

Deeper wells may not be better

City looking for ways to meet water demand

By Sandy Schurter

Most businesses would give their eye teeth to have 200 new customers every three months.

But they probably would be looking at expansion also: ways to keep their product available to present and future customers. They'd be in the same predicament as the Brookfield Water Utility.

It's supply and demand, just as in any business. With city residents clamoring for municipal water, the city now needs new wells, according to Mark Simon, water utility superintendent.

That may not be surprising. But what may be a surprise is that the old "deeper is better" theory regarding wells may not be true: Shallower wells can produce ample water without the danger of radium; they're also cheaper to drill and to pump, said Simon.

More than 200 customers have been added to the utility each quarter, he said. The growth comes from two major groups: new subdivisions where homes must be connected to the city utility and older areas in the city where wells and pumps may have experienced problems.

As the city water mains are run down a street, residents are choosing to join the fastest growing club in the city — membership in the Brookfield Water Utility.

"We're looking at a need for six additional wells — at least that," said Simon.

As might be expected, the greatest need is in Zone 1 on the western side of the city where residential growth has been the strongest, he said. But new wells are also

needed to augment the water supply in the older northeast part of the city. Brookfield completed its two-year Zone 3 loop project last year, and the requests for water connections in that area have been coming in ever since. The Burleigh deep well, drilled specifically for that area, is going to need some help, said Simon.

"New areas such as the subdivisions in the west need more water; they're establishing their landscaping and yards, and the use is always quite high in a new subdivision," he said.

The city is not running out of water and the utility can serve its customers adequately, he said. But there's a real need for more wells to make sure water continues to be available for the additional requests the city expects.

Luckily for a city that some say is 90 to 95 percent developed, the "deeper is better" theory regarding wells has fallen into disfavor with experts.

Sandstone wells, usually drilled to a depth of at least 1,000 feet, have been found to contain radium. Although how much radium is harmful to health is still a matter of debate, the whole controversy can be avoided by drilling shallower wells — limestone wells at about a depth of 300 to 600 feet, said Gregory E. Bolin, engineer with Ruekert & Mielke Inc. The Waukesha consulting firm has issued a report on the city's water needs, suggesting that limestone wells be considered for the city utility.

"We have 24 wells now, with depths from 300 to 1,700 feet," said Simon. "Only seven of them are the deep sandstone wells drilled more than 1,000 feet. Those are the ones with the radium problems. We haven't had to notify customers of any dangers and we've kept way below the limits by blending water from these wells with water from shallower wells the last few years."

With the Ruekert & Mielke report, the Utility Board has decided to seek sites for limestone wells, hiring a Slinger-based geophysics firm to find likely locations.

Each site should be at least one to two acres in size, according to Ruekert & Mielke recommendations, so the city can build reservoirs. Reservoirs would allow the city to treat water if needed by future regulations on public water supplies, according to the report.

"The geophysicists have found fractures in the limestone, where there might be expected to be a good water supply," Simon said.

Deeper wells do produce less iron, he said; however water from shallower wells can be treated with polyphosphates to sequester iron particles and keep them from settling out.

This is done now, said Simon, meaning homes with city water don't need iron filters. But they do usually have water softeners to treat hardness.

The shallower limestone wells can produce from 500 to 1,000 gallons of water per minute, said Simon, comparing favorably with the 750 to 1,200 gallons per minute from the deeper sandstone wells. "We may have to sacrifice a little through iron quality, but we can recoup that with lower electrical pumping and maintenance costs," said Simon.

And if deeper is not better anymore, is the converse true — should the city look at even shallower wells, the sand and gravel ones often found at a depth of 200 or 300 feet? Simon said geophysicists are looking at a couple of such possibilities near the industrial tower site. Such wells be expected to produce about 500 gallons of water per minute and would involve even less pumping and maintenance costs, said Simon.

City restricts lawn watering

By using water conservation practices and following the city's lawn sprinkling ordinance, residents can help preserve the municipal water supply.

The city does have a plan to increase the supply of city water as demand grows. (See related story.) But it will take time, and water use always increases in the summer.

City ordinance allows residents with even-numbered street addresses to water lawns on even-numbered calendar days. Property owners with odd-numbered addresses may sprinkle on odd-numbered days.

Residents in older areas of the city who still have outside spigots connected to private wells may use that water for tasks such as watering lawns and washing cars.

"But conservation is the thing of the future, be it water or other resource. Water is not a no-ending resource, so you do have to conserve. People need to get in that habit," said Mark Simon, water utility superintendent.

—Sandy Schurter

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The east wing has been completed, with all library functions moved there for the rest of the summer while other construction is under way.

Patrons approaching the library may notice the two-story open over, with skylights providing natural lighting inside the area. Large oak announcement boards and three book drops have been installed.

A familiar part of the foyer is the Pegasus sculpture hanging in the center of the area, commissioned about five years ago for the library. Spotlights have been installed to light the sculpture at night.

A hallway running through the building generally separates office and service functions from what will be public circulation and reading room areas.

"Remember when we had four and five people sharing a desk? Now they have their own work stations," Bielmeier said, guiding a tour through the professional wing. The area includes individual offices, eight work stations for programming and book selection and review, a children's services office, circulation activities area and technical services room.



PATRONS AT THE Brookfield Public Library are having to work their way around construction right now. But when the project is completed this fall, the library will be bigger and better than ever.

(Staff photo by Jack Plale)

Checking in books will be easier for employees because of the planning of areas, Bielmeier said. Books dropped through the slots into the foyer go directly to carts, which can be wheeled down the hallway to the book check-in station. "Book truck garages" store the carts under counters, where they can be

sorted and readied for the shelves. Two entire walls are lined with cabinets over the "garages," where circulation supplies will be kept.

Because of the new layout and design, patrons will have direct access to more newspapers and three years of periodicals. This will save employees time, but it

will also be more convenient for library users, Bielmeier said.

"Better access for the public — that's what's important," she said.

A separate shipping and receiving area will be located at the east end of the building, where all materials will be

(Continued on page 6)

Cleaning up old landfill may cost \$6 million

By Sandy Schurter

About \$6 million will be needed to contain contaminants and clean up the former Master Disposal landfill site, according to the Environmental Protection Agency (EPA).

EPA officials Monday held a public hearing on proposed alternatives for cleaning up the 26-acre landfill, located in the town of Brookfield north of Capitol Drive.

Although several options exist, the alternative recommended by the EPA and state Department of Natural Resources (DNR) would cost about \$3.6 million to handle the waste mass at the site, and another \$2 million to \$2.4 million to contain and treat groundwater contaminants.

"That's the one we're leaning to, but we're really here to listen to what you have to say," said Susan Pastor, EPA community relations coordinator.

The landfill operated from 1962 to 1982, with about 200 companies and some municipalities using it to dump waste, according to Robin Schmidt, state DNR remedial project manager. Some of the waste dumped at the site involved industrial products, including paints and paint solvents, foundry slags and plastics.

EPA testing has determined that ground water in the area contains benzene, arsenic, dichloroethene and trichloroethene, which are potentially cancer-producing substances. Levels of arsenic, cadmium

and benzene exceed federal and state standards for drinking water, according to testing results.

Many homeowners in the area have private wells, which makes it imperative that ground water contamination be contained and treated before it spreads, according to Russ Hart, EPA technical advisor. The contaminants so far have been generally restricted to the landfill site.

But complicating and intensifying the problem are the adjacent wetlands and Fox River, which are proposed for recreational uses in Waukesha County.

"There are wetlands that border the Master Disposal site. We'd like to deal with the contamin-

(Continued on page 4)

No business transacted due to lack of aldermen

By Sandy Schurter

Environmental officials were there; city staff members were there.

A real estate negotiator and proponents for two public hearings were ready and waiting, along with several members of the audience.

But because only eight of the city's 14 aldermen were available Tuesday night, everyone went home without doing business on the busy Brookfield Common Council agenda.

"I'm really sorry about this," said Gary Rasmussen, city clerk, who announced

the lack of a quorum after those attending the meeting had waited 45 minutes for enough aldermen to appear.

Rasmussen said the meeting has tentatively been rescheduled for 7 p.m. Monday, July 23, but he added that those interested should call his office for confirmation before venturing out a second time.

It's summer, said city officials, explaining the lack of a quorum; aldermen — just like other people — go on vacations.

Brookfield aldermen are supposed to notify Rasmussen when they know they will miss a meeting. Rasmussen said he

knew the Tuesday quorum might be difficult because some had told him they would be out of town, but a telephone check early in the week had led him to believe 10 aldermen would be present — enough to do city business.

Tuesday's agenda included two public hearings and a Southeastern Wisconsin Regional Planning Commission (SEWRPC) report on the city's proposed park and open space plan and sanitary sewer service area plan.

It also included a closed session where aldermen were expected to discuss possible annexation and acquisition of the

Kritselis property for Mitchell Park.

Several Plan Commission recommendations were scheduled for a decision, council action on more routine matters such as paying bills, levying assessments and dedication of public facilities.

Rasmussen said all items on the agenda would be handled at the meeting tentatively rescheduled for Monday, July 23. The public hearings can also be held Tuesday night without publishing notices according to George Schmus, city attorney.

Officials study options for landfill cleanup

(Continued from page 1)

ants once and for all time, but I don't believe we can do this because we have to keep this from spreading but protect the wetlands at the same time," Hart said.

Usually, contaminated ground water could be extracted, he said, but doing this at the Master Disposal site would dry up the wetlands. "We feel wetlands protection is also a concern in this area," he said.

Also complicating the cleanup, Hart said, is the "heterogeneous" dumping that was done at the site: No one area was designated for contaminants. Because of its size, removing the waste mass and relocating it elsewhere would be impractical, he said, involving perhaps three other landfill sites and three years of hauling.

Because the 26-acre landfill has been designated a Superfund site, the area will be cleaned up, he said, regardless of who pays the costs. "Those responsible for the contaminants," the landfill owner and companies that dumped there, will be contacted. The EPA will try to negotiate some liability and payment, he said. If no agreement is

reached, federal funds will pay for the cleanup, according to Hart.

The EPA is recommending a system for controlling and containing the contamination that involves capping and covering the site. Ground water would be extracted, treated and then discharged back into the area.

Another option for treating the ground water, one the DNR is still exploring, according to Schmidt, involves constructing a barrier system around the site to keep water in the area. This option, which is not the official recommended one at this time, would cost about \$3.8 million, Hart said.

Several of the 40 persons attending the hearing were worried about the quality of their drinking water. James Haasch, who lives north of the landfill site, suggested residents be allowed to bring water samples in for testing.

Some seemed to favor the barrier system for preventing the water from spreading outside the landfill area, even though it is more expensive.

Joe Griswold, who lives south of the site, said local residents knew in the 1970s what was occurring at

the site. "And nothing was being done then?" he asked.

The town of Brookfield granted a license for the dump operation in 1962. Schmidt. When the DNR received a license and regulate landfills, already in existence. Master Disposal at the site in 1969 and 1970, but was refused, because DNR authorities thought the location was poor.

A series of litigation and court actions then occurred, ending in 1977 when the DNR issued a two-year permit but with several conditions, including a ground water investigation, no more dumping of certain wastes and the construction of an air-curtain incinerator for burning. The landfill closed in 1982, she said, another condition of the agreement.

The EPA will issue a final remedy after considering the public input from the hearing and written comments they receive before Aug. 8. Those comments can be directed to Susan Pastor, U.S. EPA Region 5, 230 S. Dearborn St., Chicago 60604.

We're Looking For News!

Brookfield

AT

Congratulations!

Landfill operator takes issue with findings of state report

By Sandy Schurter

A state health assessment of a Brookfield landfill does not take into account improvements done at the site within the last two years, according to an official with the company that operates the landfill.

"The report is good in what it covers, but it does not go up to today. It goes to 1988. They're looking at information that is two years old," said Gerard Hamblin, site assessments manager for Waste Management of Wisconsin Inc.

The state Division of Health has issued a preliminary health assessment of the Waste Management landfill site that lists six recommendations for improvements. The area is a potential health hazard because of leaking gas and the risk of contaminated groundwater, according to the report.

Recommendations include the following:

- Restricting unauthorized access to the site.
- Additional testing of landfill gases for contaminants not previously checked.
- Testing of ground water for contaminants not covered in earlier examinations.
- Sampling and testing soils and surface water south of the site.
- Establishing a generator or battery-powered backup service for gas monitoring alarms in case of power failures.
- Developing an alternate procedure in case the present gas extraction system fails.

The landfill is located west of Brookfield Road, north of Black Forest Drive and south of Benington Drive. It was designated a Superfund site in 1988, but has not been put on a final cleanup list pending further extensive investigation, according to Kim Bro, state environmental engineer.

Hamblin said the state recommendations are based on information available in 1988. Since then, Waste Management has done extensive work at the site, he said.

The landfill has been recapped and new vegetation has been planted, he said. Also, a redesigned gas extraction system has been installed, Hamblin said. The system removes gas at the site so it doesn't migrate to other areas.

Company officials have also installed gas monitoring alarms in basements of some nearby homes. If gases were to build up in the basement, an audible alarm would sound alerting the homeowner.

"If the electricity goes off, they (residents) know who to call now for backup," Hamblin said. "We think we have a pretty good relationship with the neighbors."

The state recommendation that access to the site be restricted probably translates to a fence request, Hamblin said. His company has never objected to installing a

fence, he said, but one has not been installed because of a general feeling that residents don't want one.

"We would install one. It's not a big deal," Hamblin said.

Hamblin does not take issue with anything in the health assessment report, however, he cautions that those who read it should remember that the study is based on two-year-old information. "But people could read this and think conditions are now this way," he said. "We're trying to do what we think responsible people would do. We will continue to do that."

The health assessment report is available for inspection at the Brookfield Public Library. Written comments on the report will be accepted through Sept. 7. Comments should be sent to: Mary Young, Environmental and Chronic Disease Epidemiology, Division of Health, P.O. Box 309, Madison, Wis. 53701-0309.

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THE MILWAUKEE JOURNAL

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August 29, 1990

Waukesha County

News of Brookfield, Butler, Elm Grove, Lannon, Menomonee Falls, Muskego, New Berlin, Sussex and the

Environment

Brookfield landfill put on Superfund clean

*It and a site in De Pere
join another city dump
that's already on the list*

By DAVE STEWART
of The Journal staff

Brookfield — A hazardous waste site in Brookfield and another in De Pere are among 106 nationwide that have been moved to the Environmental Protection Agency's priority list for cleanup

under the federally financed Superfund program.

The Superfund is intended for sites that pose a serious environmental hazard. The Wisconsin sites will be thoroughly studied and plans will be developed for their cleanup, according to Susan Pastor, a spokeswoman for the EPA regional office in Chicago.

The study process often takes two or more years, she said.

The Brookfield site, a Waste Management of Wisconsin landfill

just to the west of the intersection of Brookfield Rd. and Tamarack Dr., is not considered an imminent danger to the public, Pastor said.

"If it were urgent, we would have done something a lot sooner," she said.

With the lengthy study process, the agency can "step back and take a good look at what's going on there," Pastor said.

The Brookfield site was the recent subject of a preliminary health assessment by the State Division of

Health. It recommended that unauthorized access be restricted, landfill gas and ground water be tested for contaminants not previously checked, and backup systems be put in place for gas extraction and monitoring operations.

The 20-acre landfill, a former sand and gravel pit, was filled with municipal, commercial and industrial wastes by Waste Management from 1969 to 1980.

Private wells in a subdivision north of the site in the past have

shown contamination by lead methylene chloride that exceed state's ground water standards, according to the health assessment. However, most residents in subdivision have connected to municipal water supply.

Exposure to lead can affect nervous system, particularly children, and long-term exposure to methylene chloride can result in liver damage.

Pastor said the EPA and State Department of Natural

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Metro
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eld, Butler, Elm Grove, Lannon, Menomonee Falls, Muskego, New Berlin, Sussex and their neighbors

landfill put on Superfund cleanup list

federally financed Superfund.

Superfund is intended for sites that pose a serious environmental hazard. The Wisconsin sites have been thoroughly studied and will be developed for their own use, according to Susan Pastor, spokeswoman for the EPA region in Chicago.

The study process often takes several years, she said.

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shown contamination by lead and methylene chloride that exceed the state's ground water standards, according to the health assessment. However, most residents in the subdivision have connected to the municipal water supply.

Exposure to lead can affect the nervous system, particularly in children, and long-term exposure to methylene chloride can result in liver damage.

Pastor said the EPA and the State Department of Natural Re-

sources will contact and compile a list of potentially responsible parties who will be billed, subject to negotiation, for the cost of the study of the landfill site. Those parties also will be charged on a negotiated basis for the cost of the cleanup, once a plan is settled on years from now.

Superfund money is used only when the responsible parties are unable to pay the full cleanup costs.

Please see Cleanup page B

Cleanup/Brookfield site added to Superfund list

From Waukesha Page

Pastor noted that designation as a responsible party does not necessarily mean that any violations of the law have occurred.

DE PERE SITE

Chromic acid and other hazardous chemicals spilled at the De Pere site, the former Better-Brite Plating Co. zinc factory.

In 1986, chromium levels in excess of federal health standards were found in the sump pump of a De Pere home next to the bankrupt plant, in a narrow industrial strip along railroad tracks about three blocks from St. Norbert College.

De Pere's municipal well is less than 500 feet from the contamina-

tion source but has not been affected.

gallons of corrosive liquids and some cyanide material left behind after the plant closed in 1987.

BROOKFIELD'S OTHER SITE

Another Brookfield site, already on the priority list, is the Western Disposal Landfill, which the EPA continues to refer to as the Master Disposal Landfill despite the name change by the owner in 1986. It was added to the Superfund list in 1987 and is nearing the end of the study process.

Public comment was solicited at a meeting July 16 in Brookfield on options for clearing the landfill, which is on the border between the City and Town of Brookfield, north of the intersection of Capitol

The EPA already has conducted extensive operations to clean the site. The agency disposed of 5,000 Dr. and Barker Rd. The public comment period has been extended to Sept. 7.

Sometime later in September, Pastor said, the EPA will announce its decision on cleanup options for the site, where ground water samples taken in 1977 revealed high levels of chromium, phenols, oils, pesticides and solvents. Chromium is toxic in low concentrations, and phenols are toxic to aquatic life in higher concentrations.

The EPA has recommended capping the landfill with clay and soil and using a ground water collection system with various treatment options.

INSIDE

Radon industry has faced many obstacles.

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IN QUOTES

"While we understand the inconvenience that could be caused by a HUD-sponsored testing program anticipating mitigation, we point out that HUD may not have explored its options with private, non-profit and state owners, and that the anticipated non-cooperation by these owners may be conjecture - especially in light of significant liability risks to these same owners."

Jeff Coopersmith, RIPAC
Comments submitted to HUD

RADON NEWS DIGEST

EPA search for 'deep pockets' drives litigation strategies

In its search for "deep pockets" to fund environmental cleanups, the US EPA is "out there trying to make" cases-not just reading them- James M. Seif of Dechert Price & Rhoads, Philadelphia, told the National Commercial Finance Association's annual conference this past Oct. 27.

Seif said the government is "not likely to look kindly" on proposed legislation to exempt lenders from liability under CERCLA. Gene A. Lucero of Sidley & Austin, Chicago, agreed that any proposal to exempt lender would face an uphill battle because the government would be reluctant to eliminate lenders from the scene as private regulators of Superfund.

Alan Feldbaum, of Environmental Resources Management Inc., Exton, Pa., said one out of every seven transactions in which he has been employed as a due diligence con-

sultant has not proceeded to completion. Although "100 percent confidence is unattainable," he said, the more detailed the investigation, the more reliable the estimate. Estimates provided by a "Phase I" investigation where no new data is generated, are "merely speculation," he said.

Lenders to a proposed deal must make independent decisions about environmental risk, said Robert S. MacDonald, and executive with Security Pacific Business Credit, Inc., New York. In their negotiations, the parties "will be trying to lay off as much of the risk as possible" on each other, he said. Thus prudent lenders will employ their own environmental consultants to review the professionalism of the other parties' due diligence reports.

Reprinted with permission from Indoor Pollution Law Report, February 1990.

Fannie Mae announces radon guidelines

There is an emerging trend that may impact the radon industry as much as any legislation or regulation and it comes from the mortgage market and banking institutions. Two organizations concerned with the purchase of environmentally contaminated real estate have developed policies to protect themselves from long term legal liabilities.

These organizations are the Federal National Mortgage Association (Fannie Mae) and the Office of Thrift Supervision (formerly the Federal Home Loan Bank Board) at the Department of Treasury. Their policies, which in certain cases include radon testing for single and multifamily properties, are a

response to the banking and real estate industries' overall concern with environmental contamination. Federal, state and local governments have enacted comprehensive environmental laws and regulations which impose liabilities on property owners for the costs of cleaning up these hazards. These new requirements have caused many real estate buyers to request an environmental audit be conducted prior to property transfers.

The following policies were developed by Fannie Mae and OTS to clarify the guidelines as they relate to environmental hazards.

Please see Fannie Mae, page 7

Landfill case

Jury awards \$1.6 million in cancer suit

Madison, Wis. —AP— A Circuit Court jury has awarded \$1.6 million to two rural Middleton families who said that their drinking water supply was poisoned by a landfill and caused skin cancer for one family member.

The jury ruled Friday that Refuse Hideaway and its operator, John DeBeck, were "outrageous" in their operation of the dump.

Jurors awarded \$1.15 million in punitive damages, saying that Refuse Hideaway should pay \$1 million and DeBeck should pay \$150,000. The two families had sought \$4.3 million.

The verdict favored Al and Jean Stoppleworth, and Craig and Anita Schultz. The dump closed in 1988 after authorities found wells tainted

with toxic chemicals.

"I wanted the punitive more than anything. It hits them for their total disregard for us and their attitude that we didn't exist and that what they did to our lives didn't really matter," said Stoppleworth.

James Olson, attorney for the Schultzes, said that, "by their verdict for large punitive damages, the jury showed its outrage against things like this happening."

The jury also awarded compensatory damages to each couple for medical expenses, loss of market value in their homes, fear of getting cancer and relocation expenses, bringing the total award to \$1.6 million.

The well pollution, found by the State Department of Natural Re-

sources, is believed to have affected the wells of the two families for at least a decade, according to evidence.

Along with ordering the landfill closed, the US Environmental Protection Agency ordered a \$5 million cleanup.

Since the pollution was discovered, the two families have been drinking bottled water and using water that has undergone extensive filtering.

Neither DeBeck nor his attorney, David Neeb of Milwaukee, were in the courtroom when the jury verdict was returned.

DeBeck did not testify during the weeklong trial.

Neeb was not available for comment after the verdict.

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Landfill site potential threat, according to health report

By Sandy Schurter

The state Division of Health is recommending a variety of monitoring and testing procedures for the Waste Management Landfill Superfund site, located west of Brookfield Road near Bennington Drive.

They include restricting public access to the site, providing a backup power system for the continuous gas monitors and alarms in the area and continuing surveillance of private wells at homes in the area.

The state agency released a preliminary health assessment report of the landfill last week, generally concluding the site has the potential for public health concerns because of leaking methane gas and the possibility of groundwater contamination.

State officials also recommend further testing of the site to see if volatile chemicals might be present in the groundwater.

The landfill, known locally as the Loth Pit, operated from 1969 to 1980; some migration of gas was detected several years ago, and Waste Management set up monitoring systems and gas extractors at the site.

The firm has been burning off the methane gas at the site and monitoring some private homes for the presence of gas. An alarm went off in one of the test homes in 1985, signalling a potentially explosive level of methane gas; the problem has been corrected and no further

incidents have occurred, according to the report.

Groundwater contamination is a concern because of private well supplies; in the past, some wells in a nearby subdivision showed levels of lead and methylene chloride that exceed state standards, according to the state agency. But a majority of homes in the area have now connected to the city water supply and abandoned their private wells; all will be required to connect by 1998, according to the report.

The site is not fenced and children often wander onto the landfill to play, according to the report; officials recommend restricting the area, perhaps through fencing.

The backup power supply is recommended so that monitoring alarms would be operable during power failures.

The landfill was designated a Superfund site in 1988, making cleanup projects eligible for federal funds. The health assessment is only a part of the process necessary before any public money would be spent there.

Copies of the health assessment are on file at the Brookfield Public Library. Written comments will be accepted through Sept. 7 by Mary Young, Environmental and Chronic Disease Epidemiology, Division of Health, P.O. Box 309, Madison, Wis., 53701-0309.



LIKE A SENTRY, a test well stands outside the gate of the landfill at Brookfield Road north of Black Forest Drive and south of Bennington Drive to pick up any trace of hazardous chemicals seeping off the site.

(Staff photo by Peter Zuzga)

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Brookfield

Health officials seek tests of closed landfill

By DAVE STEWART
of The Journal staff

Brookfield — A closed landfill to the west of Brookfield Rd. is considered a potential health concern and the Wisconsin Division of Health is recommending a variety of monitoring and testing measures

in the interests of public safety.

The agency called for improved monitoring of possible groundwater contamination and methane gas.

The health division last week issued a preliminary health assess-

Please see Landfill page B

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Landfill/Monitoring options considered

From Waukesha Page

ment for the former sand and gravel pit, which was filled with municipal, commercial and industrial wastes by Waste Management of Wisconsin from 1969 to 1980.

A health assessment is conducted for every hazardous waste site proposed for the US Environmental Protection Agency's Superfund list. The health assessment is not directly connected to any release of money from the Superfund, said Kim Bro, an environmental engineer with the Division of Health.

"The purpose of it is to use preliminary information to make recommendations about health concerns," Bro said.

Recommendations are forwarded to the US Environmental Protection Agency and the Department of Natural Resources for enforcement.

Bro said the landfill was added to the Superfund list in 1988, making it eligible for federal cleanup money, but it has not yet been placed on a final list which initiates a detailed investigation of the site.

The main entrance to the landfill, which was closed and capped in 1980 after it reached its capacity, is at 1365 Brookfield Rd., at the intersection with Tamarack Dr.

State law requires a landfill operator to monitor groundwater aquifers for 20 years after closing a landfill to determine if pollution

occurs. Private wells in a subdivision north of the site, in the direction of groundwater flow, in the past have shown contamination of lead and methylene chloride that exceed the Wisconsin Groundwater Enforcement Standards, according to the health assessment.

According to Bro, exposure to lead can affect the nervous system, and children are particularly vulnerable to its effects. Long-term exposure to methylene chloride can result in liver problems.

A majority of the residents to the north have connected to the municipal water supply and have stopped using private wells. All homeowners in the area will be required to connect to the municipal system by the end of 1998.

Waste Management also has been burning accumulated methane gas on the site and monitoring several residences. In 1985, a potentially explosive level of methane was detected in one nearby home, but the problem was corrected and there have been no subsequent incidents.

The Division of Health is concerned that the gas monitoring systems both in the landfill and at nearby homes do not have backup battery systems in case of electrical failure.

The division said that surface contamination at the clay-capped landfill does not now appear to be a serious issue, but eroded areas

and gullies on the steep-sloped site could expose hazardous materials in the future. The landfill is not entirely fenced in and neighborhood children have been known to play in the area.

Runoff water in a wetland to the south of the landfill has not been tested for possible contamination.

The Division of Health made the following recommendations:

- Unauthorized access to the site should be restricted.

- Landfill gas should be tested for contaminants that were not checked before.

- Groundwater also should be examined for metals and previously untested contaminants.

- Soils, surface water and sediments in the wetland to the south of the site should be sampled and analyzed.

- Battery-powered or generator backup service for gas monitoring should be installed along with alarms to warn of electrical failure.

- A standard procedure should be developed in case the company's current gas extraction system stops operating.

A copy of the health assessment is on file for public review in the reference department of the Brookfield Public Library. Comments on the report should be mailed to Mary Young, Environmental and Chronic Disease Epidemiology, Division of Health, P.O. Box 309, Madison, WI 53701-0309. Comments must be received by Sept. 7.

SUBURBAN



United States
Environmental Protection
Agency

Office of Public Affairs
Region 5
230 S. Dearborn Street
Chicago, Illinois 60604

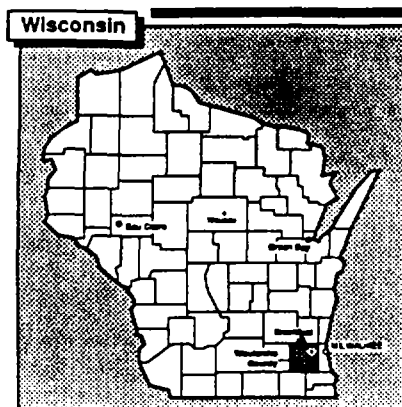
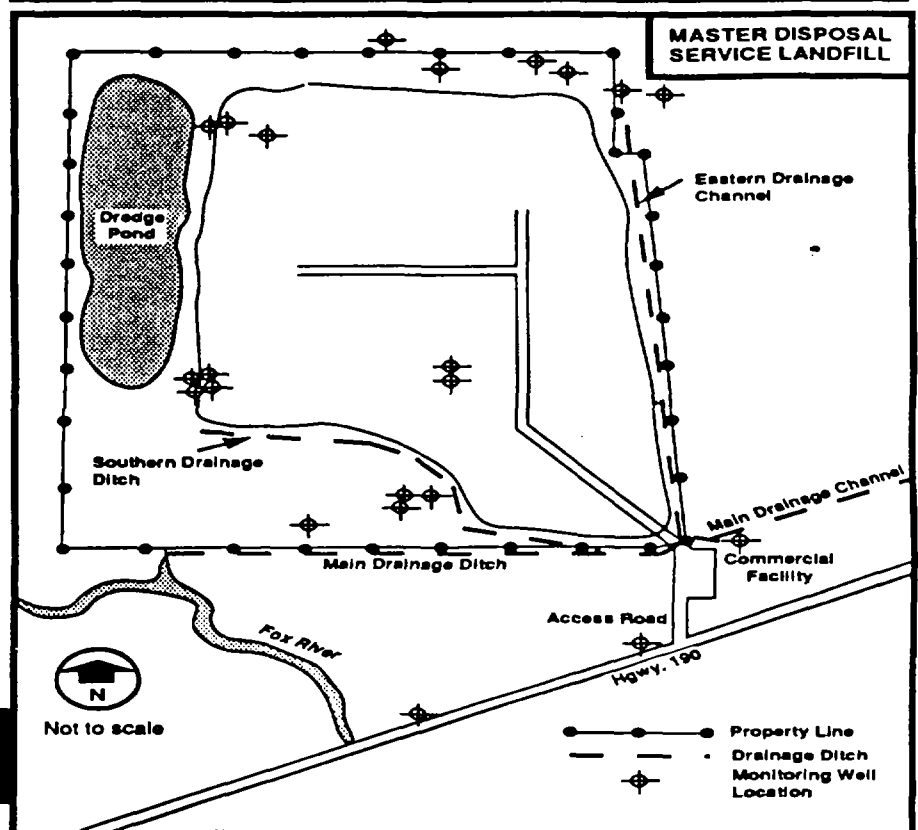
Illinois, Indiana,
Michigan, Minnesota,
Ohio, Wisconsin

PROPOSED PLAN FOR CLEANUP Master Disposal Service Landfill Site

July 1990

THIS PROPOSED PLAN WILL TELL YOU ABOUT:

- Highlights of recent studies concerning contamination found at the site;
- The alternatives considered for cleaning up the site;
- U.S. EPA's and WDNR's recommended cleanup plan at the outset of the public comment period;
- The next step in developing a comprehensive cleanup plan; and
- How you can participate in the site cleanup process.



THE SITE

The Master Disposal Service Landfill Site, located at 19900 West Capitol Drive (Wisconsin Route 190) in Brookfield, Wisconsin, is a 40-acre land parcel dominated by a 26-acre closed landfill. Landfilling operations have created a raised plateau, surrounded by constructed berms that separate the property from the surrounding wetland and Fox River floodplain. The plateau and the berms are dissected by man-made drainage channels that carry surface water and seepage to the Fox River. Approximately 225 people live within a 1-mile radius of the

site property, and approximately 10,440 residents (1980 census) are located within three miles of the site. Over 80 percent of these residents live within the City of Brookfield, which is three miles south-southwest of the site. All of these persons rely on ground water for their drinking water.

There are four key areas of concern:

- The waste mass,
- The ground water,
- The wetlands, and
- The Fox River.