

TITLE 35: ENVIRONMENTAL PROTECTION

SUBTITLE F: PUBLIC WATER SUPPLIES

CHAPTER II: ENVIRONMENTAL PROTECTION AGENCY

PART 663

PROCEDURES AND REQUIREMENTS FOR DETERMINING LOAN

PRIORITIES OF PROJECTS IN THE PUBLIC WATER SUPPLY LOAN PROGRAM

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AUTHORITY: Implementing and authorized by Sections 19.1 through 19.9 of the Environmental Protection Act [415 ILCS 5/19.1 through 19.9].

SOURCE: Emergency rule adopted at 21 Ill. Reg. 10081, effective July 17, 1997, for a maximum of 150 days; emergency expired on December 13, 1997; adopted at 22 Ill. Reg. 3764, effective February 10, 1998; amended at 24 Ill. Reg. 16236, effective November 1, 2000.

SUBPART A: INTRODUCTION

Section 663.110 Purpose

This Part sets forth the procedures and requirements established by the Illinois Environmental Protection Agency (Agency) for determining priorities in awarding financial assistance for the construction of public water supply facilities under the Environmental Protection Act (the Act) [415 ILCS 5] and the federal Safe Drinking Water Act Amendments of 1996 (42 U.S.C. 300f).

Section 663.120 Definitions

a) Unless specified otherwise, all terms shall have the meanings set forth in the Environmental Protection Act [415

ILCS 5], the federal Safe Drinking Water Act (42 USC 300f) and regulations adopted under these Acts, including 35 Ill. Adm. Code: Subtitle F, Part 662.

b) For purposes of this Part, the following definitions apply:

“Acute Violation” – Exceedance of a maximum contaminant level (MCL) or treatment technique requirement for a contaminant that would cause an acute health effect with a sudden onset, sharp rise and short course of illness as provided in the National Primary Drinking Water Rules (40 CFR 141.32).

“Agency” – Illinois Environmental Protection Agency.

“Chronic Violation” – Exceedance of an MCL or treatment technique requirement for a contaminant that would cause a health effect of a chronic nature requiring a long exposure to the contaminant before effects occur, as provided in National Primary Drinking Water Regulations (40 CFR 141.32).

“Fund” – The Water Revolving Fund authorized by 415 ILCS 5/19.3, consisting of the Water Pollution Control Loan Program, the Public Water Supply Loan Program and the Loan Support Program.

“Health Hazard Determination” – A Health Hazard Determination exists when concentrations of regulated contaminants, in a water supply, or concentrations of contaminants not otherwise regulated, exceed health effects standards published in U.S. Environmental Protection Agency (USEPA) Health Advisories, or by the Illinois Department of Public Health or by the U. S. Centers for Disease Control or which otherwise pose an immediate threat to public health.

“Intended Use Plan” – A plan which includes a description of the short and long term goals and objectives of the PWSLP, project categories, terms of financial assistance, communities and populations benefitted. [415 ILCS 5/19.2(e)]

“Maximum Contaminant Level” (MCL) – The maximum permissible level of a contaminant in water that is delivered to any user of a public water system.

“Monthly Operating Reports” – Reports submitted monthly by public water supplies that report on the operation of the water supply, including water pumpage, chemical additions, chemical residuals and maintenance.

“PWSLP” – The Public Water Supply Loan Program as authorized by 415 ILCS 5/19.1 through 19.9.

“Priority System” – A methodology used to rank projects for inclusion on the Project Priority List.

“Project Priority List” – An ordered listing of projects developed in accordance with this Part 663 which the Agency has determined are eligible to receive financial assistance from the PWSLP.

“SDWA” – The federal Safe Drinking Water Act, 42 USC 300f.

“Treatment Technique Requirement” – An enforceable procedure developed by USEPA when it is not economically or technologically feasible to ascertain the level of a contaminant. Public water supplies must follow this procedure and treat their drinking water supplies according to USEPA specifications to ensure the contaminant is controlled.

“Wellhead Protection Program” – The wellhead protection program for the State of Illinois, approved by the USEPA under Section 1428 of the federal SDWA (42 USC 300h-7).

(Source: Amended at 24 Ill. Reg. 16236, effective November 1, 2000)

Section 663.130 Incorporation by Reference

U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census: 1990 Census Population and Housing: Summary Social, Economic, and Housing Characteristics, Illinois, Table 9, 1990 CPH-5-15 (no later editions or amendments).

Section 663.140 Priority System and Project Priority List

- a) Financial assistance will be provided from the PWSLP only to projects which are identified on the Project Priority List.
- b) Projects will be ranked for inclusion on the Project Priority List using the methodology set out in Subpart B of this Part.
- c) The Agency will provide the list to individual members of the public upon request. All public comments received will be taken into account in establishing the Project Priority List.
- d) A project with approved project planning may be added to the Project Priority List at any time by the submission of a pre-application form.

(Source: Amended at 24 Ill. Reg. 16236, effective November 1, 2000)

Section 663.150 Pre-applications

- a) A potential loan applicant may submit a pre-application form, in accordance with 35 Ill. Adm. Code 662.420, at any time. Copies of the pre-application form and instructions can be obtained from the Illinois Environmental Protection Agency, Infrastructure Financial Assistance Section, 1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276.
- b) An applicant is required to renew its pre-application form annually.
- c) Pre-application forms must be received by March 31 of the preceding fiscal year to be included on the Project Priority List and on the Intended Use Plan.

(Source: Amended at 24 Ill. Reg. 16236, effective November 1, 2000)

Section 663.160 Project Planning

- a) The priority of projects on the Project Priority List will be adjusted to reflect completed and approved project planning.
- b) Projects on the Project Priority List may be split into more than one project, deleted or modified as a result of the approval of the project planning (see 35 Ill. Adm. Code 662: Subpart E).

SUBPART B: PROCEDURE FOR CALCULATING THE LOAN PRIORITY INDEX

Section 663.210 Formula for Computing the Loan Priority Index

The Loan Priority Index (LPI) is a number that is calculated from five factors. The LPI is calculated as follows: $A1 + A2 + A3 + A4 + A5 = LPI$.

Section 663.220 A1 Factor (Population)

A1 is a factor which evaluates the existing population that is served by the proposed project. A1 is calculated as log base 10 of the number of persons served by the project, with a maximum value of 5.30 points. The applicant shall provide the population served figure, which will be verified during the project planning process.

(Source: Amended at 24 Ill. Reg. 16236, effective November 1, 2000)

Section 663.230 A2 Factor (Project Need)

A2 is a factor that evaluates and quantifies eligible drinking water needs associated with a proposed project. The

need for the proposed projects will be quantified by using the most appropriate of the following methodologies:

- a) For projects that meet the Health Hazard Determination criteria set out in Section 663.120, the A2 score will be 100 points.
- b) For projects that will correct violations of the Safe Drinking Water Act determined through compliance monitoring, points will be awarded based on the seriousness of the violations that make the project necessary. The violations will be quantified from the applicant's Monthly Operating Reports. The values for the violations are as follows:
 - 1) Acute Violation 75 points;
 - 2) Chronic Violation 50 points.
 For projects that will prevent future acute or chronic violations and address a need that has been demonstrated by compliance monitoring, Section 663.270 allows for assigning a portion of the acute and chronic violation points for priority scoring purposes.
- c) For projects that will correct violations of the State's protection of public health rules regarding adequate pressure, transmission, and storage of drinking water, as contained in 35 Ill. Adm. Code 653 and as determined by the Agency's Field Operations Section, the initial A2 value will be 20 points. This value will be augmented by the points assigned from the Service Continuation Scoring Sheet (Appendix A) based on information contained in the approved project planning report and Agency inspection.
- d) For projects that will extend or provide community drinking water to an area currently served by private wells will receive a score of 15 points, plus a need factor which will be quantified from the percentage of private wells found to be out of compliance with regulations or advisories administered by the Illinois Department of Public Health and which pose a potential threat to public health based on sampling or inspection as determined by the health authority responsible for the area to be served. The percentage of wells, expressed as a decimal, that are unsatisfactory will be multiplied by 10 and the result added to the 15 points to complete the A2 score.
- e) Renovation, repair, reconstruction or replacement of facilities to maintain the safe and adequate water supply capabilities for which they were designed and to enable their continued service will be scored by completion of the Service Continuation Scoring Sheet (Appendix A). The assigned values which will be based on information contained in the approved project planning report and Agency inspection will be used as the A2 factor in the LPI calculation up to a maximum of 20 points.

(Source: Amended at 24 Ill. Reg. 16236, effective November 1, 2000)

Section 663.240 A3 Factor (Financial Hardship)

A3 is a factor which adds points for applicants that have a higher rate of unemployment than the State average (as provided by the Illinois Department of Employment Security), and includes points for the percentage of persons in poverty (as determined from the 1990 Census figures for social, economic and housing characteristics). The A3 factor is calculated by adding the unemployment percentage points to the persons in poverty points from the following tables:

Percentage Above State Average Unemployment Rate

<u>Percentage</u>	<u>Points</u>
0.1 - 2.0	1.25
2.1 - 4.0	2.50
4.1 - 6.0	3.75
6.1 and above	5.00

Percentage of Persons in Poverty

<u>Percentage</u>	<u>Points</u>
5.0 - 10.0	1.00
10.1 - 15.0	2.00
15.1 - 20.0	3.00
20.1 - 25.0	4.00
25.1 and above	5.00

Section 663.250 A4 Factor (Source Water Protection)

A4 is a factor that adds points for applicants that have taken specific steps to protect their source water or have incorporated water conservation measures in their approved project planning report. These points will be awarded by the Agency for the program elements as follows:

- a) Community Water Supplies that have incorporated water conservation measures as a cost-effective alternative to additional capacity. 1.0 point
- b) Community Water Supplies that have committed to the Agency to develop source water protection programs through one of the following mechanisms: 0.5 point
 - 1) Consent decree or compliance initiative agreement;
 - 2) Federal Safe Drinking Water Act Monitoring Waiver Program as described in 35 Ill. Adm. Code 611.110(e); or
 - 3) Written commitment to pursue wellhead protection program.
- c) Community Water Supplies that have delineated their source water protection areas by one of the following mapping techniques: 0.5 point
 - 1) For surface water sources: An Agency approved delineation of the watershed boundary;
 - 2) For groundwater sources: An Agency approved delineation of the recharge area.
- d) An Agency approved inventory of potential point sources of contamination. 0.5 point
- e) For completion of a contingency plan as described in Sections 1413(a)(5) and 1428(a)(5) of the federal Safe Drinking Water Act (42 USC 300g and 300h-7). 0.5 point
- f) For development of a Management Program for source water protection as described in the State Source Water Assessment and Protection Guidance prepared by USEPA pursuant to Section 1453 of the federal Safe Drinking Water Act (42 USC 300j-13). 1.0 point

(Source: Amended at 24 Ill. Reg. 16236, effective November 1, 2000)

Section 663.260 A5 Factor (Small Community Water Systems)

A5 is a factor that provides a five point bonus to community water systems serving populations of less than 10,000.

(Source: Amended at 24 Ill. Reg. 16236, effective November 1, 2000)

Section 663.270 Scoring Conventions

- I. For purposes of assigning the A2 factor, projects that are being proposed to meet regulations that have been published in the Federal Register but have a future effective date will be considered the same as projects to correct violations of regulations that are already in effect.
- II. Projects that are being proposed to prevent future acute or chronic violations predicted by compliance monitoring are eligible for A2 factor points as follows:
 - A. The applicant's compliance monitoring records must show concentrations of the contaminant to be controlled of at least 75% of the acute or chronic violation limit (existing contaminant concentration divided by acute/chronic limit x 100 = % violation limit);
 - B. The A2 points for the project will be calculated by multiplying the percentage violation limit by the appropriate acute or chronic A2 points in Section 663.230(b).
- III. For integrally related projects which require construction by more than one applicant, each project will proceed at the Loan Priority Index of the component project with the most favorable priority ranking.
- IV. Where adequate data is not available to calculate an A1 or A2 factor, a value of 1.0 will be assigned.

(Source: Amended at 24 Ill. Reg. 16236, effective November 1, 2000)

Section 633.Appendix A: Service Continuation Scoring Sheet

SERVICE CONTINUATION SCORING SHEET

Scoring Elements

Points

I. Raw Water Source

A. Groundwater

1. Is source adequate to meet maximum average daily demand with the largest well out of service? Yes ___ / No ___. (If no, score 3 points for <75% of maximum average daily demand, 2 points for 75% to 90% of maximum average daily demand, or 1 point for 90% to 99% of maximum average daily demand.) _____
2. What is the average age of the wells? ___ years. (Score 1 point if over 20 years, score 2 points if over 30 years.) _____
3. Are there any well casing defects (i.e., not 18 inches above ground level, leaking or deteriorating casing, improper casing material, etc.)? Yes ___ / No ___. (If yes, score 1 point for each defect, maximum 2 points.) _____
4. Are there any potential sources of contamination within the setback zone or well recharge area? Yes ___ / No ___. How many potential sources? ___ (Score 1 point for each potential source, maximum of 2 points.) _____
5. Have any aesthetic problems caused by secondary MCL exceedances been documented (i.e., iron, manganese, hardness, total dissolved solids, etc.)? Yes ___ / No ___. (Score 1 point if yes.) _____
6. Is the raw water metered? Yes ___ / No ___. (Score 1 points if water is un-metered) _____
7. Are there any wells under the direct influence of surface water? Yes ___ / No ___. (Score 3 points if any well is under the direct influence of surface water.) *(If surface water type treatment is provided, do not score this point.)* _____
8. Were there any well pump failures during the last five years? Yes ___/No ___. (Score 1 point if 2 or more failures, 2 points if 5 or more failures.) _____
9. Are any of the wells in below grade pits? Yes ___ / No ___. (Score 1 point for each well in a pit, maximum 2 points.) _____
10. Are there any customers on the raw water transmission line that do not receive fully treated water? Yes ___ / No ___. (If yes, score 2 points.) _____

Total Raw Groundwater Source Points

B. Surface Water Source

1. Is the raw source adequate for maximum seasonal demand? Yes _____ /No _____. Is the raw source adequate for a drought condition? Yes ___ /No _____. (If inadequate for a drought condition, score 1 point, if inadequate for maximum seasonal demand score 3 points.) _____
2. Does the raw water meet raw water quality requirements? Yes _____/No _____. Is there synthetic organic chemicals contamination? Yes _____/No _____. NO[3] contamination? Yes _____/No _____. (If yes to either question, score 2 points.) _____
3. Is there deterioration of concrete structures? Yes _____/No _____. (If yes, score 1 point if structures are deteriorated, 3 points if deterioration threatens continued operation.) _____
4. Are raw water pumps adequate to meet maximum average daily demand with the largest pump out of service? Yes ___ /No ___. (If no, score 3 points for <75% of

- maximum daily use, 2 points for 75% to 90% of maximum average daily use, or 1 point for 90% to 99% of maximum average daily demand.) _____
5. Can the pumps operate to design specifications? Yes ___/No___. (Score 1 point for no.) _____
 6. Are raw water pumps protected from flooding? Yes ___/No___. (Score 1 point for no.) _____
 7. Can raw water be selected from multiple intake levels? Yes ___/No___. (Score 1 point for no.) _____
 8. Is the raw water transmission line sized to provide adequate raw water for both current and projected future demands? Yes ___/No ___. (Score 1 point for future inadequacy, 2 points for current inadequacy.) _____
 9. Are there any customers that receive untreated water from the transmission line? Yes ___/No ___. (Score 1 point for yes.) _____
 10. Are there alternate sources of raw water? Yes ___/No ___. Are there alternate sources of finished water? Yes ___/No ___. (If both answers no, score 2 points.) _____
 11. Does the reservoir have a siltation problem that requires periodic dredging? Yes ___/No ___. (Score 1 point if yes.) _____

Total Raw Surface Water Source Points

Water Treatment Plant

II. Water Treatment Plant

1. How many years since the treatment facilities were last upgraded? ___ years. (Score 1 point if over 10 years, 2 points if over 20 years and 3 points for over 40 years.) _____
2. Is the treatment plant capacity adequate to meet maximum average daily demand? Yes ___/ No___. (Score 2 points for < 75% of demand or 1 point for 75% to 99% of demand.) _____
3. List the number of water outages during the last five years caused by treatment plant mechanical failures that resulted in a boil order being issued. _____ outages. (Score 1 point for each outage up to 4.) _____
4. Is there corrosion of the metal structures to be replaced or renovated? Yes ___/No ___. (If yes, score 1 point if metal structure is rusting and pitted, score 2 points if structure is leaking, and 3 points if corrosion threatens threatens continued operation of the facility.) _____
5. Is there deterioration of concrete structures? Yes ___/No___. (If yes, score 1 point if structure is deteriorated, 3 points if deterioration threatens continued operation.) _____
6. Is backup equipment available so that equipment maintenance can be performed without stopping operation? Yes ___/ No ___. (If no, score 1 point if equipment to have maintenance can be by-passed, 2 points if equipment to have maintenance cannot be by-passed.) _____
7. Is existing treatment capable of continuously providing water that complies with primary and secondary MCLs and health advisories? Yes ___/No ___. (If no, score 1 point for secondary MCL and 2 points for primary MCL or health

advisory.) _____

8. Is required safety equipment such as rubber gloves, goggles and air packs available and in good repair and are water supply personnel trained in the proper use of the equipment? Yes ___ / No ___. (Score 1 point if equipment not available or staff not trained.) _____

Total Water Treatment Plant Points

III. Distribution System

1. Are there undersized water mains? Yes ___ /No ___. (If yes, score 2 points.) _____
2. Are mains looped and dead ends minimized? Yes ___ /No ___. (If no, score 1 point.) _____
3. What is the per cent of unaccounted for water? ___ %. (If over 10%, score 1 point; if over 20%, score 2 points.) _____
4. Is there an accurate up-to-date map to locate mains, valves and service taps? Yes ___ / No ___. (If no, score 1 point.) _____
5. Is adequate distribution pressure maintained in all parts of the system under all conditions? Yes ___ /No ___. (If no, score 1 point for localized low pressure area, 2 points if widespread low pressure.) _____
6. Is there an adequate number of valves to isolate main breaks and do the valves function properly? Yes ___ /No ___. (If no, score 1 point.) _____
7. Are all mains constructed of approved materials? Yes ___ /No ___. (If no, score 1 point.) _____
8. Are there any lead pigtails or service lines? Yes ___ /No ___. (If yes, score 1 point.) _____
9. How many water main breaks have occurred in the past 5 years? ___ (Score 1 point for 5 or more and 2 points for 10 or more.) _____
10. Is there a proper separation between all water mains and sources of contamination? (Storm sewers, sanitary sewers, septic tanks and leaching fields, etc.) Yes ___ /No ___. (If no, score 2 points.) _____
11. How old are the water mains for the planned project? ___ years. (Score 1 point if over 30 years old, 2 points if over 40 years old.) _____
12. Are all services metered? Yes ___ /No ___. (If no, score 1 point.) _____
13. Have there been aesthetic complaints (color, taste, odor, etc.) from the distribution systems? Yes ___ /No ___. (If yes, score 1 point.) _____
14. Does each customer have an individual service connection? Yes ___ /No ___. (If no, score 1 point.) _____

Total Distribution System Points

IV. Finished Water Storage

1. Is the total amount of storage adequate? Yes ___ /No ___. (If no, score 3 points if storage is < 50% adequate, 2 points if storage is 50% to 75% adequate, and 1 point if storage is 75% to 99% adequate.) _____

2. Are manholes properly constructed and secured? Yes ___/No ___. (If no, score 1 point for each improperly constructed/secured facility, maximum 2 points.) _____
3. What is the age of the affected water storage facility? ___ years. (Score 1 point for over 20 years old, 2 points for over 30 years old.) _____
4. Are vents and overflows properly constructed and screened? Yes ___/No ___. (If no, score 1 point.) _____
5. Is there corrosion of the metal structures to be replaced or renovated? Yes ___/No ___. (If yes, score 1 point if metal structure is rusting and pitted, score 2 points if structure is leaking, and 3 points if corrosion threatens continued operation of the facility.) _____
6. Is there deterioration of concrete structures? Yes ___/No ___. (If yes, score 1 point if structures are deteriorated, 3 points if deterioration threatens continued operation.) _____
7. For pressure storage, is the tank above ground and are appropriate appurtenances available (i.e. manhole, site glass, means of adding or releasing air, by-pass, etc.)? Yes ___/No ___. (If no, score 1 point if hydropneumatic storage does not comply with standards, score 1 point if system relies on buried pressure tank, maximum 2 points.) _____
8. Is the affected storage facility in need of painting and/or other preventive maintenance or rehabilitation? Yes ___/No ___. (If yes, score 1 point; if lead based paint needs removal/repainting, score 2 points.) _____
9. Are storage facilities designed and constructed so that all parts of the distribution system have adequate pressure? Yes ___/No ___. (If no, score 2 points.) _____

Total Finished Water Storage Points

BONUS POINTS

Score one point for each of the following items that are answered yes.

1. Is an Active Cross-Connection Control Program documented and being implemented? Yes ___/ No ___. _____
2. Are one or more certified operators employed, and is there a Certified Operator in Responsible Charge (ROINC) for both treatment and distribution on site daily? Yes ___/ No _____. _____
3. Does the facility participate in area local cooperative management and emergency response activities (JULIE, information/equipment loan to nearby water supplies, etc.)? Yes ___/ No ___. _____
4. Is a current, workable emergency plan in place and readily available to operational personnel? Yes ___/ No ___. _____
5. Does this supply have a documented active source water protection program in place? Yes ___/ No ___. _____

Total Bonus Points

Total Project Points