

Water Shortage Response Ordinance
Moore County, North Carolina



<u>Originally Adopted</u>	August 19, 2002
<u>Ordinance Repealed</u>	October 5, 2010 at 11:59pm
<u>Adopted</u>	October 5, 2010
<u>Effective Date</u>	October 6, 2010 at 12:00am
<u>Amended</u>	April 5, 2011

Moore County Water Shortage Response Ordinance

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Water Shortage Response Plan Moore County Public Utilities (Addor), North Carolina

The procedures herein are written to reduce potable water demand and supplement existing drinking water supplies whenever existing water supply sources are inadequate to meet current demands for potable water.

I. Authorization

The Moore County Manager shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section IV are met. In his absence, the Director of Public Works will assume this role.

Mr. Cary McSwain
Manager Moore County
Phone: (910) 947-6363
E-mail: cmcswain@moirecountync.gov

Mr. Dennis Brobst
Director of Moore County Public Works
Moore County Public Utilities (Addor)
Phone: (910) 947-6315
E-mail: dbrobst@moirecountync.gov

II. Notification

The following notification methods will be used to inform water system employees and customers of a water shortage declaration: employee e-mail announcements, notices at municipal buildings, notices in water bills. Required water shortage response measures will be communicated through the County of Moore Public Information Officer for distribution to all media outlets such as local newspapers, PSA announcements on local radio and cable stations and on the County's website <http://www.moirecountync.gov/>. Declaration of emergency water restrictions or water rationing will be communicated to all customers by telephone via reverse E911.

III. Levels of Response

Five levels of water shortage response are outlined in the table below. The five levels of water shortage response are: voluntary conservation, moderate and severe mandatory conservation, emergency mandatory conservation and water rationing. A detailed description of each response level and corresponding water conservation measures follow below.

Stage	Response	Description
1	Voluntary Conservation	Water users are encouraged to reduce their water use and improve water use efficiency; however, no penalties apply for noncompliance. Water supply conditions indicate a potential for shortage.
2	Moderate Mandatory Conservation	Water users must abide required water use reduction and efficiency measures; penalties apply for noncompliance. Water supply conditions are significantly lower than the seasonal norm and water shortage conditions are expected to persist.
3	Severe Mandatory Conservation	Same as in Stage 2
4	Emergency Mandatory Conservation	Water supply conditions are substantially diminished and pose an imminent threat to human health or environmental integrity.
5	Water Rationing	Water supply conditions are substantially diminished and remaining supplies must be allocated to preserve human health and environmental integrity.

In Stage 1, Voluntary Conservation, all water users will be encouraged to reduce their normal water use by 20%. Customer education and outreach programs will encourage water conservation and efficiency measures including:

- a. Check plumbing, faucets and toilets for leaks, and if necessary repair.
- b. Store drinking water in the refrigerator to avoid trying to run it cool at the tap.
- c. Use shower for bathing purposes or reduce the depth of water used for tub baths. Limit showers to five (5) minutes where possible.
- d. Refrain from running faucets while shaving, rinsing dishes or brushing teeth.
- e. Install water flow restrictive devices in faucets and showerheads.
- f. Install water-saving devices such as plastic bottles or commercial units in toilet tanks of older model toilets or retrofit older model toilets to low flow type.
- g. Review water uses and where feasible install recycle systems, particularly commercial and industrial customers.
- h. Limit the use of clothes washers and dishwashers, and when used, operate fully loaded.
- i. Reduce the flushing of toilets to the minimum whenever practical.
- j. Limit lawn watering to only when grass shows signs of withering and apply water as slow as possible to achieve deep penetration to encourage root growth; preventing water waste, runoff and watering impervious surfaces. Irrigate landscapes a maximum of one inch per week.
- k. Limit shrubbery watering to the minimum using spring-loaded nozzles on garden hoses only.
- l. Limit car washing to the minimum using spring-loaded nozzles on garden hoses only.
- m. Limit wash downs of outside areas such as sidewalks, patios, driveways, or other similar purposes unless for health or safety reasons.
- n. Limit hours of operation of water-cooled air conditioners where possible.

o. Use biodegradable disposable dishes and utensils, both for residential and commercial purposes, where feasible.

In Stage 2, Moderate Mandatory Conservation, all customers are expected to reduce their water use by 30% in comparison to their previous month's water bill. In addition to continuing to encourage all voluntary reduction actions, the level of the conservation effort shall be increased to require the following mandatory measures. No person shall:

- a. Water lawns, grass, trees, shrubbery, flowers, golf greens or vegetable gardens except between the hours of 5:00 p.m. and 12:00 midnight, twice weekly with even number addresses allowed to irrigate on Mondays and Thursdays; and odd number addresses allowed to irrigate on Tuesdays and Fridays. Total irrigation is limited to a half inch per week.
- b. Introduce water into wading pools or swimming pools except to the extent necessary to replenish losses due to evaporation or spillage, and maintain operation of chemical feed equipment.
- c. Use drinking water for washing impervious surfaces such as sidewalks, patios, driveways, or for other similar purposes unless for health or safety reasons.
- d. Introduce water into any decorative fountain, pool or pond except where the water is recycled.
- e. Serve water in a restaurant or similar establishment, except upon request.
- f. Use drinking water for any unnecessary purpose or intentionally waste drinking water.
- g. Wash the exterior of a motor vehicle except for commercial washing or where a private well system is used.
- h. Use drinking water for testing and training purposes (e.g. fire protection).

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal reduction of at least 30%. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 3, Severe Mandatory Conservation, customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stage II. The level of the conservation effort shall increase to require the following additional mandatory measures. All non-essential uses of drinking water are banned. Additionally, in Stage 3, a drought surcharge of 1.5 times the normal water rate applies. Customers must reduce water use by 40% compared to their previous month's water bill. No person shall:

- a. Use drinking water to irrigate any lawn, grass, trees, or golf greens beyond the minimum amount necessary for survival.
- b. Use drinking water to irrigate any vegetable garden or ornamental shrubs beyond the minimum amount necessary for survival.
- c. Use drinking water to fill any wading pool or swimming pool or replenish any filled pool.
- d. Make nonessential use of water for commercial or public use.

e. Operate water-cooled air conditioners or other equipment that do not recycle cooling water, except when health and safety are adversely affected.

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal of reduction of at least forty (40%) percent. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 4, Emergency Mandatory Conservation, Customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stages II and III. The level of the conservation effort shall increase to require the following additional mandatory measures. Customers must continue all actions from previous stages and further reduce their water use by 50% compared to their previous month's water bill. A ban on all use of drinking water except to protect public health and safety is implemented and drought surcharges increase to 2 times the normal water rate. No person shall:

- a. Use water outside a structure except in an emergency involving fire.
 - b. Operate evaporative air conditioning units which recycle water except during the operating hours of the business.
 - c. Use any swimming pool or wading pool.
 - d. Wash any motor vehicle, including commercial washing unless a private well is used.
- In addition to the conservation measures enumerated above, customers shall use plates, glasses, cups and eating utensils that are disposable and biodegradable.

The goal of Stage 5, Water Rationing, is to provide drinking water to protect public health (e.g. residences, residential health care facilities and correctional facilities). Customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements of Stages II, III and IV. In Stage 5, all customers are only permitted to use water at the minimum required for public health protection. Drought surcharges increase to 5 times the normal water rate. The level of the conservation effort shall increase to require the following mandatory measures:

- a. Fire protection in the MCPU – Addor's water system will be maintained, but where possible, tank trucks shall use raw water.
- b. All industrial uses of water shall be prohibited.
- c. All other uses of water will be limited to those necessary to meet minimum health and safety needs of the customers as determined by the county manager upon consultation with the director of public utilities in light of conditions present.

Pickup locations for distributing potable water will be announced according to Moore County Public Utilities (Addor)'s Emergency Response Plan. Failure to act in accordance therewith or use of water in any manner or attempt to evade or avoid water rationing restrictions, shall be unlawful.

IV. Triggers

Moore County Public Utilities (Addor) is provided water solely by purchase from the Town of Southern Pines. When the Town of Southern Pines declares a water shortage Moore County Public Utilities (Addor) is required to do so as well. During this time Moore County Public Utilities (Addor) Director of Public Works will stay in close contact with the Town of Southern Pines and follow their triggers.

Return to Normal

When water shortage conditions have abated and the situation is returning to normal, water conservation measures employed during each phase should be decreased in reverse order of implementation. Permanent measures directed toward long-term monitoring and conservation should be implemented or continued so that the community will be in a better position to prevent shortages and respond to recurring water shortage conditions.

V. Enforcement

The provisions of the water shortage response plan will be enforced by Moore County Public Utilities personnel and local law enforcement. Violators may be reported to the County's phone line. Citations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage.

Water Shortage Level	First Violation	Second Violation	Third Violation
Voluntary Conservation	N/A	N/A	N/A
Moderate and Severe Mandatory Conservation (Stages 2 and 3)	Warning	\$250	Discontinuation of Service
Emergency Mandatory Conservation	\$250	Discontinuation of Service	Discontinuation of Service
Water Rationing	\$500	Discontinuation of Service	Discontinuation of Service

Drought surcharge rates are effective in Stages 3, 4 and 5.

VI. Public Comment

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan. First, a draft plan will be available at County Offices for customers to view. A notice will be included in customer water bill notifying them of such. Also, notice of the draft plan will be published in *The Southern Pines Pilot*. Additionally, notices of all subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by Moore County Commissioners.

VII. Variance Protocols

Applications for water use variance requests are available from the County Offices. All applications must be submitted to the County Office for review by the County Manager or his designee. A decision to approve or deny individual variance requests will be determined within two weeks of submittal after careful consideration of the following criteria: impact on water demand, expected duration, alternative source options, social and economic importance, purpose (i.e. necessary use of drinking water) and the prevention of structural damage.

VIII. Effectiveness

The effectiveness of the Moore County Public Utilities (Addor) water shortage response plan will be determined by comparing the stated water conservation goals with observed water use reduction data. Other factors to be considered include frequency of plan activation, any problem periods without activation, total number of violation citations, desired reductions attained and evaluation of demand reductions compared to the previous year's seasonal data.

IX. Revision

The water shortage response plan will be reviewed and revised as needed to adapt to new circumstances affecting water supply and demand, following implementation of emergency restrictions, and at a minimum of every five years in conjunction with the updating of our Local Water Supply Plan. Further, a water shortage response planning work group will review procedures following each emergency or rationing stage to recommend any necessary improvements to the plan to Moore County Board of Commissioners. The Director of Moore County Public Works is responsible for initiating all subsequent revisions.

Water Shortage Response Plan
Moore County Public Utilities (The Carolina), North Carolina

The procedures herein are written to reduce potable water demand and supplement existing drinking water supplies whenever existing water supply sources are inadequate to meet current demands for potable water.

I. Authorization

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II. Notification

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III. Levels of Response

Five levels of water shortage response are outlined in the table below. The five levels of water shortage response are: voluntary conservation, moderate and severe mandatory conservation, emergency mandatory conservation and water rationing. A detailed description of each response level and corresponding water conservation measures follow below.

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- a. Check plumbing, faucets and toilets for leaks, and if necessary repair.
- b. Store drinking water in the refrigerator to avoid trying to run it cool at the tap.
- c. Use shower for bathing purposes or reduce the depth of water used for tub baths. Limit showers to five (5) minutes where possible.
- d. Refrain from running faucets while shaving, rinsing dishes or brushing teeth.
- e. Install water flow restrictive devices in faucets and showerheads.
- f. Install water-saving devices such as plastic bottles or commercial units in toilet tanks of older model toilets or retrofit older model toilets to low flow type.
- g. Review water uses and where feasible install recycle systems, particularly commercial and industrial customers.
- h. Limit the use of clothes washers and dishwashers, and when used, operate fully loaded.
- i. Reduce the flushing of toilets to the minimum whenever practical.
- j. Limit lawn watering to only when grass shows signs of withering and apply water as slow as possible to achieve deep penetration to encourage root growth; preventing water waste, runoff and watering impervious surfaces. Irrigate landscapes a maximum of one inch per week.
- k. Limit shrubbery watering to the minimum using spring-loaded nozzles on garden hoses only.
- l. Limit car washing to the minimum using spring-loaded nozzles on garden hoses only.
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- e. Serve water in a restaurant or similar establishment, except upon request.
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- g. Wash the exterior of a motor vehicle except for commercial washing or where a private well system is used.
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- a. Use drinking water to irrigate any lawn, grass, trees, or golf greens beyond the minimum amount necessary for survival.
- b. Use drinking water to irrigate any vegetable garden or ornamental shrubs beyond the minimum amount necessary for survival.
- c. Use drinking water to fill any wading pool or swimming pool or replenish any filled pool.
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- a. Fire protection in the MCPU – The Carolina's water system will be maintained, but where possible, tank trucks shall use raw water.
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- c. All other uses of water will be limited to those necessary to meet minimum health and safety needs of the customers as determined by the county manager upon consultation with the director of public utilities in light of conditions present.

Pickup locations for distributing potable water will be announced according to Moore County Public Utilities (The Carolina)'s Emergency Response Plan. Failure to act in accordance therewith or use of water in any manner or attempt to evade or avoid water rationing restrictions, shall be unlawful.

IV. Triggers

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The water shortage response plan will be reviewed and revised as needed to adapt to new circumstances affecting water supply and demand, following implementation of emergency restrictions, and at a minimum of every five years in conjunction with the updating of our Local Water Supply Plan. Further, a water shortage response planning work group will review procedures following each emergency or rationing stage to recommend any necessary improvements to the plan to Moore County Board of Commissioners. The Director of Moore County Public Works is responsible for initiating all subsequent revisions.

Water Shortage Response Plan Moore County Public Utilities (High Falls), North Carolina

The procedures herein are written to reduce potable water demand and supplement existing drinking water supplies whenever existing water supply sources are inadequate to meet current demands for potable water.

I. Authorization

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- d. Refrain from running faucets while shaving, rinsing dishes or brushing teeth.
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- m. Limit wash downs of outside areas such as sidewalks, patios, driveways, or other similar purposes unless for health or safety reasons.
- n. Limit hours of operation of water-cooled air conditioners where possible.
- o. Use biodegradable disposable dishes and utensils, both for residential and commercial purposes, where feasible.

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- a. Use drinking water to irrigate any lawn, grass, trees, or golf greens beyond the minimum amount necessary for survival.
- b. Use drinking water to irrigate any vegetable garden or ornamental shrubs beyond the minimum amount necessary for survival.

- c. Use drinking water to fill any wading pool or swimming pool or replenish any filled pool.
- d. Make nonessential use of water for commercial or public use.
- e. Operate water-cooled air conditioners or other equipment that do not recycle cooling water, except when health and safety are adversely affected.

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal of reduction of at least forty (40%) percent. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 4, Emergency Mandatory Conservation, customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stages II and III. The level of the conservation effort shall increase to require the following additional mandatory measures. Customers must continue all actions from previous stages and further reduce their water use by 50% compared to their previous month's water bill. A ban on all use of drinking water except to protect public health and safety is implemented and drought surcharges increase to 2 times the normal water rate. No person shall:

- a. Use water outside a structure except in an emergency involving fire.
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Pickup locations for distributing potable water will be announced according to Moore County Public Utilities (High Falls) Emergency Response Plan. Failure to act in

accordance therewith or use of water in any manner or attempt to evade or avoid water rationing restrictions, shall be unlawful.

IV. Triggers

Moore County Public Utilities (High Falls) is provided water solely by purchase from the Chatham County. When Chatham County declares a water shortage Moore County Public Utilities (High Falls) is required to do so as well. During this time Moore County Public Utilities (High Falls) Director of Public Works will stay in close contact with Chatham County and follow their triggers.

Return to Normal

When water shortage conditions have abated and the situation is returning to normal, water conservation measures employed during each phase should be decreased in reverse order of implementation. Permanent measures directed toward long-term monitoring and conservation should be implemented or continued so that the community will be in a better position to prevent shortages and respond to recurring water shortage conditions.

V. Enforcement

The provisions of the water shortage response plan will be enforced by Moore County Public Utilities personnel and local law enforcement. Violators may be reported to the County’s phone line. Citations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage.

Water Shortage Level	First Violation	Second Violation	Third Violation
Voluntary Conservation	N/A	N/A	N/A
Moderate and Severe Mandatory Conservation (Stages 2 and 3)	Warning	\$250	Discontinuation of Service
Emergency Mandatory Conservation	\$250	Discontinuation of Service	Discontinuation of Service
Water Rationing	\$500	Discontinuation of Service	Discontinuation of Service

Drought surcharge rates are effective in Stages 3, 4 and 5.

VI. Public Comment

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan. First, a draft plan will be available at County Offices for customers to view. A notice will be included in customer water bill notifying them of such. Also, notice of the draft plan will be published in *The Southern Pines Pilot*.

Additionally, notices of all subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by Moore County Commissioners.

VII. Variance Protocols

Applications for water use variance requests are available from the County Offices. All applications must be submitted to the County Office for review by the County Manager or his designee. A decision to approve or deny individual variance requests will be determined within two weeks of submittal after careful consideration of the following criteria: impact on water demand, expected duration, alternative source options, social and economic importance, purpose (i.e. necessary use of drinking water) and the prevention of structural damage.

VIII. Effectiveness

The effectiveness of the Moore County Public Utilities (High Falls) water shortage response plan will be determined by comparing the stated water conservation goals with observed water use reduction data. Other factors to be considered include frequency of plan activation, any problem periods without activation, total number of violation citations, desired reductions attained and evaluation of demand reductions compared to the previous year's seasonal data.

IX. Revision

The water shortage response plan will be reviewed and revised as needed to adapt to new circumstances affecting water supply and demand, following implementation of emergency restrictions, and at a minimum of every five years in conjunction with the updating of our Local Water Supply Plan. Further, a water shortage response planning work group will review procedures following each emergency or rationing stage to recommend any necessary improvements to the plan to Moore County Board of Commissioners. The Director of Moore County Public Works is responsible for initiating all subsequent revisions.

Water Shortage Response Plan
Moore County Public Utilities (Hyland Hills/Niagara), North Carolina

The procedures herein are written to reduce potable water demand and supplement existing drinking water supplies whenever existing water supply sources are inadequate to meet current demands for potable water.

I. Authorization

The Moore County Manager shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section IV are met. In his absence, the Director of Public Works will assume this role.

Mr. Cary McSwain
Manager Moore County
Phone: (910) 947-6363
E-mail: cmcswain@moirecountync.gov

Mr. Dennis Brobst
Director of Moore County Public Works
Moore County Public Utilities (Hyland Hills/Niagara)
Phone: (910) 947-6315
E-mail: dbrobst@moirecountync.gov

II. Notification

The following notification methods will be used to inform water system employees and customers of a water shortage declaration: employee e-mail announcements, notices at municipal buildings, notices in water bills. Required water shortage response measures will be communicated through the County of Moore Public Information Officer for distribution to all media outlets such as local newspapers, PSA announcements on local radio and cable stations and on the County's website <http://www.moirecountync.gov/>. Declaration of emergency water restrictions or water rationing will be communicated to all customers by telephone via reverse E911.

III. Levels of Response

Five levels of water shortage response are outlined in the table below. The five levels of water shortage response are: voluntary conservation, moderate and severe mandatory conservation, emergency mandatory conservation and water rationing. A detailed description of each response level and corresponding water conservation measures follow below.

Stage	Response	Description
1	Voluntary Conservation	Water users are encouraged to reduce their water use and improve water use efficiency; however, no penalties apply for noncompliance. Water supply conditions indicate a potential for shortage.
2	Moderate Mandatory Conservation	Water users must abide required water use reduction and efficiency measures; penalties apply for noncompliance. Water supply conditions are significantly lower than the seasonal norm and water shortage conditions are expected to persist.
3	Severe Mandatory Conservation	Same as in Stage 2
4	Emergency Mandatory Conservation	Water supply conditions are substantially diminished and pose an imminent threat to human health or environmental integrity.
5	Water Rationing	Water supply conditions are substantially diminished and remaining supplies must be allocated to preserve human health and environmental integrity.

In Stage 1, Voluntary Conservation, all water users will be encouraged to reduce their normal water use by 20%. Customer education and outreach programs will encourage water conservation and efficiency measures including:

- a. Check plumbing, faucets and toilets for leaks, and if necessary repair.
- b. Store drinking water in the refrigerator to avoid trying to run it cool at the tap.
- c. Use shower for bathing purposes or reduce the depth of water used for tub baths. Limit showers to five (5) minutes where possible.
- d. Refrain from running faucets while shaving, rinsing dishes or brushing teeth.
- e. Install water flow restrictive devices in faucets and showerheads.
- f. Install water-saving devices such as plastic bottles or commercial units in toilet tanks of older model toilets or retrofit older model toilets to low flow type.
- g. Review water uses and where feasible install recycle systems, particularly commercial and industrial customers.
- h. Limit the use of clothes washers and dishwashers, and when used, operate fully loaded.
- i. Reduce the flushing of toilets to the minimum whenever practical.
- j. Limit lawn watering to only when grass shows signs of withering and apply water as slow as possible to achieve deep penetration to encourage root growth; preventing water waste, runoff and watering impervious surfaces. Irrigate landscapes a maximum of one inch per week.
- k. Limit shrubbery watering to the minimum using spring-loaded nozzles on garden hoses only.
- l. Limit car washing to the minimum using spring-loaded nozzles on garden hoses only.
- m. Limit wash downs of outside areas such as sidewalks, patios, driveways, or other similar purposes unless for health or safety reasons.

- n. Limit hours of operation of water-cooled air conditioners where possible.
- o. Use biodegradable disposable dishes and utensils, both for residential and commercial purposes, where feasible.

In Stage 2, Moderate Mandatory Conservation, all customers are expected to reduce their water use by 30% in comparison to their previous month's water bill. In addition to continuing to encourage all voluntary reduction actions, the level of the conservation effort shall be increased to require the following mandatory measures. No person shall:

- a. Water lawns, grass, trees, shrubbery, flowers, golf greens or vegetable gardens except between the hours of 5:00 p.m. and 12:00 midnight, twice weekly with even number addresses allowed to irrigate on Mondays and Thursdays; and odd number addresses allowed to irrigate on Tuesdays and Fridays. Total irrigation is limited to a half inch per week.
- b. Introduce water into wading pools or swimming pools except to the extent necessary to replenish losses due to evaporation or spillage, and maintain operation of chemical feed equipment.
- c. Use drinking water for washing impervious surfaces such as sidewalks, patios, driveways, or for other similar purposes unless for health or safety reasons.
- d. Introduce water into any decorative fountain, pool or pond except where the water is recycled.
- e. Serve water in a restaurant or similar establishment, except upon request.
- f. Use drinking water for any unnecessary purpose or intentionally waste drinking water.
- g. Wash the exterior of a motor vehicle except for commercial washing or where a private well system is used.
- h. Use drinking water for testing and training purposes (e.g. fire protection).

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal reduction of at least 30%. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 3, Severe Mandatory Conservation, customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stage II. The level of the conservation effort shall increase to require the following additional mandatory measures. All non-essential uses of drinking water are banned. Additionally, in Stage 3, a drought surcharge of 1.5 times the normal water rate applies. Customers must reduce water use by 40% compared to their previous month's water bill. No person shall:

- a. Use drinking water to irrigate any lawn, grass, trees, or golf greens beyond the minimum amount necessary for survival.
- b. Use drinking water to irrigate any vegetable garden or ornamental shrubs beyond the minimum amount necessary for survival.
- c. Use drinking water to fill any wading pool or swimming pool or replenish any filled pool.
- d. Make nonessential use of water for commercial or public use.

e. Operate water-cooled air conditioners or other equipment that do not recycle cooling water, except when health and safety are adversely affected.

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal of reduction of at least forty (40%) percent. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 4, Emergency Mandatory Conservation, Customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stages II and III. The level of the conservation effort shall increase to require the following additional mandatory measures. Customers must continue all actions from previous stages and further reduce their water use by 50% compared to their previous month's water bill. A ban on all use of drinking water except to protect public health and safety is implemented and drought surcharges increase to 2 times the normal water rate. No person shall:

- a. Use water outside a structure except in an emergency involving fire.
 - b. Operate evaporative air conditioning units which recycle water except during the operating hours of the business.
 - c. Use any swimming pool or wading pool.
 - d. Wash any motor vehicle, including commercial washing unless a private well is used.
- In addition to the conservation measures enumerated above, customers shall use plates, glasses, cups and eating utensils that are disposable and biodegradable.

The goal of Stage 5, Water Rationing, is to provide drinking water to protect public health (e.g. residences, residential health care facilities and correctional facilities). Customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements of Stages II, III and IV. In Stage 5, all customers are only permitted to use water at the minimum required for public health protection. Drought surcharges increase to 5 times the normal water rate. The level of the conservation effort shall increase to require the following mandatory measures:

- a. Fire protection in the East Moore Water District will be maintained, but where possible, tank trucks shall use raw water.
- b. All industrial uses of water shall be prohibited.
- c. All other uses of water will be limited to those necessary to meet minimum health and safety needs of the customers as determined by the county manager upon consultation with the director of public utilities in light of conditions present.

Pickup locations for distributing potable water will be announced according to Moore County Public Utilities (Hyland Hills/Niagara)'s Emergency Response Plan. Failure to act in accordance therewith or use of water in any manner or attempt to evade or avoid water rationing restrictions, shall be unlawful.

IV. Triggers

Moore County Public Utilities (Hyland Hills/Niagara) is provided water solely by purchase from East Moore Water District. When the East Moore Water District declares a water shortage Moore County Public Utilities (Hyland Hills/Niagara) is required to do so as well. During this time Moore County Public Utilities (Hyland Hills/Niagara) Director of Public Works will stay in close contact with the East Moore Water District and follow their triggers.

Return to Normal

When water shortage conditions have abated and the situation is returning to normal, water conservation measures employed during each phase should be decreased in reverse order of implementation. Permanent measures directed toward long-term monitoring and conservation should be implemented or continued so that the community will be in a better position to prevent shortages and respond to recurring water shortage conditions.

V. Enforcement

The provisions of the water shortage response plan will be enforced by Moore County Public Utilities personnel and local law enforcement. Violators may be reported to the County's phone line. Citations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage.

Water Shortage Level	First Violation	Second Violation	Third Violation
Voluntary Conservation	N/A	N/A	N/A
Moderate and Severe Mandatory Conservation (Stages 2 and 3)	Warning	\$250	Discontinuation of Service
Emergency Mandatory Conservation	\$250	Discontinuation of Service	Discontinuation of Service
Water Rationing	\$500	Discontinuation of Service	Discontinuation of Service

Drought surcharge rates are effective in Stages 3, 4 and 5.

VI. Public Comment

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan. First, a draft plan will be available at County Offices for customers to view. A notice will be included in customer water bill notifying them of such. Also, notice of the draft plan will be published in *The Southern Pines Pilot*.

Additionally, notices of all subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by Moore County Commissioners.

VII. Variance Protocols

Applications for water use variance requests are available from the County Offices. All applications must be submitted to the County Office for review by the County Manager or his designee. A decision to approve or deny individual variance requests will be determined within two weeks of submittal after careful consideration of the following criteria: impact on water demand, expected duration, alternative source options, social and economic importance, purpose (i.e. necessary use of drinking water) and the prevention of structural damage.

VIII. Effectiveness

The effectiveness of the Moore County Public Utilities (Hyland Hills/Niagara) water shortage response plan will be determined by comparing the stated water conservation goals with observed water use reduction data. Other factors to be considered include frequency of plan activation, any problem periods without activation, total number of violation citations, desired reductions attained and evaluation of demand reductions compared to the previous year's seasonal data.

IX. Revision

The water shortage response plan will be reviewed and revised as needed to adapt to new circumstances affecting water supply and demand, following implementation of emergency restrictions, and at a minimum of every five years in conjunction with the updating of our Local Water Supply Plan. Further, a water shortage response planning work group will review procedures following each emergency or rationing stage to recommend any necessary improvements to the plan to Moore County Board of Commissioners. The Director of Moore County Public Works is responsible for initiating all subsequent revisions.

**Water Shortage Response Plan
Moore County Public Utilities (Pinehurst), North Carolina**

The procedures herein are written to reduce potable water demand and supplement existing drinking water supplies whenever existing water supply sources are inadequate to meet current demands for potable water.

I. Authorization

The Moore County Manager shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section IV are met. In his absence, the Director of Public Works will assume this role.

Mr. Cary McSwain
Manager Moore County
Phone: (910) 947-6363
E-mail: cmcswain@moorecountync.gov

Mr. Dennis Brobst
Director of Moore County Public Works
Moore County Public Utilities (Pinehurst)
Phone: (910) 947-6315
E-mail: dbrobst@moorecountync.gov

II. Notification

The following notification methods will be used to inform water system employees and customers of a water shortage declaration: employee e-mail announcements, notices at municipal buildings, notices in water bills. Required water shortage response measures will be communicated through the County of Moore Public Information Officer for distribution to all media outlets such as local newspapers, PSA announcements on local radio and cable stations and on the County's website <http://www.moorecountync.gov/>. Declaration of emergency water restrictions or water rationing will be communicated to all customers by telephone via reverse E911.

III. Levels of Response

Five levels of water shortage response are outlined in the table below. The five levels of water shortage response are: voluntary conservation, moderate and severe mandatory conservation, emergency mandatory conservation and water rationing. A detailed description of each response level and corresponding water conservation measures follow below.

Stage	Response	Description
1	Voluntary Conservation	Water users are encouraged to reduce their water use and improve water use efficiency; however, no penalties apply for noncompliance. Water supply conditions indicate a potential for shortage.
2	Moderate Mandatory Conservation	Water users must abide required water use reduction and efficiency measures; penalties apply for noncompliance. Water supply conditions are significantly lower than the seasonal norm and water shortage conditions are expected to persist.
3	Severe Mandatory Conservation	Same as in Stage 2
4	Emergency Mandatory Conservation	Water supply conditions are substantially diminished and pose an imminent threat to human health or environmental integrity.
5	Water Rationing	Water supply conditions are substantially diminished and remaining supplies must be allocated to preserve human health and environmental integrity.

In Stage 1, Voluntary Conservation, all water users will be encouraged to reduce their normal water use by 20%. Customer education and outreach programs will encourage water conservation and efficiency measures including:

- a. Check plumbing, faucets and toilets for leaks, and if necessary repair.
- b. Store drinking water in the refrigerator to avoid trying to run it cool at the tap.
- c. Use shower for bathing purposes or reduce the depth of water used for tub baths. Limit showers to five (5) minutes where possible.
- d. Refrain from running faucets while shaving, rinsing dishes or brushing teeth.
- e. Install water flow restrictive devices in faucets and showerheads.
- f. Install water-saving devices such as plastic bottles or commercial units in toilet tanks of older model toilets or retrofit older model toilets to low flow type.
- g. Review water uses and where feasible install recycle systems, particularly commercial and industrial customers.
- h. Limit the use of clothes washers and dishwashers, and when used, operate fully loaded.
- i. Reduce the flushing of toilets to the minimum whenever practical.
- j. Limit lawn watering to only when grass shows signs of withering and apply water as slow as possible to achieve deep penetration to encourage root growth; preventing water waste, runoff and watering impervious surfaces. Irrigate landscapes a maximum of one inch per week.
- k. Limit shrubbery watering to the minimum using spring-loaded nozzles on garden hoses only.
- l. Limit car washing to the minimum using spring-loaded nozzles on garden hoses only.
- m. Limit wash downs of outside areas such as sidewalks, patios, driveways, or other similar purposes unless for health or safety reasons.
- n. Limit hours of operation of water-cooled air conditioners where possible.

o. Use biodegradable disposable dishes and utensils, both for residential and commercial purposes, where feasible.

In Stage 2, Moderate Mandatory Conservation, all customers are expected to reduce their water use by 30% in comparison to their previous month's water bill. In addition to continuing to encourage all voluntary reduction actions, the level of the conservation effort shall be increased to require the following mandatory measures. No person shall:

- a. Water lawns, grass, trees, shrubbery, flowers, golf greens or vegetable gardens except between the hours of 5:00 p.m. and 12:00 midnight, twice weekly with even number addresses allowed to irrigate on Mondays and Thursdays; and odd number addresses allowed to irrigate on Tuesdays and Fridays. Total irrigation is limited to a half inch per week.
- b. Introduce water into wading pools or swimming pools except to the extent necessary to replenish losses due to evaporation or spillage, and maintain operation of chemical feed equipment.
- c. Use drinking water for washing impervious surfaces such as sidewalks, patios, driveways, or for other similar purposes unless for health or safety reasons.
- d. Introduce water into any decorative fountain, pool or pond except where the water is recycled.
- e. Serve water in a restaurant or similar establishment, except upon request.
- f. Use drinking water for any unnecessary purpose or intentionally waste drinking water.
- g. Wash the exterior of a motor vehicle except for commercial washing or where a private well system is used.
- h. Use drinking water for testing and training purposes (e.g. fire protection).

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal reduction of at least 30%. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 3, Severe Mandatory Conservation, customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stage II. The level of the conservation effort shall increase to require the following additional mandatory measures. All non-essential uses of drinking water are banned. Additionally, in Stage 3, a drought surcharge of 1.5 times the normal water rate applies. Customers must reduce water use by 40% compared to their previous month's water bill. No person shall:

- a. Use drinking water to irrigate any lawn, grass, trees, or golf greens beyond the minimum amount necessary for survival.
- b. Use drinking water to irrigate any vegetable garden or ornamental shrubs beyond the minimum amount necessary for survival.
- c. Use drinking water to fill any wading pool or swimming pool or replenish any filled pool.
- d. Make nonessential use of water for commercial or public use.

e. Operate water-cooled air conditioners or other equipment that do not recycle cooling water, except when health and safety are adversely affected.

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal of reduction of at least forty (40%) percent. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 4, Emergency Mandatory Conservation, Customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stages II and III. The level of the conservation effort shall increase to require the following additional mandatory measures. Customers must continue all actions from previous stages and further reduce their water use by 50% compared to their previous month's water bill. A ban on all use of drinking water except to protect public health and safety is implemented and drought surcharges increase to 2 times the normal water rate. No person shall:

- a. Use water outside a structure except in an emergency involving fire.
 - b. Operate evaporative air conditioning units which recycle water except during the operating hours of the business.
 - c. Use any swimming pool or wading pool.
 - d. Wash any motor vehicle, including commercial washing unless a private well is used.
- In addition to the conservation measures enumerated above, customers shall use plates, glasses, cups and eating utensils that are disposable and biodegradable.

The goal of Stage 5, Water Rationing, is to provide drinking water to protect public health (e.g. residences, residential health care facilities and correctional facilities). Customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements of Stages II, III and IV. In Stage 5, all customers are only permitted to use water at the minimum required for public health protection. Drought surcharges increase to 5 times the normal water rate. The level of the conservation effort shall increase to require the following mandatory measures:

- a. Fire protection will be maintained, but where possible, tank trucks shall use raw water.
- b. All industrial uses of water shall be prohibited.
- c. All other uses of water will be limited to those necessary to meet minimum health and safety needs of the customers as determined by the county manager upon consultation with the director of public utilities in light of conditions present.

Pickup locations for distributing potable water will be announced according to Moore County Public Utilities (Pinehurst)'s Emergency Response Plan. Failure to act in accordance therewith or use of water in any manner or attempt to evade or avoid water rationing restrictions, shall be unlawful.

IV. Triggers

1. **Ground water** - Moore County Public Utilities (Pinehurst)'s primary water source is groundwater from the Middendorf Aquifer. The following measurements of aquifer static water levels, in conjunction with the NC Drought Monitor drought classification, the US Seasonal Drought Outlook for the Moore County area of North Carolina and USGS Streamflow conditions of Moore County area streams, creeks and rivers and local precipitation amounts trigger entry into corresponding water conservation stages.

Stage	Water Conservation Triggers
1	<ol style="list-style-type: none"> 1. Static Water Levels greater than 53 feet below casing level 2. NC Drought Monitor drought classification = None, D0, D1 3. US Seasonal Drought Outlook classification = None, Drought Development Likely 4. Drowning Creek USGS Streamflow conditions = Moderate hydrologic drought 5. Local precipitation amounts below normal for 3 consecutive months.
2	<ol style="list-style-type: none"> 1. Static Water Levels greater than 55 feet below casing level 2. NC Drought Monitor drought classification = D2 3. US Seasonal Drought Outlook classification = Drought ongoing, drought to persist or intensify. 4. Drowning Creek USGS Streamflow conditions = Severe hydrologic drought 5. Local precipitation amounts below normal for 6 consecutive months.
3	<ol style="list-style-type: none"> 1. Static Water Levels greater than 57 feet below casing level 2. NC Drought Monitor drought classification = D3 3. US Seasonal Drought Outlook classification = Drought ongoing, drought to persist or intensify. 4. Drowning Creek USGS Streamflow conditions = Extreme hydrologic drought 5. Local precipitation amounts below normal for 9 consecutive months.
4	<ol style="list-style-type: none"> 1. Static Water Levels greater than 59 feet below casing level 2. NC Drought Monitor drought classification = D4 3. US Seasonal Drought Outlook classification = Drought ongoing, drought to persist or intensify. 4. Drowning Creek USGS Streamflow conditions = Extreme hydrologic drought 5. Local precipitation amounts below normal for 12 consecutive months.
5	<ol style="list-style-type: none"> 1. Static Water Levels greater than 61 feet below casing level 2. NC Drought Monitor drought classification = D4 3. US Seasonal Drought Outlook classification = Drought ongoing, drought to persist 4. Drowning Creek USGS Streamflow conditions = Extreme hydrologic drought 5. Local precipitation amounts below normal for 15 consecutive months.

2. **Purchase Water** - Moore County Public Utilities (Pinehurst)'s purchase water sources are as follows.

- a. East Moore Water District
- b. Town of Southern Pines

c. Town of Aberdeen

When a purchase water purveyor declares a water shortage Moore County Public Utilities (Pinehurst) will reduce the amount of water purchased from each purveyor according to the purveyor’s designated conservation stage requirements.

During this time, Moore County Public Utilities (Pinehurst) Director of Public Works and Utility Operations Manager will closely monitor the Middendorf Aquifer and all purchase water sources and follow the required triggers.

Return to Normal

When water shortage conditions have abated and the situation is returning to normal, water conservation measures employed during each phase should be decreased in reverse order of implementation. Permanent measures directed toward long-term monitoring and conservation should be implemented or continued so that the community will be in a better position to prevent shortages and respond to recurring water shortage conditions.

V. Enforcement

The provisions of the water shortage response plan will be enforced by Moore County Public Utilities personnel and local law enforcement. Violators may be reported to the County’s phone line. Citations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage.

Water Shortage Level	First Violation	Second Violation	Third Violation
Voluntary Conservation	N/A	N/A	N/A
Moderate and Severe Mandatory Conservation (Stages 2 and 3)	Warning	\$250	Discontinuation of Service
Emergency Mandatory Conservation	\$250	Discontinuation of Service	Discontinuation of Service
Water Rationing	\$500	Discontinuation of Service	Discontinuation of Service

VI. Public Comment

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan. First, a draft plan will be available at County Offices for customers to view. A notice will be included in customer water bill notifying them of such. Also, notice of the draft plan will be published in *The Southern Pines Pilot*. Additionally, notices of all subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by Moore County Commissioners.

VII. Variance Protocols

Applications for water use variance requests are available from the County Offices. All applications must be submitted to the County Office for review by the County Manager or his designee. A decision to approve or deny individual variance requests will be determined within two weeks of submittal after careful consideration of the following criteria: impact on water demand, expected duration, alternative source options, social and economic importance, purpose (i.e. necessary use of drinking water) and the prevention of structural damage.

VIII. Effectiveness

The effectiveness of the Moore County Public Utilities (Pinehurst) water shortage response plan will be determined by comparing the stated water conservation goals with observed water use reduction data. Other factors to be considered include frequency of plan activation, any problem periods without activation, total number of violation citations, desired reductions attained and evaluation of demand reductions compared to the previous year's seasonal data.

IX. Revision

The water shortage response plan will be reviewed and revised as needed to adapt to new circumstances affecting water supply and demand, following implementation of emergency restrictions, and at a minimum of every five years in conjunction with the updating of our Local Water Supply Plan. Further, a water shortage response planning work group will review procedures following each emergency or rationing stage to recommend any necessary improvements to the plan to Moore County Board of Commissioners. The Director of Moore County Public Works is responsible for initiating all subsequent revisions.

Water Shortage Response Plan Moore County Public Utilities (Robbins), North Carolina

The procedures herein are written to reduce potable water demand and supplement existing drinking water supplies whenever existing water supply sources are inadequate to meet current demands for potable water.

I. Authorization

The Moore County Manager shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section IV are met. In his absence, the Director of Public Works will assume this role.

Mr. Cary McSwain

Manager Moore County

Phone: (910) 947-6363

E-mail: cmcswain@moorecountync.gov

Mr. Dennis Brobst

Director of Moore County Public Works

Moore County Public Utilities (Robbins)

Phone: (910) 947-6315

E-mail: dbrobst@moorecountync.gov

II. Notification

The following notification methods will be used to inform water system employees and customers of a water shortage declaration: employee e-mail announcements, notices at municipal buildings, notices in water bills. Required water shortage response measures will be communicated through the County of Moore Public Information Officer for distribution to all media outlets such as local newspapers, PSA announcements on local radio and cable stations and on the County's website <http://www.moorecountync.gov/>. Declaration of emergency water restrictions or water rationing will be communicated to all customers by telephone via reverse E911.

III. Levels of Response

Five levels of water shortage response are outlined in the table below. The five levels of water shortage response are: voluntary conservation, moderate and severe mandatory conservation, emergency mandatory conservation and water rationing. A detailed description of each response level and corresponding water conservation measures follow below.

Stage	Response	Description
1	Voluntary Conservation	Water users are encouraged to reduce their water use and improve water use efficiency; however, no penalties apply for noncompliance. Water supply conditions indicate a potential for shortage.
2	Moderate Mandatory Conservation	Water users must abide required water use reduction and efficiency measures; penalties apply for noncompliance. Water supply conditions are significantly lower than the seasonal norm and water shortage conditions are expected to persist.
3	Severe Mandatory Conservation	Same as in Stage 2
4	Emergency Mandatory Conservation	Water supply conditions are substantially diminished and pose an imminent threat to human health or environmental integrity.
5	Water Rationing	Water supply conditions are substantially diminished and remaining supplies must be allocated to preserve human health and environmental integrity.

In Stage 1, Voluntary Conservation, all water users will be encouraged to reduce their normal water use by 20%. Customer education and outreach programs will encourage water conservation and efficiency measures including:

- a. Check plumbing, faucets and toilets for leaks, and if necessary repair.
- b. Store drinking water in the refrigerator to avoid trying to run it cool at the tap.
- c. Use shower for bathing purposes or reduce the depth of water used for tub baths. Limit showers to five (5) minutes where possible.
- d. Refrain from running faucets while shaving, rinsing dishes or brushing teeth.
- e. Install water flow restrictive devices in faucets and showerheads.
- f. Install water-saving devices such as plastic bottles or commercial units in toilet tanks of older model toilets or retrofit older model toilets to low flow type.
- g. Review water uses and where feasible install recycle systems, particularly commercial and industrial customers.
- h. Limit the use of clothes washers and dishwashers, and when used, operate fully loaded.
- i. Reduce the flushing of toilets to the minimum whenever practical.
- j. Limit lawn watering to only when grass shows signs of withering and apply water as slow as possible to achieve deep penetration to encourage root growth; preventing water waste, runoff and watering impervious surfaces. Irrigate landscapes a maximum of one inch per week.
- k. Limit shrubbery watering to the minimum using spring-loaded nozzles on garden hoses only.
- l. Limit car washing to the minimum using spring-loaded nozzles on garden hoses only.
- m. Limit wash downs of outside areas such as sidewalks, patios, driveways, or other similar purposes unless for health or safety reasons.
- n. Limit hours of operation of water-cooled air conditioners where possible.

o. Use biodegradable disposable dishes and utensils, both for residential and commercial purposes, where feasible.

In Stage 2, Moderate Mandatory Conservation, all customers are expected to reduce their water use by 30% in comparison to their previous month's water bill. In addition to continuing to encourage all voluntary reduction actions, the level of the conservation effort shall be increased to require the following mandatory measures. No person shall:

- a. Water lawns, grass, trees, shrubbery, flowers, golf greens or vegetable gardens except between the hours of 5:00 p.m. and 12:00 midnight, twice weekly with even number addresses allowed to irrigate on Mondays and Thursdays; and odd number addresses allowed to irrigate on Tuesdays and Fridays. Total irrigation is limited to a half inch per week.
- b. Introduce water into wading pools or swimming pools except to the extent necessary to replenish losses due to evaporation or spillage, and maintain operation of chemical feed equipment.
- c. Use drinking water for washing impervious surfaces such as sidewalks, patios, driveways, or for other similar purposes unless for health or safety reasons.
- d. Introduce water into any decorative fountain, pool or pond except where the water is recycled.
- e. Serve water in a restaurant or similar establishment, except upon request.
- f. Use drinking water for any unnecessary purpose or intentionally waste drinking water.
- g. Wash the exterior of a motor vehicle except for commercial washing or where a private well system is used.
- h. Use drinking water for testing and training purposes (e.g. fire protection).

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal reduction of at least 30%. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 3, Severe Mandatory Conservation, customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stage II. The level of the conservation effort shall increase to require the following additional mandatory measures. All non-essential uses of drinking water are banned. Additionally, in Stage 3, a drought surcharge of 1.5 times the normal water rate applies. Customers must reduce water use by 40% compared to their previous month's water bill. No person shall:

- a. Use drinking water to irrigate any lawn, grass, trees, or golf greens beyond the minimum amount necessary for survival.
- b. Use drinking water to irrigate any vegetable garden or ornamental shrubs beyond the minimum amount necessary for survival.
- c. Use drinking water to fill any wading pool or swimming pool or replenish any filled pool.
- d. Make nonessential use of water for commercial or public use.

e. Operate water-cooled air conditioners or other equipment that do not recycle cooling water, except when health and safety are adversely affected.

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal of reduction of at least forty (40%) percent. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 4, Emergency Mandatory Conservation, customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stages II and III. The level of the conservation effort shall increase to require the following additional mandatory measures. Customers must continue all actions from previous stages and further reduce their water use by 50% compared to their previous month's water bill. A ban on all use of drinking water except to protect public health and safety is implemented and drought surcharges increase to 2 times the normal water rate. No person shall:

- a. Use water outside a structure except in an emergency involving fire.
 - b. Operate evaporative air conditioning units which recycle water except during the operating hours of the business.
 - c. Use any swimming pool or wading pool.
 - d. Wash any motor vehicle, including commercial washing unless a private well is used.
- In addition to the conservation measures enumerated above, customers shall use plates, glasses, cups and eating utensils that are disposable and biodegradable.

The goal of Stage 5, Water Rationing, is to provide drinking water to protect public health (e.g. residences, residential health care facilities and correctional facilities). Customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements of Stages II, III and IV. In Stage 5, all customers are only permitted to use water at the minimum required for public health protection. Drought surcharges increase to 5 times the normal water rate. The level of the conservation effort shall increase to require the following mandatory measures:

- a. Fire protection in the water system will be maintained, but where possible, tank trucks shall use raw water.
- b. All industrial uses of water shall be prohibited.
- c. All other uses of water will be limited to those necessary to meet minimum health and safety needs of the customers as determined by the county manager upon consultation with the director of public utilities in light of conditions present.

Pickup locations for distributing potable water will be announced according to Moore County Public Utilities (Robbins)'s Emergency Response Plan. Failure to act in accordance therewith or use of water in any manner or attempt to evade or avoid water rationing restrictions, shall be unlawful.

IV. Triggers

Moore County Public Utilities (Robbins) is provided water solely by purchase from the Town of Robbins. When the Town of Robbins declares a water shortage Moore County Public Utilities (Robbins) is required to do so as well. During this time Moore County Public Utilities (Robbins) Director of Public Works will stay in close contact with the Town of Robbins and follow their triggers.

Return to Normal

When water shortage conditions have abated and the situation is returning to normal, water conservation measures employed during each phase should be decreased in reverse order of implementation. Permanent measures directed toward long-term monitoring and conservation should be implemented or continued so that the community will be in a better position to prevent shortages and respond to recurring water shortage conditions.

V. Enforcement

The provisions of the water shortage response plan will be enforced by Moore County Public Utilities personnel and local law enforcement. Violators may be reported to the County's phone line. Citations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage.

Water Shortage Level	First Violation	Second Violation	Third Violation
Voluntary Conservation	N/A	N/A	N/A
Moderate and Severe Mandatory Conservation (Stages 2 and 3)	Warning	\$250	Discontinuation of Service
Emergency Mandatory Conservation	\$250	Discontinuation of Service	Discontinuation of Service
Water Rationing	\$500	Discontinuation of Service	Discontinuation of Service

Drought surcharge rates are effective in Stages 3, 4 and 5.

VI. Public Comment

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan. First, a draft plan will be available at County Offices for customers to view. A notice will be included in customer water bill notifying them of such. Also, notice of the draft plan will be published in *The Southern Pines Pilot*. Additionally, notices of all subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by Moore County Commissioners.

VII. Variance Protocols

Applications for water use variance requests are available from the County Offices. All applications must be submitted to the County Office for review by the County Manager or his designee. A decision to approve or deny individual variance requests will be determined within two weeks of submittal after careful consideration of the following criteria: impact on water demand, expected duration, alternative source options, social and economic importance, purpose (i.e. necessary use of drinking water) and the prevention of structural damage.

VIII. Effectiveness

The effectiveness of the Moore County Public Utilities (Robbins) water shortage response plan will be determined by comparing the stated water conservation goals with observed water use reduction data. Other factors to be considered include frequency of plan activation, any problem periods without activation, total number of violation citations, desired reductions attained and evaluation of demand reductions compared to the previous year's seasonal data.

IX. Revision

The water shortage response plan will be reviewed and revised as needed to adapt to new circumstances affecting water supply and demand, following implementation of emergency restrictions, and at a minimum of every five years in conjunction with the updating of our Local Water Supply Plan. Further, a water shortage response planning work group will review procedures following each emergency or rationing stage to recommend any necessary improvements to the plan to Moore County Board of Commissioners. The Director of Moore County Public Works is responsible for initiating all subsequent revisions.

Water Shortage Response Plan Moore County Public Utilities (Seven Lakes), North Carolina

The procedures herein are written to reduce potable water demand and supplement existing drinking water supplies whenever existing water supply sources are inadequate to meet current demands for potable water.

I. Authorization

The Moore County Manager shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section IV are met. In his absence, the Director of Public Works will assume this role.

Mr. Cary McSwain
Manager Moore County
Phone: (910) 947-6363
E-mail: cmcswain@moorecountync.gov

Mr. Dennis Brobst
Director of Moore County Public Works
Moore County Public Utilities (Seven Lakes)
Phone: (910) 947-6315
E-mail: dbrobst@moorecountync.gov

II. Notification

The following notification methods will be used to inform water system employees and customers of a water shortage declaration: employee e-mail announcements, notices at municipal buildings, notices in water bills. Required water shortage response measures will be communicated through the County of Moore Public Information Officer for distribution to all media outlets such as local newspapers, PSA announcements on local radio and cable stations and on the County's website <http://www.moorecountync.gov/>. Declaration of emergency water restrictions or water rationing will be communicated to all customers by telephone via reverse E911.

III. Levels of Response

Five levels of water shortage response are outlined in the table below. The five levels of water shortage response are: voluntary conservation, moderate and severe mandatory conservation, emergency mandatory conservation and water rationing. A detailed description of each response level and corresponding water conservation measures follow below.

Stage	Response	Description
1	Voluntary Conservation	Water users are encouraged to reduce their water use and improve water use efficiency; however, no penalties apply for noncompliance. Water supply conditions indicate a potential for shortage.
2	Moderate Mandatory Conservation	Water users must abide required water use reduction and efficiency measures; penalties apply for noncompliance. Water supply conditions are significantly lower than the seasonal norm and water shortage conditions are expected to persist.
3	Severe Mandatory Conservation	Same as in Stage 2
4	Emergency Mandatory Conservation	Water supply conditions are substantially diminished and pose an imminent threat to human health or environmental integrity.
5	Water Rationing	Water supply conditions are substantially diminished and remaining supplies must be allocated to preserve human health and environmental integrity.

In Stage 1, Voluntary Conservation, all water users will be encouraged to reduce their normal water use by 20%. Customer education and outreach programs will encourage water conservation and efficiency measures including:

- a. Check plumbing, faucets and toilets for leaks, and if necessary repair.
- b. Store drinking water in the refrigerator to avoid trying to run it cool at the tap.
- c. Use shower for bathing purposes or reduce the depth of water used for tub baths. Limit showers to five (5) minutes where possible.
- d. Refrain from running faucets while shaving, rinsing dishes or brushing teeth.
- e. Install water flow restrictive devices in faucets and showerheads.
- f. Install water-saving devices such as plastic bottles or commercial units in toilet tanks of older model toilets or retrofit older model toilets to low flow type.
- g. Review water uses and where feasible install recycle systems, particularly commercial and industrial customers.
- h. Limit the use of clothes washers and dishwashers, and when used, operate fully loaded.
- i. Reduce the flushing of toilets to the minimum whenever practical.
- j. Limit lawn watering to only when grass shows signs of withering and apply water as slow as possible to achieve deep penetration to encourage root growth; preventing water waste, runoff and watering impervious surfaces. Irrigate landscapes a maximum of one inch per week.
- k. Limit shrubbery watering to the minimum using spring-loaded nozzles on garden hoses only.
- l. Limit car washing to the minimum using spring-loaded nozzles on garden hoses only.
- m. Limit wash downs of outside areas such as sidewalks, patios, driveways, or other similar purposes unless for health or safety reasons.
- n. Limit hours of operation of water-cooled air conditioners where possible.

o. Use biodegradable disposable dishes and utensils, both for residential and commercial purposes, where feasible.

In Stage 2, Moderate Mandatory Conservation, all customers are expected to reduce their water use by 30% in comparison to their previous month's water bill. In addition to continuing to encourage all voluntary reduction actions, the level of the conservation effort shall be increased to require the following mandatory measures. No person shall:

- a. Water lawns, grass, trees, shrubbery, flowers, golf greens or vegetable gardens except between the hours of 5:00 p.m. and 12:00 midnight, twice weekly with even number addresses allowed to irrigate on Mondays and Thursdays; and odd number addresses allowed to irrigate on Tuesdays and Fridays. Total irrigation is limited to a half inch per week.
- b. Introduce water into wading pools or swimming pools except to the extent necessary to replenish losses due to evaporation or spillage, and maintain operation of chemical feed equipment.
- c. Use drinking water for washing impervious surfaces such as sidewalks, patios, driveways, or for other similar purposes unless for health or safety reasons.
- d. Introduce water into any decorative fountain, pool or pond except where the water is recycled.
- e. Serve water in a restaurant or similar establishment, except upon request.
- f. Use drinking water for any unnecessary purpose or intentionally waste drinking water.
- g. Wash the exterior of a motor vehicle except for commercial washing or where a private well system is used.
- h. Use drinking water for testing and training purposes (e.g. fire protection).

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal reduction of at least 30%. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 3, Severe Mandatory Conservation, customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stage II. The level of the conservation effort shall increase to require the following additional mandatory measures. All non-essential uses of drinking water are banned. Additionally, in Stage 3, a drought surcharge of 1.5 times the normal water rate applies. Customers must reduce water use by 40% compared to their previous month's water bill. No person shall:

- a. Use drinking water to irrigate any lawn, grass, trees, or golf greens beyond the minimum amount necessary for survival.
- b. Use drinking water to irrigate any vegetable garden or ornamental shrubs beyond the minimum amount necessary for survival.
- c. Use drinking water to fill any wading pool or swimming pool or replenish any filled pool.
- d. Make nonessential use of water for commercial or public use.

e. Operate water-cooled air conditioners or other equipment that do not recycle cooling water, except when health and safety are adversely affected.

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal of reduction of at least forty (40%) percent. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 4, Emergency Mandatory Conservation, customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stages II and III. The level of the conservation effort shall increase to require the following additional mandatory measures. Customers must continue all actions from previous stages and further reduce their water use by 50% compared to their previous month's water bill. A ban on all use of drinking water except to protect public health and safety is implemented and drought surcharges increase to 2 times the normal water rate. No person shall:

- a. Use water outside a structure except in an emergency involving fire.
 - b. Operate evaporative air conditioning units which recycle water except during the operating hours of the business.
 - c. Use any swimming pool or wading pool.
 - d. Wash any motor vehicle, including commercial washing unless a private well is used.
- In addition to the conservation measures enumerated above, customers shall use plates, glasses, cups and eating utensils that are disposable and biodegradable.

The goal of Stage 5, Water Rationing, is to provide drinking water to protect public health (e.g. residences, residential health care facilities and correctional facilities). Customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements of Stages II, III and IV. In Stage 5, all customers are only permitted to use water at the minimum required for public health protection. Drought surcharges increase to 5 times the normal water rate. The level of the conservation effort shall increase to require the following mandatory measures:

- a. Fire protection in the water system will be maintained, but where possible, tank trucks shall use raw water.
- b. All industrial uses of water shall be prohibited.
- c. All other uses of water will be limited to those necessary to meet minimum health and safety needs of the customers as determined by the county manager upon consultation with the director of public utilities in light of conditions present.

Pickup locations for distributing potable water will be announced according to Moore County Public Utilities (Seven Lakes) Emergency Response Plan. Failure to act in accordance therewith or use of water in any manner or attempt to evade or avoid water rationing restrictions, shall be unlawful.

IV. Triggers

Moore County Public Utilities (Seven Lakes) is provided water primarily by transfer from Moore County Public Utilities - Pinehurst. When Moore County Public Utilities - Pinehurst declares a water shortage Moore County Public Utilities (Seven Lakes) is required to do so as well. During this time Moore County Public Utilities (Seven Lakes) Director of Public Works will stay in close contact with Moore County Public Utilities - Pinehurst and follow their triggers.

Return to Normal

When water shortage conditions have abated and the situation is returning to normal, water conservation measures employed during each phase should be decreased in reverse order of implementation. Permanent measures directed toward long-term monitoring and conservation should be implemented or continued so that the community will be in a better position to prevent shortages and respond to recurring water shortage conditions.

V. Enforcement

The provisions of the water shortage response plan will be enforced by Moore County Public Utilities personnel and local law enforcement. Violators may be reported to the County's phone line. Citations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage.

Water Shortage Level	First Violation	Second Violation	Third Violation
Voluntary Conservation	N/A	N/A	N/A
Moderate and Severe Mandatory Conservation (Stages 2 and 3)	Warning	\$250	Discontinuation of Service
Emergency Mandatory Conservation	\$250	Discontinuation of Service	Discontinuation of Service
Water Rationing	\$500	Discontinuation of Service	Discontinuation of Service

Drought surcharge rates are effective in Stages 3, 4 and 5.

VI. Public Comment

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan. First, a draft plan will be available at County Offices for customers to view. A notice will be included in customer water bill notifying them of such. Also, notice of the draft plan will be published in *The Southern Pines Pilot*. Additionally, notices of all subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by Moore County Commissioners.

VII. Variance Protocols

Applications for water use variance requests are available from the County Offices. All applications must be submitted to the County Office for review by the County Manager or his designee. A decision to approve or deny individual variance requests will be determined within two weeks of submittal after careful consideration of the following criteria: impact on water demand, expected duration, alternative source options, social and economic importance, purpose (i.e. necessary use of drinking water) and the prevention of structural damage.

VIII. Effectiveness

The effectiveness of the Moore County Public Utilities (Seven Lakes) water shortage response plan will be determined by comparing the stated water conservation goals with observed water use reduction data. Other factors to be considered include frequency of plan activation, any problem periods without activation, total number of violation citations, desired reductions attained and evaluation of demand reductions compared to the previous year's seasonal data.

IX. Revision

The water shortage response plan will be reviewed and revised as needed to adapt to new circumstances affecting water supply and demand, following implementation of emergency restrictions, and at a minimum of every five years in conjunction with the updating of our Local Water Supply Plan. Further, a water shortage response planning work group will review procedures following each emergency or rationing stage to recommend any necessary improvements to the plan to Moore County Board of Commissioners. The Director of Moore County Public Works is responsible for initiating all subsequent revisions.

Water Shortage Response Plan Moore County Public Utilities (Vass), North Carolina

The procedures herein are written to reduce potable water demand and supplement existing drinking water supplies whenever existing water supply sources are inadequate to meet current demands for potable water.

I. Authorization

The Moore County Manager shall enact the following water shortage response provisions whenever the trigger conditions outlined in Section IV are met. In his absence, the Director of Public Works will assume this role.

Mr. Cary McSwain
Manager Moore County
Phone: (910) 947-6363
E-mail: cmcswain@moirecountync.gov

Mr. Dennis Brobst
Director of Moore County Public Works
Moore County Public Utilities (Vass)
Phone: (910) 947-6315
E-mail: dbrobst@moirecountync.gov

II. Notification

The following notification methods will be used to inform water system employees and customers of a water shortage declaration: employee e-mail announcements, notices at municipal buildings, notices in water bills. Required water shortage response measures will be communicated through the County of Moore Public Information Officer for distribution to all media outlets such as local newspapers, PSA announcements on local radio and cable stations and on the County's website <http://www.moirecountync.gov/>. Declaration of emergency water restrictions or water rationing will be communicated to all customers by telephone via reverse E911.

III. Levels of Response

Five levels of water shortage response are outlined in the table below. The five levels of water shortage response are: voluntary conservation, moderate and severe mandatory conservation, emergency mandatory conservation and water rationing. A detailed description of each response level and corresponding water conservation measures follow below.

Stage	Response	Description
1	Voluntary Conservation	Water users are encouraged to reduce their water use and improve water use efficiency; however, no penalties apply for noncompliance. Water supply conditions indicate a potential for shortage.
2	Moderate Mandatory Conservation	Water users must abide required water use reduction and efficiency measures; penalties apply for noncompliance. Water supply conditions are significantly lower than the seasonal norm and water shortage conditions are expected to persist.
3	Severe Mandatory Conservation	Same as in Stage 2
4	Emergency Mandatory Conservation	Water supply conditions are substantially diminished and pose an imminent threat to human health or environmental integrity.
5	Water Rationing	Water supply conditions are substantially diminished and remaining supplies must be allocated to preserve human health and environmental integrity.

In Stage 1, Voluntary Conservation, all water users will be encouraged to reduce their normal water use by 20%. Customer education and outreach programs will encourage water conservation and efficiency measures including:

- a. Check plumbing, faucets and toilets for leaks, and if necessary repair.
- b. Store drinking water in the refrigerator to avoid trying to run it cool at the tap.
- c. Use shower for bathing purposes or reduce the depth of water used for tub baths. Limit showers to five (5) minutes where possible.
- d. Refrain from running faucets while shaving, rinsing dishes or brushing teeth.
- e. Install water flow restrictive devices in faucets and showerheads.
- f. Install water-saving devices such as plastic bottles or commercial units in toilet tanks of older model toilets or retrofit older model toilets to low flow type.
- g. Review water uses and where feasible install recycle systems, particularly commercial and industrial customers.
- h. Limit the use of clothes washers and dishwashers, and when used, operate fully loaded.
- i. Reduce the flushing of toilets to the minimum whenever practical.
- j. Limit lawn watering to only when grass shows signs of withering and apply water as slow as possible to achieve deep penetration to encourage root growth; preventing water waste, runoff and watering impervious surfaces. Irrigate landscapes a maximum of one inch per week.
- k. Limit shrubbery watering to the minimum using spring-loaded nozzles on garden hoses only.
- l. Limit car washing to the minimum using spring-loaded nozzles on garden hoses only.
- m. Limit wash downs of outside areas such as sidewalks, patios, driveways, or other similar purposes unless for health or safety reasons.
- n. Limit hours of operation of water-cooled air conditioners where possible.

o. Use biodegradable disposable dishes and utensils, both for residential and commercial purposes, where feasible.

In Stage 2, Moderate Mandatory Conservation, all customers are expected to reduce their water use by 30% in comparison to their previous month's water bill. In addition to continuing to encourage all voluntary reduction actions, the level of the conservation effort shall be increased to require the following mandatory measures. No person shall:

- a. Water lawns, grass, trees, shrubbery, flowers, golf greens or vegetable gardens except between the hours of 5:00 p.m. and 12:00 midnight, twice weekly with even number addresses allowed to irrigate on Mondays and Thursdays; and odd number addresses allowed to irrigate on Tuesdays and Fridays. Total irrigation is limited to a half inch per week.
- b. Introduce water into wading pools or swimming pools except to the extent necessary to replenish losses due to evaporation or spillage, and maintain operation of chemical feed equipment.
- c. Use drinking water for washing impervious surfaces such as sidewalks, patios, driveways, or for other similar purposes unless for health or safety reasons.
- d. Introduce water into any decorative fountain, pool or pond except where the water is recycled.
- e. Serve water in a restaurant or similar establishment, except upon request.
- f. Use drinking water for any unnecessary purpose or intentionally waste drinking water.
- g. Wash the exterior of a motor vehicle except for commercial washing or where a private well system is used.
- h. Use drinking water for testing and training purposes (e.g. fire protection).

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal reduction of at least 30%. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 3, Severe Mandatory Conservation, customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stage II. The level of the conservation effort shall increase to require the following additional mandatory measures. All non-essential uses of drinking water are banned. Additionally, in Stage 3, a drought surcharge of 1.5 times the normal water rate applies. Customers must reduce water use by 40% compared to their previous month's water bill. No person shall:

- a. Use drinking water to irrigate any lawn, grass, trees, or golf greens beyond the minimum amount necessary for survival.
- b. Use drinking water to irrigate any vegetable garden or ornamental shrubs beyond the minimum amount necessary for survival.
- c. Use drinking water to fill any wading pool or swimming pool or replenish any filled pool.
- d. Make nonessential use of water for commercial or public use.

e. Operate water-cooled air conditioners or other equipment that do not recycle cooling water, except when health and safety are adversely affected.

All industrial, manufacturing and commercial enterprises shall reduce consumption with a goal of reduction of at least forty (40%) percent. Such enterprises shall document the specific efforts they have made to reduce consumption.

In Stage 4, Emergency Mandatory Conservation, customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements in Stages II and III. The level of the conservation effort shall increase to require the following additional mandatory measures. Customers must continue all actions from previous stages and further reduce their water use by 50% compared to their previous month's water bill. A ban on all use of drinking water except to protect public health and safety is implemented and drought surcharges increase to 2 times the normal water rate. No person shall:

- a. Use water outside a structure except in an emergency involving fire.
 - b. Operate evaporative air conditioning units which recycle water except during the operating hours of the business.
 - c. Use any swimming pool or wading pool.
 - d. Wash any motor vehicle, including commercial washing unless a private well is used.
- In addition to the conservation measures enumerated above, customers shall use plates, glasses, cups and eating utensils that are disposable and biodegradable.

The goal of Stage 5, Water Rationing, is to provide drinking water to protect public health (e.g. residences, residential health care facilities and correctional facilities). Customers shall be encouraged to observe the conservation measures in Stage I and required to continue observing the mandatory requirements of Stages II, III and IV. In Stage 5, all customers are only permitted to use water at the minimum required for public health protection. Drought surcharges increase to 5 times the normal water rate. The level of the conservation effort shall increase to require the following mandatory measures:

- a. Fire protection will be maintained, but where possible, tank trucks shall use raw water.
- b. All industrial uses of water shall be prohibited.
- c. All other uses of water will be limited to those necessary to meet minimum health and safety needs of the customers as determined by the county manager upon consultation with the director of public utilities in light of conditions present.

Pickup locations for distributing potable water will be announced according to Moore County Public Utilities (Vass)'s Emergency Response Plan. Failure to act in accordance therewith or use of water in any manner or attempt to evade or avoid water rationing restrictions, shall be unlawful.

IV. Triggers

Moore County Public Utilities (Vass) is provided water solely by purchase from East Moore Water District. When the East Moore Water District declares a water shortage Moore County Public Utilities (Vass) is required to do so as well. During this time Moore County Public Utilities (Vass) Director of Public Works will stay in close contact with the East Moore Water District and follow their triggers.

Return to Normal

When water shortage conditions have abated and the situation is returning to normal, water conservation measures employed during each phase should be decreased in reverse order of implementation. Permanent measures directed toward long-term monitoring and conservation should be implemented or continued so that the community will be in a better position to prevent shortages and respond to recurring water shortage conditions.

V. Enforcement

The provisions of the water shortage response plan will be enforced by Moore County Public Utilities personnel and local law enforcement. Violators may be reported to the County's phone line. Citations are assessed according to the following schedule depending on the number of prior violations and current level of water shortage.

Water Shortage Level	First Violation	Second Violation	Third Violation
Voluntary Conservation	N/A	N/A	N/A
Moderate and Severe Mandatory Conservation (Stages 2 and 3)	Warning	\$250	Discontinuation of Service
Emergency Mandatory Conservation	\$250	Discontinuation of Service	Discontinuation of Service
Water Rationing	\$500	Discontinuation of Service	Discontinuation of Service

Drought surcharge rates are effective in Stages 3, 4 and 5.

VI. Public Comment

Customers will have multiple opportunities to comment on the provisions of the water shortage response plan. First, a draft plan will be available at County Offices for customers to view. A notice will be included in customer water bill notifying them of such. Also, notice of the draft plan will be published in *The Southern Pines Pilot*.

Additionally, notices of all subsequent revisions to the draft plan will be published at least 30 days prior to an adoption vote by Moore County Commissioners.

VII. Variance Protocols

Applications for water use variance requests are available from the County Offices. All applications must be submitted to the County Office for review by the County Manager or his designee. A decision to approve or deny individual variance requests will be determined within two weeks of submittal after careful consideration of the following criteria: impact on water demand, expected duration, alternative source options, social and economic importance, purpose (i.e. necessary use of drinking water) and the prevention of structural damage.

VIII. Effectiveness

The effectiveness of the Moore County Public Utilities (Vass) water shortage response plan will be determined by comparing the stated water conservation goals with observed water use reduction data. Other factors to be considered include frequency of plan activation, any problem periods without activation, total number of violation citations, desired reductions attained and evaluation of demand reductions compared to the previous year's seasonal data.

IX. Revision

The water shortage response plan will be reviewed and revised as needed to adapt to new circumstances affecting water supply and demand, following implementation of emergency restrictions, and at a minimum of every five years in conjunction with the updating of our Local Water Supply Plan. Further, a water shortage response planning work group will review procedures following each emergency or rationing stage to recommend any necessary improvements to the plan to Moore County Board of Commissioners. The Director of Moore County Public Works is responsible for initiating all subsequent revisions.