

NGF FIELD STAFF NOTES SECTION

Edited and Compiled by Harry Eckhoff

Director Information Services

FEDERAL FUNDING SPURS WASTEWATER IRRIGATION FOR RECREATIONAL TURF

By Lorraine Abbott

NGF Great Lakes Region Director

Golf course builders and operators who are seeking ways to cut irrigation costs may discover the answer by meeting with their local municipality or independent sanitary district — for two reasons. First, the use of low-cost wastewater as an irrigant for recreational turf is steadily increasing, as more and more research bears positive results where such irrigation is properly managed.

Secondly, to provide the sanitary district with an on-land source of wastewater disposal would be helping the district meet its obligations to the federal government, in a manner that conceivably could be eligible for major government funding that would benefit not only the water providing source (the district) but the water receiving source (the golf course) as well. Here's why.

The Federal Water Pollution Control Act of 1972 requires that a zero degree of discharge of pollutants to the land surface be achieved by 1983. In response to this charge, municipalities have had to find alternate methods of wastewater disposal.

Recreational turf has proven to be an effective filter for tertiary treatment while at the same time the effluent water, properly managed, has provided the soil the nutrients it needs **without** harmful effects and **without** the displeasurable odor customarily attributed to wastewater treatment plants.

When the Federal Water Pollution Control Act was implemented in 1972, government funding, for community-engineered treatment projects, was elevated from 55% to 75% of the eligible capital costs. December 1977 found even more incentive incorporated into regulations, whereby a 10% "bonus" to the funding level would be available if the sanitary district met certain criteria; namely, that there was evidence of:

- Consideration being given toward using particles in the wastewater "for agronomic purposes" (which can include recreational turf),

- New advances in wastewater treatment technology would be achieved in the proposed project.

In essence, then, government funding for wastewater treatment projects that provide low cost soil irrigation while cutting pollution in our streams and lakes is higher than ever before, with eligible projects capable of being granted up to 85% of their capital costs. Such incentive will turn the ears of municipalities toward inquiring golf facility and recreational turf managers, given conditions of need.

Currently, more than 75 golf courses in the United States are using wastewater irrigation, with public understanding and acceptance increasingly being assured through informative public relations efforts by course owners and treatment authorities. Tertiary stage effluent appears to the eye to be no different than a glass of drinking water.

CONFERENCE PROCEEDINGS

In mid-November 1978, the United States Golf Association Green Section, the National Golf Foundation, the American Society of Golf Course Architects Foundation and the Golf Course Superintendents Association of America jointly sponsored a conference on Wastewater Irrigation of Recreational Turfgrass in Arlington Heights, IL.

For information on how to receive a copy of the proceedings of the meeting write USGA, Golf House, Liberty Corner Road, Far Hills, NJ 07931 ph: 201/234-2300.

The actual number and identity of courses indirectly benefitting through government-funded municipal treatment projects in given regions of the country can be determined by contacting your regional Environmental Protection Agency (EPA) office (list follows). This number may be small as yet, because funding regulations regarding disposal did not specifically use the words, "recreational turf" until 1977.

Municipalities considering upgrading of their wastewater treatment systems should investigate nearby recreational turf sources of disposal and then contact their state EPA office to determine eligibility for federal funds.

Congress allocates varying amounts to each state according to population and existence of water pollution problems. Once allocated, monies are subject to the state's own priority list of recipients, the final decision being based upon population density, urgency of pollution problems and the degree to which new equipment construction needs are seen to exist.

Regional Environmental Protection Agency Offices:

Region I (ME, VT, NH, MA, CT, RI)
John F. Kennedy Federal Bldg.
Room 2203
Boston, MA 02214
(617) 223-4704

Region II (NY, NJ)
26 Federal Plaza
Room 1009
New York, NY 10007
(212) 264-2525

Region III (PA, WV, VA, MD, DE, Wash. DC)
Curtis Building
6th and Walnut Streets
Philadelphia, PA 19106
(215) 597-9370

Region IV (KY, TN, NC, SC, MI, AL, GA, FL)
1421 Peachtree Street, NE
Atlanta, GA 30309
(404) 526-3004

Region V (MN, WI, MI, IL, IN, OH)
230 S. Dearborn Street
Chicago, IL 60604
(312) 353-2072

Region VI (TX, OK, NM, AR, LA)
First International Bldg.
1201 Elm Street
Dallas, TX 75270
(214) 749-1962

Region VII (NE, KS, IA, MO)
1735 Baltimore Street
Kansas City, MO 61408
(816) 374-5894

Region VIII (CO, UT, WY, MT)
1860 Lincoln Street
Denver, CO 80203
(303) 837-4905

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CHICAGO AREA PARKS TO RESEARCH USE OF WASTEWATER ON LOCAL TURFGRASSES

By Lorraine Abbott
Great Lakes Region Director

The February Golf Market Report carried an article entitled, "Federal Funding Spurs Wastewater Irrigation for Recreational Turf." The article told of a recently escalated funding program by the Environmental Protection Agency (EPA) to assist sewage treatment plants in their disposal of wastewater utilizing land sources instead of natural waterways.

Focus was made on benefits which could be realized where municipalities and area golf courses collaborated in arranging for wastewater, or "effluent", to be properly managed and carried for use in golf course irrigation. The words, "properly managed" implied that **careful local research** should precede any attempt to implement such an arrangement for irrigation, to insure that contents of the wastewater are compatible with the nutrient needs and tolerances of local turfgrasses, and that the unpleasant odors are eliminated (all of which previous research studies have indicated can, through special treatment, be achieved).

Such local research is being carried on now in the Chicagoland area where, due to international restrictions on Lake Michigan water usage and the continual drop of well water levels, fresh or potable water sources are becoming increasingly scarce and expensive.

At a recent Greens Seminar sponsored by the Chicago District Golf Association, area superintendents' representative, Bob Williams of Bob O'Link Golf Club, declared that, "I foresee within the next two or three decades, that most of our courses will be forced to use effluent wastewater for their irrigation supply. With this kind of handwriting on the wall we should be getting involved in learning how to use effluent. We are planning just that in conjunction with the North Shore Sanitary District and their filtration plant in Highland Park."

Williams related that the plant was currently discharging from 12 to 20 million gallons of treated wastewater into the Skokie River, which ultimately feeds into the Gulf of Mexico, **every day**. "That's enough to irrigate an 18-hole golf course for an entire season," he said. "The NSSD is already working on a plan to pipe wastewater along their existing easements to reach a number of golf clubs in the Skokie Valley." At least eight courses would be able to take advantage of this supply.

Aware of the EPA funding program, the Sanitary District contacted the state and federal agencies for funds to install a line and pump station. Due to a shortage of funds and other restrictions at the time, the district was denied but told to resubmit its application at a later date.

Notwithstanding the EPA denial, the timing was obviously right for local research to determine the effects which NSSD wastewater, in its various stages of treatment, would have on turfgrasses particular to those courses that could benefit from its supply. If successful, the project could lead other sanitary districts toward considering similar water recycling operations, benefitting virtually every golf course in the Chicagoland area.

Specifics of the project were outlined at the CDGA Greens Seminar, held March 22, by Onwensia Club superintendent, Wolfgang Mueller. Mueller first pointed out the tremendous cooperation surrounding the project, which had been conceptualized by a three-man team comprised of Dr. Al Turgeon of the University of Illinois, Aurora Country Club superintendent Carl Hophan, and Mueller himself. He remarked that its implementation **would be possible** through the Chicago District Golf Charities, the University of Illinois, the North Shore Sanitary District and the Northmoor Country Club.

CONFERENCE PROCEEDINGS AVAILABLE

In November 1978, a significant conference took place in Arlington Heights, Illinois. It was the first conference jointly sponsored by four national golf organizations. It was also the first national conference which addressed itself solely to the topic of wastewater for recreational use, a topic of vital importance to golf course management.

Because of the increasing demand on present water supply and possible future restriction in recreational use, it is important to investigate sources of supply other than potable water. Wastewater potentially has great value for irrigating turf. Speakers from throughout the nation assembled to lend their research and experience in use of wastewater on land treatment.

Proceedings covering this two-day conference are now available. It is 200 pages... cost \$10.00 per copy and should prove to be an important part of every golf course turfgrass management library. Place your order with any of the following organizations.

American Society of Golf
Course Architects Foundation
221 North LaSalle Street
Chicago, IL 60601

Golf Course Superintendents
Association of America
1617 St. Andrews Drive
Lawrence, KS 66044

National Golf Foundation
200 Castlewood Drive
North Palm Beach, FL 33408

United States Golf Association
Golf House
Far Hills, NJ 07931

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WASTEWATER IRRIGATION RESEARCH

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In addition, donations of time, funds or materials were being provided by the Chicagoland Golf Course Superintendents Association, the Midwest Association of Golf Course Superintendents, and several turfgrass-related businesses in the area. "Such combined efforts," relates Mueller, "guarantee the success of this worthy undertaking geared to the preservation of our ever dwindling fresh water supply."

Mueller continues, "We plan construction of our turf test plots and ornamental shrubs and ground cover test plots in early April, hoping for completion by early June. These plots will be located on property offered to us by the North Shore Sanitary District." Conducting the research will be Dr. Turgeon, with superintendent Jim Johns and the Northmoor Club assuming the maintenance of the plots. Progress reports will be made periodically by the Chicago District Golf Association from research data gathered. It is expected that the entire project will take two or three years, according to Mr. Johns.

"We feel," concluded Mueller, "that this cooperative effort is a significant development in bringing together the CDGA, the Clubs, the superintendents and the University of Illinois into a most ideal relationship. We appreciate and applaud them for their progressive attitude."

The National Golf Foundation adds its commendation to the entire project and its people, and encourages other communities to pursue similar undertakings of research that will reduce turf irrigation expense by utilizing water more efficiently and in a more environmentally desirable manner for everyone concerned.

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IRRIGATION — (Continued from Page 30)

Region X (WA, OR, ID, AK)
1200 6th Avenue
Seattle, WA 98101
(206) 442-1203

Region IX (CA, NV, AZ, HI, Guam)
100 California Street
San Francisco, CA 94111
(415) 556-6266

Documents Available:

Federal Register, Wednesday, September 27, 1978, Part III, Environmental Protection Agency, **Municipal Wastewater Treatment Works Construction Grants Program**, Vol. 43, No. 188, U.S. EPA, 340 South Dearborn, Chicago, IL 60604 (or see respective regional office address).

Order Form for Construction Grants Publications, US EPA, c/o GSA-Centralized Mailing Lists Services, Bldg. 41, Denver Federal Center, Denver, CO 80225.

How to Obtain Federal Grants to Build Municipal Wastewater Treatment Works, US EPA, Office of Water Program Operations, General Services Administration (8 FFS), Centralized Mailing List Services, Bldg. 41, Denver Federal Center, Denver, CO 80225.

Policy Statement for Land Treatment Projects contained in the **Construction Grants Program Requirements Memorandum PRM 79-3**, US EPA Office, 230 So. Dearborn St., Chicago, IL 60604 (or nearest regional office). (free of charge)

For listing of all regional EPA offices and other environmental agencies related to water pollution — **Environmental Hotline Directory**, Office of Public and Intergovernmental Affairs, c/o nearest regional agency.

Process Design Manual for Land Treatment Municipal Wastewater, compiled by the US EPA and US Army Corps of Engineers, c/o nearest regional US EPA office.

3rd ANNUAL CROWFOOT OPEN



Our congratulations to Gary Morgan and his dedicated assistants for running a truly first class golf tournament. We also want to thank Tim Heirs and his assistant Ron Andrews for having Suntree Country Club in excellent condition.

Anyone who missed this golf tournament better mark their calendar for next year.



The Sponsors Board was one of the finest ever seen at a golf tournament. Let's hope next year they run out of space and have to double its size.



Dan Meyers had Low Gross Superintendent with a 69.



Sonny Smith had Low Gross Commercial with a 76.



George Jones wins a free golf lesson for highest score.