

CITY OF LOCK HAVEN - WATER DEPARTMENT

SUBURBAN LOCK HAVEN WATER AUTHORITY

**CENTRAL CLINTON COUNTY
WATER FILTRATION AUTHORITY**

DROUGHT CONTINGENCY PLAN

CLINTON COUNTY, PENNSYLVANIA

FEBRUARY 2020

DROUGHT CONTINGENCY PLAN CHECKLIST

Please include this checklist with your plan. Place a checkmark in the “Yes” box where the item is included in the plan.

Yes	The following are requirements of: 4 Pa. Code Chapter 118, Section 4 Contingency Plans - Public Water Supply.
1. <input checked="" type="checkbox"/>	Each public water supply agency should submit their completed hardcopy of the Drought Contingency Plan electronically by uploading through the Drought Emergency Application (DEA) https://www.ahs.pa.gov/DEA where you can track the status and receive e-mail notifications. Approved drought Contingency Plans are valid for 3 years. For specific guidance, visit www.dep.pa.gov .
2. <input checked="" type="checkbox"/>	The name, e-mail and telephone number of the plan preparer.
3. <input checked="" type="checkbox"/>	The name, address and telephone number of the public water supply system, and the names of officers or other persons responsible for directing operations during a drought emergency.
4. <input checked="" type="checkbox"/>	A description of the ground and surface water sources used by the system including all interconnections and the locations and yields of the sources and maximum amount that can be purchased.
5. <input checked="" type="checkbox"/>	Data indicating the total water withdrawn or purchased from each source during the most recent 12-month period.
6. <input checked="" type="checkbox"/>	Data indicating the average Annual and Maximum daily water use for the system for the most recent 12-month period.
7. <input checked="" type="checkbox"/>	A description of criteria to be used by the agency in identifying the onset of water shortage problems in the system. These criteria should be based on at least a three-stage approach (i.e. Watch, Warning, and Emergency).
8. <input checked="" type="checkbox"/>	A plan of actions that will be taken by the public water supplier to respond to drought or water shortage conditions, including public notice such as newspaper, radio or television notice, a water conservation program, development of emergency supplies and rationing. The plan shall provide for specific actions to be taken to achieve a phased reduction of total system withdrawal and use.
9. <input checked="" type="checkbox"/>	A procedure for the granting of variances or exemptions to the provisions of the plan to address extraordinary hardships which may exist as a result of the plan, including a provision for appeal as specified in 4 Pa. Code § 120.9(e) (relating to excess use charges). For purposes of this requirement, “extraordinary hardship” means a permanent damage to property, including perishable raw or processed products, or other personal or economic loss that is substantially more severe than the sacrifices borne by other water users subject to a public water supply agency’s drought contingency plan. The procedure shall include, when appropriate, consideration of: <ul style="list-style-type: none"> (i) Impact of water use reductions upon: <ul style="list-style-type: none"> a. Public health and safety, including pharmaceutical processes. b. Food and raw fiber production, including protection of perishable raw or processed products. c. Delivery of electric generation services. d. The maintenance of employment. (ii) The measures and efforts previously undertaken to conserve water or to provide for water storage and releases, and the ability of users to implement additional conservation measures.

If any of the required items are not included please explain (Item 10).

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 JANUARY 2020

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This is a Drought Contingency Plan for the Lock Haven Water Department, Suburban Lock Haven Water Authority (SLHWA) and Central Clinton County Water Filtration Authority (CCWFA). The purpose of the plan is to provide guidance should it become necessary to cope with rainfall deficits and drought conditions which would threaten the water supply.

1. BACKGROUND CONDITIONS

The City of Lock Haven owns and operates the Ohi Reservoir (576 MG) and Keller Reservoir (92 MG) located on East Kammerdiner Run and McElhatten Creek, respectively. The City supplies water to the CCWFA, who owns and operates a 5 MGD water treatment plant, treats the water prior to the water re-entering the City's distribution system. Water then enters the Suburban Lock Haven Water Authority's system. All water used by these three (3) systems is supplied by the City's surface water sources. Any restrictions or rationing through this Contingency Plan will be imposed on the City of Lock Haven, CCWFA and Suburban Water Authority customers.

The CCWFA provides finished water to the City of Lock Haven and SLHWA which, in turn, distributes water to their subsidiary customers.

The City serves customers within the City limits and portions of Castanea, Wayne, and Allison Townships.

Suburban Lock Haven Water Authority purchases water from the City and serves Flemington, Mill Hall, and Bald Eagle Township as well as portions of the City of Lock Haven, Woodward Township, Dunnstown, Salona and Mackeyville.

2. CONTACTS

Name, address, and telephone number of officers or other persons responsible for directing operations during a drought emergency:

Gregory Wilson, City Manager
City of Lock Haven Water Department
20 East Church Street
Lock Haven, PA 17745
Phone: (570) 893-590
Fax: (570) 893-5905
E-Mail: gwilson@lockhavenpa.gov

Greg Mayes, Manager
Suburban Lock Haven Water Authority
7893 Nittany Valley Drive
Mill Hall, PA 17751
Phone: (570) 726-7443
Fax: (570) 726-7389
E-Mail: greg@suburbanwaterpa.com

Leonard Young, Chief Operator
 Central Clinton County Water Filtration Authority
 70 Filtration Drive
 Lock Haven, PA 17745
 Phone: (570) 769-7026
 Fax: (570) 769-6844
 E-Mail: cccwfa@comcast.net

3. DESCRIPTION OF THE WATER SOURCES

The City's sources include Ohl Reservoir located in Green Township, Clinton County and Keller Reservoir, located in Wayne Township, Clinton County. The sources are hydrologically connected via McElhatten Creek and have a 4.75 MGD Safe Yield. In the event of emergency drought situation, the City of Lock Haven has an additional source available via an emergency permit. The West Branch of the Susquehanna River flows in proximity to the water systems and is available as an emergency source.

**TABLE 1
 PERMITTED SOURCES**

Name	Safe Yield
Ohl Reservoir	4.75 MGD
Keller Reservoir	

Central Clinton County Water Filtration Authority treated 1,035,495,145 gallons from Ohl and Keller Reservoir in 2018. Table 2 indicates the 2018 annual average and maximum daily water use by each entity utilizing the City's sources. Table 3 shows the historical daily source withdraw.

**TABLE 2
 2018 WATER USE**

System	Annual Average Daily Water Use	Maximum Daily Water Use
City of Lock Haven	1,673,855 GPD	2,328,882 GPD
Suburban	1,163,118 GPD	1,389,500 GPD
Combined	2,836,973 GPD	3,410,000 GPD

**TABLE 3
 HISTORICAL ANNUAL AVERAGE DAILY SOURCE WITHDRAW**

Year	Gallons (GPD)
2017	2,816,745
2016	2,789,710
2015	2,781,280
2014	2,649,997

4. NORMAL CONDITIONS

Normally, both reservoirs would be kept full to spillway crest elevations. Water is collected in Ohl Reservoir, which is at a higher elevation, and released as needed to flow in the streambed approximately five (5) miles to the Keller Reservoir. At the Keller Reservoir, the water is taken into the system and piped to the Central Clinton County Water Filtration Authority's Water Treatment Plant. Under normal conditions, there is enough stream flow collected between Ohl and Keller Reservoirs to replenish Keller Reservoir with no releases from Ohl Reservoir.

5. IMPLEMENTATION CRITERIA

The worst possible combination of conditions facing the water supply would include:

- A. Continued rainfall deficit.
- B. Minimal stream flow.
- C. Dropping reservoir levels.
- D. Continued normal demand by the City of Lock Haven and Suburban customers.

Items A, B, C, and D above are monitored regularly. However, it is assumed that in drought conditions a rainfall deficit would be evident, and that streamflow would be minimal to non-existent. Two sets of local trigger points are considered, one based on meteorological conditions, and one based on reservoir levels. The local trigger points, measures to reduce demand, and measures to increase supply are summarized in Table 4. In addition, the Department's regional drought triggers have been incorporated into the plan.

In the last stage of a drought emergency condition, it would be necessary to institute mandatory rationing and to implement use of an alternate emergency source: the West Branch of the Susquehanna River.

**TABLE 4:
DROUGHT CONTINGENCY PLAN SUMMARY**

**OHL RESERVOIR: 576,000,000 GAL.
KELLER RESERVOIR: 92,000,000 GAL.**

<u>CONDITION</u>	<u>TRIGGER POINT</u>	<u>WATER SUPPLY CONDITION</u>	<u>DEMAND MEASURES</u>	<u>SUPPLY MEASURES</u>
Normal		100%	Demand = 2.8 MGD	
Stage I	Rainfall Deficit 6" and Streamflow ≤2.8 MGD. No Overflow at Keller Dam	83%	Voluntary Reductions (10% Reduction Assumed) Conduct Public Notices	None
	<u>or</u>			
	Ohl Reservoir Stage Minus 3 feet And no Keller overflow		Demand = 2.5 MGD	
	<u>or</u>			
	State Declares Drought Watch or Drought Warning for Area			
Stage II	Rainfall Deficit 9", Streamflow <2.5 MGD, no Keller overflow	75%	Mandatory Non-Essential Use Restrictions (20% Reduction Assumed) Demand - 2.2 MGD	None
	<u>or</u>			
	Ohl Stage Minus 5 feet, no Keller overflow		Notify Division of Water Use Planning at (717) 772-4048 if State has not Issued Drought Emergency	
	<u>or</u>			
	Governor Declares Drought Emergency for Area		If Stage III Appears Imminent, Submit Water Rationing Plan to the Commonwealth Drought Coordinator	
Stage III (Step 1 (Prepare for Rationing)	Rainfall Deficit 12", Streamflow <2.2 MGD	50%	Public Notification of Rationing, Industrial Notification of Rationing and Demand Reduction	None
	<u>or</u>			
	Ohl Stage Minus 11.5 feet			
Step 2: (Implement Rationing and Alternate Sources)	Rainfall Deficit 13", Streamflow <2.0 MGD	35%	Implement Water Rationing After Approval by Commonwealth Drought Coordinator and Implement Industrial Customers Demand Reduction (30% Reduction)	Implement Alternate Source Obtain Emergency Permit West Branch Susquehanna River
	<u>or</u>			
	Ohl Stage Minus 17 feet		Demand = 2.0 MGD Work with Local Officials and Media to Provide Public Relations to Keep Customers Informed on a Daily Basis	

6. ELEMENTS INCLUDED IN EACH ACTION

A. Stage I. (Drought Warning I-Voluntary Conservation)

Through local newspapers and radio stations, The City requests water customers to voluntarily conserve water wherever possible and not to use water for non-essential uses. The local newspapers and radio stations have previously offered to carry daily water conservation tips, and to cooperate wherever possible. A voluntary 25% reduction would be requested.

B. Stage II. (Drought Warning II-Mandatory Conservation)

At this stage non-essential uses will be prohibited. Non-essential uses are defined in Section 9. The prohibitions and penalties will be publicly discussed at City Council, CCCWFA and Suburban Water Authority meetings prior to their institution. Water customers will be notified through individual mailing, and local law enforcement officials will be requested to investigate violations. The newspapers and radio stations will be used as supplements to inform the general public of the prohibitions and penalties. Bulk water sales for non-essential uses will be terminated.

At this stage, industries will be contacted personally and alerted to the problem and requested to reduce consumption in normal processes and use alternate sources if possible.

In preparation for the possible use of alternate sources for the City, CCCWFA and Suburban systems, the necessary chemical and biological analyses required to use those sources will be confirmed through coordination with the DEP Northcentral Regional Office. The analyses and monitoring will be initiated at this stage, and emergency permit applications will be drafted for prompt submission to the proper regulatory agencies (DEP, SRBC and Conservation District) prior to an actual Drought Emergency Declaration.

C. Stage III. (Drought Emergency-Water Rationing)

1) Step 1 - Preparation

At this stage, a Drought Emergency would be proclaimed by City Council, Suburban Authority and CCCWFA. Through Pennsylvania Emergency Management Agency (PEMA), the City, Suburban and CCCWFA will request the Governor to declare a local emergency, and the Emergency Management Council will be requested to authorize implementation of mandatory rationing. Newspapers and radio announcements would be used to inform all customers and an individual mailing would be used if necessary.

The City of Lock Haven will take steps necessary to serve the alternate West Branch of the Susquehanna River to its customers. Major industries would be required to prepare for use of water from alternate sources if feasible.

The following procedure will be implemented to address unusual circumstances confronted due to the rationing plan, including special requests due to health problems, and requests for variances. The procedure will be implemented if mandatory water use restrictions are imposed and the Governor has not declared a drought emergency in our area.

- a) If compliance with the prohibition of non-essential use of water would result in extraordinary hardship upon a water user, the water user may apply for an exemption or variance, which would expire with the termination of the mandatory water use restrictions, unless otherwise specified in the exemption or variance. For purposes of this section, extraordinary hardship means a permanent damage to property or other personal or economic loss which is substantially more severe than the sacrifices borne by other water users subject to the prohibition of non-essential use of water.
- b) A water user believing he/she suffers an extraordinary hardship and desiring to be wholly or partially exempt from the restrictions on the non-essential use of water shall submit a written request with full documentation supporting the need for the requested relief to the public water supplier responsible for adopting and implementing this plan. The application shall contain information specifying:
 - (i) The nature of the hardship claimed and reason for the requested exemption or variance.
 - (ii) The efforts taken by the applicant to conserve water and extent to which water use may be reduced by the applicant without extraordinary hardship.
- c) The public water supplier or a designee will review the application and may request the applicant to provide within reasonable time additional information as necessary to review the application. A written decision will be provided within seven (7) working days when possible or if perishable products are involved, within one (1) working day of submission of an application; or a request will be made for additional information as necessary to review an application. The evaluation will consider impacts on public health and safety, food and fiber production and preservation, pharmaceutical processes, electric generation, maintenance of employment, measures already taken by the user to conserve and store water, and the ability to further implement conservation measures. An exemption or variance will be granted only to the extent necessary to relieve extraordinary hardship.
- d) Any person aggrieved by a decision relating to such an exemption or variance rendered by a public water supplier or designee may file, within 30 days of the decision, a complaint with the Public Utility Commission, if the supplier is regulated by the Public Utility Commission, and in all other

instances with the Court of Common Pleas in the County where the water service is provided, in accordance with 2 Pa. C.S. §§551 - 555 and 751 - 754 (relating to the Local Agency Law).

- e) An appeal from an initial decision of the public water supplier or designee will not act as a supersedeas, stay or injunction of that decision.
- f) An exemption or variance may be modified or rescinded by the public water supplier if public health, safety and welfare require further reduction in water use.
- g) An exemption or variance granted to a water user for a specific property, purpose or person is not transferable to another property, purpose or water user without approval from the public water supplier.

2) Step 2 - Implementation

At this stage, the mandatory rationing plan would be implemented and the major users would be on alternate supplies where possible. The available supply of water, after implementation of all these measures, should be extended to last approximately 60 to 75 days.

If no relief (weather) is apparent at the date of implementation of Stage III, the physical measures (piping, pumps, chlorinators) necessary to receive potable water from the emergency water source (West Branch of the Susquehanna River) will be installed. Water will not be taken from the emergency source until the available supply of water, after implementation of all other steps, is reduced to a 60-day supply.

In order to utilize the West Branch of the Susquehanna River, an emergency permit must be submitted to PADEP. Written approval must be received from the PADEP prior to water from the West Branch of the Susquehanna River being served to the public. The emergency application shall include:

- a) The emergency permit application that meets the requirements in 25 PA Code, Chapter 109.506.
- b) The appropriate emergency permit fee.
- c) The proof the requirements set forth in 25 PA Code, Chapter 109.703(d) of the Safe Drinking Water regulations, have been met.
- d) A detailed simultaneous compliance evaluation. The evaluation shall include the possible effects the addition of West Branch Susquehanna River may have on each treatment process at the Entry Point and the distribution system. The evaluation shall also include how the permittee will mitigate these effects.

7. PRELIMINARY ACTION REQUIRED

None of the proposed actions requires any acquisition of right-of-way or easements. Use of the alternate sources for potable water supply supplements will require chemical and bacteriological analyses, which will be initiated in preparation for an emergency water supply permit application. The use of alternate sources by major users have been discussed with the parties involved. However, prior to Stage III, it would be necessary to execute formal agreements with all parties.

8. EQUIPMENT REQUIRED

Equipment required in Stage III would include, as a minimum, the following items not normally in active use:

- A. Alternate source for industrial consumption. A pump and piping would be required for each situation where this application could be implemented.
- B. Alternate Emergency Source - West Branch of the Susquehanna River. Use of this source would require piping, pumps and connection to the CCCWFA Plant for the required treatment.

The equipment as described, have been reviewed and are available either from City, Suburban, CCWFA or outside sources, including private contractors.

9. NON-ESSENTIAL WATER USES

Non-essential water uses include, but are not limited to, the following uses. Such uses will be requested to be curtailed on a voluntary basis under a Stage I condition and prohibited completely in any condition above Stage I.

- A. The use of hoses, sprinklers, or other means for sprinkling or watering of shrubbery, trees, lawns, grass, plants, vines, gardens, vegetables, flowers, or any other vegetation.
- B. The use of water for washing automobiles, trucks, trailers, trailer houses, or any other type of mobile equipment.
- C. The washing of streets, driveways, parking lots, service station aprons, office buildings, exteriors of homes, sidewalks, apartments, or other outdoor surfaces.
- D. The operation of any ornamental fountain or other structures making a similar use of water.
- E. The use of water for filling swimming or wading pools.
- F. The operation of any water-cooled comfort air-conditioning which does not have water-conserving equipment.
- G. The use of water from fire hydrants for construction purposes or fire drills.
- H. The use of water to flush a sewer line or sewer manhole.
- I. The use of water for commercial farms and nurseries other than a bare minimum to preserve plants, crops, and livestock.

10. TERMINATION OF SERVICE

If voluntary cooperation does not achieve satisfactory results, mandatory compliance will be imposed. If any customer refuses to comply with such mandatory measures the City, Suburban or CCCWFA may either adjust the outside water valve connection in a manner which will restrict water flow by 1/2, or otherwise restrict flow such as by the insertion of a plug device. Prior to such valve adjustment or other flow restriction being imposed, the City, Suburban or CCCWFA will attempt to deliver notice of the valve adjustment or other flow restriction to a responsible person at the affected premises and fully explain the reason for the proposed flow restriction and the means by which the customer may eliminate the grounds for such flow restriction.

Any known water service line leak that is not corrected in a timely manner will be terminated until the repair is made.

This notice shall be in the form of a written notice hand-delivered to the customer at the affected premises, with a separate copy mailed to the owner of the premises. If no responsible adult can be reached at the premises, the written notice shall be posted on the premises.

11. ADDITIONAL RESTRICTIONS

In addition to the provisions set forth above, the Pennsylvania Emergency Management Council is authorized to promulgate, adopt, and enforce a Water Rationing Plan by virtue of the Emergency Management Services Code, 35 PA. C.S. 1701 et seq. as implemented by the Drought Emergency Proclamation.

12. TERMINATION OF EMERGENCY CONDITIONS

These conservation measures shall be terminated at such time as the supply shortage is eliminated. Customers shall be notified of the same through the local newspaper, TV, and radio stations. If local water rationing has been implemented, that plan shall remain in effect until terminated by action of the Governor, or by order of the Pennsylvania Emergency Management Council.

13. PENALTIES

Any person who violates the provisions of this Plan, who fails to carry out duties and responsibilities imposed by this Plan, or who impedes or interferes with any action undertaken or ordered pursuant to this Plan, shall be subject to the penalties provided by law under 35 Pa. C.S. 551-555, 751-754.

14. SAVINGS CLAUSE

Nothing in this Drought Contingency Plan shall in any way limit or affect the power or authority of any political subdivision to adopt and enforce ordinances, rules, restrictions and orders for water conservation and protection of essential water supplies, provided that such ordinances, rules and restrictions are not inconsistent with the requirements of this Plan.

15. AMENDMENT OF THE PLAN

The City of Lock Haven may, at any time, submit to the Pennsylvania Emergency Management Agency proposed additions to or amendments of this Plan. Such amendments shall be expeditiously considered by the Emergency Management Council, and shall take effect upon adoption by the Council.

16. EFFECTIVE PERIOD

This Plan shall remain in effect until terminated by action of the Governor, or by order of the Pennsylvania Emergency Management Council.

17. EFFECTIVE DATE

This Plan shall take effect immediately upon adoption by the Pennsylvania Emergency Management Council.

18. PLAN PREPARER CONTACT INFORMATION

Name, Title: Maggie K. Weitzel, Senior Environmental Scientist
Company: Gwin, Dobson and Foreman, Inc.
Address: 3121 Fairway Drive, Altoona, PA 16602
Phone: (814) 943-5214
Email: mweitzel@gdfengineers.com

DROUGHT CONTINGENCY PLAN


REVIEW AND ADOPTION

We, the undersigned officials of the City of Lock Haven Water Department, hereby confirm that we have reviewed the Drought Contingency Plan that has been prepared for our water system's service area. We hereby accept and adopt the Drought Contingency Plan for our water system

CITY OF LOCK HAVEN WATER DEPARTMENT



Mayor



City Clerk

DROUGHT CONTINGENCY PLAN


REVIEW AND ADOPTION

We, the undersigned officials of the Suburban Lock Haven Water Authority, hereby confirm that we have reviewed the Drought Contingency Plan that has been prepared for our water system's service area. We hereby accept and adopt the Drought Contingency Plan for our water system

SUBURBAN LOCK HAVEN WATER AUTHORITY



Chairman




Vice-Chairman

DROUGHT CONTINGENCY PLAN

REVIEW AND ADOPTION

We, the undersigned officials of the Central Clinton County Water Filtration Authority, hereby confirm that we have reviewed the Drought Contingency Plan that has been prepared for our water system's service area. We hereby accept and adopt the Drought Contingency Plan for our water system

CENTRAL CLINTON COUNTY WATER FILTRATION AUTHORITY


Chairman

Vice-Chairman