

# FISH CONSUMPTION RATES & RISK LEVELS FOR CARCINOGENS

## USED IN HUMAN HEALTH CRITERIA CALCULATIONS

*A Compilation of Fish Consumption Rates (FCR) and Risk Levels for Carcinogens used by Assorted States and Tribes to Calculate Surface Water Quality Human Health Criteria<sup>1</sup>*

Entity	Fish Consumption Rate* (measured in grams/day)	Additional Information for FCR	Risk Level for Carcinogens*	Additional Information for Risk Levels
Alabama	30		10 <sup>-6</sup>	Except for Arsenic, which uses 10 <sup>-5</sup>
Alaska	6.5	Criteria in National Toxics Rule are also applicable.	10 <sup>-5</sup>	
Arizona	17.5		10 <sup>-6</sup>	
Arkansas	7.5		10 <sup>-5</sup>	
Bad River Band of Lake Superior Tribe of Chippewa Indians of the Bad River Reservation (WI)	142.4		None Listed	
California	6.5	Mercury criterion is 18.7 grams/day (fresh water, enclosed bays and estuaries) and 19.5 grams/day (ocean waters). More recent site-specific mercury criteria in CA apply the methylmercury tissue criterion and a rate of 32 grams/day. Criteria in the National Toxics Rule and California Toxics Rule are also applicable.	10 <sup>-6</sup>	
Colorado	17.5		10 <sup>-6</sup>	

<sup>1</sup> Data compiled from information provided to Ecology by the Environmental Protection Agency, Region 10, in January 2013

<b>Entity</b>	<b>Fish Consumption Rate* (measured in grams/day)</b>	<b>Additional Information for FCR</b>	<b>Risk Level for Carcinogens*</b>	<b>Additional Information for Risk Levels</b>
<b>Conf. Salish and Kootenai Tribes of the Flathead Indian Reservation</b>	<b>17.5</b>		<b>10<sup>-6</sup></b>	
<b>Confederated Tribes of the Chehalis Reservation</b>	<b>6.5</b>		<b>10<sup>-6</sup></b>	
<b>Confederated Tribes of the Colville Reservation</b>	<b>narrative criteria</b>		<b>N/A</b>	
<b>Confederated Tribes of the Umatilla Indian Reservation of Oregon</b>	<b>389</b>		<b>10<sup>-6</sup></b>	
<b>Confederated Tribes of the Warm Springs Indian Reservation of Oregon</b>	<b>170</b>		<b>10<sup>-6</sup></b>	
<b>Connecticut</b>	<b>17.5 or 6.5</b>	17.5 grams/day for most chemicals.	<b>10<sup>-6</sup></b>	
<b>Coeur d'Alene</b>	<b>17.5</b>	Initial WQS submission - EPA has not acted on the submission.	<b>10<sup>-6</sup></b>	
<b>Delaware</b>	<b>17.5</b>		<b>10<sup>-6</sup></b>	
<b>District of Columbia</b>	<b>17.5</b>		<b>10<sup>-6</sup></b>	
<b>Florida</b>	<b>6.5</b>	Florida is proposing to update criteria that calculates the level necessary to achieve the minimum risk to Florida's population. Currently being reviewed as part of the public comment process.	<b>10<sup>-6</sup></b>	
<b>Georgia</b>	<b>17.5</b>		<b>10<sup>-6</sup></b>	

<b>Entity</b>	<b>Fish Consumption Rate* (measured in grams/day)</b>	<b>Additional Information for FCR</b>	<b>Risk Level for Carcinogens*</b>	<b>Additional Information for Risk Levels</b>
<b>Grand Portage Band of the Minnesota Chippewa Tribe</b>	<b>142.4</b>		<b>10<sup>-6</sup></b>	Concentrations of carcinogenic chemicals from point or non-point sources, singly or in mixtures, must not exceed risk levels of 10 <sup>-6</sup> in surface waters.
<b>Hawaii</b>	<b>19.9</b>		<b>10<sup>-6</sup></b>	
<b>Idaho</b>	<b>6.5</b>	Idaho proposed a rate of 17.5 grams/day in 2006, which was disapproved by EPA in 2012.	<b>10<sup>-6</sup></b>	
<b>Illinois</b>	<b>15</b> (Great Lakes Basin); <b>20</b> (outside Great Lakes Basin)		<b>10<sup>-5</sup></b>	Great Lakes Initiative
<b>Indiana</b>	<b>15</b> (Great Lakes Basin); <b>6.5</b> (outside Great Lakes Basin)		<b>10<sup>-5</sup></b>	Great Lakes Initiative
<b>Iowa</b>	<b>17.5</b>		<b>10<sup>-5</sup></b>	
<b>Kalispel Indian Community of the Kalispel Reservation</b>	<b>17.5</b>	Nickel, arsenic, and chloroform use a FCR of 6.5 g/day.	<b>10<sup>-6</sup></b>	
<b>Kansas</b>	<b>6.5 or 17.5</b>	Criteria in National Toxics Rule are also applicable. Kansas is proposing to adopt updated criteria based on EPA's recommended §304(a) criteria in its current revision.	<b>10<sup>-6</sup></b>	
<b>Kentucky</b>	<b>17.5</b>		<b>10<sup>-6</sup></b>	
<b>Lac du Flambeau Band of Lake Superior Chippewa Indians of the Lac du Flambeau Reservation</b>	<b>32</b>		<b>10<sup>-6</sup></b>	

Entity	Fish Consumption Rate* <i>(measured in grams/day)</i>	Additional Information for FCR	Risk Level for Carcinogens*	Additional Information for Risk Levels
Louisiana	20	6.5 grams/day for Monte Sano Bayou.	10 <sup>-6</sup>	Except for 2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) and hexachlorocyclohexane (lindane, gamma BHC), in which case 10 <sup>-5</sup> is used.
Lummi Nation	142.4		10 <sup>-6</sup>	
Maine	32.2		10 <sup>-6</sup>	Maine recently adopted new arsenic criteria based on a 10 <sup>-4</sup> cancer risk level and a FCR of 138 g/day.
Makah Tribe	142.4		10 <sup>-6</sup>	
Maryland	17.5		10 <sup>-5</sup>	
Massachusetts	17.5 or 6.5		10 <sup>-6</sup>	
Miccosukee Tribe Indians of Florida	17.5		10 <sup>-6</sup>	
Michigan	15 (Great Lakes Basin); 15 (outside Great Lakes Basin)		10 <sup>-5</sup>	Great Lakes Initiative
Minnesota	30		10 <sup>-5</sup>	Great Lakes Initiative
Mississippi	6.5	Mississippi completed a WQS revision in June 2012, with criteria based on consumption rate of 17.5 grams/day (will be submitted to EPA).	10 <sup>-6</sup>	
Missouri	6.5		10 <sup>-6</sup>	

<b>Entity</b>	<b>Fish Consumption Rate* (measured in grams/day)</b>	<b>Additional Information for FCR</b>	<b>Risk Level for Carcinogens*</b>	<b>Additional Information for Risk Levels</b>
<b>Superior Tribe of the Chippewa Indians, Sokaogon Chippewa Community</b>	<b>15</b>		<b>None Listed</b>	
<b>Montana</b>	<b>17.5</b>		<b>10<sup>-6</sup></b>	
<b>Nebraska</b>	<b>6.5</b>	Mercury criterion uses 32.4 grams/day	<b>10<sup>-6</sup></b>	
<b>Nevada</b>	<b>6.5</b>	Mercury criterion uses 18.7 grams/day. Criteria in National Toxics Rule are also applicable.	<b>10<sup>-5</sup></b>	
<b>New Hampshire</b>	<b>6.5</b>		<b>10<sup>-6</sup></b>	
<b>New Jersey</b>	<b>17.5</b>			
<b>New Mexico</b>	<b>17.5</b>		<b>10<sup>-5</sup> and 10<sup>-6</sup></b>	
<b>New York</b>	<b>33</b>		<b>10<sup>-6</sup></b>	
<b>North Carolina</b>	<b>17.5</b>		<b>10<sup>-6</sup></b>	
<b>North Dakota</b>	<b>17.5</b>		<b>10<sup>-6</sup></b>	
<b>Ohio</b>	<b>15</b> (Great Lakes Basin); <b>6.5</b> (outside Great Lakes Basin)		<b>10<sup>-5</sup></b>	Great Lakes Initiative
<b>Oklahoma</b>	<b>6.5</b>	Oklahoma intends to update criteria using 17.5 grams/day in next triennial revision.	<b>10<sup>-5</sup></b>	
<b>Oregon</b>	<b>175</b>		<b>10<sup>-6</sup></b>	Except for arsenic which uses 10 <sup>-5</sup> for organism only and 10 <sup>-4</sup> for water + organism
<b>Pennsylvania</b>	<b>17.5</b>		<b>10<sup>-6</sup></b>	
<b>Port Gamble S'Klallam Tribe</b>	<b>142.4</b>		<b>10<sup>-6</sup></b>	

Entity	Fish Consumption Rate* (measured in grams/day)	Additional Information for FCR	Risk Level for Carcinogens*	Additional Information for Risk Levels
Puyallup Tribe of Indians	6.5	Puyallup Tribe has proposed rate of 142.4 grams/day, but has not submitted to EPA.	10 <sup>-6</sup>	
Rhode Island	17.5		10 <sup>-6</sup>	
Saint Regis Mohawk Tribe	33		10 <sup>-6</sup>	
South Carolina	17.5		10 <sup>-6</sup>	
South Dakota	17.5		10 <sup>-6</sup>	
Spokane Tribe of Indians	86.3	Spokane Tribe submitted revised standards to EPA in 2010 using rate of 865 grams/day, but EPA has not acted on this submittal.	10 <sup>-6</sup>	
Tennessee	17.5		10 <sup>-6</sup>	
Texas	17.5 (carcinogens); 5.6 (non-carcinogens, childhood exposure factors)	Mercury criteria use 10 grams/day (fresh water) and 15 grams/day (salt water).	10 <sup>-5</sup>	
The Fond du Lac Band of the Minnesota Chippewa Tribe	60		None Listed	
Utah	17.5		10 <sup>-6</sup>	
Vermont	6.5		10 <sup>-6</sup>	
Virginia	17.5		10 <sup>-5</sup>	
Washington	Current =6.5 Proposed =175	Applicable human health criteria are in the National Toxics Rule.	Current =10 <sup>-6</sup> Proposed=10 <sup>-5</sup>	
West Virginia	17.5		10 <sup>-6</sup>	
Wisconsin	20		10 <sup>-5</sup>	Great Lakes Initiative
Wyoming	17.5		10 <sup>-6</sup>	