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**DRINKING WATER CONSERVATION PLAN**

Effective Date: June 23, 2017

Approved By: GVWD Board

**Policy No. UT-009**

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**PURPOSE**

To outline the process for determining the activation and deactivation of drinking water conservation stages in the DWCP, in conjunction with the *Drinking Water Conservation Plan* (DWCP). This Policy applies to the Greater Vancouver Water District (GVWD) and its members.

**POLICY**

The GVWD is the regional authority that, through its local government members, supplies drinking water to users across the Metro Vancouver region in a safe, reliable, and efficient manner as authorized under the provincial statute, an Act to incorporate the Greater Vancouver Water District, also referred to as the *GVWD Act*.

To ensure the continuous delivery of the regional water supply, a *Drinking Water Conservation Plan* has been developed that sets out the four stages of water restrictions to conserve water. The Plan provides specific guidance for GVWD members and its users on the efficient use of drinking water during periods of high demand, water shortages, and emergencies. This Policy provides an overview of the guiding principles of the regional plan, the authority to implement the stages of the plan, the criteria for stage activation, and the plan's implementation and enforcement.

**Drinking Water Conservation Plan**

The DWCP is a regional plan that is implemented and enforced through local governments' bylaws to ensure the efficient use of drinking water and effective delivery to all users. The DWCP describes staged restrictions related to outdoor water use that users should follow to conserve water. Underlying the development and implementation of the DWCP are the following four principles:

1. Recognize drinking water as a precious resource that must be conserved.
2. Maintain the environmental, economic vitality, and health and safety of the region to the extent possible in the face of a water shortage.
3. Optimize available water supplies and reduce water use.
4. Minimize adverse impacts to public activity and quality of life for the region's residents.

**Delegation of Authority**

The GVWD Commissioner provides management and oversight of the activities of the GVWD, as authorized by the GVWD Board and includes the authority to make a decision to activate, extend, or deactivate stages within the DWCP at any time. Recommendations to activate, extend, or deactivate

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a different stage of the DWCP are made by Metro Vancouver staff to the GVWD Commissioner and if required the GVWD Commissioner may consult with the GVWD Board Chair and standing committee Chair, on the recommendations. In most cases, the stages will be activated or deactivated in successive order, but they can also be activated or deactivated immediately in any order.

### **Stages of the DWCP**

Each stage of the DWCP is designed to reduce demand for drinking water. Stage 1 reduces demand in the summer months by promoting water conservation and efficient watering practices.

Stages 2 and 3 describe further restrictions to limit water use and are likely to be activated during unusually hot and dry conditions to maximize conservation through to early fall with the return of seasonal rainfall or until the water shortage situation is over.

Stage 4 is an emergency stage that limits both indoor and outdoor water uses to ensure an adequate supply of drinking water for human consumption and essential uses such as firefighting.

### **Activating Stages of the DWCP**

Stage 1 is activated automatically on May 1 until October 15 every year.

A number of factors guide the GVWD Commissioner's decision to activate the more restrictive stages of the DWCP. Activation of Stages 2, 3, and 4 of the DWCP is based on measured facts, reasoned predictions, and historical patterns, with a goal of ensuring the sufficient supply of drinking water until the events that caused the more restrictive stages are over. Metro Vancouver staff use a water supply system model to analyze technical information such as reservoir levels, user demand, and anticipated snowmelt among other parameters to track the performance of the water system. During periods of high demand, model projections are generated weekly and if any of the results indicate potential shortage there is further discussion regarding activating stricter stages of the DWCP. Factors considered at this stage of the discussion include:

- Available storage capacity of the Capilano and Seymour Reservoirs and alpine lakes;
- Water allocated to Metro Vancouver by BC Hydro from the Coquitlam Reservoir;
- Hydrologic forecasting parameters including temperature, rainfall, snowpack, and snowmelt;
- Seasonal water demand trends (measured and charted daily);
- User compliance with the restrictions; and
- Water transmission system performance and ability to deliver water during periods of high demand.

### **Implementation and Enforcement**

Once the GVWD Commissioner makes the decision to activate a stage, all local governments are alerted by way of notice within 24 hours, which triggers public notification and enforcement.

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Local governments are responsible for public notification of the stage, and enforcement of the applicable restrictions within 72 hours of receiving the GVWD Commissioner's notice. Local governments incorporate DWCP restrictions into their bylaws, where each is responsible for monitoring and enforcing the restrictions in their communities. Local governments use a variety of tools to promote and ensure bylaw compliance including educational materials, using verbal and written warnings, issuing tickets, and imposing fines.