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During these unprecedented times with Covid-19, it is a challenging time for the water recreational industry. All general and limited use water recreational facilities had to close in order to comply with the Governor’s “Stay Home, Stay Healthy” order. Due to this issue constantly evolving , please check our Water Recreation Program website frequently for updates on COVID-19, guidance, and permitting at: [www.kingcounty.gov/pools](http://www.kingcounty.gov/pools).

Even though water recreational facilities are currently closed, facilities should still plan for the day when they can reopen. Below are some ideas for things to do during closure:

## Maintenance

- Maintenance is key to keep facilities in good shape, including maintaining proper chemical levels (tables 111.1 and 111.2 below). Maintaining proper chemical levels will aid in prevent algal growth, pitting and calcium build-up.

The disinfectant levels listed in the tables below are ideal but can be lowered for maintenance purposes only with no bathers. Free chlorine levels required to prevent algal growth will depend on pH and cyanuric acid levels. Chlorine works more effectively when pH levels are between 7.2-7.6. A low level of cyanuric acid (20-30 ppm) can prevent chlorine loss in outdoor pools on a sunny day but cyanuric acid also increases the level of chlorine required. When the pH is optimal and there is no cyanuric acid in the pool, 0.5ppm of free chlorine will be enough to prevent or kill algae. If you are using a chlorine product containing cyanuric acid, such as dichlor or trichlor, your free chlorine level will need to be 1.0ppm to prevent or kill algae with a cyanuric acid level between 20-30ppm. Basically, lower levels of cyanuric acid will allow you to have lower levels of chlorine to control algal growth. Algaecides, phosphate removers, chlorine shock, oxidizers or enzymes can also be used to prevent or kill algae, along with regular brushing/vacuuming of the pool surfaces. Check with your pool maintenance company and/or pool suppliers who can offer additional advice.

Pool equipment should be maintained and/or repaired as needed to provide proper recirculation of water to aid in filtration and clarity. Filters may need new sand or cartridge filters, and the pump may need a new gasket, motor, etc.

**Table 111.1**  
**Minimum and Maximum Levels of Disinfectant (ppm)\***  
**Constituents**

Swimming Pool ***	Minimum
Chlorine	1.5
Cyanurate Chlorine	2.0
Bromine	2.5
Spa & Wading Pool ****	Minimum
Chlorine	3.0
Cyanurate Chlorine	3.5
Bromine	4.0

\* Chlorine is measured as free available chlorine residual.

\*\* Recirculating spray pools and sensory deprivation tanks shall meet spa and wading pool levels.

\*\*\* The maximum disinfectant level shall conform with 95 manufacturers' recommendations and shall not exceed 10 ppm for any pool.

**Table 111.2**  
**Acceptable Ranges of Selected Chemical and Physical Water Quality**

Chemical or Physical Constituent	Minimum	Maximum
pH	7.2	8.0
Water clarity (safety)	Main drain and pool bottom visible at all times	
Turbidity (T.U.)		0.5
Cyanuric acid or its derivatives*	0	90ppm
Temperature**	-	104°F
Combined chlorine	-	50% of free chlorine
Ozone***	-	.05
Ionizers (Copper/Silver)	-	1.0/0.5

\* In peak periods, turbidity may increase to 1.0 T.U. provided turbidity returns to 0.5 T.U. within a six-hour period following peak use. Turbidity is not a required routine analysis. The local health officer may require turbidity monitoring if special conditions warrant.

\*\* A pool facility thermometer shall be provided when the water temperature exceeds degrees Fahrenheit.

\*\*\* Atmospheric measurement

- Are your drain covers expired? If so, order replacement covers or contact your pool company. If you replace the covers yourself, remember to follow the manufacturer’s installation instructions to ensure proper installation and safety, and don’t forget to go to the online portal to submit your drain cover updates at: [www.kingcounty.gov/health/portal](http://www.kingcounty.gov/health/portal). If work is done by your pool company, they need to submit this information.
- Do you have an Operations & Maintenance manual? If you do, when was the last time it was updated? Personnel contact information can change, so can pool equipment. The Operations & Maintenance manual should be reviewed on a regular basis and updated when needed. This is not a “one size fits all” document, it should provide current information and guidance specific to your facility. If your facility does not have one, contact your area inspector who can email you a template to help you get started. After it is completed, email a copy to your area inspector for review.

### **Renovation/equipment replacement**

It is also a good time to plan for equipment replacement or renovations, as these may require plan review and approval with Public Health Seattle & King County prior to these changes. Checklists and plan guides can be found at: [www.kingcounty.gov/pools/forms](http://www.kingcounty.gov/pools/forms). If you have additional questions about plan review, please contact us at 206-263-9566.

### **Is your pool and/or spa Virginia Graeme Baker (VGB) compliant?**

- If you received a Pool Data Form stamped “FINAL”, your pool or spa has completed VGB plan review and approval with Public Health Seattle & King County.
- If you paid a pool company to get your pool or spa VGB compliant, and have not received your Final Pool Data Form, contact them for the status. You can also check your plan review status on the online portal at: [www.kingcounty.gov/health/portal](http://www.kingcounty.gov/health/portal).
- If you have not started the process, the VGB plan review checklist and requirements can be found under [www.kingcounty.gov/pools/forms](http://www.kingcounty.gov/pools/forms). Working with a pool company is highly recommended. A licensed Washington State engineer or architect may be required for some projects.

### **Staff Training**

With social distancing and not being able to attend trainings in person, receiving training can be difficult. However, there are some trainings that are available online for pool operators and lifeguards. Below are just to name a few:

Pool and Hot Tub Alliance (formerly known as National Swimming Pool Foundation): [www.nspf.org/training](http://www.nspf.org/training)

American Red Cross: [www.redcross.org/take-a-class/online-safety-classes](http://www.redcross.org/take-a-class/online-safety-classes)

The Pool and Hot Tub Alliance offers Fundamentals and Pool Operator Primer online training courses in preparation for the in-person Certified Pool Operator exam. Two day in-person trainings and exam dates and locations can be found here:

[www.nspf.org/course-locations](http://www.nspf.org/course-locations)