

TITLE 35: ENVIRONMENTAL PROTECTION

SUBTITLE C: WATER POLLUTION

CHAPTER II: ENVIRONMENTAL PROTECTION AGENCY

PART 366

PROCEDURES AND REQUIREMENTS FOR
DETERMINING LOAN PRIORITIES FOR MUNICIPAL WASTEWATER
TREATMENT WORKS

SUBPART A: INTRODUCTION

Section

- 366.101 Purpose
- 366.102 Definitions
- 366.103 Incorporations by Reference
- 366.104 Priority System and Project Priority List
- 366.105 Funding Allocations
- 366.106 Pre-applications
- 366.107 Facility Planning

SUBPART B: PROCEDURE FOR CALCULATING THE LOAN PRIORITY INDEX OF
SERVICE

CONTINUATION PROJECTS

Section

- 366.201 Formula for Computing the Loan Priority Index for Service
Continuation Projects
- 366.202 A1 Factor (Financial Impact)
- 366.203 A2 Factor (Water Quality)
- 366.204 A3 Factor (Organic Load)
- 366.205 A4 Factor (Assessment of Existing Facilities)
- 366.206 A5 Factor (Operational Excellence)

SUBPART C: PROCEDURE FOR CALCULATING THE LOAN PRIORITY INDEX OF
SERVICE

EXPANSION PROJECTS

Section

- 366.301 Formula for Computing the Loan Priority Index for Service

Expansion Projects

- 366.302 B1 Factor (Financial Impact)
- 366.303 B2 Factor (Water Quality)
- 366.304 B3 Factor (Economic Benefit)
- 366.305 B4 Factor (Existing Utilization)
- 366.306 B5 Factor (Operational Excellence)
- 366.307 B6 Factor (Health Hazard)

SUBPART D: PROCEDURE FOR CALCULATING LOAN PRIORITY INDEX FOR NEW SERVICE PROJECTS

Section

- 366.401 Formula for Computing the Loan Priority Index for New Service Projects
- 366.402 C1 Factor (Financial Impact)
- 366.403 C2 Factor (Water Quality)
- 366.404 C3 Factor (Organic Load)
- 366.405 C4 Factor (Health Hazard)

SUBPART E: PROCEDURE FOR CALCULATING LOAN PRIORITY INDEX FOR COMBINED SEWER SERVICE PROJECTS

Section

- 366.501 Formula for Computing the Loan Priority Index for Combined Sewer Projects
- 366.502 D1 Factor (Financial Impact)
- 366.503 D2 Factor (Drainage Area)
- 366.504 D3 Factor (Flooding Frequency)
- 366.505 D4 Factor (Basement Backups)
- 366.506 D5 Factor (Percentage of Basements Affected)

SUBPART F: PROCEDURE FOR APPLICATION OF SCORING CONVENTIONS

Section

- 366.601 Scoring Conventions

- APPENDIX A Waterbody Specific Information
- APPENDIX B Service Continuation A4 Factor Scoring Review Sheet
- APPENDIX C Excellence of Operation Scoring Review Sheet For Local Government Units That Own Wastewater Treatment Facilities
- APPENDIX D Excellence of Operation Scoring Review Sheet For Local Government Units That Own Only Wastewater Collection

Facilities

AUTHORITY: Implementing and authorized by Sections 19.1 through 19.8 of the Environmental Protection Act [415 ILCS 5/19.1-19.8]

SOURCE: Adopted at 14 Ill. Reg. 8121, effective May 14, 1990; amended at 20 Ill. Reg. 15598, effective November 26, 1996.

SUBPART A: INTRODUCTION

<BSection 366.101 Purpose>>

This Part sets forth the procedures and requirements established by the Illinois Environmental Protection Agency (IEPA) for determining priorities in awarding financial assistance for the construction of municipal wastewater treatment works under Sections 19.1 through 19.9 of the Environmental Protection Act (the Act) [415 ILCS 5/19.1-19.9] and Title VI of the Federal Clean Water Act (33 U.S.C. 1281 et seq.).

(Source: Amended at 20 Ill. Reg. 15598, effective November 26, 1996)

<BSection 366.102 Definitions>>

- a) Unless specified otherwise, all terms shall have the meanings set forth in the Environmental Protection Act [415 ILCS 5], the Federal Clean Water Act (33 U.S.C. 1281 et seq.) and regulations adopted under these Acts, including 35 Ill. Adm. Code 365.
- b) For purposes of these rules, the following definitions apply:

"Agency" -- Illinois Environmental Protection Agency.

"Combined Sewer Service Projects" -- Projects constructed in a combined sewer service area which are intended to reduce or eliminate street, area and basement flooding.

"Fund" -- The Water Pollution Control Revolving Fund as authorized by P.A. 85-1135, effective September 1, 1988.

"Intended Use Plan" -- A plan which includes a description of the short and long term goals and objectives of the Fund, project categories, discharge requirements, terms of financial assistance and the communities to be served.

"Monitoring Reports" -- Reports submitted in response to permits issued under the authority of the Federal Clean Water Act (33 U.S.C. 1281 et seq.), the Environmental Protection Act [415 ILCS 5], and regulations adopted under these Acts, including discharge (NPDES) permits and State operating permits.

"New Service Project" -- Projects which will provide wastewater collection, transportation or treatment for an unsewered local government unit.

"P.E. BOD" -- A term used to evaluate the impact of industrial or other waste on a treatment works or streams in terms of five day biochemical oxygen demand. One P.E. BOD equals 0.17 pounds (77g).

"Permits" -- National Pollutant Discharge Elimination System (NPDES) permits and State operating permits as described in 35 Ill. Adm. Code 309.

"Priority System" -- A methodology used to rank projects for inclusion on the project priority list.

"Project Priority List" -- An ordered listing of projects which the Agency has determined are eligible to receive financial assistance from the Fund.

"Service Continuation Project" -- Projects for the improvement, upgrade, rehabilitation, renovation, and/or replacement of wastewater treatment works.

"Service Expansion Project" -- Projects to expand capacity of existing wastewater treatment works.

"Title VI" -- Title VI of the Federal Clean Water Act (33 U.S.C. 1281 et seq.).

"USEPA Reach File" -- Hydrologic Nomenclature System developed by USEPA to identify and locate specific waterbodies.

(Source: Amended at 20 Ill. Reg. 15598, effective November 26, 1996)

<BSection 366.103 Incorporations by Reference>>

U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census: 1990 Census of Population and Housing: Summary Social, Economic, and Housing Characteristics, Illinois, Table 10, 1990 CPH-5-15 (no later editions or amendments).

(Source: Added at 20 Ill. Reg. 15598, effective November 26, 1996)

<BSection 366.104 Priority System and Project Priority List>>

- a) Financial assistance will be provided from the Fund only to projects which are identified on the project priority list.
- b) This Part sets forth a priority system to be used to rank projects for inclusion on the project priority list. The ranking of a project is as calculated under Subparts B, C, D and E of this Part.
- c) The project priority list shall be published annually in the preliminary Water Pollution Control Program Plan developed in accordance with Section 106 of the Federal Clean Water Act (33 U.S.C. 1256). After the public hearing is held to discuss the Program Plan, the Agency shall evaluate and consider any public comments received concerning the project priority list. The final project priority lists shall be published in the final Water Pollution Control Program Plan.
- d) The Agency will develop a priority list with four (4) separate classes of projects:
 - 1) Service Continuation Projects
 - 2) Service Expansion Projects
 - 3) New Service Projects
 - 4) Combined Sewer Service Projects
- e) Data provided in the applicant's pre-application will determine the appropriate class for each project for which assistance is requested from the Fund.

(Source: Section 366.104 renumbered from Section 366.103 and amended at 20 Ill. Reg. 15598, effective November 26, 1996)

<BSection 366.105 Funding Allocations>>

- a) In the development of its priority list, the Agency will allocate available loan funds to the four major classes of projects in proportion to the relative needs of the State for each project class, subject to the limitations of Section 602(b)(6) of the

Clean Water Act (33 U.S.C. 1382(b)(6)).

- b) Annual allocations of available loan funds to each class shall initially be made on the basis of State wastewater needs as identified in the pre-applications for projects that qualify for inclusion on the Intended Use Plan for that fiscal year in accordance with the requirements of 35 Ill. Adm. Code 365.410(c).
- c) After January 1 of each fiscal year, the Agency may adjust its allocations of available funds among project classes in the Intended Use Plan (see 35 Ill. Adm. Code 365.420) to reflect the relative needs contained in completed loan applications, subject to the overall availability of loan funds for that fiscal year.
- d) Loan funds available from State and federal appropriations during the capitalization period authorized by Section 607 of the Clean Water Act to capitalize the Water Pollution Control Revolving Fund will be subject to an equal division between the service area of the Metropolitan Water Reclamation District of Greater Chicago and the area which is comprised of the geographical balance of the State, to the extent that projects in either area in any fiscal year have qualified to receive loan assistance and are ready to proceed in accordance with the criteria for loan award (see 35 Ill. Adm. Code 365.430).
- e) If sufficient projects in either area are not able to complete a loan application in any fiscal year to permit an equal division of the above funds, loans will be made to those projects which are able to complete a loan application to the extent that the appropriated funds are available.
- f) Any imbalance in the division of the total loan funds appropriated during the capitalization period authorized by the Clean Water Act to capitalize the Water Pollution Control Revolving Fund shall be carried forward from year to year and shall be applied as projects are able to complete a loan application to achieve an accumulatively equal distribution subject to the constraints of Section 366.106 of this Part.

(Source: Section 366.105 renumbered from Section 366.104 and amended at 20 Ill. Reg. 15598, effective November 26, 1996)

<BSection 366.106 Pre-applications>>

- a) A local government unit may submit a pre-application at any time. The pre-application must identify the class of the project, the discharge location point, the scope of the project, the population tributary to the project, a cost estimate and schedule for

completion of the project.

- b) An applicant is required to renew its pre-application annually.
 - c) Pre-applications must be received by March 31st of the preceding fiscal year to be included on the Intended Use Plan.
 - d) A project with approved facility planning may be added to the priority list at any time by the submission of a pre-application.
- (Source: Section 366.106 renumbered from Section 366.105 at 20 Ill. Reg. 15598, effective November 26, 1996)

<BSection 366.107 Facility Planning>>

- a) A project's priority will be adjusted to reflect completed and approved facility planning (see 35 Ill. Adm. Code 365: Subpart E).
- b) Projects may be split into more than one project, deleted or modified at the option of the applicant on the priority list as a result of the approval of the facility planning.

(Source: Section 366.107 renumbered from Section 366.106 at 20 Ill. Reg. 15598, effective November 26, 1996)

SUBPART B: PROCEDURE FOR CALCULATING THE LOAN PRIORITY INDEX OF SERVICE

CONTINUATION PROJECTS

<BSection 366.201 Formula for Computing the Loan Priority Index for Service Continuation Projects>>

The Loan Priority Index (LPI) is a number that is the product of five factors. The LPI is calculated as follows: $A1 \times A2 \times A3 \times A4 \times A5 = LPI$.

<BSection 366.202 A1 Factor (Financial Impact)>>

A1 is a factor which evaluates the financial impact of wastewater improvements on the residents of the municipality. The A1 factor is based on median household income for the smallest governmental entity that encompasses the applicant's service area as presented in the 1990 Census of Population and Housing: Summary Social, Economic, and Housing Characteristics, Illinois, Table 10, as published by the U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, or the applicant will provide a determination of the mid-point of the distribution of the annual incomes of at least 80% of the households in the

project service area (commonly known as median household income). The A1 factor is based on median household income and is calculated as follows:

Greater than \$0 but less than \$15,000	1.10
\$15,000 - \$19,999	1.09
\$20,000 - \$24,999	1.08
\$25,000 - \$29,999	1.07
\$30,000 - \$34,999	1.06
\$35,000 - \$39,999	1.05
\$40,000 - \$44,999	1.04
\$45,000 - \$49,999	1.03
\$50,000 - \$54,999	1.02
\$55,000 - \$59,999	1.01
Greater than \$59,999	1.00

(Source: Amended at 20 Ill. Reg. 15598, effective November 26, 1996)

<BSection 366.203 A2 Factor (Water Quality)>>

A2 is a factor that evaluates the water quality of the receiving waterbody or proposed receiving waterbody. These water quality evaluations are based on current waterbody specific information. A combination of biotic integrity information and abiotic data from three categories are used in A2 calculations when available. These categories include the Index of Biotic Integrity (IBI), the Predicted Index of Biotic Integrity (PIBI), and the Degree of Use Support (DUS). As a result, those stream reaches resulting in the highest priority are those with the highest quality and potential for improvement (see Appendix A). A2 calculations for stream reaches (as defined by USEPA REACH file) are derived by:

$$A2 = \frac{\text{Psum of the points from IBI, PIBI, DUS categories}}{100 \times 5} \text{ divided by } \text{sum of the maximum possible points for each category}$$

<BSection 366.204 A3 Factor (Organic Load)>>

A3 is a factor that evaluates the existing organic load that is tributary to the proposed project. It is calculated as the square root of log10 of the tributary waste load in P.E. BOD. Where the municipality has provided monitoring report data, it will be used for the previous calendar year. In

cases where the monitoring report data is not available for the previous calendar year, the approved facilities planning will provide estimated existing organic load.

<BSection 366.205 A4 Factor (Assessment of Existing Facilities)>>

A4 is a factor that evaluates the need for the project in terms of its importance to the treatment works. It is calculated as the product of three elements: (the objective assessment of the existing facilities) x (the degree of utilization) x (frequency of permit violations) = A4.

- a) The objective assessment will be completed based on the approved facility planning and the Agency's verification of the facilities planning's finding in terms of the adequacy, age, structural and/or mechanical reliability of the existing treatment units. The objective assessment for the particular project will be completed by the Agency prior to the completion of the facility planning. (See Appendix B.)
- b) The degree of utilization will be calculated as follows:
 - 1) For wastewater treatment facilities, ratio of the existing load to the design load will be calculated for both hydraulic and organic load as follows:

$$\frac{\text{Average organic load}}{\text{organic design}} \text{ or } 3 \frac{\text{Pmonths low flow average}}{\text{hydraulic design}}$$

The larger of the two ratios will be used in the A4 calculation.

- 2) For wastewater transportation facilities: $\frac{\text{Pexisting peak flow}}{\text{design peak}}$
 - 3) Where relief sewer capacity is proposed, the degree of utilization will be calculated at the point in the treatment works where the greatest reserve capacity exists.
- c) The permit exceedance element will be calculated as follows:
 - 1) For wastewater treatment facilities, the permit exceedance element shall be based on monitoring report data for the previous calendar year as follows:

$$\frac{\text{Pnumber of months with a permit exceedance event}}{\text{number of months reported}} + 1$$

Where:

- A) BOD, suspended solids or phosphorus exceed the monthly

limits or;

- B) Ammonia nitrogen, chlorine or toxics exceed the monthly or maximum limit as specified in the permit.

The permit exceedance element shall be based on the single parameter that is addressed by the project with the greatest ratio of permit exceedance; or

- 2) For sewer system improvements an alternate calculation will be utilized as follows based on the information in the approved facility planning:

For overflow and/or bypass events, number of occurrences in last year:

0-5	= 1.2
6-10	= 1.4
11-15	= 1.6
16-20	= 1.8
Greater than 20	=2.0

or

- 3) For basement back-ups the frequency and the number of affected basements will be used (number x frequency).

- A) Average number of basements affected per occurrence:

0-10	= 1.1
11-20	= 1.2
21-50	= 1.3
51-100	= 1.4
Greater than 100	=1.5.

- B) Annual frequency of occurrence of basement backups:

0-5 times	= 1.1
6-10 times	= 1.2
11-15 times	= 1.3
16-20 times	= 1.4
Greater than 20 times	= 1.5.

<BSection 366.206 A5 Factor (Operational Excellence)>>

A5 is a factor which evaluates the operation of the existing facilities and provides a bonus for excellence of operation. For mechanical treatment and sewage collection facilities that have exhibited excellence in operation

and maintenance by receiving a score of 15 or greater out of a possible composite score of 20, or lagoon treatment facilities that have exhibited excellence in operation and maintenance by receiving a score of 13.5 or greater out of a possible composite score of 20, 1.5 points will be awarded. All others will be 1.0. This factor will be calculated by the Agency using the criteria in Appendix C or D.

(Source: Amended at 20 Ill. Reg. 15598, effective November 26, 1996)

SUBPART C: PROCEDURE FOR CALCULATING THE LOAN PRIORITY INDEX OF SERVICE EXPANSION PROJECTS

<BSection 366.301 Formula for Computing the Loan Priority Index for Service Expansion Projects>>

The Loan Priority Index (LPI) is a number that is the product of six (6) factors. The LPI is calculated as follows: $B1 \times B2 \times B3 \times B4 \times B5 \times B6 =$ LPI.

<BSection 366.302 B1 Factor (Financial Impact)>>

B1 is factor which addresses the financial ability of the community as in A1 above.

<BSection 366.303 B2 Factor (Water Quality)>>

B2 is a factor that evaluates the existing quality of the receiving stream in accordance with the procedure outlined in A2, and modifies that ranking so as not to encourage additional waste load to high quality streams. The B2 factor is calculated by multiplying the Water Quality Factor as calculated in A2 by the high quality water factor for the stream class (see Appendix A):

- 0.60 for A streams (Unique Aquatic Resource);
- 0.75 for B streams (Highly Valued Aquatic Resource);
- 1.00 for C streams (Moderate Aquatic Resource);
- 1.00 for D Streams (Limited Aquatic Resource);
- 1.00 for E streams (Restricted Aquatic Resource).

<BSection 366.304 B3 Factor (Economic Benefit)>>

- a) B3 is a factor that evaluates the potential for economic benefit. Additional points will be awarded for having an annual

unemployment percentage above the State average as determined by the Department of Employment Security pursuant to Section 43a.08 of the Civil Administrative Code of Illinois (Code) [20 ILCS 5/43a.08] and 20 CFR 634 (1989) (no subsequent dates or editions). Information concerning a municipality's unemployment rate can be obtained from: Economic Information and Analysis Section, Department of Employment Security, 555 S. Pasfield, Floor 2, Springfield, Illinois 62704 (217) 785-4624.

b) B3 is calculated as (unemployment rate factor) + 1.

Where the applicant's unemployment rate is above the State average, unemployment rate points will be awarded as follows:

less than 1% above the State average = 0.0
1-2.9% above the State average = 0.1
3.0-5% above the State average = 0.2
5% above State average = 0.3

(Source: Amended at 20 Ill. Reg. 15598, effective November 26, 1996)

<BSection 366.305 B4 Factor (Existing Utilization)>>

B4 is a factor representative of the existing loadings or the degree of utilization of the existing capacities. This factor will be calculated for each type of project (i.e. wastewater treatment expansion, collection system extension or additional sewer capacity) using different factors as follows:

a) Wastewater Treatment Expansion

The wastewater treatment expansion factor will be based on the ratio of the existing load to the design capability. The larger of the two ratios will be used as follows:

- 1) $\frac{\text{Paverage organic load}}{\text{organic design}} + 1$
or
- 2) $\frac{\text{P3 months low flow average}}{\text{hydraulic design}} + 1$

b) Collection System Extension

0-50 P.E. = 1.1; for each additional 50 P.E., 0.1 point will be added to a maximum of 2.0.

c) Collection System Capacity Expansion

$\frac{\text{Pexisting flow} + \text{outstanding state construction permits}}{\text{permitted capacity}} + 1$

<BSection 366.306 B5 Factor (Operational Excellence)>>

B5 is a factor that evaluates the operation of the existing facilities as in A5 above.

<BSection 366.307 B6 Factor (Health Hazard)>>

B6 is a health hazard factor for use with failing septic systems in unsewered areas to be served by collection system extensions. Projects that are determined by the responsible public health agency to be necessary to correct an existing public health hazard will be assigned a value of 1.1 and all others will be assigned a value of 1.0.

(Source: Amended at 20 Ill. Reg. 15598, effective November 26, 1996)

**SUBPART D: PROCEDURE FOR CALCULATING LOAN
PRIORITY INDEX FOR NEW SERVICE PROJECTS**

<BSection 366.401 Formula for Computing the Loan Priority Index for New Service Projects>>

The Loan Priority Index (LPI) for new service projects is a number that is the product of four (4) factors. The LPI is calculated as follows: $C1 \times C2 \times C3 \times C4 = LPI$.

<BSection 366.402 C1 Factor (Financial Impact)>>

C1 is a factor that addresses the financial ability of the unit of local government as in A1 above.

<BSection 366.403 C2 Factor (Water Quality)>>

C2 is a factor representative of the existing receiving stream water quality as in B2 above.

<BSection 366.404 C3 Factor (Organic Load)>>

C3 is a factor that evaluates the existing organic load tributary to the proposed project and is calculated as in A3 above.

<BSection 366.405 C4 Factor (Health Hazard)>>

C4 is a factor to denote an existing health hazard and is applied as in B6

above.

**SUBPART E: PROCEDURE FOR CALCULATING THE LOAN PRIORITY INDEX
FOR COMBINED
SEWER SERVICE PROJECTS**

<BSection 366.501 Formula for Computing the Loan Priority Index for Combined Sewer Projects>>

The Loan Priority Index (LPI) number for Combined Sewer Service projects is the product of a 5 factors. The LPI is calculated as follows: $D1 \times D2 \times D3 \times D4 \times D5 = LPI$.

<BSection 366.502 D1 Factor (Financial Impact)>>

D1 is a factor that addresses the financial ability of the unit of local government as in A1 above.

<BSection 366.503 D2 Factor (Drainage Area)>>

D2 is a factor that represents the size of the drainage area tributary to the project. The factor will be based on the size of the drainage area:

0 acres =1.00

Greater than 0
but less than

or
equal to 50

acres =1.01

Greater than 50
but less than

or
equal to 100

acres =1.02

Greater than
100

but less than
or

equal to 150
acres =1.03

Greater than
150

but less than

or
equal to 200
acres =1.04
Greater than
200
acres =1.05

<BSection 366.504 D3 Factor (Flooding Frequency)>>

D3 is a factor that considers the frequency of street or area flooding caused by inadequate combined sewer transport capacity. The factor will be based on the annual frequency of flooding events as follows:

0 times per year = 1.00
1-5 times per year = 1.01
6-10 times per year = 1.02
11-15 times per year = 1.03
16-20 times per year = 1.04
More than 20 times per year = 1.05

<BSection 366.505 D4 Factor (Basement Backups)>>

D4 is a factor that represents the frequency of basement flooding. D4 is calculated as follows: (frequency of basement flooding) x (average number of basements affected) = D4.

- a) The frequency of basement flooding element will be calculated as follows:

0 times per year = 1.00
1-5 times per year = 1.01
6 to 10 times per year = 1.02
11 to 15 times per year = 1.03
16 to 20 times = 1.04

per year
More than 20 = 1.05
times per year

- b) The number of basements affected will be calculated as follows using the average number of basements affected by storm events during the previous year:

0 basements = 1.0
1-10 basements = 1.1
11-25 basements = 1.2
26-50 basements = 1.3
51-100 = 1.4
basements
More than 100 = 1.5
basements

<BSection 366.506 D5 Factor (Percentage of Basements Affected)>>

D5 is a factor that expresses the average number of basements affected in the project drainage area as a percent of the basements in the project drainage area as follows:

$$D5 = 100 \frac{\text{Average \# of basements affected in drainage area}}{\text{\# of basements in drainage area}}$$

SUBPART F: PROCEDURE FOR APPLICATION OF SCORING CONVENTIONS

<BSection 366.601 Scoring Conventions>>

- a) For integrally related projects, such as an expansion of wastewater treatment capacity and a project to add additional load to the treatment facilities (i.e. relief interceptors, new interceptors, collection system extensions, new service regional projects, etc.), the wastewater treatment facility expansion project will proceed at the LPI of the expansion project or at the LPI of the project adding load, whichever results in the more favorable priority ranking.
- b) Projects for Inflow/Infiltration correction serving more than one municipality will be scored for priority using the A2 and A4 factors for the receiving wastewater treatment works. The A1, A3 and A5 factors will be determined based on the data for the municipality where the project is proposed.

- c) At the time of facility planning approval, all projects will be rescored based on the approved planning. As a result of this rescoring, projects may be split into a number of projects, deleted or moved to an appropriate class.
- d) For relief or replacement interceptor sewers that provide capacity in addition to the relief capacity required for the existing service area, the Agency will assign segments of the project different priority numbers or place segments in different project classes based on the percent of capacity utilization for each segment as determined during facility planning approval.
- e) Where the project encompasses more than one area of review (i.e. wastewater treatment plant and lift stations or wastewater collection system and lift stations), the objective assessment portion of the A4 factor will be averaged for the areas of review included in the project.
- f) The loan applicant may provide monitoring data for a pending permit requirement in order to allow the Agency to calculate a permit exceedance element as identified in 366.205(c), provided that the Agency has formally notified the applicant of a pending new permit requirement.
- g) Where adequate data is not available to calculate any factor, a value of 1.0 will be assigned to allow completion of the LPI calculation.

<BSection 366.APPENDIX A Waterbody Specific Information>>

The waterbody specific information used by the Agency for the priority system is contained in the Agency's biennial reports required under Section 305(b) of the Clean Water Act (33 U.S.C. 1315(b)). The calculations for river reaches range on a possible scale of 0-100, where 100 indicates the most highly valued water quality resources and results in the highest priority for protection or preservation. Calculations for lakes and reservoirs are based on the Degree of Use Support Assessment (DUS) and expressed as the DUS points as a percentage of the maximum DUS points. The component categories of IBI, PIBI, and DUS are determined based on the following:

a) IBI - Index of Biotic Integrity

The Index of Biotic Integrity (IBI) is the priority metric of the Biological Stream Characterization (BSC) stream classification system. IBI values ranging from 12 to 60 constitute the primary basis of the five stream classes as follows:

When quality stream fishery data are lacking for IBI determinations, BSC ratings may be derived by a subjective

evaluation of narrative fishery criteria. In the absence of fishery data, aquatic macroinvertebrate data may be used for Limited or Restricted Use Aquatic Resource ratings (Class C and D respectively) for stream segments five miles in length or longer. The actual index is used in calculating A2. The maximum number of points when IBI is used is 60.

b) PIBI - Predicted Index of Biotic Integrity

The Predicted Index of Biotic Integrity (PIBI) was developed to predict biotic potential (as measured by IBI) from habitat metrics.

The index is determined from the following relationships of four (4) stream habitat variables:

1. Percent substrate as silt-mud
2. Percent substrate as claypan
3. Mean stream width
4. Percent pool

The following equation is utilized for prediction of biotic potential as defined by a predicted IBI (PIBI) value:

$$\text{Predicted IBI} = 40.1 - (0.126 \text{ silt-mud}) - (0.123 \text{ claypan}) + (0.0424 \text{ pool}) + (0.0916 \text{ width})$$

For purposes of deriving A2 calculations, PIBI values are divided by one half. The maximum number for the PIBI value is 30.

c) DUS - Degree of Use Support -- Streams

Section 305(b) of the Federal Clean Water Act (33 U.S.C. 1315(b)) requires each state to prepare a biennial report which addresses, among other items, the water quality of its surface water resources and the extent to which these waters meet objectives of the Act. Surface water resources are described in terms of the degree to which they are attaining designated uses. The Degree of Use Support (DUS) for Illinois streams is described in terms as follows:

Full = Fully supporting aquatic life uses

Partial/Minor = Partially supporting aquatic life uses with minor impairment

Partial/Moderate = Partially supporting aquatic life uses with moderate impairment

Nonsupport = Not supporting aquatic life uses

The DUS is reported at 2 assessment levels: monitored and evaluated. The monitored assessment level is based on current water chemistry, sediment chemistry, biological, and habitat data collected from various Agency monitoring

programs.

The evaluated assessment level is based primarily on historic data (5 years or older) or similarity of the area to monitored waters within the same basins or geographic region.

For purposes of A2 calculations, DUS assessments are incorporated as follows:

Full or Full/Threatened	=	50
Partial Minor, impact P greater than NP	=	45
Partial Moderate, impact P greater than NP	=	40
Nonsupport, impact P greater than NP	=	35
Partial Minor, impact P less than NP	=	30
Partial Moderate, impact P less than NP	=	25
Nonsupport, impact P less than NP	=	20
Partial Minor, impact NP only	=	15
Partial Moderate, impact NP only	=	10
Nonsupport, impact NP only	=	5

Note: P = point source

NP = nonpoint source

The maximum number of points is 50. Aquatic life use impairments resulting primarily from point sources are given a higher priority. Full or Full/Threatened and Partial Minor assessments which are based on an evaluated level of assessment will be assigned 40 points.

For purposes of B2 and C2 calculations, the Stream Class A, B, C, D or E is assigned from the Biological Stream Characterization Summary as follows:

Biological Stream Characterization (BSC) summary.

STREAM

CLASS	BSC CATEGORY	BIOTIC RESOURCE QUALITY DESCRIPTION
<P		>>
A	Unique Aquatic Resource	EXCELLENT. Comparable to the best situations without human

disturbance.

- B Highly Valued Aquatic Resource GOOD. Good fishery for important gamefish species (sauger, walleye, northern pike, black bass, panfish and catfish); species richness may be somewhat below expectations for stream size or geographic region.
- C Moderate Aquatic Resource FAIR. Fishery consists predominantly of bullheads (*Ictalurus* spp.), sunfish (*Lepomis* spp.), and carp (*Cyprinus carpio*). Species diversity and number of intolerant fish reduced. Trophic structure skewed with increased frequency of omnivores, green sunfish or tolerant species.
- D Limited Aquatic Resource POOR. Fishery predominantly for carp; fish community dominated by omnivores and tolerant forms. Intolerant macroinvertebrates rare or absent; moderate, facultative and tolerant organisms dominate benthic community. Species richness may be notably lower than expected for geographic area, stream size or available habitat.
- E Restricted Aquatic Resource VERY POOR. Few fish of any species present; no sport fishery exists. Intolerant macroinvertebrates absent; benthic community consists of essentially tolerant forms, or no aquatic life may be present. Species richness may be restricted to a few oligochaete or chironomid taxa.
- d) DUS -- Degrees of Use Support -- Lakes & Reservoirs
Index of Biotic Integrity (IBI) and Predicted Index of Biotic Integrity (PIBI) information is not applicable to lakes and reservoirs. The A2 factor will be determined solely from the Degree of Use Support classification and point allocation

contained in paragraph (c) above.

<BSection 366.APPENDIX B Service Continuation A4 Factor Scoring Review Sheet>>

Scoring Elements:

A. <PWASTEWATER TREATMENT PLANTS:>>

- | | |
|---|-----|
| NPDES Permit exceedance (if applicable) | BOD |
|<P >> | |
| SS....<P >> | |
| Ammonia/Nitrogen...<P >> | |
| Phosphorus...<P >> | |
| Dechlorination/Toxics....<P >> | |
| Overflows/Bypasses.....<P >> | |
| Cause of exceedance<P | >> |
| <P | >> |
| <P | >> |
| Work necessary to correct exceedance<P | >> |
| <P | >> |
| <P | >> |
1. Age of wastewater treatment facilities since last upgrade...
<P >> Years. (0.5 point for each 5 years over 20 years old). <P >>
 -
 2. Is plant concrete sound? ... Y <P >> N <P >>. Extensive spauling of concrete must be evident to be classed unsound. (0.1 point for each 10% of the concrete thickness that is gone.) <P >>
 3. If yes, is the reinforcing steel exposed? ... Y <P >> N <P >> (1.0 point if steel is exposed.) <P >>
 4. Does the condition of the concrete pose a threat to the structural integrity of any unit process, building, or mechanical equipment in the plant or pose a safety hazard to operating personnel?..... Y <P >> N <P >> <P >> (If yes, 1.0 point.) <P >>
 5. Is the present condition of various plant concrete structures contributing to or causing effluent violations? Y <P >> N <P >> (If yes, 1.0 point.)..... <P >>
 6. Would a failure of any of the concrete structures which are in poor condition cause a discharge to the waters of the state <P >> or an effluent violation? Y <P >> N <P >> (If yes, 1.0 point.)....
 7. Is corrosion of metal structures (bridges, walkways, control

- panels, valve vaults, handrails, etc.) at the point where a potential threat exists to continued operation of plant units or a safety threat exists for plant personnel? Y <P >> N <P >>
- (If yes, 1.0 point.) <P >>
8. Number of mechanical equipment failures during the past five years.....<P >>. Causes: <P >>
- (0.1 point for each occurrence that resulted in one unit process being out of service for at least one day; 3.0 points maximum.)..... <P >>
9. Number of mechanical equipment failures during the past year <P >>. Causes: <P >>
- <P >>
10. Were the mechanical failures in any way related to improper maintenance?.. Y <P >> N <P >> (If no, then 0.1 point for each event in which a unit process was out of operation of at least one day; 2.0 points maximum.)..... <P >>
11. Did any of the mechanical failures result in a raw or partially treated sewage discharge to waters of the state?... Y <P >> N <P >>
- (If yes, 2.0 points.) <P >>
12. Did any of these mechanical failures result in an actual or potential safety hazard to plant personnel?... Y <P >> N <P >>
- (If yes, 1.0 point.)..... <P >>
13. Are there any portions of the plant which are permanently out of service due to mechanical failure or lack of availability of replacement parts due to equipment age? (0.5 point for each tank or functional unit that is no longer operational, 4 points maximum.)..... <P >>
14. Were these mechanical failures due to equipment design or application problems? .. Y <P >> N <P >> (If yes, subtract 1.0 point.)..... <P >>
15. Have all warranties expired? Y <P >> N <P >> (If no, subtract 1 point for each piece of equipment that is not operational for which the warranty is still in effect.)..... <P >>
- TOTAL SCORE, WASTE TREATMENT FACILITIES..... <P >>

B. <PSEWER COLLECTION SYSTEMS:>>

1. Age of the original sewer system in years..<P >> (1.0 point for each 10 years or fraction thereof over 50 years old; 3.0 points maximum.) <P >>
2. Material of construction: vitrified clay pipe (VCP) <P >>; reinforced concrete pipe (RCP) <P >>; Brick <P >>; cast-in-place concrete <P >> (brick = one point; RCP = 0.5 point; cast-in-place = 0.5 point.).....<P >>
3. If concrete, is there crown corrosion? Y <P >> N <P >> (If yes, 1.0 point.) <P >>
4. If yes, what percent of the pipe thickness at the crown is gone? <P >> (1.0 point for each 25% of pipe thickness lost.)..... <P >>
5. If pipe is brick, percent of joint material remaining..... (1.0 point for each 25% of joint material lost.)..... <P >>
6. If pipe is reinforced concrete pipe, or cast-in-place concrete, is the reinforcing steel exposed? Y <P >> N <P >>. (If steel is exposed, 1.0 point.) <P >>
7. Have there been any cave-ins on the system in the past five years?.....Y <P >> N <P >> (If yes, then 0.1 point for each cave-in event; 3.0 points maximum.) <P >>
8. Have there been any cave-ins in the past year?.Y <P >> N <P >> (If yes, add one additional point for each event; 3.0 points maximum.) <P >>
9. Have there been any discharges to waters of the state or basement backups as a result of any of these cave-ins? Y <P >> N <P >>. (0.1 additional point for each overflow or basement backup event caused by pipe failures; 3.0 points maximum.) <P >>
- 10.Number of system overflows over the last 5 years due to dry weather surcharging <P >> (associated with a non-pipe failure event i.e. tree roots, pipe settled with grit, etc.) (0.1 point for each overflow; 3.0 points maximum.) <P >>
- 11.Number of homes experiencing basement backups over the last 5 years due to dry weather surcharging <P >> (non-pipe failure event); (0.5 point for each 50 homes or fraction thereof, 5.0 points maximum.) <P >>
- 12.Percent of system that is combined sewers: <P >>% (For

sewer separation projects, 1.0 point for each 10% of the entire system or fraction thereof that will be separated by the proposed project; 5.0 points maximum.)..... <P >>

TOTAL SCORE SEWER COLLECTION SYSTEM..... <P >>

C. <PCOLLECTION SYSTEM LIFT STATIONS:>>

1. Percent of lift stations on the system that are over 20 years old <P >>. (1.0 point for each 25% of the total stations or fraction thereof over 20 years old; 4.0 points maximum.) ... <P >>
2. Are all stations equipped with alarms? Y <P >> N <P >>. (No = 1.0 point.) <P >>
3. Number of homes experiencing backups over the last 5 years due to lift station failures or power outages <P >>. (1.0 point for each 50 homes or fraction thereof; 4.0 points maximum.) . <P >>
4. Number of system overflows over the last five years due to lift station failures or power outages <P >>. (0.1 point for each overflow event; 4.0 points maximum <P >>
5. Percent of total station pumping capacity that is out of service due to obsolete equipment <P >>. (1.0 point for each 10% of total capacity that is out because of inability to get replacement equipment; 2.0 points maximum.) <P >>
6. Do all pumping stations have standby power or alternate means of pumping during power failures as required? Y <P >> N <P >>. (If no, 0.5 point for each station not properly equipped that will be upgraded by this project; 2.0 points maximum.) <P >>
7. How many lift stations have equipment or structural deterioration problems which contribute to operational problems or safety hazards to operating personnel? <P >> (0.5 point for each station that will have these problems corrected by the proposed project; maximum 2.0 points.)..... <P >>

TOTAL SCORE FOR LIFT STATIONS..... <P >>

Reviewer <P >>

Date

<BSection 366.APPENDIX C Excellence of Operation Scoring Review Sheet For Local Government Units That Own Wastewater Treatment Facilities>>

This scoring sheet will be used to rate those projects which have demonstrated excellence in the maintenance and operation of existing wastewater treatment facilities. The scoring factors are as follows:

A. <PPROCESS PERFORMANCE AND CONTROL:>>

1. Plant performance compared to permit limit requirements.
(If both BOD/SS are consistently 20% below permit limits, 2.0 points; if 40% or more below limits, 3.0 points.)..... <P >>
2. How long has the plant been producing an effluent no greater than 80% of its permit limits? (If at least 5 years, 1.0 point; if 10 or more years, 2.0 points.) <P >>
3. Current plant loading as a percentage of the design capacity.
(If the current average daily load is 80 to 90% of design capacity, 0.5 point; if 90 to 100%; 2.0 points; if over 100% 3.0 points.)..... <P >>
4. Does the operator use laboratory data to make appropriate process control adjustments? (If yes, 1.0 point.) <P >>
5. Is the effluent quality consistent during the entire range of plant flows? (If it is within permit limits at all flows, 1.0 point.) <P >>
6. Is the sludge quality acceptable for land application? (If a land application permit has been issued, 1.0 point.) <P >>
7. Is the process subject to process upsets? (If there have been no process upsets due to discharges into the sewer system in the last 5 years, 0.5 point.) <P >>
8. For processes using the activated sludge process, is microscopic analysis used for process monitoring? (If yes,

0.5
point.) <P >>

TOTAL PROCESS PERFORMANCE AND CONTROL..... <P >>

B. <PMaintenance:>>

1. How long have mechanical equipment and structures been in service without a failure that affected plant performance? (Over 5 years, 0.5 point; over 10 years, 1.0 point; 20 or more years, 2.0 points.)..... <P >>
2. Are the plant grounds, buildings, and equipment well-maintained (grass cut, equipment and buildings painted, etc.)? (If yes, 0.5 point.) <P >>
3. Does the plant have a routine preventative maintenance program? (If yes, 1.0 point.) <P >>
4. Does the plant have a spare parts inventory? (If yes, 0.5 point.) <P >>

TOTAL MAINTENANCE..... <P >>

C. ADMINISTRATION:

1. Does the operating agency control industrial discharges into the sewer system that may adversely affect the treatment process, sludge or effluent quality or pose a safety hazard to system workers? (If a local ordinance exists, 0.5 point; if there is an approved local pretreatment program, 1.0 point.) <P >>
2. Are all self-monitoring reports and other reports required by permit conditions submitted on time? (If they are, 0.5 point.) <P >>
3. Are all financial reporting requirements submitted in accordance with permit conditions? (If they are, 0.5 point.) <P >>
4. Does the chief operator have the proper level of certification required by Title 35, Subtitle C of the Illinois Pollution

- Control Board Regulations? (If yes, 0.5 point.) <P >>
5. Has the plant been issued an Agency safety certificate during the past year? (If yes, 0.5 point.) <P >>
6. Does the plant have an emergency plan to respond to hazardous material emergencies? (If yes, 0.5 point.) <P >>
7. Does the plant manager prepare an annual report to the board or council on annual facility performance which includes budget needs for the coming year? (If yes, 0.5 point.) <P >>
8. Is revenue being accumulated for annual O & M needs and equipment replacement? (If yes, 0.5 point.)..... <P >>
- TOTAL ADMINISTRATION..... <P >>
- TOTAL ALL CATEGORIES..... <P >>
- TOTAL <P >>

Reviewer <P >> Date <P >>

<BSection 366.APPENDIX D Excellence of Operation Scoring Review Sheet For Local Government Units That Own Only Wastewater Collection Facilities>>

This scoring sheet will be used to rate those projects which have demonstrated excellence in the maintenance and operation of existing wastewater treatment facilities. The scoring factors are as follows:

A. COLLECTION SYSTEM PERFORMANCE AND CONTROL:

1. When was the original collection system installed?<P >>. (0.2 point will be awarded for each 10 years over 20 years old for the original system to a maximum of 1.0 point.) <P >>
2. If there have been no basement backups reported in the last year, 1.0 point; in the last five years, 2.0 points; in the last 10 years, 3.0 points. <P >>
3. If there have been no sewer system overflows to waters of the State (i.e.; wet well overflows at lift stations, manhole overflow, etc.) 0.4 point per year to a 4.0 point maximum. . <P >>

- 4. If there are lift stations on the collection system, are they all equipped with a standby generator or alternate means of pumping in case of a power outage? (If yes, 1.0 point.) ... <P >>
- 5. If all lift station wet wells are equipped with high water alarms, 1.0 point. <P >>
- 6. Do any portions of the collection system flow at full capacity during wet weather periods? (If no, then 1.0 point.) <P >>

TOTAL FOR COLLECTION SYSTEM PERFORMANCE..... <P >>

B. MAINTENANCE:

- 1. If there is a program for systematic inspection and cleaning of all sewer system lines, 1.0 point. <P >>
- 2. Have there been any television inspections of the system during the past five years? (If so, 1.0 point.) <P >>
- 3. If there is a systematic preventative maintenance program for all lift stations on the system, 1.0 point. <P >>
- 4. If there is a spare parts inventory for all lift stations, 1.0 point <P >>

TOTAL FOR SEWER MAINTENANCE..... <P >>

C. ADMINISTRATION

- 1. Does the operating agency maintain a current sewer atlas? (If yes, 1.0 point.) <P >>
- 2. Does the operating agency have a program to prohibit downspouts, footing drains, and other clean water connections to the sanitary sewer system? (If yes, 1.0 point) <P >>
- 3. Is there a program for local inspection and enforcement of sewer use ordinances to prohibit downspout and footing or area drain connections? (If yes, 1.0 point.) <P >>
- 4. Does the operating agency have an ordinance to regulate the types of wastes discharged into its collection system? (If

yes,
1.0 point.) <P >>

5. Does the operating agency have a safety program for its
collection system maintenance crews? (If so, 1.0 point.) ... <P >>

TOTAL FOR SYSTEM ADMINISTRATION <P >>

TOTAL SCORE FOR ALL CATEGORIES <P >>

Reviewer <P >> Date <P >>