Is Lake Kampuska Dying?
If it is, what should we do about it?
Lakes age naturally, but we're speeding up the process

The death of Lake Klamath would be an unimaginable disaster. No fishing, no swimming, bays and coves closed all summer, drinking water doused with chlorine until it smells in the glass. Beaches deep in rotting algae, dead fish, poisoned ducks and geese.

Instead of being our most valuable asset, it would be a hotheaded thing touching us all.

**Lake dead by 1999?**

The time of Lake Klamath's doom has been fixed as early as 1990, not much more than 20 years from now.

This horrible vision is hard to believe.

The people who hold it are experts, but there are others just as expert who are confident the lake will never be much different than it is now.

The people served by the Public Opinion have a big stake in the health of Lake Klamath. If the lake is going to be dead by 1990 they ought to know why, and what can be done about it.

If it isn't going to die they ought to know that too, so they can stop worrying.

Lake Klamath has been churning in its basin for 3,000 years, a very short time as the face of the earth goes. The rock beneath it is a billion years old. The lake was gorged out of the earth by a glacier whose melting ice filled it with clear cold water. At this point Lake Klamath began to die.

**Nature builds her lake**

All lakes die a slow natural death. They start life as wetty deserts. There is no life in them. But rains slowly wash plant foods and tiny plants and animal organisms into the lake. The water churns and becomes aerated, filled with oxygen necessary to sustain life. As each tiny organism dies it settles to the bottom and further fertilizes the lake. Fish and seaweed-type plants appear. These, too, die and enrich the waters.

Slowly the lake fills up and the live and decaying plants and fish rob it of the very oxygen they thrive on. The species that lived in clear, cold water, the "sport fish" like the walleye and trout, disappear and are replaced by the less desirable fish, like carp and buffalo, that can tolerate the new conditions. The water is more shallow, warmer and less rich in oxygen.

Eventually, after millions of years, the lake food disappears and becomes a bog.

**Pollution main problem**

Nobody believes Lake Klamath will fill up and become a bog in 20 years. But there is another way for a lake to die. It can die by becoming so polluted the people who live around it can’t use it.

Lakes become polluted naturally. The lack of oxygen that characterizes their aging process is a result of pollution by the nutrient chemicals compounds or natural fertilizers that the rains and streams carry from the land to the lake. These nutrients feed the aquatic plants that in turn use up the oxygen.

Man, however, is the prime polluter. When he establishes his civilization, agricultural or urban, he starts doing things that speed up the lake’s aging process, hastening its natural death.

Nobody knows for sure, but the best estimate available now is that man is aging Lake Klamath at 300 to 500 times its normal rate.

If the lake is aging at 300 times its natural rate it will be a bog in just 2,000 years, a long time, perhaps, but it means that it would be a bog now if it had been under this same pollution pressure at the time of the birth of Christ.

**Algae defined**

Meanwhile the symptoms are the main concern of local and state pollution control experts. The growth of algae which rains the fun at our beaches is the number 1 culprit.

What is causing the algae growth?

Like another lake pollution problem, that of pesticides, algae is a post-World War II phenomenon. Household detergents put on the market then are the main culprit. The effect of detergents was first noticed more than five years ago when lake residents were upset by scaling along the shore.

Detergents manufacturers have responded by introducing "soft" or biodegradable detergents that lose their cleansing ability more quickly than the old kind. But the new "soft" detergents are no better than the old "hard" ones when it comes to promoting the growth of algae. Detergents are 70 to 80 per cent phosphates. These phosphates are fertilizers and they fertilize the algae.

Simply by throwing away all our detergents and going back to soap will not solve the present algae problem. It will only prevent it from getting much worse. Once the algae starts to bloom it resurges itself annually, even without more man made phosphates in the water.

**Silt destroying lake**

But there is another problem, that of silt. Sedimentation in Lake Klamath in addition to that from shore erosion, occurs with flood waters down the Big Sioux River. It has been estimated that six inches of silt could have poured into the lake during the recent spring flooding.

This silt is what has given the lake a cloudy, dirty look. There is sufficient silt already in the lake to cause the water to be turbid (cloudy), and this condition would exist even if no more silt were to enter the lake.

However, can we afford to have this silt fill in our lake? Commercial fishermen quickly recall huge rock beds they had to avoid when netting a few years ago. Now this same rock area has been filled with silt.

**Additional problems**

Wastes from fertilizers, improper or excessive use of pesticides and fertilizers, human wastes, careless disposal of trash and junk are among the many other causes of water pollution.

So is Lake Klamath dying? This question has no simple answer. But almost all the pollution, turbidity and siltation experts agree the lake has its troubles and that some are going to get worse before they get any better.

This special section on Lake Klamath will take you back through the years . . . when one could see scappy game fish darting along the bottom in 10 and 20 feet of crystal clear waters . . . when celery beds were bountiful and ducks and geese plentiful . . . when one could scoop up clear cold water for a refreshing drink anytime of the season . . . all before the days of commercial fertilizers, pesticides, feedlots, motor boats, detergents and the careless ways of man!

And we'll attempt to answer a few questions and present specific recommendations that professionals dedicated to "Saving America's Small Lakes" have suggested.
At the turn of the century Lake Kampska was the most popular resort area within hundreds of miles. It was known as the Lake Minnetonka of the west. And the center of all fun revolved around the summer playground of the upper midwest, Stony Point. Started from a boxcar in the 1880's by C. M. Williams, the Point progressed and expanded and became the hub of activity. Reaching its peak in 1937 after the drought years when an estimated 70,000 visitors gathered to watch the colorful Corn Aqua Festival. But Stony Point was just one area of fun and frolic. The M & St. L. Railway ran shuttle trains on and from the Outlet each Sunday during the summer months. And there was the romantic steamboat providing inspiring tours of the lake. The old side wheeler was an imposing sight when, loaded to the gunwales, it would plow Merrily up the lake, its smokestack belching black billows of smoke and its paddle churning the water into white froth as the paddle wheel progressed up the lake.

In 1923 the American Legion erected this marker commemorating the first Watertown site, and the pioneer Tarbell Drug Store. The marker is of "hard-heads" selected from the vicinity, except the same slate, which is Millbrook granite. The square stone close to the top was used in the construction of the original court house. The marker is near the north end of City Park.

Original site of Tarbell Drug Store

LAKE KAMPSKA, WATERTOWN, S. D.

StellaMaec
This motor launch was brought to Kampska from Wright's Lake in 1928 by W. T. Williams. The cost was $1,000. The Watertown Band would play on deck, and the journey would take excursions from around the lake for 34c per person.

Kampeska Belle
Constructed by Charlie Burner's father in 1891, this steam craft was 42 feet long, 10' wide and carried 120 people. Around the turn at the center of the water, the side-wheeler had trouble with low water and blew up.

Toboggan Slide
The work of a local carriage maker in 1904, it was the attraction of Stony Point until the storm of 1908 took it down. Each ride was 15 cents and one would carry it up and slide down the 27' high slide. All for only 3c an hour.

Stony Point
The playground of the upper midwest for over 50 years. Many ex-owners flock in from hundreds of miles to enjoy the carnival like atmosphere at this famous resort.
Indians had strange legend about Lake Kampeska

Braves threw stones to win maiden

The rising water in Lake Kampeska has almost submerged famous and historic Maiden's Island, a huge isle of rock whose history dates back years before white men came to this country. Only a few of the larger boulders are now visible since the lake rose more than 60 inches this spring.

Each year hundreds of persons who stand on the high hill at Stony Point look down upon the rock island, several hundred yards from shore, and wonder what freak of nature was responsible for the formation.

Legend of the Sioux

Scientific explanations vary widely but Indians have a legend which has been passed from generation to generation. According to the Indian tale:

Long ago Oconeec, young Assiniboine brave and son of the chief of the tribe, won the love of the daughter of the chief of the Teutos, who lived on the shores of Lake Kampeska. On their bridal night an enemy tribe, the Wahpetons, attacked and Minnecottah, the bride was captured.

Oconeec and his tribe fled westward to the Missouri River.

Stone island formed

Young braves of the Wahpetons could not agree among themselves who would have the fair Minnecottah as their bride, nor could she indicate a choice.

Finally she told the braves whoever could hurl a rock the farthest into the waters of the lake might have her hand. The braves were eager in their response, hurling golden boulders into the lake.

After days and nights of throwing, the braves saw through the wild diplomacy of Minnecottah. No one could judge the distance because of the waves. But the many rocks hurled into the water formed a stone island.

As punishment, Minnecottah was placed on the black island without food or shelter and told she must remain there until she could make a choice of the braves for a husband. Warriors kept a vigil day and night.

Left to die

But it was of no avail. Minnecottah remained constant to her absent lover. The braves would fly into a passion and say, "Here you shall starve upon the rocks and we will remain to see the cattle hawks pick your bones."

But the maiden was not troubled with their threats of starvation for it so happened that a great pelican had built its nest in a large cove among the stones on the sacred island and hatched out its young. It would only come at night with its great pouch filled with fish. Then Minnecottah would select a small portion of the best fish for herself and give the remainder to the young birds.

Lover returns

She lived on the fish until Oconeec returned, learned of her plight and rescued her by quietly padding his canoe to the far side of the island and making good his escape.

In the morning the braves found their prisoner gone, but were not greatly excited. The great white bird, they thought, had carried Minnecottah away to the happy hunting grounds.

Naming of Kampeska

"The lake of the shining shell"

The word Kampeska is Sioux Indian and means "bright and shining," like a "shell or glass." In the early days it is recalled hearing the lake referred to as "The Lake of the Shining Shell," from the many fresh water clam shells washed upon the beach of the lake. These may still be picked up at certain seasons.

No definite information has been located as to when and by whom the lake was named. Information from the Library of Congress indicates that the lake is shown on several maps as early as 1848, but unnamed.

Named after Indian

It apparently was included in the cession of lands by the Yankton Sioux under the treaty of April 19, 1858, the Library states. On Niolett & Fremont's map of 1842 it is called L. Kampeska.

Among the list of Indian names appearing on written documents captured after the massacre of August 18, 1862 was that of Kim pes Kaa.

Beach Styles of 1890's

The latest mode for swimmers in that long ago day when this picture was snapped at Lake Kampeska. Standing, left to right - Mrs. J. H. Seabass, Mrs. Fred Smith, Mrs. Roy Klemperer, Frank Brecken, Mrs. Thomas Mahoney and Mr. Mahoney and sitting John St. Letheman.
Excursion train from Chicago to Lake Kämpfeka in 1873

Congrations passed a land grant bill in 1877, which gave a certain amount of land for a railroad from Winona, Minnesota to a point on the Big Sioux River. At this time, Minnesota was a territory and all of Dakota east of the Missouri River was a part of that territory.

In the fall of 1863, a party of young men of an adventurous and enterprising disposition journeyed overland to Lake Kämpfeka, and took up land immediately surrounding a portion of the lake. The railroad was built to this point by the Winona & St. Peter which was completed in 1873.

It is believed that only one train actually reached Lake Kämpfeka in 1873.

Rich men from Chicago

To demonstrate that the railroad had been built and was therefore, entitled to its promised land grant, and to popularize the line, an excursion train left Chicago on Monday, September 15, 1873, with some of the wealthiest men of Chicago, together with their wives. Other prominent persons were invited to join the party as the train passed through Winona enroute to Kämpfeka.

It was a superb train, consisting of four Pullman palace sleeping coaches, the President's special car, a commissary and baggage car.

The party enjoyed breakfast in Devil Lake, dined at Winona and reached Lake Kämpfeka, Dakota, 651 miles from Chicago, on Wednesday morning, September 17 for a picnic breakfast.

Great fishing in Kämpfeka

After breakfast the members of the party immediately brought out their fishing tackle, and soon the banks of the outlet were lined with fishermen. The catch was large. In a few minutes they had more fish than they knew what to do with. The entire party was greatly pleased and made a very favorable report on their visit to this new Dakota country.

The railroad company having thus technically complied with the terms of the land grant, seemed for a time to lose all interest in this end of the road, and for five years from the time that excursion train left Lake Kämpfeka, the Indian and buffalo were not once disturbed by the wild screams of the iron horse.

1908 saw organization of summer Chautauqua at Lake

The summer Chautauqua, long a popular and perennial institution brought a combination of entertainment and education to crowds filling its circus-type tent. Organised in 1908 it passed from the scene almost 45 years ago. But for many years it was as regular as the season and made available a notable array of what was termed "high class" musical entertainers, orators and lecturers. The Chautauqua "grounds" were established on the hilltop on the north side of the lake. One of the speakers at the first Chautauqua, a Dr. James S. Meyers of St. Louis, predicted to his audience that within a few years an electric railroad would extend all the way around Lake Kämpfeka and that the shore would be lined with cottages. The latter part of this prediction was correct.

"One of the most beautiful sheets of water to be found on this continent."

"The gem of all small western lakes."

Railroad to Lake

This was the locomotive on the "Bill" McKerrow line to Lake Kämpfeka. It preceded the present municipal golf course at the top on the eighth and fourteenth holes.

National Guard at Lake 1906

Waves Watertown galleries gave struggle to overcome books or sticks and then sifts look for tail curls in the north when they left, none as should be found on Camp Rice, the state camp of the 44th drill regiment. Camp Rice was the home of the E. D. Waterman Grand Or the shores of Lake Kämpfeka and Municipal Golf Course.
3 Catastrophies Of Kampska

1. Devastating storm of 1914

The worst storm ever to hit Watertown struck late in the evening of June 23, 1914. The tornado roared out of the west, claiming lives, property, and everything in its wicked path. Seven to eight inches of rain poured down the Big Sioux River bringing with it dogs, cats, livestock, fence posts and debris of every description. When this “powder-keg” of water hit the fishway dams north of Sioux Falls they were knocked out, never to be replaced. These dams were constructed to keep scavenger fish, like carp and buffalo, out of the Big Sioux from their home in the Missouri River. Shortly, these rough fish were making their first appearance in Kampska. Within three years the celery beds disappeared. The infestation of carp removed one of our last means of oxygenizing the water and offering protection for young game fish.

2. Sludge from filtration plant

The original Water Works System was constructed in 1888. The photo at left was taken during construction. In 1908 the plant was purchased by the Watertown Water Company, the City Utilities of today. A few years later upon inspection by the State Health Department, it was requested the city construct settling beds so the sludge could be piped to these beds instead of back into the lake upon completion of water filtration. The City Council was short of money back in those days, but informed the state health inspector if he would approve the filtration plant they would construct the settling beds within three years. He consented. However, not until 1966, some 50 years later, was this agreement satisfied. In the meantime 80 tons or more of sludge has been pumped back into Lake Kampska annually over these past 40 to 50 years.

3. Dry years from 1929 to 1937

The “dusty thirties” were not only depressing and financially embarrassing, but proved to be particularly damaging to Lake Kampska. The almost daily dust storms which prevailed for nearly ten years from the late twenties to the middle thirties added stratum upon stratum of silt to a once rocky and sandy basin. Then the winter snows of ’37 and the terminal spring rains fed the Big Sioux watershed area for what was to be one of the most devastating floods in our history. The rushing waters brought tons and tons of silt pouring into Lake Kampska. From a record low in 1936, the lake responded to a near record peak in the early summer of 1937. But from that time on . . . the clarity and overall depth of Lake Kampska would never be the same.
History of "tampering" on Sioux River

River covers 210 miles

The Big Sioux River is 210 miles long with a maximum width of 73 feet. A tiny trickle at its source, scarcely 30 miles north of Watertown near Summit, it stretches along eastern South Dakota finally emptying into the mighty Missouri just above Sioux City, Iowa.

Tampering dates back 70 years

The first reported "tampering" occurred sometime prior to 1900 when a mill dam was constructed. This dam was located at or near the mark designated "A" on the sketch above.

In 1918 construction started on several structures near point "B". The south channel was diked off. A low concrete weir was constructed in the north channel and a swinging grill was hung on the weir. The river channel east of this lake was then dammed.

In the spring runoff of 1929, an ice jam at the concrete weir prevented water from going through the north channel, and the lake and dam were considerably damaged. After trying to keep these structures in repair for a couple of years, this system was abandoned.

Rock dam built

In 1932 a rock dam approximately two feet high was constructed at point "C". This served to raise the lake level and to force more water into the lake.

Channel dug for Muddy Creek

In 1933 Muddy Creek was blocked at point "D" and a channel was dug from the upstream side of this block to the Sioux River. This channel does not change the normal level of the lake.

In 1941 a sheet piling dam was constructed across the Sioux River at "D". The crest of this dam was about 2½ feet higher than that of the previously constructed rock dam. This sheet piling dam forced more water into the lake and also raised the normal level of the lake another 2½ feet.

Dam cut down one night

It was reported that the dam was "modifi ed" by six inches one night in 1954 by a group of lake property owners who objected to the high water level. This stirred up a racket that still echoes today whenever the level of the lake is discussed.

Muddy Creek blasted

Members of the Upper Big Sioux River Flood and Pollution Control Association (organized in April, 1969 by Kampeska property owners) reopened the natural waterway on Muddy Creek by blowing up May 3, 1969 to further relieve flooding conditions at the lake. Two cases of dynamite were used to reopen the blocked area at point "C".

Projects built during drought

It should be remembered that in spite of all these efforts to raise (or lower) the level of the lake, that the water level is governed by the water table elevation of the Big Sioux River Valley ground water.

Aquifer governs level of Lake

There is no real solution for the variations in lake level without considering the ground water aquifer as part of the lake. Whenever the lake level is above the ground water table, the lake water seeps into the ground water aquifer. Whenever the ground water table is above the lake elevation, the ground water seeps into the lake. The transfer from the aquifer to the lake is a continual adjustment towards equilibrium conditions to adjust the lake level to the elevation of adjacent ground water table.

Surface water diversions like those identified in the sketch above help when lake levels are low, since this provides more water and additional time for entry of water into the aquifer. But they are not a permanent solution to the problem of lake level and situation.
Vital records concerning Lake Kameska and historical weather charts 1892 to 1969

LAKE KAMESKA...a natural lake of glacial origin...13.02 miles of shoreline...14 miles around lake drive...4.8 miles long...2.4 miles maximum width...69,106 total shoreline feet around lake...58,936 shoreline feet of private ownership...10,164 shoreline feet of park and public lands...4,997 acres of surface water...17,921...805,000 total gallons of water in lake when full...13,700,000 gallons evaporates on hot summer day...1,250,000 gallons pumped out of lake at filtration plant each 24 hours...$2,612,295.00 property valuation around lake...371 homes around lake...310 of which are year around homes...1,024 people live at lake year around...9 commercial firms...18 house trailers...2 farms on lake.

27 inches of snow Jan. 1916
all time record snowfall

Lake freeze-up and ice break-up records

- Earliest lake freeze-up...November 3, 1951
- Latest lake freeze-up...December 14, 1968
- Average date of lake freeze-up...November 14
- Earliest ice break-up...March 18, 1910
- Latest ice break-up...April 28, 1965
- Average date of ice break-up...April 8

"Dip stick" used to measure water level at Watertown Filtration Plant

Lightning fast ice boats racing in rare blizzard across Lake Kameska in early years of teens.

Water Level Fluctuations in Lake Kameska 1928-1969

Lake Kameska is considered "FULL" At 1720 Feet.
42% of fish are Buffalo and Carp

Lake Kameska has never been noted for “fast” fishing. But each spring it is one of the truly great Walleye lakes in the country.

True, the thrill doesn’t last long. But limits are the rule. The weights range from ½ to 4 pounds.

Why is the action so short lived? The lake is infested with a huge population of carp, buffalo and suckers which tend to keep all rooted aquatic vegetation from becoming established in the lake. The presence of large numbers of carp undoubtedly are factors limiting game fish production. They destroy the eggs and spawning places of more valuable fish. Fishing is America’s most popular sport and Kameska should and could be a natural attraction for sportmen and their families from hundreds of miles around.

Approximate percentage of each species in Kameska

Test settings have taken place of Kameska for many years. The following percentages are estimated of fish population in Kameska. Carp, Buffalo and Suckers are the main targets in trap net. They are principally more numerous than the % indicated.

- WHITE BASS .... 7%
- YELLOW PERCH .... 3%
- COMMON Sucker .... 16%
- WHITE CRAPPIE .... 1%
- BLACK BULLHEAD .... 13%
- NORTHERN PIKE .... 1%
- WALLEYE PIKE .... 8%
- ROCK Bass .... 4%
- BLUE GILL .... 14%
- CARP .... 7%
- CHANNEL CATFISH .... 1%

Fish sticks made from Lake Kameska Carp

Have you ever cooked up a frying pan full of frozen, sliced, “fish sticks” or “Friday Franks”? Well, then you are probably one of millions who has said how delicious “Kameska Carp” can taste when prepared properly and without knowledge of what you are eating.

What is carp? Cyprinus carpio. He has a distinguished Latin name, but he’s lacking piscatorial quality.

A yellowish-brown, red-framed, sucker-mouthed member of the minnow family. He’s not the most streamlined fish in the water. He has a habit of wallowing in lake shallows, muddying the water and generally making a mess of things. He rarely has any interest in the array of colorful lures that fishermen pull through the water, so most anglers detest him.

Entered Kameska in storm of 1914

In short, Cyprinus carpio, the carp, is unwanted. Because he competes for food and space with game fish, his reputation is so low fishermen and lake home owners have been trying to exterminate him for the last 50 years.

The carp is the victim of a fickle public. There was a time when he was desired. In about 1872, the carp was brought to the United States from Asia to be cultivated as a food fish. It was thought of so highly that the U. S. Bureau of Fisheries stocked carp in secret “lest they be stolen.”

Goldfish family

The carp is a relative of the goldfish. The largest carp weighs from 30 to 40 pounds.

The buffalo fish is a large, dark-colored fish which resembles the carp. Many grow as long as 3 feet and weigh as much as 50 pounds.

Valuable food product

Buffalo, like carp, have valuable commercial use. So next time you serve “fish sticks” at home, they could have nibbled on your line in Lake Kameska last summer.

Record Walleye caught in Kameska 1960

Carl Winch of Waterford boasts the all-time state record on Lake Kameska, a 40-pound Walleye caught in 1960 near the southern end of Kameska.

20-Lb. Northern

Ricky Jensen helped land this whopper on April 16, 1960 on north shore of Lake Kameska.
Depth survey of Lake Kameska

Deepest area said to be 14½ feet

Lake Kameska is not a deep lake. This map illustrates the shoreline and depth contour of the lake. Each number represents the depth of the lake at that location. The lake bottom progresses from sand around most of the shore to rock (cobbles) to mud (silt). Wave action keeps the sand and rock in the shallower water free of silt. This is one reason Kameska has been noted as one of the finest swimming and recreational lakes in the midwest.

State Capital almost at Kameska

What could have changed the entire future of Watertown and Lake Kameska was just a "whitecap" away from reality back in 1889. Here's the story...

In 1883, during Dakota Territory days, a territorial commission moved the capital from Yankton to Bismarck, now the capital of North Dakota.

That same year, delegates from the southern half of the Dakota Territory met at Sioux Falls and drew up a constitution to give South Dakota statehood.

Congress passed the Enabling Act of February 22, 1889, paving the way for North and South Dakota to join the Union.

Watertown makes bid in 1889

Shortly after the enabling act, William (Bill) McIntyre, Watertown's 3rd and railway tycoon, called local leaders into conference and Watertown "over night became an active candidate for the capital of the new state."

When Watertown aspired to become the seat of the State Capital in 1889, the "Capital Grounds" were located to the west of the city about 2½ miles on a rise of ground overlooking Lake Kameska. The location is the approximate site of the Soap Box Derby track.

These grounds and the lake were connected to the city by a "motor line" known as the Watertown & Lake Kameska R. R.

First governor from Watertown

But alas, history tells us that on August 20, 1889, the honor of nominating Watertown's A. C. Mellette, first governor of S. D., was accorded to the Codington County delegates at the state convention and thus Watertown sorely faced its fight for the State Capital.
Lake at all time high April 1, 1943

The year was 1943. The day was April Fool’s Day. And the residents around Lake Kampeska were wishing that it was just that. A joke. A dream. A nightmare that wouldn’t be.

For it was this day, 26 years ago, that Lake Kampeska reached its all time recorded high.

What was it like? The memory is vivid to those living around the lake and in the path of the mighty Sioux as it roared through Watertown.

March 25th of that year the Big Sioux started running rampant. Its waters covered a large area of southwest Watertown.

Dynamite used at 212

Dynamite blasts were set off near the dam on Highway 212 in an effort to break up the ice jam. And the river rose 15 inches in seven hours.

Virtually all roads in the south portion of west Watertown were under water. Kampeska Boulevard was submerged in two feet of water and Riverside Park was completely covered.

The Highway Patrol reported water running at least two feet deep across Highway 81 north of the city.

Army trucks from the Watertown Air Base were kept busy towing stalled cars through low spots throughout southwest Watertown. Water gradually increased in depth until it was running across South Broadway.

Floods extend to 7th Ave.

Reaching its peak late in the day on March 25, 1943, the water stretched as far north as seventh avenue on South Broadway. Virtually all travel in the west and southwest sections of the city was stalled as roads became flooded with several feet of water.

Crest of the Sioux River was reached on March 27, 1943 with the lake level at 1722.7. Five days later, on April 1st, Lake Kampeska reached its recorded high of 1722.104.

Why more floods?

Then on April 16th it was reported that melting and haying of time reduced the ice threat. And April 15th all ice had melted and there was no damage.

1901 flood recalled

Eric Shanstrom was employed at the city water plant recalled in 1943 that the lake was at its highest point since 1901. Mr. Shanstrom said that during the 1901 rise the lake rose so rapidly that the waters broke out of the lake and cut a channel through the area known today as the Municipal Airport.

1881 flood greatest

And T.N. Babcock, who lived north of Lake Kampeska for many years said (in 1943) that the lake was at its highest since 1881.

In 1881, Mr. Babcock recalled the lake was so high that the Hannon hay meadow, Cotton Slough and Indian Slough became temporarily a part of Lake Kampeska and Pelican Lake and Lake Kampeska were joined by water.

Rowed to Methodist Church

Billy Williams recalls the story of “Dad” Williams during the great flood of 1897 when he rowed from Stony Point, through Jackson Park, past what is now the Airport, into Watertown, across the mighty Sioux and then pedaled east along Warner Avenue (now 2nd Ave.) arriving at the Methodist Church on Oak Street (now Broadway).

He parked the anchor of his boat in the basement window well. Walked to a grocery store downtown and then returned to his boat and rowed back to the Point to feed the family.

So what is the all time high level mark for Lake Kampeska? 1897? 1969? 1943? Who knows? But we do know that April Fool’s Day will come again. And with it another major flood. Next year? The year after? Sometime?

3 interwoven problems

We must work and solve this problem. Remembering that flooding, pollution and afforestation are interwoven. They must be unlocked and eliminated together.
Tongue of giant glacier formed Lake Kämpfeksa 12,000 years ago

The time? 10,000 years before Christ! The happening?

Inch by inch, the giant bulky glacier crept across North America and into South Dakota. It fought the earth, smashed boulders and ripped large wounds in the ground, finally coming to a halt at the Missouri River.

As the huge mass of ice withdrew to hibernate in the northlands, it left thousands of small and large irregular pockets filled with water.

Lake Kämpfeksa was one of those pockets of water.

Geological Study Of Kämpfeksa — 1933

E. P. Redwood, state Geologist in the thirties, conducted a complete study of Lake Kämpfeksa during the dry years of the early 30's. His research uncovered much evidence regarding the origin of Lake Kämpfeksa.

It has been concluded that Lake Kämpfeksa lies in a hollow formed at the edge and in front of the Wisconsin ice sheet. This was the last of several ice sheets which moved into this area in the waning years of the great ice age.

Ice Mass Possibly 100 Feet Thick

Redwood said details of the glacier's origin are in part conjectural, but agrees that it is evident that a large mass of ice, probably a tongue from the main glacier lay in a depression while sand and gravel were washed over and around it, probably covering the ice sheet completely. The fact that the lake is enclosed on all sides but the northeast by clay banks bears out this idea.

Springs Fill Lake

Redwood concluded that this final retreat of the main ice sheet left the Kämpfeksa ice block isolated and in more or less cold storage, since it was covered with glacial debris.

The withdrawal of the main ice front also removed the possibility of further debris being added to the channels, and when the Kämpfeksa ice block melted a hollow was left which was promptly filled with spring water flowing from the gravels.

Thus Lake Kämpfeksa, crystal clear, fresh and beautiful, was formed for all to delight in.

Aerial view of giant glacier

Generalized geology map of Lake Kämpfeksa area

The surficial deposits of the Lake Kämpfeksa area are chiefly the result of glaciation. The glacial deposits are collectively termed drift, and can be divided into (1) material deposited by the ice itself (boulder clay) which consists of clay mixed with sand and boulders and (2) material deposited by melting streams issuing from the ice. Such material is more completely sorted, consisting mostly of gravel and sand with minor amounts of silt, and is called outwash.

Sand and gravel covers north and northeast of the lake and it is also present along the Big Sioux River to the east. The thickness of sand varies. It is more than 50 feet thick to the northeast.

The rest of the area is covered with boulder clay. This material also present under the sand and gravel.

The following is the logs of test holes drilled by the South Dakota Geological Survey:

<table>
<thead>
<tr>
<th>Test Hole A</th>
<th>Depth To Water</th>
<th>Depth To Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 Sand, coarse, some clay</td>
<td>3-7 Clay, dark, with pebbles and boulders</td>
<td></td>
</tr>
<tr>
<td>4-22 Sand, coarse</td>
<td>22-4 Clay, blue</td>
<td></td>
</tr>
<tr>
<td>22-64 Clay, brown</td>
<td>6-74 Clay, brown</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Hole B</th>
<th>Depth To Water</th>
<th>Depth To Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3 Top soil</td>
<td>3-7 Clay, dark, with pebbles and boulders</td>
<td></td>
</tr>
<tr>
<td>10-29 Clay mixed with sand, brown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29-44 Clay mixed with sand and pebbles, blue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44-54 Clay, buff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-79 Clay with sand, blue</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It can be seen from these logs that the watertable is very shallow in sand and gravel areas. The sand is very permeable and the exchange of water takes place through this material between the lake and the river.
THE SUICIDAL POLLUTION of our waters continues to be a stinking albatross around the neck of those dedicated to the future of Lake Kankakee. We must know what we are fighting. This page will offer ideas on who, what, where and how to attack this problem of pollution. A more Gargantuan problem than the infrequent, but agreed, costly plight of flooding.

Just what is pollution?
Pollution is the addition of harmful substances to a body or system of water beyond its capacity to assimilate them. While it may occur from natural causes, pollution is usually the result of human activities.

Where does it come from?
The main sources of pollution are lake residents, through discharge of their basically organic wastes; and agriculture, through wastes, silt runoff, and chemical poisons.

Who are the polluters?
Everyone who adds any harmful substance to a body or system of water is a polluter. Everyone who releases water without doing everything in his power to make it safe for re-use is guilty of a crime against his fellow-men and his environment.

- Polluters. They dump trash along or into our waters. They are careless of sewage disposal where no community facilities exist. Their pollution is to the point of death.
- Farmers are polluters. Their careless land management results in choking of streams. The pollution is to the point of death.
- Governments are polluters. Perhaps the word of all! All river basin from village board to the Congress, they are responsible for any pollution from spread and sensible disposal for pollution control. For failure to enforce the laws they have passed, for failure to recognize the problems — and dangers — of pollution.

On August 7, 1968 a lake resident reported observing a sea gull lying helpless, wing, cere, preen, and finally dies a slow, agonizing death while perched on the lake's edge:

Sea gull dies agonizing death

That's right. You. Not the government or industry, or agriculture, or communities. Those are only four different words for groups of people. People means you. Every single one of you — of us — whoever and wherever you are.

YOU ... are the polluter whose rubbish chokes a stream.
YOU ... are the lake resident with the faulty septic system.
YOU ... are the housewife still using "hard" soap and detergents.
YOU ... are the farmer whose topsoil washes away into the rivers.
YOU ... are the legislator who won't force polluters to clean up.
YOU ... are the taxpayer who complains at the cost of clean water.
YOU ... are the voter whose concern goes unspoken.

Isn't it about time YOU did something?
What YOU can do to preserve our shores around Lake Kameska

The January 24, 1881 issue of "The Kameska Herald" had this to say about Lake Kameska:

"The most violent storms never so much as spoil its crystal waters which are as pure as the mountain springs. Its shores furnish a splendid drive, and are always as clean as a well kept gravel walk. They are composed of cornelians, moss agates, and other beautiful and curious stones and shells, which excite the admiration of visitors to such an extent that tons of them have been carried away and are treasured up as rare specimens of nature's most remarkable and beautiful waters."

Kameska waters safe

Can we say this today? Our waters have slowly discolored. Are they safe? Yes. From a health standpoint we have nothing to fear. However, hundreds of lakes like her are "great septic tanks".

This pollution problem is being studied. Hopefully it will be curtailed and possibly solved. But how about the "shores that are always clean as a well kept gravel walk."

Kameska waters safe

Starting at City Park we strolled south to Jackson Park, then to the filtration plant, through Hill Crest, to Quinoa Beach, to Stony Point, Hidden Valley, Sunnyside Inn, Sandy Shores, Pebble Beach, and Peck Beach to Memorial Park, past the YMCA Camp, Sunset Beach, Kameska Lodge to Highland Park, past Valota, and the Outlet, and finally to Tanglewood Acres, and then dropped on to a park bench back at City Park.

It's a distance of 13 miles.

195 bottles found

Along the shores of Lake Kameska that morning were: 590 tin cans (beer and soft drink containers being the most numerous), 40 paper and 20 styrofoam cups, 110 glass bottles (unbroken), approximately 85 broken bottles, five broken park benches, eight automobile tires, four light bulbs, nine plastic detergent bottles, two piles of broken brick, two dead animals, two contraceptives, four fishing bobbers, 32 dead fish, 12 empty drinking glasses, four sheep, two broken down boats, one pair of trousers, three old shoes, and one (or part of one) of each of the following: steel cable, sunglasses, old milk can, handle of newspapers, mason jar, highway guard rail, sandal, boot, car seat, watermelon rind.

After seeing several furry animals, turtles, snakes, and frogs we stopped making a detailed

body count of living things and concentrated mon on what might be called the ecology of pollution.

Three paint cans, three pieces of sewer pipe, four trash burners, 127 rusty nails, six feet of shattered window glass, 13 empty milk cartons, remains of enough raw garbage to fill half a city sanitation truck.

Enough? Yes, positive proof of the carelessness of man.

Where is our sense of pride?

Carelessness that the consciences of man should want to do something about.

We must develop this consciousness of pride. A desire to keep our surroundings clean and free from litter. The one major contributor to our pollution problem that each and everyone of us can do something about.

Don't you be a litter-bug!

Never, but never throw that can in the lake while boating or fishing. Never toss that bottle out the car window. Always clean up your picnic area. Have all rubbish to the dump.

It's so easy to say, "let the next guy do it!" But it is contagious. So is cleanliness. Let's start an epidemic of lasting pride in and around Lake Kameska.

A lesson from "Ike"

The late General Dwight D. Eisenhower said it best when asked why he purchased the Gettysburg farm, "So I can leave a piece of ground better than I found it!"

Think about it!
What must we do to
Bring back our crystal waters?

A MASTER PLAN for the immediate future of Lake Kampeska should be developed and implemented NOW! This plan must include (1) Pollution, (2) Siltation, (3) Flood Control. Solving one would be futile. These three "criminals" must be considered inseparable triplet problems. The following priorities are starting blocks for consideration. (Consider these priorities as being on the FBI's list of "Ten Most Wanted Men". We needn't apprehend them in order. Solve any one first, then proceed to the next.)

I. COMPLETE SEWER AND WATER DISTRICT AT LAKE

This Common Sewer District is designed for the collection and treatment of waste water and sewage. It will sharply cut down pollution by lake property owners. We must not allow it to be bogged down in governmental "red tape". An election on this issue has been set in June; I urge you to get interested in the campaign. This community can partake in 1970. It's vital that this project receive our public support and passage to preserve Kampeska.

II. PURCHASE PORTIONS OF BEGEO AND PASSIG FARMS

These farmlands are located to the east and west of beautiful Sandy Shores. Their pollution contributions are great. Knowing that these land purchases would be necessary anyway, I urge the legislature to recommend that Fish & Parks should purchase these portions into their land acquisition budget and make an acceptable agreement with owners.

III. IMPROVE BIG SIOUX WATERSHED AREA

As upper Sioux watershed conservation program would go far to rectify the water pollution problem. The state should provide state and federal funds, with local contributions, to develop a proper watershed program. This would include: 1) sponsorship of programs of education, culture, and sports for outdoor recreation. 2) water control projects. 3) proper drainage of farmland.

IV. IMPROVE BIG SIOUX RIVER THROUGH WATERTOWN

This plan should be dropped, quickly removed, backhoes rapped, diversions dammed. Project should be halted, and the old dammed, concrete embankment removed. The peaks of the dam, should be given the Lake in which they have been built, thus becoming a natural water body. The dam should be removed, and the fish have come ever closer.


BEHAVIOR OF IMPULSIVE SOLUTIONS:
1. Dragging with copper sulphate (not practical)  
2. Draining Missouri River into lake (not practical)  
3. Draining lake (real practical)  
4. Pumping lake bottom (not practical)

These programs are very costly and continuous and will not solve the overall problem unless the real reason for the pollution is first cured.

CAUTION:

We must preserve the natural underground clay dam which crosses the river near Watertown, especially as this is the "dead" water. If this dam fails, the fish will completely die. The problem is too great to handle without cooperation from all.

We must rebuild Lake Kampeska towards a clear-water lake. If we fail to meet this goal, the lake remains, as it is, "KAMPESKA SLUDGE". Let's get moving!

Acknowledgments

We wish to thank the following local friends for their invaluable contributions of information and photographic material in the production of this "Kampeska Diary":

- Don Ray Williams  
- Dr. Willard Williams  
- Dr. Alford  
- Robert A. baby  
- Robert F. Reddington  
- Harold Loven  
- C. W. Senn  
- Arnold Kauffman  

P. J. Allen  
E. W. E. Stieve  
John H. Rine  
W. C. E. Williams  
Col. W. H. McKinstry  
Dr. Donald J. McQuarrie  
Dr. George R. Ballantyne  
Comp. Dan King