

CITY AND BOROUGH OF WRANGELL
WATER SHORTAGE MANAGEMENT PLAN

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FINDINGS:

The Borough Assembly does hereby find, determine and declare as follows:

- A. In order to maintain a supply of safe, treated water for the City and Borough of Wrangell's citizens and businesses and to meet fire protection needs during periods of either low water supply or high water use, it is necessary to implement a water shortage management plan which identifies specific actions to be taken by the Borough to manage water available for distribution.
- B. Wrangell has limited water storage capacity. The maximum capacity of the upper and lower reservoirs is 190 acre-feet (45.3 million gallons) and 102 acre-feet (21.4 million gallons), respectively. These reservoirs form the water supply for Wrangell. The usable capacity of the treated water storage tanks is approximately 850,000 gallons at tank levels of 32 feet. A minimum of 10 feet of storage is required in the tanks to maintain adequate chlorine contact time for proper disinfection of the treated water supply. This level is also the Borough's minimum level for fire protection.
- C. Wrangell is located in a moderate rainforest climate, but where drought conditions periodically occur and where practices to conserve water are necessary.
- D. Wrangell's water treatment facility consistently experiences poor treatment performance and difficulty in cleaning treatment filters, which leads to low filtration capacity and water storage volume relative to both summer and winter water demands.
- E. High demand, together with drought conditions and/or system constraints, may reduce the water available to Wrangell's water supply system to the point of creating a water shortage;

- F. Wrangell has developed a water shortage management response plan that is a layered contingency plan that provides for a systematic response, restricting customer water use, and moderating water waste to meet the essential needs of the community.
- G. It is necessary to provide Wrangell Borough staff with flexibility to implement measures to restrict water use as deemed appropriate to conserve the water supply of the City and Borough of Wrangell, to protect the health, safety and general welfare of the citizens during periods of potential water shortage.

PURPOSE AND INTENT:

It is the purpose and intent of this part to proactively establish procedures for systematically managing water demand through conservation measures and measures designed to limit water use during a system constraint or hydrological-related shortage. The procedures listed in this part are designed to be used during atypical and irregular events, and are not intended for use as a substitute for developing water supply projects.

WASTE OF WATER PROHIBITED:

No water customer shall allow, permit or cause the waste of water, which shall include any use of water in violation of this part.

AUTHORIZATION:

- A. The Borough Manager, along with the Public Works Director and Water Department staff are authorized to enforce this part.
- B. The Borough Manager may declare a Stage I, Stage II, or Stage III shortage when either a hydrologic or emergency shortage exists as defined below:
 - 1. Hydrologic Shortage - A hydrological shortage exists at a point that the draw-down from the lower reservoir exceeds the input from the upper reservoir or when the total of the two reservoirs is projected to be below two months of demand, whichever occurs first.
 - 2. Emergency Shortage - An emergency shortage exists when conditions such as storage tank levels, operational constraints, infrastructure failure, natural disaster, regulatory issues, or other factors hinder the Borough's ability to meet customer water demands.
- C. The Borough Manager may propose and implement additional water shortage response measures, beyond those contained in this part, or modify existing water shortage response measures, as deemed necessary.

ACTION FOR HYDROLOGICAL SHORTAGE

If the total reservoir system storage is projected to be below two months of demand, then Borough staff will conduct an analysis. The analysis will consider system demands, water supply indicators such as long range weather forecasts, snowpack, precipitation, temperature, evaporation, stream flow, soil moisture, projected storage levels, operational constraints, and risk tolerance. If the analysis reveals a substantial risk of shortage, then the results will be reported to the Borough Manager with a recommendation for implementation of water shortage response measures, including declaration of a Stage I, Stage II, or Stage III shortage as listed in this part.

It is important to note that a portion of the lower reservoir is unusable due to the elevation of the outlet in relation to the bottom of the reservoir.

ACTION FOR EMERGENCY SHORTAGE

If an emergency shortage exists when conditions such as reduced storage tank levels, operational constraints, infrastructure failure, natural disaster, regulatory issues, or other factors hinder the Borough's ability to meet customer water demands, then the results will be reported to the Borough Manager with a recommendation for implementation of water shortage response measures, including declaration of a Stage I, Stage II, or Stage III shortage as listed in this part.

PUBLIC AWARENESS FOR CONSERVATION MEASURES

The Water Department continually monitors water levels. Prior to Stage I or preceding periods of known, high demand, the Borough will increase public communication and education efforts aimed at water conservation and, will encourage the community to conserve water wherever possible in the hopes of thwarting a Stage I watch measure.

STAGE I SHORTAGE (WATCH – YELLOW ALERT):

A Stage I shortage may be declared when the Water Department and Public Works Director inform the Borough Manager that the analysis required under section Authorization, part B of a water shortage indicates that proactive measures should be taken to avoid or reduce the severity of a shortage. During a Stage I shortage, the Borough will increase public communication and education efforts aimed at water conservation and will encourage the community to conserve water wherever possible.

Stage I, in relation to water storage tank levels, will automatically be triggered when the tanks' levels fall below a sustainable level of 25 feet for a period of three days.

During a Stage I shortage, water customers are encouraged to follow the voluntary water conservation measures set forth below:

- A. Water landscaped areas with spray irrigation only between the hours of 5:00 a.m. and 8:00 a.m.
- B. Do not use water to clean outdoor hard surfaces such as sidewalks, driveways, decks and patios, with a hose that lacks and active positive shut-off nozzle.
- C. Do not wash motor vehicles, trailers, boats and other types of equipment with a hose that lacks an active positive shut-off nozzle.

- D. Repair or disable any detectable water system line, component, or plumbing fixture that is leaking or damaged, as soon as possible.
- E. Restaurants, hotels, cafes, or other public places where food is sold, served or offered for sale, are encouraged not to serve drinking water from the tap unless expressly requested by a patron.

During a Stage I shortage, major water customers will be required to follow the mandatory water conservation measures set forth below:

- A. Major industrial and commercial water customers using water for their business operations shall submit a water conservation plan to Borough staff which identifies measures to be implemented at each of the three stages of water shortage, and shall begin implementing Stage 1 measures. The industrial or commercial user must develop, maintain on site, and comply with a water conservation plan that demonstrates optimal use of water. This plan must be available for review and approval upon request by the Borough at all reasonable times. At a minimum, these customers shall include seafood processing plants, dock-fueling stations, and ports and harbor facilities.
- B. Commercial water sales to cruise ships, or other large purchases for use outside of the water enterprise fund service area, shall be prohibited.

STAGE II SHORTAGE (WARNING – ORANGE ALERT):

A Stage II shortage may be declared when the Water Department and Public Works Director inform the Borough Manager that the analysis required under section Authorization, Part B of a water shortage indicates that the Stage I response is insufficient to reduce demands to a level in proportion to the severity of the shortage.

Stage II, in relation to water storage tank levels, will automatically be triggered when the tanks' levels fall below a sustainable level of 20 feet for a period of three days.

The following restrictions on the use of water by water customers and water conservation measures shall be in effect, required and enforced during a Stage II shortage:

- A. Outdoor landscape watering is prohibited.
- B. Washing of sidewalks, walkways, patios, driveways, parking areas or other hard surfaces is prohibited. Power washing shall only be used for protection of public health, safety or welfare.
- C. Washing of motor vehicles, trailers, boats and other types of equipment shall be prohibited. Vehicles contained in commercial operation or fleets may be washed if public safety requires it.
- D. No water customer shall fail to repair or disable any detectable water line, water system component, or plumbing fixture that is leaking or damaged, within 48-hours of discovery. Failure to comply shall cause the water service to be shut-off by the Borough until such repairs are made.

- E. Filling or refilling any outdoor water feature or hot tub shall be prohibited.
- F. No restaurant, hotel, cafe, or other public place where food is served, or offered for sale, shall serve drinking water from the tap, unless expressly requested by a patron.
- G. Industrial and commercial water customers, *in particular ports and harbor's industrial facilities, seafood processors, and dock-fueling stations* may utilize water for their business operation needs according to their business' previously submitted water conservation plan. The Borough will require periodic reporting by the customer to demonstrate optimal use of water and to help project water shortage trends.

If Stage II water shortage is related to reduced storage tank levels, industrial and commercial water customers shall have water flow reduced by 25% of the water service limits, in coordination with the customers, to assist in recovering water levels in the storage tanks. Throttling will be monitored and only implemented as long as necessary.

H. City and Borough Facilities:

- 1. All boat harbors shall have all individual boat slips' water service discontinued. Water will be available at the head dock only. The Fire Department will be notified of the reduced service, allowing them to implement an alternative fire response plan.
- 2. The Swimming Pool shall have limited hours of water service.

STAGE III SHORTAGE (CRITICAL – RED ALERT):

A Stage III shortage may be declared when the Water Department and Public Works Director inform the Borough Manager that the analysis required under section Authorization, Part B of a water shortage indicates that the Stage II response is insufficient to reduce demands to a level in proportion to the severity of the shortage.

Stage III, in relation to water storage tank levels, applies when the tanks' levels fall below a sustainable level of 15 feet for a period of three days.

In addition to the Stage II restrictions and water conservation measures set forth above, the following restrictions on the use of water by water customers shall be in effect and required during a Stage III shortage:

- A. All outdoor use of water is prohibited.
- B. Any water customer found to have a leak or damaged water line, water system component, or plumbing fixture shall have water service disconnected until such repairs are made.
- C. Industrial and commercial water use shall be reduced by an amount, to be determined by the Borough, in relationship to the severity of the shortage.

If Stage III water shortage is related to reduced storage tank levels, industrial and commercial

water customers shall have water flow reduced by a further 25% of the water service limits (total of 50% at Stage III), in coordination with the customers, to assist in recovering water levels in the storage tanks. Throttling will be monitored and only implemented as long as necessary.

D. City and Borough Facilities:

1. Ports and Harbor Facilities (all Boat Harbors, City Dock and the Marine Service Center) shall have water service discontinued as long as necessary. The Fire Department will be notified of the reduced service, allowing them to implement an alternative fire response plan.
2. The Swimming Pool shall have water service discontinued, as long as necessary.

DURATION OF WATER USE RESTRICTIONS:

The Borough will regularly evaluate the estimated supply of water available to the water system in an effort to determine whether it is necessary to continue the water use restrictions of a declared stage or level. Stages and levels may be declared in accord with this chapter and, if water supply conditions warrant, the Borough Manager may either downgrade or withdraw a declaration of a Stage I, Stage II, or Stage III shortage. Updates regarding water status and restrictions will be posted regularly on the City's website to maintain community communication.

EXCEPTIONS:

- A. Water customers may use water when a critical need is approved by the Borough Manager, which may include when water use is essential to protect public health, safety or welfare, or when water use is related to a commercial activity and disruption would cause economic harm.

ACCESS TO PREMISES:

Whenever necessary for the purposes of investigating any alleged violation of this part, the Borough shall have the power, upon the presentation of proper credentials, to enter and inspect at any reasonable time, and in any reasonable manner, the exterior of a water customer's premises.

If entry to or inspection of the premises is denied or not promptly permitted, the Borough is authorized to terminate the water customer's water service to the premises, for willful violations of mandatory restrictions and regulations in this chapter, until the required inspection is made and the Borough is satisfied that a water waste situation does not exist.

LIABILITY:

Each water customer shall be responsible for compliance with this part with respect to the water customer's premises, and shall be responsible for applicable charges for noncompliance with this part. In the event of an alleged violation of this part, proof of the existence of a declared water shortage and proof of any violation of any restriction set forth in this part, together with proof that the

violation originated at any water customer's premises, shall constitute a rebuttable presumption that the water customer is responsible for the violation.

VIOLATIONS AND CHARGES:

- A. Every law enforcement officer having jurisdiction in the Wrangell area shall have the authority to enforce the provisions of this section. In addition, the Borough Manager may also delegate enforcement responsibility for this section to other agencies and departments of city government, utilizing a variety of enforcement methods, including but not limited to, conducting customer education, issuing warnings and the addition of charges to water bills. The Borough Manager shall determine the stage of shortage at which the addition of charges to water bills will be used as an enforcement mechanism.
- B. In the event the Borough determines that an observed violation of this part has occurred on a water customer's premises during a Stage II, or Stage III shortage, the water customer may be subject to the following:
 - 1. For a first observed violation of a Stage II, or Stage III restriction as set forth in this chapter, the Borough shall notify the water customer in writing of the violation and issue a written warning to the water customer. Enforcement officials shall provide violators with no more than one written warning. Each day in violation of this section shall constitute a separate offense.
 - 2. For a second and any subsequent observed violation of a Stage II restriction as set forth in this chapter, the Borough shall notify the water customer in writing of the violation and shall add a two hundred and fifty dollar (\$250.00) charge to the water bill for the premises. Each day in violation of this section shall constitute a separate offense.
 - 3. For a second and any subsequent observed violation of a Stage III restriction as set forth in this chapter, the Borough shall notify the water customer in writing of the violation and shall add a five hundred dollar (\$500.00) charge to the water bill for the premises. Each day in violation of this section shall constitute a separate offense.
- C. For repeated observed violations of this part occurring during any Stage II or Stage III shortage, the Borough may, in its discretion: a) disconnect water service to the premises for which the violations occurred in accord with the code of the utility; or b) restrict water flow to the water customer at the premises at which the violations occurred. Any flow restriction shall remain in place for a period determined by the Borough, based upon the severity of the violation as well as the applicable declared stage.
- D. Whenever the Borough finds a water customer to be in violation of this part, a notice of violation must be issued. Every reasonable effort will be made to notify the water customer of the violation, and a notice requiring the customer to cease the violation and take remedial action will be posted at the point of entry into the property. Failure to comply may result in temporary termination of water service pursuant to applicable water codes.
- E. The notice of violation must be served upon the water customer by fixing the notice to the premises of the water customer in a conspicuous place, by personal delivery, or by sending

the notice electronically or by U.S. mail. If sent electronically or by mail, service shall be deemed complete upon sending or mailing. Service of the notice of violation by affixation has the same force and effect and is subject to the same penalties for disregarding a notice, as if the notice of violation were personally served on the water customer. For purposes of this part, a person who is of full legal age and who resides at the premises is deemed to be the agent of the water customer to receive a notice of violation.

- F. Whenever a water customer fails to correct a violation within the correction period set forth on a notice of violation, this failure to correct shall constitute an additional violation.
- G. Any charge assessed pursuant to this chapter shall be collectible in the same manner as a water charge under the water rates related to the Wrangell Water Department, and if unpaid, water service for the premises may be discontinued in accord with the Borough's codes.
- H. Any charge assessed an industrial or commercial user, pursuant to this chapter, shall be equal to three (3) times the applicable charge.

DISPUTE RESOLUTION:

Any water customer's dispute with the Borough concerning this part shall first be addressed through review by the Borough Manager. If the review by the Borough Manager does not resolve the dispute, the water customer may, within five days of the demand made upon them for the water shortage violation, demand a hearing before the Borough Assembly on this matter. The Borough Assembly shall, after receiving a report from the Borough Manager of water shortage violation charges, afford an opportunity for such hearing and shall make a determination to uphold, alter or remove the water shortage violation charges. Any remaining violation charges shall be collected according to standard Borough collection procedures.