

Plan Review Checklist for Water Recreation Facility

(Note: A separate checklist is required for each pool or spa.)

PROJECT NAME: _____

Project Type: New Construction Alteration Modification Preliminary Design

Location at Site: _____
(example: by clubhouse, etc.)

TOTAL NUMBER OF POOLS AND SPAS OR OTHER WATER FEATURES FOR THIS PROJECT: _____

Pool Type: Swimming Spa Swim Spa Wading Spray
 Indoor Outdoor

Pool Use: Limited General
(see definition WAC 246-260-010(3))

Specific Pool Design Characteristics

Pool Shape:	Pool Dimensions:	Pool Depth:	Pool Capacity:	Pool Surface Area:
Rectangular _____	Length _____ ft.	Deep _____ ft.	_____ gallons	Total surface area _____ sq. ft.
Oval _____	Width _____ ft.	Shallow _____ ft.	Bather Load _____	Area less than 5 ft. deep _____ sq. ft.
Other _____		Ave. Depth _____ ft.		Area greater than 5 ft. _____ sq. ft.
		(4' Max. Depth Spa)		

Pool Construction Material:	Pool Decking Construction Material:	Surface:
Painted concrete _____	Concrete _____	White _____
Plaster _____	Tile _____	Other _____
Fiberglass _____	Other _____	Conforms to ANSI/NSPI-1
Tile _____	Slopes away from pool (1/4"/ft) _____	Standards _____
Other _____	Type of non-slip surface _____	Non abrasion hazard _____

Deck

Deck rate of slope: _____ (Note: min. _____ in./ft., max. _____ in./ft.) Are floor drains located to handle splash/standing water on all sides of pool? _____

For pools 1500 sq. ft. or greater, how many sq. ft. of deck are proposed? _____ sq. ft.
(16 sq. ft. per bather)

For pools 1500 sq. ft. or less, how many sq. ft. wide is deck? _____ sq. ft.
(4 ft. wide min, and 6 ft. on shallow end of variable-depth pool)

Spa shell: Height of side wall above deck? _____ in.
 Width of spa ledge? _____ in.
 Ceiling height above spa rim? _____ ft.

Depth Markings: Pool Deck

Size: _____ (min. 4 in.)
 Non-slip? _____

Locations: _____ (Must be within 18 in. of water and located at min. and max. depths and at each slope change and uniformly placed at sides and ends of pool.)

Depth Markings: Inside Pool

Size: _____ (min. 2 in.)

Contrasting color: _____
 Same depths as deck markings? _____

What is the pool floor slope from the shallow depth to 5 ft.? _____
 If pool does not have a uniform floor slope from shallow to deep end, what is slope of transition zone? _____
 Is a float line or marking stripe provided? _____

Pool/Wall Interfaces: (Design plans must show details of radius of curvature.)

Pool depth	shallow _____ ft.	deep _____ ft.	breakpoint _____ ft.
Sidewall vertical depth (springline)	_____ ft.	_____ ft.	_____ ft.
Maximum radius of curvature	_____ in.	_____ in.	_____ in.

Ladders and Steps

The following requirements were taken from WAC 246-260-031(11)(b):
 Ladder or step holes with handrails spaced 75 ft. If pool > 4 ft. deep, and both sides of pool >30 ft. wide pool.
 Show all dimensions and details in the design plan.
 Non-slip tread finish? _____
 Are the edges of the treads a contrasting color? _____
 Surface area for each stair tread: - 1st step _____ sq. in.; 2nd step _____ sq. in.; bottom step _____ sq. in.
 Are handrails installed so the leading edge is neither 18 in. or more beyond, nor 8 in. or more inside the vertical plane of the bottom stair riser? _____
 Handholds required when deck is 12 in. (Minimum area is 240 sq. in.)
 Depth of each stair tread? _____ in. (Minimum is 10 in.)
 Riser height uniform: 1st step _____ in.; 2nd step _____ in.; bottom step _____ sq. in. Non-slip treads? _____ higher than the water.

Diving Boards and Slides

Provide complete details and drawings if pool will be equipped with diving boards and/or slides. Refer to Section 090(7) [pages 18-23] of the Water Recreation Facilities Rules and Regulations. Provide all necessary dimensions and installation details. Slides must conform with CPSC standards and/or comply with WAC 246-262 and must be approved by manufacturer for use at commercial facilities. If a diving board is used, provide information on tread surface, handrails and guardrails in design plans.

Barrier Protection

Minimum barrier height: _____ in. Non climbing, see WAC 246-260-031(d)(9)(ii)(3). _____
 Is gate or door self-closing? _____ And self-latching? _____
 Height to access latch? _____ in. If access latch is lower than 60 in., is the latch one that remains continuously locked and only opens with a key or other access system? _____ 18in. radius reach around barrier. _____
 Are all pool gates/doors lockable for periods of non-use? _____ NOTE: Design plan must show details of barrier construction. If tops of horizontal members are less than 45 in. apart, maximum opening width shall be 1 3/4 in. If horizontal members are equal to or more than 45 in. apart, vertical spacing shall not exceed 4 in.
 All openings will not allow passage of 4 in. diameter sphere. _____
 Is swimming pool located 15 ft. or more from any structures such as pump house, balconies, or trees? _____

Pumps

Pump use (re-circulation / jet / water feature / cleaning (circle one)) Pump Mfg. _____ Model # _____ Horsepower _____ Maximum capacity _____ gpm @ _____ FOH (filter clean) Minimum capacity _____ gpm @ _____ FOH (filter dirty - just prior to backwash) Is a copy of the pump curve provided? _____ Is pump (above) (below) water level? _____ Can pump be isolated by valves for service? _____ Are all piping details shown on plans? _____
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Re-circulation System

If pool is over 2,500 sq. ft., or spa >10,000 gallons, inlets provided at bottom? _____
 Channel outlet required. _____
 Number of inlets: _____ Number of outlets: _____ Flow capacity for each inlet: _____ gpm
 Pipe size of inlets: _____ Flow velocity at each inlet: _____
 Is a minimum of 2 main drains shown on plans with a minimum spacing of 6 ft.? _____
 Valves used to isolate equipment? _____

Environmental Health Division

Outlets: (Skimmers, main drains, overflow channels) Shown on plans? _____

What is total feet of head for pool piping? _____

Skimmer Mfg. _____ Model # _____ Length of weir: in. _____

Number of skimmers: _____ Size of pipe: _____ With a water flow velocity of: _____ ft./sec.

Length of weir: _____ in.

Maximum flow capacity for all skimmers: _____ gpm. (Show calculations on attached sheet.) Note:

At times, installation of additional skimmers may be contrary to manufacturer's minimum flow recommendations - a variance may be requested in those instances.

Overflow drains or skimmers designed to carry 100% of re-circulation? _____

Main drain designed to carry 100% of re-circulation? _____

Main drain piping system to carry 100% of re-circulation? _____

How will owner ensure overflow outlets maintain a minimum of 60% re-circulation? _____ Flow meter attached to overflow return? _____

Overflow drains or skimmers designed to carry 100% of re-circulation? _____

Main drain designed to carry 100% of re-circulation? _____

Main Drain piping system designed to carry 100% of re-circulation? _____

How will owner ensure overflow outlets maintain a minimum of 60% re-circulation? _____

Flow meter attached to overflow return? _____

Type and size of pipe for skimmers: _____

Number of main drains: _____ (2 min.) Type of pipe: _____ (Manifold)

Size of pipe: _____ With a flow velocity of: _____ ft./sec. (maximum 6 ft./sec.)

Spacing between drains is: _____ ft.

Maximum width of openings on drain cover: _____ in. (max. 1/2 in.)

Square inches of opening per drain cover: _____ in

Maximum water velocity through all main drains: _____ ft./sec.

(grate max. 1.5 ft./sec., and main drain outlet box 6 ft./sec.)

Specify type of backflow protection used between the make-up water source and pool water. (Must comply with local plumbing code.) Plan design must show this. _____

Treatment System

Filtration:

Filter Mfg. _____ Model # _____ Type _____ (rapid sand, cartridge, etc.)

Sq. Ft. of filter: _____ NSF approved? _____ Minimum filter area needed: _____ sq. ft.

Number of filters: _____ Maximum application rate: _____ gpm (filter clean)

Minimum application rate: _____ gpm (filter dirty)

Are pressure gauges provided before and after the filter? _____

Is an air relief valve present? _____ Is a sight glass present? _____

Disinfection:

Feeder Mfg. _____ Model # _____ NSF approved? _____

Type: _____ (chlorine, bromine, gas chlorine, other)

What form of disinfectant will be used? _____ (solid, liquid, granular, gas)

Maximum amount of disinfectant which feeder can dispense per day: _____ lbs/day

Minimum amount of disinfectant which feeder can dispense: _____ lbs/day

Note: If using gas chlorine, provide all details for chlorine room construction on design plans (including prevailing wind direction, ventilation, lighting and signage). There must be mechanical exhaust at one air change per minute, remote light and fan switches. See other conditions WAC 246-260-031(17(d)-(h).

Ozone supplemental disinfection type? Corona _____ Ultraviolet _____

Ozone detector and alarm (Corona)? _____ Ozone testing equipment? _____

Environmental Health Division

Chemical Feeders:

Are feeders provided for controlling pH? _____ (required on pools 50,000 gals or more; required on spas 10,000 gals or more)

Are there feeders for caustic soda or CO₂? _____

Does feeder have automatic shut-off in case water flow is interrupted? _____ Mfg _____

Model # _____

Automatic shut-off? _____

Heater:

Will a heater be installed? _____

If so, Mfg. _____ Model # _____ (Must be located so any standing pilot is readily accessible and must be installed per NEC and UMC codes.)

Ventilation:

Show that ventilation for indoor pools conforms with ASHRAE pool facility standards.

Negative pressure in pool and deck area.

Restroom, Locker Room, and Plumbing Fixtures

Design plan must show dimensions and equipment layout for all restrooms, diaper changing stations, locker rooms/shower rooms (where required).

Indicate floor slope, location of floor drains, all fixtures. Proposed shower temperature: _____ ° F (max. is 120° F)

Type of non-slip floor finish? _____

Locker/shower room floors coved at wall junction? _____

Single use soap/non-glass dispenser? _____

Equipment room enclosed, locked, lighted, and vented with floor drain? _____

Chemical storage room meets manufacturer's requirements? _____

Distance of farthest associated living unit from pool: _____ ft.

Number of stories in associated living unit(s): _____ stories Are elevators provided? _____

Lighting

Lighting for pools must meet the following minimum intensities (measured at 30 in. above floor surface in all parts of pool room).

Pool deck and outdoor pool (if used after dark) - 10 foot-candles Proposed _____ foot-candles

Indoor pool - 30 foot-candles Proposed _____ foot-candles

Locker/mechanical rooms - 20 foot-candles Proposed _____ foot-candles

Are emergency lights provided which turn on in the event of power failure? _____

(indicate locations on plans)

Emergency lighting conforms to UL Standard 924? _____

Are all lights above pool area and walking surfaces shielded? _____

Emergency Equipment

Location for emergency telephone? _____

(must be within 1 minute walking distance, and within the facility for general use pools)

Type of first aid kit to be provided: _____

Backboard provided? _____ (for pools requiring lifeguards)

Environmental Health Division

Number of rescue poles? _____ Length of poles? _____ ft.
 Equipped with double crook life hook? _____
 Throwing ring buoy, heaving line or similar device? _____ (If lifeguarded pool, rescue tube or buoy must be provided at each station.)
 Type of audible alarm (if provided)? _____
 Alarm required for single main drain pools. _____

Lifeguards

Emergency response plan must include number and location of lifeguards. Must show line of sight and distance covered in 30 second response. Must provide a log for drills to be held 2 or more times a year. If lifeguards are not required, a list of rules and enforcement procedures is needed for the Emergency response plan, as per WAC 246-260-131 (7).

Operation Plan

Plan must include the items required by WAC 246-260-131(1):

- ___ Personnel (manager, operator, maintenance)
- ___ Facility Components (owner’s manuals)
- ___ Signage and Additional Rules (examples)
- ___ Monitoring requirements to protect water quality and safety. (log sheets, testing frequency, self inspection logs, security)
- ___ Age of pool users
- ___ Time and dates pool will be open
- ___ Special needs of user groups

All construction shall be in accordance with information submitted on this Checklist unless addenda for modifications have been approved by the Snohomish Health District.

 Architect/Engineer Signature

 Stamp

Calculations**Bather Load (Pool)**

$$\text{Bather Load} = \frac{A-S}{(30)} + \frac{S}{(15)} \quad (\text{Outdoor Pools})$$

$$\text{Bather Load} = \frac{A-S}{(30)} + \frac{S}{(25)} \quad (\text{Indoor Pool})$$

Where A = total surface area in sq. ft.

Where S = area of pool less than 5 ft. deep in sq. ft.

Maximum Skimmer Capacity

Maximum skimmer capacity = (Linear in. of weir) x (number of skimmers) x (flow rate through skimmer)

NOTE: Skimmer operation @ 3 to 5 gpm per inch of weir @ 100% total recirculation flow.

Main Drain Velocity (Assume 100% of maximum pump cap from all pumps through drains)

$$\frac{\text{Total Pump Capacity (gpm)}}{448.8 \text{ gpm (cfs)}} - \frac{\text{Total open area in drains (sq. in.)}}{144 \text{ (in./sq. ft.)}}$$

(Maximum Main Drain Velocity 1.5 feet per sec.)