**7:1J–3.4 Reductions in costs eligible for compensation if alternative water supply actually constructed exceeds requirements for provision of adequate alternative water supply**

(a) If a WSSC is a claim for compensation for the cost of a water well or wells, the amount otherwise eligible for compensation from the Fund shall be reduced as follows:

1. The amount eligible for compensation from the Fund shall be reduced by the following amount:

RA = AC - NC

where:

i. RA equals the amount of the reduction;

ii. AC equals the cost (including without limitation construction costs, design and engineering costs, and finance charges incurred in the design and construction of the water well or wells) of the water well or wells actually constructed; and

iii. NC equals the cost (including without limitation construction costs, design and engineering costs, and finance charges incurred in the design and construction of the water well or wells), estimated by the Department after consideration of the report submitted under (a)2 below, of constructing the water well or wells with the minimum capacity necessary to supply potable water to the affected area. Such minimum necessary capacity shall be the amount required to satisfy the users' requirements set forth in (d) below.

2. The claimant shall cause the water purveyor to submit a report (or, if the water purveyor is the claimant, the water purveyor shall submit the report), certified by a licensed professional engineer, setting forth the following:

i. Such information as is required to satisfy the requirements of N.J.A.C. 7:10–11.2(c)3 and 4, with respect to the water well or wells actually constructed; and

ii. The design and specifications of the water well or wells that would be required to provide an adequate supply of potable water to the total number of residential and nonresidential users listed in (d) below. The engineer's computation of such design and specifications shall be justified by hydraulic analysis without consideration of additional capacity necessary for use in firefighting. The engineer's report shall contain a calculation of the minimum necessary capacity of the wells determined in accordance with (a)1 above.

(b) If a WSSC is a claim for compensation for the cost of water storage facilities, the amount otherwise eligible for compensation from the Fund shall be reduced as follows:

1. The amount eligible for compensation from the Fund shall be reduced by the following amount:

RA = AC - NC

where:

i. RA equals the amount of the reduction;

ii. AC equals the cost (including without limitation construction costs, design and engineering costs, and finance charges incurred in the design and construction of the water storage facilities) of the water storage facilities actually constructed; and

iii. NC equals the cost (including without limitation construction costs, design and engineering costs, and finance charges incurred in the design and construction of the water storage facilities), estimated by the Department after consideration of the report submitted under (b)2 below, of the water storage facilities with the minimum useful storage capacity necessary to supply potable water sufficient to satisfy the users' requirements set forth in (d) below. Such capacity shall be the minimum necessary to satisfy the requirements of N.J.A.C. 7:19–6.7, and maintain a minimum of 20 pounds per square inch gauge (psig) water pressure at street level throughout the distribution network, under all required flow conditions, but shall not include any additional capacity required for use in firefighting.

2. The claimant shall cause the water purveyor to submit a report (or, if the water purveyor is the claimant, the water purveyor shall submit the report), certified by a licensed professional engineer, setting forth the following:

i. Such information as is required to satisfy the requirements of N.J.A.C. 7:10–11.8, with respect to the water storage facilities actually constructed; and

ii. The design and specifications of the water storage facilities that would be required to provide an adequate supply of potable water to the total number of residential and nonresidential users listed in (d) below. The engineer's computation of such design and specifications shall be justified by hydraulic analysis without consideration of additional capacity necessary for use in firefighting. The engineer's report shall contain a calculation of the minimum useful storage capacity necessary to supply potable water to the users described in (d) below.

(c) If a WSSC is a claim for compensation for the cost of water transmission and distribution lines, the amount otherwise eligible for compensation from the Fund shall be reduced as follows:

1. The amount eligible for compensation from the Fund shall be reduced by the following amount:

RA = AC - NC

where:

i. RA equals the amount of the reduction;

ii. AC equals the cost (including without limitation construction costs, design and engineering costs, and finance charges incurred in the design and construction of the water transmission and distribution lines) of the water transmission and distribution lines actually constructed; and

iii. NC equals the cost (including without limitation construction costs, design and engineering costs, and finance charges incurred in the design and construction of the water transmission and distribution lines), estimated by the Department after consideration of the report submitted under (c)2 below, of constructing the water transmission and distribution lines with the minimum capacity necessary to supply potable water to the affected area. Such minimum necessary capacity shall be determined as follows:

Minimum necessary capacity = (RC + NRC)

where:

(1) RC is the capacity, expressed in GPM and computed pursuant to (c)3 below, of water transmission and distribution lines required to serve the number of residences listed in (d)1 below; and

(2) NRC is the capacity, expressed in GPM and computed pursuant to (c)3 below, of water transmission and distribution lines required to serve all nonresidential and multifamily users listed in (d)2 and (d)3 below.

2. The claimant shall cause the water purveyor to submit a report (or, if the water purveyor is the claimant, the water purveyor shall submit the report), certified by a licensed professional engineer, setting forth the following:

i. Such information as is required to satisfy the requirements of N.J.A.C. 7:10–11.7(c), with respect to the water transmission and distribution lines actually installed; and

ii. The design and specifications of the transmission and distribution line or lines that would be required to provide an adequate supply of potable water to all of the users listed in (d) below. The engineer's computation of such design and specifications shall be justified by hydraulic analysis without consideration of additional capacity necessary for use in firefighting. The engineer's report shall contain a calculation of the minimum necessary capacity of the lines (designated as "(RC + NRC)" in the formula set forth in (c)1 above), computed in accordance with (c)3 below.

3. RC and NRC shall not include such additional capacity as may be necessary for use in firefighting. RC and NRC shall be computed in accordance with the following:

i. Instantaneous water demands for residential service connections to the types of residences not listed in (d)2 below shall be based upon a flow of 12 gpm per residence for the first 14 residences, and three gpm for each additional residence, not multiplied by any peaking factor. Instantaneous water demands for service connections to the types of establishments listed in (d)2 below shall be equal to the requirements set forth in (d)2 below, multiplied by the peaking factor of 10 (unless the Department determines that a different peaking factor would be more accurate), and expressed in gpm. For the purposes of (c)1 above, (RC + NRC) shall equal the total instantaneous water demands, adjusted pursuant to (c)3vi below;

ii. The maximum velocity in the water main shall not exceed five feet per second;

iii. The coefficient of friction "c" value as used in the Hazen-Williams formula shall be 100;

iv. The residual pressure in the main at the street level under the maximum flow condition as indicated herein shall not be less than 20 pounds per square inch;

v. The hydraulic analyses shall be performed using the Hazen-Williams formula for determining friction losses and the Hardy-Cross method for determining flow conditions for multiple piping systems; and

vi. If the maximum water demands, maximum velocity, "c" value, residual pressure, and hydraulic analysis pursuant to (c)3i through v above require a diameter of water pipe which is not a commonly commercially available size, then the total instantaneous water demands shall be adjusted to reflect the use of the next largest commonly commercially available diameter of water pipes.

4. If any section of transmission or distribution line has been extended beyond the point necessary to service any property within the affected area, then any and all costs associated with that section of line beyond the boundary of the affected area shall be the sole responsibility of the water purveyor and will not be eligible for compensation from the Fund. This exclusion from eligibility shall not apply to extensions which the Department has stated in writing are required for effective operation of the water system.

(d) For the purpose of calculating the minimal capacity needed for water wells under (a) above and water storage facilities under (b) above, the potable water requirement of the users of such wells or storage facilities is the aggregate of the potable water requirements listed in (d)1, 2 and 3 below.

1. The potable water requirements of residential users in the affected area equals the following:

$$RR = (R \times 360\ PF)$$

where:

i. RR equals the potable water requirements of residential users in the affected area;

ii. R equals the sum of (1) and (2) below:

(1) The number of single-family residences within the affected area which are in existence or under construction, or for which building permits have been issued, before the Department delineated the SFCA; and

(2) The number of tax lots contained in the affected area upon which no residences or nonresidential improvements have been constructed or are under construction as of the time when the Department delineated the SFCA, and for which no building permit to construct one or more residences or nonresidential improvements has been issued prior to the time when the Department delineated the SFCA;

iii. 360 represents a potable water requirement of 360 gallons per day (gpd) per bedroom to serve each single-family residence; and

iv. PF represents the peaking factor by which the 360 gpd requirement will be multiplied, which peaking factor will be equal to two unless the Department determines that a different peaking factor would be more accurate.

2. The potable water requirements of nonresidential and multifamily users are set forth in the following table, and include all nonresidential and multifamily residential facilities within the affected area which are in existence or under construction, or for which building permits have been issued, prior to the time when the Department delineated the SFCA:

| Type of Establishment | Potable water requirements (in GPD per person except as noted) |
|---|---|
| 1. Apartment buildings (assuming one person per bedroom) | 75 |
| 2. Rooming houses | 50 |
| 3. Boarding houses | 75 |
| Add for each nonresident boarder: | 15 |
| 4. Hotels | 75 |
| Add if laundry facilities are on premises: | 37.5 |
| 5. Motels and tourist cabins | 75 |
| 6. Mobile home parks | 100 |
| 7. Restaurants | 10 |
| 8. Camps | |
| Barracks type | 50 |
| Cottage type | 40 |
| Day camps | 15 |
| 9. Day schools | 10 |
| Add for cafeteria: | 5 |
| Add for showers: | 5 |
| Add for laboratories: | 5 |
| 10. Boarding schools | 100 |
| Add if laundry facilities are on premises: | 50 |
| 11. Industrial property (per eight hour shift) | 25 |
| 12. Hospitals (depending on type) | 150–250 |
| 13. Institutions other than hospitals | 75–125 |
| 14. Picnic grounds and comfort stations | 10 |
| Add if showers are on premises: | 5 |
| 15. Swimming pools and bathhouses | 10 |
| 16. Clubhouses (per resident member) | 60 |
| Add per nonresident member: | 25 |
| 17. Nursing homes | 150 |
| 18. Campgrounds (GPD per individual sewer hookup) | 100 |
| Add if laundry facilities are on premises: | 50 |
| 19. Retail and office space (GPD per square foot) | .125 |
| 20. Self-service laundries (gallons per wash) | 50 |

To determine the well capacity or storage capacity required to serve the above establishments, the potable water requirements set forth in the table shall be multiplied by a peaking factor of two, unless the Department determines that a different peaking factor would be more accurate. To determine the instantaneous water demands of the above establishments for the purpose of calculating the required capacity of transmission or distribution lines, the potable water requirements set forth in the table shall be multiplied by the peaking factor provided under (c)3i above.

3. The potable water requirements of agricultural, silvicultural, industrial or other users not listed in the table at (d)2 above are actual requirements of all such users which are located in the affected area and meet the requirements of both 3i and ii below:

i. Before the Department delineated the SFCA, the user's facility was in existence or under construction, or a building permit had been issued for its construction;

ii. The user is unable to use the existing source of potable water, because such source has become unsuitable for the user's particular use as a result of the discharge; and

iii. Connection to the replacement water supply system is the most cost-effective environmentally sound means of remedying the damages incurred by the user as a result of the discharge.

Amended by R.1998 d.67, effective January 20, 1998.
See: 29 N.J.R. 4365(a), 29 N.J.R. 4594(a), 30 N.J.R. 336(b).
In (d), changed formula for potable water requirements.

### 7:1J–3.5 Other reductions in amount eligible for compensation from Fund

(a) If the water supply system which is the subject of the claim is to be operated by a private water purveyor, the aggregate amount eligible for compensation from the Fund for such water supply system shall be reduced by an amount equal to five times the aggregate expected average annual water bill of all residential and nonresidential users within the affected area. If the water supply system which is the subject of the claim will supply only part of the needs of such residential and nonresidential users, the reduction described above shall be prorated to the percentage of such needs which the system will serve.

(b) If the claimant is the water purveyor, the amount eligible for compensation from the Fund shall be reduced further by the surplus debt service payments received by the water purveyor, calculated as follows:

$$SDSP = \frac{(DSP)\ (NR)}{ER}$$

where:

1. SDSP represents the surplus debt service payments;

2. DSP equals the aggregate amount of the payments due on all debt obligations of the water purveyor reflected in the computation of the water purveyor's rates, and incurred before the making of the WSSC, which payments are due during the period beginning on the date on which water service commences to new ratepayers not previously served by the water purveyor before the construction of the water supply system which is the subject of the claim, and ending on the first anniversary of the effective date of the water purveyor's rates in effect as of the commencement of such service;

3. NR equals the number of new ratepayers served by the new water supply system, who were not served by such water purveyor before the construction of such facilities; and

4. ER equals the number of existing ratepayers served by the water purveyor immediately prior to the making of the WSSC.

(c) No portion of the cost of any water supply system which had been installed or for which installation had begun before the discharge, and which commences operation after the discharge, shall be eligible for compensation from the Fund.

(d) If all or part of the cost of any water supply system has been paid from the Fund, no part of the cost incurred in connection with any replacement equipment for such system shall be eligible for compensation from the Fund. If, as a result of an error or omission in the design, construction, installation or operation of a water supply system, corrective action (including, without limitation, the installation of replacement or additional equipment) is necessary for proper operation of the water supply system, no part of the cost of such corrective action shall be eligible for compensation from the Fund.

(e) Costs required under Board of Public Utilities (BPU) regulations: No costs which a water purveyor is required to incur under regulations promulgated by the BPU (including, without limitation, the cost of meters required to be provided under N.J.A.C. 14:3–4.1, and the cost of the work to be done under N.J.A.C. 14:9–2.1 upon making service connections) shall be eligible for compensation from the Fund.

(f) If the water purveyor or a government entity has charged fees or other costs for connecting individual properties to the water supply system which is the subject of the claim, the amount of the water purveyor or government entity's claim, eligible for compensation from the Fund shall be reduced by the aggregate amount of such fees or costs.

(g) With respect to any connection fee or tapping fee which the claimant pays for connection of any property to the water system, only the portion of such fee which represents the actual cost of the physical connection shall be eligible for compensation from the Fund. Any portion of such fee which represents other amounts allowed under N.J.S.A. 40:14B–21 is ineligible for compensation from the Fund.

Amended by R.1998 d.67, effective January 20, 1998.
See: 29 N.J.R. 4365(a), 29 N.J.R. 4594(a), 30 N.J.R. 336(b).

### 7:1J–3.6 Delineation of Spill Fund Claims Area (SFCA)

The Spill Fund Claims Area (SFCA) is the geographic area delineated by the Department, consisting of the currently known extent of ground water pollution determined by the Department pursuant to N.J.A.C. 7:1J–3.7, combined with the most probable pollution migration zone determined by the Department pursuant to N.J.A.C. 7:1J–3.8.

### 7:1J–3.7 Currently known extent of ground water pollution

(a) The currently known extent of ground water pollution is the volumetric extent of ground water in which concentrations of one or more hazardous substances exceed the applicable contaminant standard for such hazardous substances.

(b) The delineation of the currently known extent of ground water pollution shall be based upon sampling data collected by the Department or by other persons approved by the Department in writing, pursuant to a sampling plan approved by the Department in writing. Such sampling data shall be plotted on a copy of the tax map of the municipality in which the sampling is being performed.

### 7:1J–3.8 Most probable pollution migration zone

(a) The most probable pollution migration zone is the volumetric extent of ground water for which the Department determines under (b) below that, within the remediation period (as defined below), it is most probable that concentrations of one or more hazardous substances in ground water will exceed the applicable contaminant standard for any such hazardous substances. The remediation period shall be the three years after delineation of the Spill Fund Claims Area, unless the Department determines, in its best professional judgment based upon the particular circumstances of the aquifer contamination, that the remediation of the aquifer contamination will not be completed within three years. In such event, the remediation period shall be the time the Department estimates for the completion of the remediation, in its best professional judgment based upon the particular circumstances of the aquifer contamination.