

County Wastewater Regions map adopted by the Northeastern Illinois Planning Commission (NIPC); hearings will be held in each NIPC Region in order to determine that Region's Regional Plan. The Board will designate a Hearing Officer for each NIPC Region; he will be empowered to hold hearings on a Regional Plan and make recommendations to the Board. The Board shall then determine a Regional Program for each Region and give final approval to a Regional Wastewater Program for DuPage County.

[THE NEED FOR REGIONALIZATION]

The multiplicity of overlapping local governmental units was never better illustrated than in the proliferation of entities involved in the treatment of sewage in DuPage County. DuPage has sprouted an inordinate number of separate sewage treatment plants (81 in 1970, R. 342), many of them small indeed, and in many cases quite close to one another. Recent urban expansion away from Chicago has given DuPage a high population density and a considerable total population -- factors which favor regionalization of facilities, not fractionalization. Further, the topography of the County is such as to allow inexpensive transport of sewage to central locations.

Testimony received at the hearings in February and July, 1971, established that unnecessarily small plants constitute a threat of pollution. The Agency indicated that plants operating at larger capacities can generally be staffed with more competent personnel and can provide 24-hour operator coverage to insure proper operation. In its experience, the Agency has found that lack of proper operation is one of the largest single factors toward the degradation of water quality in Illinois streams (R. 339). Dr. Pfeffer of the Institute for Environmental Quality stressed that more competent operators were necessary in order to install an activated sludge sewage treatment plant; such a facility is capable of producing a higher quality of effluent than the less effective trickling filter operation (R. 183). The Board has recognized this fact by prescribing less stringent effluent standards for small plants (e.g. SWB-12, SWB-13, as amended by #R 70-3, January, 1971). Thus, when an area can support a larger sewage treatment facility, this Board must insist, in the interest of maintaining water quality, that this higher degree of treatment be provided. Dr. Pfeffer also noted the probability that advanced waste treatment methods required now or in the future will likewise be beyond the effective competence of small plants and their operators. For example, should some manner of ammonia nitrogen removal be required, (cf. Institute proposal of December 14, 1971), increased sophistication of operation would be demanded in the plant management.

The Agency also cited several other reasons for larger, more efficient facilities when possible. To operate the biological processes of a sewage treatment plant, accurate laboratory control tests are required. Such tests can only be made at plants properly staffed with qualified chemists (R. 339). Only the larger plant can maintain such facilities. Plants with larger capacities generally have three or more units designed for a function, thereby permitting any unit to be taken out of service for repairs, increasing the load to the other units by less than 50%. At smaller plants, generally only two units are provided for a function; these then become 100% overloaded when one unit is removed from service. Dr. Pfeffer graphically described such backup capacity:

"You have generally multiple units, which, if one of the particular units becomes inactivated for some reason, you can increase the load slightly to the remaining unit without markedly affecting the efficiency. If you are sitting here with a small plant that has one primary clarifier and you have to shut that clarifier down to replace the mechanism then all that water is bypassed, and in the past it has been letting raw sewage into the stream . . ."
(R. 185)

In addition, plants at larger capacities are not as susceptible to plant upset due to infiltration of storm water or inadvertent slugs of industrial wastes, since the larger facility has an inherent dilution capability. Larger capacity plants serve larger areas and, as such, the daily peak flows are a smaller percentage of the design average flow; this results in better overall daily treatment (R. 440).

The larger sewage treatment facility also incorporates several financial economies of scale. The Agency indicated that larger capacity plants generally have lower capital costs and lower operating and maintenance costs per million gallons. Pfeffer's testimony established this in detail (R. 176-82). Operating costs for a plant treating one million gallons per day are three times those of a plant treating 100 million gallons, on a per-gallon basis; construction costs are considerably higher as well. A study of the savings attained by regional sewage treatment was made in the area comprising Albany County, New York. For each of the eight affected municipalities to treat its own sewage would have cost \$78.5 million, required 110 operating personnel, and cost \$29.0 million for the first year. A regional two-plant system cost \$53.1 million, required only 35 operators, and was obtained at half the per capita cost.

The above evidence conclusively establishes the need for a Regional Sewage Treatment Program in DuPage County. This Board's conviction that a Regional Program is necessary for DuPage is supported by numerous groups within the County. The County has been pressing for regionalization since 1956 (R. 27). In February, 1971, the DuPage County Mayors and Managers Conference adopted a plan for regional treatment (R. 9). The County Board subsequently went on record as favoring the plan (R. 473). In 1968, the DuPage County Association of Sanitary Districts endorsed a plan for regional treatment (R. 20).

A regional solution, all the parties contend, awaits the designation of a county-wide agency with exclusive authority to construct and operate sewage treatment facilities throughout the county, and with adequate authority to raise money by appropriate means. Several bills introduced in the most recent legislative session would establish various regional authorities with the requisite financial powers, but all languished for lack of consensus over who is to be put in charge, who abolished and who expanded. (Cf. House Bills 1799, 2060, and 2613). This Board does not believe that it need await the establishment of a county-wide agency before a regional program can be implemented.

By the use of the powers granted them under the existing statutes, the present governmental entities in DuPage County can begin to move toward regionalization of sewage treatment facilities. The County, all municipalities, and all sanitary districts have authority to construct, acquire, and operate sewage treatment facilities (Ill. Rev. State, Ch. 24, Sec. 11-141-2 (municipalities); Ch. 34, Sec. 3111 (counties); Ch. 42, Secs. 306, 306.1 (sanitary districts)). All have the power of condemnation without regard for municipal or sanitary district boundaries. (Ch. 24, Sec. 11-141-2; Ch. 34, Sec. 3110; Ch. 42, Sec. 307). Municipalities and sanitary districts may accept and treat sewage from outside their boundaries (Ch. 24, Sec. 11-146-1; Ch. 42, Sec. 316); may contract with one another, if adjacent for the common construction or use of facilities (Ch. 24, Sec. 11-147-1); and may contract for the county to provide sewage treatment, with the local government paying its share of costs (Ch. 24, Sec. 11-147-5; Ch. 34, Sec. 3131). All these governmental bodies have authority to raise funds by revenue and general obligation bonds, by user and connection charges, by general taxation, and by special assessment under the new Constitution effective last July 1 (R. 168). Under the hearings to be held under this regulation, it is the Board's intent that the full use of such statutory authority be explored.

[EXPLANATION OF THE REGULATION]

In summary, the following steps would take place under the regulation. The Board will appoint a Hearing Officer for each of the nine regions. He will convene the various Parties in that region. The Parties shall then submit a Regional Plan to the Hearing Officer, who shall conduct hearings of these submissions and make recommendations to the Board. The Board shall then determine a Regional Program for each region and, after notice and publication, give its final approval to a Regional Wastewater Treatment Program for DuPage County. It is anticipated that all of the above steps will occur within approximately ten months of the adoption of this regulation.

The nine regions which the Board has designated are those which were approved by the Northeastern Illinois Planning Commission October 21, 1971. A DuPage County map designating those regions was prepared for the Board by NIPC and was made a part of this Chapter. For the purposes of the hearings under this regulation, those areas marked for the National Accelerator Laboratory and for the Bartlett-Hanover Park Wastewater Sector shall be considered as part of the northwest region on the map. Since the Proposed Final Draft of this Part was published for purposes of public comment November 23, 1971, the Board has received several comments from various municipalities and sanitary districts expressing particular reservations about one or another boundary line of a particular region. With adoption today, we do not change any of those boundaries originally proposed. Such minor changes as were suggested can be worked out by the various Hearing Officers and the Parties upon a proper showing in the course of the hearings.

The County of DuPage, all municipalities, sanitary districts, and public utilities presently having responsibility for the treatment of sewage in DuPage County shall be Parties in these proceedings. Since the Board's original proposal June 9, 1971, public utilities have been added as Parties. Such addition is principally due to the Agency's testimony that utility sewage treatment facilities have not been responsive to the pollution control programs of the State (R. 344). A Regional Program would then dictate that such facilities be phased out in favor of government-operated facilities capable of exercising bonding power and receiving State and Federal financial grants.

The Board shall designate a Hearing Officer for each of the nine regions. His initial responsibility will be to bring all the Parties within a particular region together. Working through the Board, his activities in a particular region shall be coordinated with that of Hearing Officers in neighboring regions. Once the Hearings Officer convenes the Parties, he shall direct their efforts

to the preparation of a Regional Plan. He can schedule such public hearings, meetings, or pre-hearing conferences as he deems necessary. In any case, by April 1, 1972, all the Parties within a particular region shall submit a "Regional Plan" to the Hearing Officer and to the Agency. This Regional Plan may be submitted either jointly or individually by the Parties. This Plan should be structured in substantial accordance with the Regional Waste-water Plan approved by NIPC October 21, 1971.

Rule 1106 of this Part sets forth in ample detail the contents of the Regional Plan. Of particular note is a "phase-in, phase-out" schedule for each of the affected or proposed plants or plant expansions. The Plan must also contain a commitment as to which governmental entity will operate the plants and how such operation and expansion will be financed. Since the construction and maintenance of interceptor sewers is an integral part of the operation of a sewage treatment plant, a commitment is also demanded in this regard. Further, the Plan must be consonant with County and regional comprehensive growth and land-use planning. In other words, the sewage treatment facility must constitute an adequate service facility for the area which it serves and intends to serve.

The regulation also marks the first time that the Board has sought a recommendation from its Hearing Officers. Upon receipt of the Regional Plan, the Hearing Officer shall hold such further hearings as may be necessary in order for him to formulate recommendations to the Board by July 1, 1972. Rule 1107(b) indicates the contents of such a recommendation to the Board. Basically, the Rule seeks a "physical" layout from the Hearing Officer as to phasing out of plants, designation of new, interim or remote facilities, and construction of interceptors to accommodate new or expanded facilities. The Hearing Officer must also designate the governmental agency or agencies which will assume responsibility for treatment of sewage within his particular region. In making his recommendations to the Board, Rule 1107(c) proposes several considerations to the Hearing Officer. Two are of especially great importance. Provision may be made in the Regional Plan for continued service by smaller plants in areas remote from regional treatment facilities. Such a provision only underscores the Board's insistence that the Plan be technically and economically reasonable. Further, the Hearing Officer must take into account the service needed in areas presently unsewered. Rule 1111 provides that these areas must have their interests fully considered in these proceedings and places such burden upon the Hearing Officer and the Agency. This concern over presently unserved areas was one of the reasons

for the Board's hesitation to adopt a county-wide regional plan based upon the hearings already held in 1971. Before a Regional Program can be approved, the Board must be assured that such unserved areas are guaranteed service on a reasonable cost basis and only on reasonable conditions. The Board views sewage treatment facilities as a public service commodity which is to be provided in anticipation of and in response to the needs of the community. Planning for sewage treatment services and facilities is a vital part of community growth.

Rule 1108 indicates the contents of a Regional Program to be issued by the Board. Again, the Regional Program must establish the physical pattern of "phase-in, phase-out" of treatment plant and transport system expansion, and of new plant construction. Such should be in accordance with economic and technical feasibility and should take into account the predicted regional growth in the County. Most importantly, the Program must designate the governmental agency or agencies which will be responsible for sewage treatment within each of the nine regions.

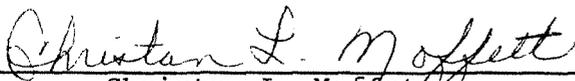
The Environmental Protection Agency will participate in each of the proceedings in each region. It will also file a stated written recommendation for each region and for each treatment plant. The Agency shall also air in the enforcement of this Part by denying permits for any facility which does not conform with the Regional Program. Rule 1113 proposes only two exceptions to such a policy: for interim facilities in the event of a demonstrated emergency; for facilities of such small capacity as to create only an insignificant risk of inadequate treatment.

Overriding all other considerations under this Part, of course, is the Board's insistence that this regulation in no way relieves any person from the obligation to comply in all respects with existing and future regulations, both as to water quality standards and as to the implementation plan for DuPage County streams.

In promulgating this regulation, the Board shifts the onus of determining the manner of regionalization back to where it belongs -- the people and governmental bodies of DuPage County. By localizing the political traumas and governmental rivalries, we anticipate that a solution may become more easily available. We do not withdraw from the problem, however, but merely await a sifting out of the facts and the formulation of a Regional Plan. Then the case returns to the Board, for the institution of a Regional Program. It is our earnest hope that the Plan presented by the Parties constitutes a detailed, viable solution such that the Regional Program approved by the Board need only be a stamp of approval.

The Board hopes that this regulation will provide an impetus and perhaps a model to other similarly urbanized counties throughout Illinois. Lake, McHenry, Kane, Will, Madison, and St. Clair Counties are only a step away from the sewage treatment problems which engulf DuPage County.

I, Christan L. Moffett, Clerk of the Pollution Control Board, certify that the Board adopted the above Opinion this 6th day of January, 1972, by a vote of 4-0.



Christan L. Moffett
Clerk of the Board