantly revised, eliminating the permit requirements.

Early in the period nutrient reduction discussions centered on Muskrat, St. Clair and Rice Lake – proposals included aeration, alum treatment, stream and ditch diversion, and wetland enhancements, but no action was taken on any of them. In 1987, taking advantage of a federal "Clean Water" funding opportunity, the District began a partnership with the Minnesota Pollution Control Agency. A *Clean Lakes Diagnostic Feasibility Study for Detroit and Sallie* was funded in 1988. Several years of data collection and analysis lead to a 1994 report. Subsequent funding was approved for implementing nutrient-reduction recommendations based upon that report. The District's formal and ongoing monitoring and educational programs also grew from these recommendations and the funding.

The District embarked on a program to develop a greenway along the Pelican River. One 14-acre river-facing parcel near highway 34 was obtained, but the Managers failed to take action on an offer from Burlington Northern to sell their abandoned right-of-way along the river south of Highway 10.

Throughout the period Managers had been reminded of the need for revising the District's overall plan in accordance with Watershed Law. A first draft submitted in 1990 was not approved; after several more versions, a Revised Plan, incorporating a broad range of initiatives which included education and monitoring as well as nutrient reduction, was prescribed by BWSR in late 1994.

In December, 1995 the District was honored as the ***Outstanding Watershed District of the Year***, by the Minnesota Department of Natural Resources.

The Fourth Decade: 1996-2005

During this period, research ascertained strong links between impervious surfaces and lake water quality. At the same time, a greatly expanded set of options for storm water treatment became available. The District response was to re-double its efforts to obtain the detailed data required to efficiently control upstream nutrient sources.

By 1996 the District had implemented a monitoring program designed to (1) provide base-line water quality data on streams and lakes, and (2) assist in the diagnosis of specific water quality problems. Student interns were employed to gather and analyze the data; a cooperative arrangement was established with the City's water quality laboratory which processed water samples to determine their phosphorus and sediment contents.

With technical support from the DNR and PCA, District staff began to compile annual discharge and loading files on nine stream sites as well as some special analyses of storms and other events of hydrologic significance (water levels were unusually high during this period, with recorded levels reaching an all-time high in the spring of 1997). Among other things, this work led to the suspicion that wetlands generated significant downstream seasonal loadings of bio-available ortho-phosphorus. Intensive studies in wetlands adjacent to Ditch 14 and in the Rice Lake area confirmed the suspicion. The solution to the wetland phosphorus discharge problem was more elusive.

District Staff characterized water quality initially on eight lakes, and later on 17. With assistance from private consultants and MPCA experts, detailed assessments were undertaken on lakes Detroit, Muskrat and Sallie. A special study also was completed on Long Lake to determine the cause of an alarming decrease in transparency (it appears that it was simply a cyclical episode). An enhanced water quality assessment of Sallie, involving raft-mounted sensors, obtained detailed information concerning within-lake phosphorus dynamics.

As it became clear that shoreline conditions impacted lakes, in 1997 the District began to study shoreline modifications on the major lakes.

Recognizing the importance of Muskrat Lake as a nutrient source for Lake Sallie, in 1998 Managers authorized a bio-manipulation project to increase Muskrat's uptake of phosphorus. This involved an attempt to alter fish populations by cutting "cruising" lanes in thick weed beds (to enhance fish predation).

The Managers continued to place a heavy emphasis on education, through the prize-winning Waterwatch program which had been established in 1993, as well as participation in other school and community initiatives, most of which are continuing.

The Northeast Detroit Lakes storm water plan, the result of a multi-jurisdictional task force, resulted in the construction of three large storm water detention facilities in the late 1990's.

The District once-again turned its attention to upstream sources of nutrients, particularly the Rice Lake area and Campbell Creek. Both were known to be major sources of nutrients and sediments, to Detroit Lakes, and Floyd Lakes, respectively. A Comprehensive plan for the Campbell Creek subwatershed was prepared and several upstream management practices were undertaken.

A major accomplishment was the use of alum to deactivate phosphorus in St. Clair lake. The 1998 effort accomplished its major purpose of reducing downstream phosphorus loadings to the Pelican River (and eventually Muskrat and Sallie). Several major storm water detention basins were constructed to intercept storm water to the Pelican River, Ditch 14 and Long Lake.

Owing to a change in Watershed Statute, a storm water utility was adopted in 1998. Funds obtained from storm water fees were used to pay for various storm water treatment projects; options were greatly expanded to include not only traditional detention and retention systems, but also adoption of non-traditional building techniques and materials, and new runoff-control approaches.

Long threatened and long delayed, from 1997 to 1999 the responsibility for public ditches 11,12, 13 and 14 was transferred from County to the District in accordance with provisions of Minnesota Ditch Law.

The Fourth Decade: 1996-2005 (continued)

Harvesting projects continued but generally received lesser attention from the managers. Much of the responsibility of setting priorities and running the projects was given over to harvest subcommittees for each project (Melissa/Sallie and Detroit). Under pressure from DNR, the focus turned from removing "weeds" to providing reasonable navigational and recreational use. And though some record harvest totals were observed during this period, this appeared to be linked to infestations of Curly-leafed pondweed, another exotic specie.

Meanwhile, towards the end of the period, it became apparent that DNR's Management Plan for Flowering Rush was ineffective in controlling the spread and growing nuisance of flowering rush. The recognition led to a return to experimentation with herbicides (an approach that had been abandoned in 1990).

In 2001, part-time Administrator Hecock was replaced by his full-time assistant, Tera Guetter. Under her leadership, the District became affiliated with the U.S. Natural Resources and Conservation Service, and the Agricultural Research Service which provided technical assistance in further assessing the issue of upstream loadings from drained wetlands. This partnership resulted in specific plans and rationales to undertake modifications of the drainage through the Rice Lake wetland in order to reduce discharges of bio-available phosphorus to Detroit Lakes.

In 1998, the District had tightened its rules with respect to point and non-point nutrient discharges and other problematic water quality practices. In 2002, it again overhauled and further strengthened the rules; a permit system for very limited situations was re-instated. Once again some other governmental officials objected to the new procedures, but few problems were encountered in their implementation.

In 2005, PRWD's 3rd Revised Management Plan (RMP) was developed and then authorized by the Minnesota Board of Water and Soil Resources. It featured a "two-tier" strategy in which some actions were undertaken throughout the District and some were targeted for specific subwatersheds, called Lake Water Quality Management Areas. The former category included specific tasks in education, monitoring, regulation and enforcement, shoreline restoration and buffering, lake management planning and septic system management. For each of eight Lake Water Quality Management areas (LWQMA's), specific water quality goals were established, and tasks were assigned to achieve the goals.

The RMP also outlined an implementation strategy including an enumeration of methods for carrying out the District Basic Water Management Project – to improve lake water quality by reducing nutrient loadings to District Lakes. The timetable for implementing the specific tasks was left to annual work plans in which Managers undertake a comprehensive review of District activities for the completed year, and authorize a work plan for the next year.

The 2005 RMP also described the means for financing the plan's implementation which include district-wide tax revenues (ad valorem, and stormwater fees) and projects based upon LWQMA's to be funded by assessments. Grants were expected to be used to supplement these revenues.

The District permits major construction sites such as the Washington Avenue reconstruction and the round-about on Hwy 59, as well as shoreline alterations, including necessary ice heave repairs.

The Fifth Decade: 2006-2015

The decade began on a high note with the Award by the Minnesota Department of Natural Resources as "2006 Watershed District of the Year". Another noteworthy honor during this period was the 2011 receipt of an "Exemplary" commendation for high performance standards as a result of a review of District procedures by the Minnesota Board of Water and Soil Resources. The commendation is summarized:

> ***"PRWD combines all the major elements of good watershed management in one organization: a set of bold measurable goals for the district's lakes, aggressive implementation, consistent monitoring, and readjusting of process and effective synergy between a committed board of managers and skilled staff members."***

The decade was devoted to the implementation of the 2005 Revised Management Plan (RMP). As noted previously, each year's work plan reviewed each component of the RMP, assessed the progress towards goals, and outlined a current-year program for making further progress in reaching the goals.

More specifically, education, monitoring, regulation and other district wide plans led to:

- Increased support for education through sponsorship of water festivals, environmental education, COLA, brochures, social media, website training programs, as well as lake association and classroom assistance
- Enhanced, and more targeted monitoring program with an emphasis on upstream nutrient sources and special water quality problems; added shoreline surveys and boat and dock counts
- More consistent and timely permitting and regulatory enforcement of District Rules; promoted streamlined permitting with County and City;
- Initiated cost-share program for shoreline buffer establishment

Specific Lake Water Quality Management activities included:

- Planned and secured funding for completion of the Rice Lake Nutrient Reduction program in the Detroit-Rice LWQMA
- Shoreline restoration and habitat protection projects, vegetation management plans, as well as Flowering Rush and Curly-leaf Pondweed control and research on herbicide impacts on native vegetation in the Detroit, and Melissa-Sallie LWQMA's
- Reviewed existing septic practices and alternative approaches, conducted Ditch 14 hydrology research, and assisted in preparation of the St. Clair TMDL plan in the Melissa-Sallie LWQMA
- Completed Pearl Diagnostic Plan in the Loon-Pearl LWQMA
- In the Campbell/Floyd LWQMA, there was enhanced monitoring and diagnosis of Campbell creek sedimentation; preparation of agricultural best management practices plan; expanded monitoring of North Floyd and Little Floyd, and advocacy of septic inspection program on all Floyd shorelines.
- Identified Wine Lake as impaired; recommended for TMDL listing in Brandy LWQMA

The Fifth Decade: 2006-2015 (continued)

The fifth decade marked a shift from harvesting to herbicide methods of controlling Flowering Rush. In this endeavor, the District worked with nationally-recognized scientists, and joined in a cooperative effort with the US Army Corps of Engineers to identify appropriate herbicides. As noted above, research efforts continue on the habitat impacts of chemical control efforts.

Though the District has been heavily involved in aquatic plant management and attempts to control aquatic invasive species for much of its history, this latest decade witnessed a renewed emphasis on such matters. With the rapid spread of zebra mussels, flying carp, Eurasian watermilfoil in Minnesota, PRWD joined other organizations in work aimed at preventing the spread of more invasive species to District Lakes. PRWD staff were instrumental in the conduct in Detroit Lakes of two statewide AIS Summits, which are widely credited with generating statewide legislative support of direct funding for prevention programs. Subsequently, Administrator Guetter took leadership roles in both County and State AIS prevention programs.

In addition, in 2010 the District inaugurated a District-wide Project (LMP-01) to address AIS issues; under the auspices of MS 103D.905, Subd.3, money raised from the 15-year project is used to underwrite research, education, treatment and management of aquatic invasive species.

Tera Guetter continued her work as administrator throughout the decade. Dick Hecock gradually reduced his advisory role until 2013, when he retired altogether from regular PRWD responsibilities. In 2007 a full-time water resource technician was employed to direct monitoring and other activities; she was replaced by Jon Staldine in 2013, and by Brent Alcott in 2014, who currently oversees monitoring and acts as Assistant Administrator. Also in 2013, Brenda Moses joined the staff as Office Manager; included in her job function are finances, as well as education and outreach activities.

The District continues to hire college students, enrolled in environmental sciences, to assist with water monitoring each summer. These students have also been involved with Flowering rush core sampling, shoreline surveys, data reporting, education and other district activities.

During this period, Consulting Engineer Rod Ambrosie was succeeded by Marlon Mackowick, both of Wenck Associates. In 2011, having served as the PRWD attorney for over twenty years, Charles Ramstad stepped aside and was replaced by his colleague Lisa Tuffs, and later by Karen Skoyles, of the same law firm.

As the fifth decade ends, District staff and managers are in the midst of preparing the next Revised Management Plan. Progress on the previous one has been considerable, and will be reviewed in detail as required by Statute. The two-tier strategy seems to have been helpful in shaping District tasks, and will be preserved in the new plan. An added dimension will be that PRWD's RMP will be developed in such a way as to fit into broader watershed goals as mandated by recent state laws.

In 2013, managers, staff and local citizens came together to clean up the Pelican River in an effort know as "Purge the Pelican". Loads of branches and other debris were removed from the river as shown below.