

2009

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Fish Smart, Eat Smart

A Guide to Health Advisories for Eating Fish and Crabs Caught in New Jersey Waters



**New Jersey Department of Environmental Protection
New Jersey Department of Health and Senior Services**



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The New Jersey Department of Environmental Protection and the New Jersey Department of Health and Senior Services can provide more information on the advisories and the health effects of chemical contaminants in the fish. To stay current with advisory updates and to request additional information, please contact the NJDEP Division of Science, Research and Technology at 1-609-984-6070 or check the website www.FishSmartEatSmartNJ.org or the NJDHSS at 1-609-588-3123.

Introduction

Fishing provides enjoyable and relaxing recreation. Many people enjoy cooking and eating their own catch. Fish are an excellent source of protein, minerals and vitamins, are low in fat and cholesterol and play an important role in maintaining a healthy, well-balanced diet. The American Heart Association recommends people eat fish regularly. Fish are also one of the few foods that are rich in the omega-3 fatty acids needed for proper development of the brain and nervous system in the fetus and infants, and may reduce the risk of heart attack. Fish are an excellent substitute for other protein foods that are higher in saturated fats and cholesterol. Health professionals recommend that you include fish in your diet.

However, certain fish may contain toxic chemicals, such as polychlorinated biphenyls (PCBs), dioxins and mercury from the water they live in and the food they eat. Therefore, it is a good idea to follow a few precautions in consuming recreationally caught fish and crabs, particularly if you eat them often. The purpose of this booklet is to provide information to you on how to reduce your risk by avoiding or limiting consumption of certain fish, and to guide you in preparing the fish you eat from local waters in ways that reduce your exposure to PCBs, dioxins and mercury.

Since 1982, when research began to show elevated levels of potentially harmful contaminants in certain fish and crabs in some New Jersey waters, fish consumption advisories were adopted to guide citizens on safe consumption practices. Fish consumption advisories are developed through a scientific process that includes collecting samples of fish from waters throughout the state and analyzing them for various chemical contaminants, such as dioxin, PCBs and mercury. The contaminant levels in the fish are then evaluated using federal guidelines for protecting human health. Chemical contaminants such as dioxin and PCBs are classified by the U.S. Environmental Protection Agency as probable cancer-causing substances in humans. Elevated levels of mercury can pose health risks to the human nervous system, particularly to developing fetuses.

The New Jersey Department of Environmental Protection (NJDEP) and Department of Health and Senior Services (NJDHSS) provide advice on consuming those species of fish in which high levels of dioxin, PCBs and mercury have been found. Since levels of contaminants may vary from one location to another, and from one fish species to another, the advisories are also separated by site. So be sure to check which guidelines refer to your fishing location.

Health Effects from Consumption of Contaminated Fish and Crabs

General Advice

Exposure to low levels of some contaminants in the environment may have long lasting health effects on people. Mercury, PCBs and dioxins are among the major contaminants found in some New Jersey fish in portions of the state. These contaminants can be especially harmful to women of childbearing age, pregnant women and nursing mothers. Trace amounts of these contaminants may remain in your body for a period of time after eating. Should you become pregnant during this time, these contaminants can be passed along to your fetus, potentially affecting the development of the nervous system. Children are also at risk of developmental and neurological problems if exposed to these chemicals.

Mercury

Mercury is a toxic metal that has been commonly used in a number of products (e.g., thermometers, electrical switches). There are many sources of mercury in the environment, natural and man-made; primary sources include burning of fossil fuels such as coal, incineration of wastes, and metal processing/manufacturing.

Mercury discharged to the environment can end up in local water bodies. Mercury accumulates in fish muscle tissue through the aquatic food chain from the food that fish eat. Above certain levels, mercury can damage the nervous system, particularly in unborn and young children, resulting in learning and developmental delays. Regular consumption, of even low amounts of mercury may cause subtle effects on the central nervous system in both children and adults. In addition, long-term consumption of fish with elevated levels of mercury by adults and older children may result in adverse health effects, including neurological damage.

For more information go to www.epa.gov/mercury.

PCBs

Polychlorinated biphenyls (PCBs) were commercially produced for industrial application in heat transfer systems, hydraulic fluids and electrical equipment. They were later incorporated into other uses such as printing inks, paints and pesticides. The manufacture of PCBs was stopped in 1979 as a result of evidence that PCBs build up in the environment and cause harmful effects. PCBs tend to stay mostly in soil and sediment, but are also found in the air and water.

Once they enter the food chain, they have a tendency to absorb into fat tissue. PCBs build up in fish to levels that are hundreds of thousands of times higher than the levels in the surrounding water. When people consume fish that have already accumulated PCBs, the PCBs then accumulate in their bodies.

PCBs have been shown to cause cancer in animals, and there is evidence that PCBs may cause cancer in exposed humans. PCBs have also been shown to cause a number of serious health effects besides cancer in humans and animals, including effects on the nervous system of the developing fetus, the immune system, and the reproductive system. Studies have shown that unborn and young children are most at risk to PCB exposure. Because PCBs take a long time to leave the body after they accumulate, women who plan to become pregnant should follow the more restrictive consumption advice before becoming pregnant.

For more information go to www.epa.gov/ebtpages/pollmultimediapollpolychlorinatedbiphenylspcbs.html.

Dioxin

Dioxin is the most toxic member of a large chemical family of related dioxins and furans. Dioxin is an unwanted industrial byproduct formed through numerous processes, including production of chlorinated phenol products such as herbicides, the incineration of municipal solid waste, and creation of paper products using bleach. Most of what we know about dioxin has been obtained through animal toxicity testing in the laboratory and representative wildlife species. Dioxin produces a number of effects in animal testing, including suppression of the immune system, impaired reproduction, birth defects in some species tested, a skin condition called chloracne, alterations in liver function, and cancer. The federal Environmental Protection Agency (EPA) has classified dioxin as a probable human carcinogen.

For more information go to www.epa.gov/ebtpages/pollchemicalsdioxins.html.

General Consumption Guidelines

Fish Species: Contaminant levels may vary from species to species. If possible, eat smaller amounts of several different types of fish rather than a large amount of one type that may be high in contaminants. Try to focus your consumption on those species of fish that have lower levels of contaminants, such as fluke or flounder.

Fish Size: Smaller fish of a species will usually have lower chemical levels than larger fish in the same location because contaminants tend to build up in the

fish over time. It is advisable to eat smaller fish (of legal size) more often than larger fish.

High-risk Individuals: Infants, children, pregnant women, nursing mothers and women of childbearing age are considered to be at higher risk from contaminants in fish than members of the general public. People within this category should be particularly careful about following the advisories, because of the greater potential for PCBs, dioxin and mercury to affect the development of the fetus, infant, and young child.

Preparation and Cooking Methods for Fish and Crabs under Advisory

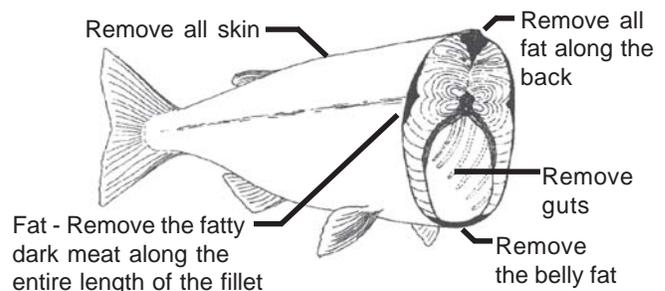
The best way to reduce exposure to contaminants in fish is to learn what fish species are affected and either limit or avoid consumption. However, if you must eat those species under advisories, there are steps you can take to reduce your exposure. Contaminants tend to concentrate in the fatty tissue of the fish you catch. Proper cleaning and cooking techniques, which remove some of the fat from the fish, can significantly reduce levels of PCBs, dioxins and other organic chemicals. **Please note, however, that these techniques will not reduce or remove unsafe levels of mercury from these fish.** Mercury occurs in the flesh. There is no way to remove mercury through cooking. The best way to reduce mercury exposure is to select those species of fish which are known to have lower levels of mercury.

Fish Preparation Methods

Proper fish cleaning and cooking techniques may reduce PCB levels by approximately 50 percent when compared to raw fish fillets. A meal size is considered to be an uncooked 8 ounce fillet.

Eat only the fillet portions. Do not eat whole fish or steak portions.

The following diagram illustrates those body portions. Many chemical contaminants, like PCBs and pesticides (but not mercury), are stored in the fatty portions of fish. To reduce the levels of these



chemicals, skin the fish and trim any of the dark meat (lateral line), back strap and belly flap.

Do not eat the heads, guts or liver, because PCBs usually concentrate in those body parts. Also, avoid consumption of any reproductive parts such as eggs or roe.

Fish Cooking Methods

Use a cooking method such as baking, broiling, frying, grilling, or steaming that allows the fats and juices to drain away from the fish. When possible, cook the fish on an elevated rack that allows fats and juices to drain to the pan below.

Avoid batter, breading or coatings that can hold in the juices that may contain contaminants. The juices should be thrown away since they contain the PCBs and other chemicals that were in the fat. Do not pour these juices over the fish as a sauce or to moisten the fish. Butter, margarine or other liquids can be added to the fish for this purpose once the juices have been poured off.

After cooking, **discard all liquids and frying oils.** Do not reuse.

Do not use heads, skin, trimmed fatty portions in soups, stews, chowders, boils, broth or for fish stock. If you make stews or chowders, only use skinless fillet parts.

Raw fish may be infested by parasites. Cook fish thoroughly to destroy the parasites. This also helps to reduce the level of many chemical contaminants.

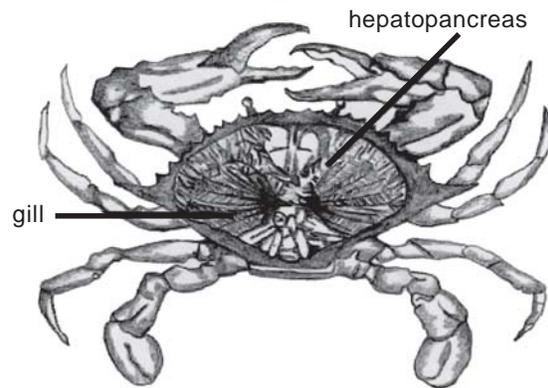
Crab Preparation Methods

Eating, selling or taking (harvesting) blue crabs from Newark Bay Complex and the tidal Passaic River is prohibited. The Newark Bay Complex is located in northeastern New Jersey. It includes the Newark Bay, tidal Hackensack River, Arthur Kill, Kill Van Kull and tidal tributaries. (See chart on page 8.) If blue crabs are taken from water bodies other than the Passaic River/Newark Bay Complex, the following preparation techniques can be followed to reduce exposure to some contaminants.

The highest levels of chemical contaminants are found in the hepatopancreas, commonly known as the tomalley or green gland. It is the yellowish green gland under the gills. This material is found next to the lump meat (backfin) portion of the crab. Chill and break the crabs immediately before cooking. Care must be taken to remove all of the hepatopancreas before cooking.

There is no specific cooking method available to reduce the chemical contaminant levels in blue crabs. The following steps for proper preparation is key to reducing your exposure to harmful chemical contaminants.

- Do not eat the green gland (hepatopancreas).
- Remove green gland (hepatopancreas) before cooking.
- After cooking, discard the cooking water.
- Do not use cooking water or green gland (hepatopancreas) in any juices, sauces, bisques or soups.



Federal Advice on Fish Consumption

The following is provided as general information and advice from the federal government.

Fish and shellfish are an important part of a healthy diet. Fish and shellfish contain high quality protein and other essential nutrients, are low in saturated fat, and contain omega-3 fatty acids. A well-balanced diet that includes a variety of fish and shellfish can contribute to heart health and children's proper growth and development. So, women and young children in particular, should include fish or shellfish in their diets due to the many nutritional benefits.

However, nearly all fish and shellfish contain traces of mercury. For most people, the risk from mercury by eating fish and shellfish is not a health concern. Yet, some fish and shellfish contain higher levels of mercury that may harm an unborn baby or young child's developing nervous system. The risks from mercury in fish and shellfish depend on the amount of fish and shellfish eaten and the levels of mercury in the fish and shellfish. Therefore, the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) are advising women who

may become pregnant, pregnant women, nursing mothers, and young children to avoid some types of fish and eat fish and shellfish that are lower in mercury.

By following these 3 recommendations for selecting and eating fish or shellfish, women and young children will receive the benefits of eating fish and shellfish and be confident that they have reduced their exposure to the harmful effects of mercury.

1. Do not eat Shark, Swordfish, King Mackerel, or Tilefish because they contain high levels of mercury.
2. Eat up to 12 ounces (2 average meals) a week of a variety of fish and shellfish that are lower in mercury.
 - Five of the most commonly eaten fish that are low in mercury are shrimp, canned light tuna, salmon, pollock, and catfish.
 - Another commonly eaten fish, albacore (“white”) tuna has more mercury than canned light tuna. So, when choosing your two meals of fish and shellfish, you may eat up to 6 ounces (one average meal) of albacore tuna per week.
3. Check local advisories about the safety of fish caught by family and friends in your local lakes rivers, and coastal areas. If no advice is available, eat up to 6 ounces (one average meal) per week of fish you catch from local waters, but don't consume any other fish during that week.

Follow these same recommendations when feeding fish and shellfish to your young child, but serve smaller portions.

Additional information on mercury in seafood can be found at the FDA's web site: <http://www.cfsan.fda.gov/~dms/admehg.html>

For more information on EPA freshwater fish consumption advisories, go to <http://www.epa.gov/ost/fish/>

2009 Fish Consumption Advisories for

PCBs, Dioxin and Mercury

The following advisory table provides statewide, regional, and water body-specific advisory information for various fish species. The table includes PCB, Dioxin and Mercury Advisories. The table lists the recommended fish consumption frequencies for the **General Population** and **High-risk Individuals** for waters statewide and for specific water bodies.

High Risk Individuals: Includes infants, children, pregnant women, nursing mothers and women of childbearing age.

General Population: Includes all others not in the high-risk category. PCB advisories for the General Population are presented in meal frequencies (for example: one meal per month or four meals per year). This range is based on an estimated 1 in 10,000 risk of cancer during your lifetime from eating fish at the advisory level. This means that one additional cancer may occur in 10,000 people eating fish at the advisory level for a lifetime.

By using this advisory, you have the necessary information to make an informed choice on the number of meals of fish to consume. You can reduce your risk further by eating less than the advisory meal frequency, however, this needs to be balanced with the health benefits of eating fish.

The limits that follow each species assume that no other contaminated fish are being eaten. If you eat more than one species of fish listed in the advisory, the total consumption of fish should not exceed the recommended frequency as a guideline for consumption. The best approach is to use the lowest recommended frequency as a guideline for consumption. **Example: If you fish Union Lake, you can eat four meals of white perch or you can eat one meal of Largemouth Bass over the course of a month, but not both.**

If your specific fishing location is not mentioned within the advisories on the following pages, this does not mean the fish are free of contamination. Not all New Jersey waters or fish species have been tested, and not all fish species were found in all locations, or in some cases available data were insufficient to list a species for a specific water body. **Follow the statewide advisory for the listed species if your fishing area is not mentioned in the guidelines, or follow the statewide advisory of one meal per week for (general Population) or one meal per month (high-risk individuals) for freshwaters.**

2009 FISH CONSUMPTION ADVISORIES

NOTE: 2009 Advisories marked in Bold are New or Revised

STATEWIDE FISH CONSUMPTION ADVISORIES		
STATEWIDE ESTUARINE & MARINE WATERS (All coastal waters except those under WATERBODY SPECIFIC ADVISORIES)		
SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUALS ⁽¹⁾
	EAT NO MORE THAN: ^(2, 3)	EAT NO MORE THAN: ^(2, 3)
STRIPED BASS	One meal per Month	Do Not Eat
BLUEFISH (greater than 6 lbs/24 inches)	Six meals per Year <small>Revised - June 2009</small>	
BLUEFISH (less than 6lbs/24 inches)	One meal per Month	
AMERICAN EEL	Four meals per Year	
AMERICAN LOBSTER	Do Not Eat the Green Gland, (i.e., Tomalley or Hepatopancreas)	
GENERAL FRESHWATER ADVISORIES		
For all freshwater fish species and waters not covered by consumption advisories: General population - Eat no more than <u>one meal per week</u> High-risk individuals - Eat no more than <u>one meal per month</u>		
STATEWIDE FRESHWATER (All waters <i>except</i> PINELANDS REGION and those listed under WATERBODY SPECIFIC ADVISORIES)		
SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUALS
	EAT NO MORE THAN: ^(2, 3)	EAT NO MORE THAN: ^(2, 3)
TROUT (Brown, Brook, Rainbow)	One meal per week	One meal per week
LARGEMOUTH BASS		One meal per month
SMALLMOUTH BASS		
CHAIN PICKEREL		
YELLOW BULLHEAD	No restrictions	One meal per week
BROWN BULLHEAD		
SUNFISH ⁽⁴⁾		

NOTE: To reduce your exposure, eat those fish with the lowest meal restrictions. Do not combine meal restrictions. (For example, If you eat multiple species or catch fish from more than one area, the recommended guidelines for different species and different locations should not be combined.)

REGIONAL FRESHWATER ADVISORIES PINELANDS REGION

(All water bodies of the PINELANDS REGION unless there is a waterbody specific advisory listed below with a **P** notation)

LARGEMOUTH BASS	One meal per month	Do not eat
CHAIN PICKEREL		
BROWN BULLHEAD	One meal per week	
YELLOW BULLHEAD		
SUNFISH ⁽⁴⁾	One meal per month	

WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

ESTUARINE & MARINE WATERS

WATERBODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUALS
		EAT NO MORE THAN:	EAT NO MORE THAN:
<u>NEWARK BAY COMPLEX</u> Including Newark Bay, tidal Hackensack River, Arthur Kill, Kill Van Kull and tidal tributaries.	Blue Crab*	Do not eat or harvest ⁽⁵⁾	
	Striped Bass*	Four meals per year	Do not eat
	American Eel*	Do not eat	
	White Perch		
	White Catfish	One meal per year	
<u>TIDAL PASSAIC RIVER</u> From the head of tide (Dundee Dam) to Newark Bay and all tidal tributaries.	All Fish & Shellfish*	Do not eat	
	Blue Crab*	Do not eat or harvest ⁴	
<u>HUDSON RIVER</u> From the New York & New Jersey border (near Alpine, NJ) to the NY-NJ border at the Upper New York Bay	Striped Bass*	Four meals per year	Do not eat
	American Eel*	One meal per year	
	White Perch		
	Winter Flounder	One meal per month	
	White Catfish	Do not eat	
	Blue Crab	One meal of 7 crabs per week Do not eat green gland (hepatopancreas); Discard cooking liquid	

NOTE: To reduce your exposure, eat those fish with the lowest meal restrictions. Do not combine meal restrictions. (For example, If you eat multiple species or catch fish from more than one area, the recommended guidelines for different species and different locations should not be combined.)

WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

ESTUARINE & MARINE WATERS

WATERBODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUALS
		EAT NO MORE THAN:	EAT NO MORE THAN:
<u>RARITAN BAY COMPLEX</u> Includes the Raritan Bay, tidal Raritan River (to the Rt.1 bridge), and the tidal portions of all tributaries. ♦ <i>See below for White Perch and White Catfish for the Raritan River and South River.</i>	American Lobster	One meal per week Do not eat green gland (hepatopancreas) Discard cooking liquid	
	Weakfish	One meal per month	Do not eat
	Striped Bass		One meal per month
	Winter Flounder		
	Porgy		One meal per month
	American Eel	One meal per year	Do not eat
	Summer Flounder	One meal per week	
	White Perch (Raritan Bay)	One meal per year	Do not eat
Blue Crab	One meal of 7 crabs per month. Do not eat green gland (hepatopancreas); Discard cooking liquid		
♦ Raritan River upstream of Route 35 Bridge and South River (tidal portion)	White Catfish	Four meals per year	Do not eat
	White Perch		
Sandy Hook Bay & Lower Bay	Summer Flounder	One meal per week	
<u>COASTAL TRIBUTARIES</u> Including. Navesink, Shrewsbury, Shark, Toms & Mullica Rivers.	American Eel	One meal per month	
Barnegat Bay at Manahawkin Bay	Weakfish	One meal per week	One meal per month
<u>COASTAL WATERS</u> Atlantic Ocean from Sandy Hook to Sea Bright	Summer Flounder	One meal per week	
Atlantic Ocean from Sea Isle City to Cape May	Weakfish	One meal per week	One meal per month

NOTE: To reduce your exposure, eat those fish with the lowest meal restrictions. Do not combine meal restrictions. (For example, If you eat multiple species or catch fish from more than one area, the recommended guidelines for different species and different locations should not be combined.)

WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

ESTUARINE & MARINE WATERS

WATERBODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUALS
		EAT NO MORE THAN:	EAT NO MORE THAN:
<u>LOWER (TIDAL) DELAWARE RIVER</u> Trenton, NJ to PA/DE line, including all tributaries to the head of tide.	Hybrid Striped Bass	No restrictions	One meal per week
	Largemouth Bass		
	American Eel	One meal per year	Do not eat
	Channel Catfish		
	Striped Bass	Four meals per year	
	White Perch		
	White Catfish	One meal per month	
<u>DELAWARE RIVER ESTUARY</u> Delaware, Pennsylvania, New Jersey borderline to Chesapeake & Delaware (C&D) Canal	All Finfish	Do not eat	
<u>DELAWARE ESTUARY & DELAWARE BAY</u> Chesapeake & Delaware (C&D) Canal to the mouth of Delaware Bay	Bluefish	Do not eat fish larger than 6 lbs or 24 inches	Do not eat
		One meal per year for fish less than 6 lbs or less than 24 inches	
	White catfish	One meal per year	
	Striped Bass		
	White perch		
	American eel		
	Channel catfish	One meal per week	One meal per month
Weakfish			
<u>DELAWARE BAY TRIBUTARIES</u>	American eel	One meal per month	Four meals per year

NOTE: To reduce your exposure, eat those fish with the lowest meal restrictions. Do not combine meal restrictions. (For example, If you eat multiple species or catch fish from more than one area, the recommended guidelines for different species and different locations should not be combined.)

WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
Alycon Lake (Gloucester Co.) (P)	Black Crappie	No restrictions	One meal per month
Assunpink Creek (Mercer/Monmouth Co.)	Largemouth Bass	No restrictions	One meal per week
Atlantic City Reservoir - (Atlantic Co.) (P) <u>No Fishing Allowed</u>	Chain Pickerel	Do not eat	
	Largemouth Bass		
	Yellow Perch		
Batsto Lake (Burlington Co.) (P)	Chain Pickerel	One meal per week	Do not eat
	Largemouth Bass		
	Brown Bullhead	No restrictions	One meal per month
	Yellow Bullhead		
Big Timber Creek (Gloucester Co.)	Channel Catfish	No restrictions	One meal per week
	Largemouth Bass		
	White Catfish		
	Brown Bullhead	No restrictions	
Boonton Reservoir (Morris Co.)	Largemouth Bass	Four meals per year	Do not Eat
	Smallmouth Bass		
	Rock Bass	No Restriction	One meal per month
	White Catfish	One meal per week	
	Brown Bullhead	No restrictions	
Bound Brook –(Somerset Co) Entire length including New Market Pond & Spring Lake	All fish species	Do not eat	
Branch Brook Park – Newark, (Essex Co.)	Largemouth Bass	One meal per week	Do not eat
	Common Carp	One meal per month	
	Bluegill	No restrictions	One meal per week
Budd Lake (Morris Co.)	White Catfish	One meal per month	One meal per month
	Northern Pike	One meal per week	
	Largemouth Bass		
	Brown Bullhead	No restrictions	No restrictions
	Bluegill Sunfish		One meal per week
Butterfly Bogs Pond (Ocean Co.) (P)	Chain Pickerel	One meal per week	Do not eat
	Brown Bullhead	No restrictions	One meal per week

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FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
Canistear Reservoir (Sussex Co.)	Chain Pickerel	No restrictions	One meal per month
	Yellow Perch		One meal per week
	Yellow Bullhead		
	Bluegill Sunfish		
Carnegie Lake (Mercer Co.)	Largemouth Bass	No restrictions	One meal per month
	Channel Catfish		One meal per week
	White Perch		No restrictions
	Bluegill Sunfish		
Cedar Lake (Cumberland Co.) (P)	Chain Pickerel	One meal per week	Do not eat
	Largemouth Bass		
Clementon Lake (Camden Co.) (P)	Chain Pickerel	One meal per week	One meal per month
	Largemouth Bass		
Clinton Reservoir (Passaic Co.)	Largemouth Bass	One meal per week	Do not eat
	Yellow Bullhead	No restrictions	One meal per month
	Rock Bass		
	White Sucker		
Cooper River, below Evans Pond (Camden Co.)	Common Carp	One meal per month	Do not eat
	Bluegill Sunfish	One meal per week	One meal per month
Cooper River, Hopkins Pond (Camden Co.)	Brown Bullhead	One meal per month	Four meals per year
Cooper River Lake (Camden Co.)	Largemouth Bass	Four meals per year	Do not eat
	Common Carp	One meal per week	One meal per month
	Brown Bullhead		
	Bluegill Sunfish		
Cranberry Lk (Sussex Co.)	Hybrid Striped Bass	One meal per week	One meal per month
Crater Lake (Sussex Co.)	Yellow Perch	One meal per week	Do not eat
	Brown Bullhead		One meal per month
Crosswicks Creek (Mercer Co.)	Largemouth Bass	No restrictions	One meal per week
	White Catfish		
Crystal Lake (Burlington Co.)	Largemouth Bass	No restrictions	One meal per month
	Black Crappie		One meal per week
	Brown Bullhead		No restrictions
Davidson Mill Pond (Middlesex Co.)	American Eel	One meal per month	
	Bluegill Sunfish	No restrictions	One meal per week
	Chain Pickerel		One meal per month
	Largemouth Bass	One meal per week	

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WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
Delaware & Raritan Canal <u>Entire Length</u>	Channel Catfish	One meal per month	Do not eat
	American Eel		
	Bluegill Sunfish	No restrictions	One meal per week
	Chain Pickerel		
	Smallmouth Bass	One meal per week	One meal per month
	Largemouth Bass		
Delaware & Raritan Canal @ Bound Brook (Somerset Co.)	Yellow Perch	No restrictions	One meal per month
	Common Carp	Four meals per year	Do not eat
Delaware & Raritan Canal at Griggstown (Middlesex-Somerset Co.)	Brown Bullhead	No restrictions	One meal per week
Delaware & Raritan Canal at Lambertville (Hunterdon Co.)	Common Carp	One meal per month	One meal per month
Delaware & Raritan Canal at Port Mercer (Mercer Co.)	Common Carp	One meal per year	Do not eat
Delaware & Raritan Canal at West Trenton (Mercer Co.)	Walleye	One meal per month	Do not eat
	Common Carp		
Delaware River -Upstream of Delaware Water Gap to New York State border (Warren/Sussex Co)	Channel Catfish	No restrictions	One meal per month
	Muskellunge		
	Smallmouth Bass	One meal per week	
	White Sucker	One meal per month	
Delaware River – Delaware Water Gap to Phillipsburg (Warren Co.)	White Catfish	One meal per week	Do not eat
	Channel Catfish	No restrictions	One meal per month
	Smallmouth Bass		
	Walleye		One meal per week

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FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
Delaware River-Phillipsburg to Trenton (Hunterdon/Mercer Co.)	Channel Catfish	Four meals per year	Do not eat
	Striped Bass		
	American Eel	One meal per month	Do not eat
	White Sucker		
	Largemouth Bass	No restrictions	One meal per month
	Smallmouth Bass	One meal per week	
DeVoe Lake (Middlesex Co.)	Brown Bullhead	One meal per week	
	Chain Pickerel	One meal per week	One meal per month
	Largemouth Bass	No restrictions	
Double Trouble Lake (Ocean Co.) (P)	Yellow Bullhead	One meal per month	Do not eat
Duhernal Lake (Middlesex Co.)	Bluegill Sunfish	No restrictions	One meal per week
	Largemouth Bass	One meal per week	One meal per month
	Brown Bullhead	One meal per week	
East Creek Lake (Cape May Co.) (P)	Brown Bullhead	One meal per month	Do not eat
	Yellow Bullhead		
	Yellow Perch		
Echo Lake Reservoir (Passaic Co.)	Largemouth Bass	No restrictions	One meal per month
	Chain Pickerel		One meal per week
	Bluegill Sunfish		
	Yellow Bullhead		
Evans Pond (Camden Co.)	Brown Bullhead	One meal per week	One meal per month
Farrington Lake (Middlesex Co.)	Bluegill Sunfish	No restrictions	One meal per week
	Chain Pickerel		One meal per month
	Yellow Perch		
	Brown Bullhead	One meal per week	Do not eat
	Largemouth Bass		
Green Brook - (Somerset)	American Eel	One meal per month	Do not eat
Green Turtle Lake (Passaic Co.)	Chain Pickerel	No restrictions	One meal per week
	Yellow Perch		
Greenwood Lake (Passaic Co.)	Largemouth Bass	No restrictions	One meal per month
	Walleye		No restrictions
	White Perch		No restrictions
	Bluegill Sunfish		No restrictions
	Yellow Bullhead		One meal per week

NOTE: To reduce your exposure, eat those fish with the lowest meal restrictions. Do not combine meal restrictions. (For example, If you eat multiple species or catch fish from more than one area, the recommended guidelines for different species and different locations should not be combined.)

WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
Grovers Mill Pond (Mercer Co.)	Brown Bullhead	One meal per week	One meal per month
	Chain Pickerel	No restrictions	One meal per week
Hainesville Pond (Sussex Co.)	Largemouth Bass	No restrictions	One meal per month
	Chain Pickerel		One meal per week
Harrisville Lake (Burlington Co.) (P)	Mud Sunfish	One meal per month	Do not eat
	Yellow Bullhead		
Lake Carasaljo (Ocean Co.) (P)	Largemouth Bass	One meal per week	Do not eat
	Chain Pickerel		One meal per month
Lake Hopatcong (Morris/Sussex Co.)	Largemouth Bass	No restrictions	One meal per month
Lake Nummy (Cape May Co.) (P)	Chain Pickerel	One meal per week	Do not eat
	Yellow Perch		
	Yellow Bullhead	No restrictions	One meal per month
Lake Tappan (Bergen Co.)	Smallmouth Bass	No restrictions	One meal per month
	Largemouth Bass		No restriction
	Bluegill Sunfish		
	Yellow Bullhead		
	Common Carp		One meal per week
Lamington River at Lamington (Hunterdon-Somerset Co.)	American Eel	One meal per week	One meal per month
	Brown Trout	No restrictions	One meal per week
	Redbreast Sunfish		
	Smallmouth Bass		
Lenape Lake – (Atlantic Co.) (P)	Chain Pickerel	One meal per week	Do not eat
Linden Lake- (Camden Co.) (P)	Largemouth Bass	No restrictions	One meal per month
Little Timber Creek (Camden Co.)	Brown Bullhead	No restrictions	No restrictions
Manalapan Lake (Middlesex Co.)	American Eel	One meal per month	
	Black Crappie	No restrictions	One meal per week
	Bluegill Sunfish		No restrictions
	Largemouth Bass	One meal per week	One meal per month

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(For example, If you eat multiple species or catch fish from more than one area, the recommended guidelines for different species and different locations should not be combined.)

WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
Manasquan Reservoir (Monmouth Co.)	Largemouth Bass	One meal per month	Do not eat
	Black Crappie	One meal per week	One meal per month
	Chain Pickerel	No restrictions	
	Yellow Perch		One meal per week
Maskells Mill Lake (Salem Co.) (P)	Brown Bullhead	One meal per week	One meal per month
	Chain Pickerel		
	Largemouth Bass		
	Black Crappie	No restrictions	
Merrill Creek Reservoir (Warren Co.)	Smallmouth Bass	One meal per week	Do not eat
	Lake Trout	One meal per week	
	Largemouth Bass	One meal per month	
	Black Crappie	No restrictions	
	Bluegill Sunfish		
	Brown Bullhead		
	Yellow Perch		
Millstone River at Manville (Somerset Co.)	Bluegill Sunfish	No restrictions	One meal per week
	Common Carp	Four meals per year	Do not eat
	Largemouth Bass	One meal per week	One meal per month
Mirror Lake (Burlington Co.) (P)	Largemouth Bass	One meal per week	One meal per month
	Brown Bullhead	No restrictions	One meal per week
Monksville Reservoir (Passaic Co.)	Smallmouth Bass	No restrictions	One meal per month
	Walleye	One meal per week	Do not eat
	White Perch		
	Yellow Perch	No restriction	One meal per week
Mountain Lake (Warren Co.)	Largemouth Bass	One meal per week	Do not eat
Mullica River (Burlington/Atlantic Co.) (P)	Brown Bullhead	One meal per week	One meal per month
	White Perch		
	White Catfish	No restrictions	

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WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
New Brooklyn Lake (Camden Co.) (P)	Chain Pickerel	One meal per week	Do not eat
	Largemouth Bass		One meal per month
	Sunfish		
	Black Crappie	No restrictions	
	Yellow Bullhead		One meal per week
New Market Pond– Spring Lake and the full length of the Bound Brook (Somerset Co.)	See Bound Brook Advisories		
Newton Creek, North (Camden Co.)	Brown Bullhead	No restrictions	
Newton Creek, South (Camden Co.)	Largemouth Bass	One meal per month	Do not eat
Newton Lake (Camden Co.)	Bluegill Sunfish	One meal per week	One meal per month
	Brown Bullhead		
	Largemouth Bass	One meal per month	Four meals per year
	Common Carp		Do not eat
Oak Ridge Reservoir (Passaic Co.)	Largemouth Bass	One meal per week	Do not eat
	Chain Pickerel	No restrictions	One meal per month
	Brown Bullhead		No restrictions
Oradell Reservoir (Bergen Co.)	Largemouth Bass	No restrictions	One meal per month
	Bluegill Sunfish		No restriction
	Yellow Bullhead		
	Common Carp		
Overpeck Creek (Bergen Co.)	Largemouth Bass	Four meals per year	Do not eat
	Common Carp		
	American Eel		
Passaic River: Rt. 280 to confluence of Pompton R at Two Bridges (Morris/Essex/Passaic Co.)	Redbreast Sunfish	One meal per week	One meal per month
	Northern Pike		
	Black Crappie	No restrictions	One meal per week
	Yellow Bullhead		
	Pumpkinseed Sunfish		
	Common Carp	One meal per month	Do not eat

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WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
Passaic River: Elmwood Park to Dundee Lake (Garfield) (Passaic/Bergen Co.)	Largemouth Bass	One meal per week	One meal per month
	Yellow Bullhead		Four meals per year
	Brown Bullhead		
	Redbreast Sunfish		
	Common Carp	One meal per month	Do not eat
	Bluegill Sunfish		
	American Eel		
Pennsauken Creek, at Forked Landing (Camden Co.)	Common Carp	Four meals per year	Do not eat
	Largemouth Bass	One meal per month	
	Sunfish		Four meals per year
	White Catfish		One meal per year
Pompton Lake (Passaic Co.)	Largemouth Bass	One meal per week	Do not eat
	Common Carp	One meal per month	
Pompton River at Lincoln Park (Passaic/Morris Co.)	Common Carp	Four meals per year	Do not eat
	Northern Pike	One meal per week	
	Rock Bass		
	Redbreast Sunfish		Four meals per year
	Largemouth Bass		One meal per month
	Yellow Perch		
	Black Crappie	No restrictions	
Ramapo River @ Pompton Feeder (Morris Co.) Formerly listed as Pompton River @ Pequannock R. (Passaic/Morris Co.)	Largemouth Bass	One meal per week	Do not eat
	Smallmouth Bass		
	Yellow Bullhead		
	Rock Bass		
	Pumpkinseed Sunfish		
	Redbreast Sunfish		
	Black Crappie	One meal per month	
Rahway River (East Branch) at Milton Lake (Union Co.)	Bluegill Sunfish	One meal per week	One meal per month
	Brown Bullhead		
	Largemouth Bass		
	Common Carp	Four meals per year	Do not eat
Rahway River (West Branch) at Valley Road Pond (Union Co.)	Brown Bullhead	One meal per month	
	Common Carp	One meal per month	Do not eat
	Largemouth Bass	One meal per week	One meal per month

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WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
Raritan River - <u>North Branch</u> at Branchburg (Somerset Co.)	American Eel	One meal per week	One meal per month
	Yellow Bullhead		
	Smallmouth Bass	No restrictions	One meal per week
	Redbreast Sunfish		
Raritan River - <u>South Branch</u> at Flemington (Hunterdon Co.)	American Eel	One meal per month	Do not eat
	Brown Trout	No restrictions	One meal per week
	Redbreast Sunfish		
	Smallmouth Bass	One meal per week	One meal per month
	Yellow Bullhead		
Raritan River - <u>South Branch</u> at High Bridge (Hunterdon Co.)	American Eel	One meal per month	Do not eat
	Redbreast Sunfish	No restrictions	One meal per week
Raritan River - <u>South Branch</u> at Long Valley (Clairmont Reach; Morris Co.)	Brown Trout	No restrictions	One meal per week
Raritan River at confluence with the Millstone River (Somerset Co.)	Brown Bullhead	No Restrictions	
	Channel Catfish	One meal per month	Do not eat
	American Eel		
	Common Carp	One meal per week	One meal per month
	Largemouth Bass		
	White Catfish	No restrictions	One meal per week
	Smallmouth Bass		
Redbreast Sunfish			
Raritan River- <u>South Branch</u> at Neshanic Station (Somerset Co.)	Largemouth Bass	One meal per week	One meal per week
	Smallmouth Bass		One meal per month
	Rock Bass	No restrictions	One meal per week
	Redbreast Sunfish		
	Common Carp	One meal per week	One meal per month
	American Eel	One meal per month	Do not eat
Rockaway River @ Powerville (Morris Co.)	Largemouth Bass	One meal per week	Do not eat
	Chain Pickerel	No restrictions	One meal per month
	Rock Bass		
	Yellow Bullhead	No restrictions	One meal per week
	Bluegill Sunfish		

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WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
Rockaway River at Whippany (Morris Co.)	Largemouth Bass	One meal per week	Do not eat
	Black Crappie	No restrictions	One meal per month
	Bluegill Sunfish		One meal per week
Rosedale Lake at Pennington (Mercer Co.)	Black Crappie	No restrictions	One meal per week
	Bluegill Sunfish		No restrictions
	Largemouth Bass	One meal per week	One meal per month
	Common Carp		
Round Valley Reservoir (Hunterdon Co.)	Bluegill Sunfish	No restrictions	One meal per week
	White Catfish		
	Lake Trout	One meal per month	
	Channel Catfish		
	Largemouth Bass	One meal per week	One meal per month
Saw Mill Lake (Sussex Co.)	Northern Pike	No restrictions	One meal per month
	Brown Bullhead		No restrictions
Shadow Lake (Monmouth Co.)	Largemouth Bass	No restrictions	One meal per week
Shepherd Lake (aka; Sheppards Lake: (Passaic Co.)	Largemouth Bass	One meal per week	Do not eat
	Rock Bass	No restrictions	One meal per week
Speedwell Lake (Morris Co.)	Bluegill Sunfish	No restrictions	One meal per week
	Chain Pickerel		
	Common carp		
Splitrock Reservoir (Morris Co.)	Chain Pickerel	No restrictions	One meal per month
	Yellow Perch		One meal per week
	Bluegill Sunfish		No restrictions
	Brown Bullhead		
Spring Lake (Monmouth Co.) (P)	Largemouth Bass	One meal per week	Do not eat
Spruce Run Reservoir (Hunterdon Co.)	Northern Pike	No restrictions	One meal per month
	Hybrid Striped Bass	One meal per month	
	Common Carp	One meal per week	
	Channel Catfish		
	Largemouth Bass		

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WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
Stafford Forge Main Line (Ocean Co.) (P)	Chain Pickerel	One meal per week	Do not eat
Steenykill Lake (Sussex Co.)	Largemouth Bass	No restrictions	One meal per week
Stewart Lake (Camden Co.)	Bluegill Sunfish	One meal per week	One meal per month
	Brown Bullhead		Do not eat
	Largemouth Bass	Four meals per year	
	Common Carp	One meal per month	Do not eat
Strawbridge Lake (Burlington Co.)	Largemouth Bass	One meal per month	One meal per year
	Bluegill Sunfish		
	Common Carp	Four meals per year	Do not eat
	Brown Bullhead	One meal per week	Four meals per year
Sunset Lake (Cumberland Co.) (P)	Largemouth Bass	One meal per week	One meal per month
Swartswood Lake (Sussex Co.)	Smallmouth Bass	No restrictions	One meal per month
	Chain Pickerel		One meal per week
Union Lake (Cumberland Co.) (P)	White Perch	One meal per week	Do not eat
Wading River (Burlington Co.) (P)	Yellow Bullhead	One meal per month	Do not eat
	Chain Pickerel	One meal per week	
	White Catfish		
Wanaque Reservoir (Passaic Co.)	Largemouth Bass	One meal per week	Do not eat
	White Perch		
	White Catfish	No restrictions	One meal per month
	Brown Bullhead	No restrictions	No restrictions
	Yellow Bullhead	No restrictions	One meal per week
Wawayanda Lake (Sussex Co.)	Chain Pickerel	No restriction	One meal per month
	Largemouth Bass	One meal per week	Do not eat
	Yellow Bullhead		One meal per month
Weequahic Lake (Essex Co.)	Largemouth Bass	One meal per month	One meal per month
	Common Carp		Do not eat
	Bluegill	One meal per week	One meal per week
	White Perch	No restrictions	One meal per week
	Brown Bullhead		No restrictions

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WATERBODY SPECIFIC FISH CONSUMPTION ADVISORIES

FRESHWATER SITES

WATER BODY	SPECIES	GENERAL POPULATION	HIGH-RISK INDIVIDUAL
		EAT NO MORE THAN:	EAT NO MORE THAN:
Weston Mill Pond (Middlesex Co.)	Brown Bullhead	One meal per week	One meal per month
	Largemouth Bass		
	Yellow Perch		
	Black Crappie	No restrictions	One meal per week
	Chain Pickerel		
	Bluegill Sunfish		
	American Eel	One meal per month	Do not eat
Whitesbog Pond (Ocean Co.) (P)	Chain Pickerel	One meal per week	Do not eat
Willow Grove Lake (Cumberland Co.) (P)	Brown Bullhead	No restrictions	One meal per month
Wilson Lake (Gloucester Co.) (P)	Chain Pickerel	One meal per month	Do not eat
	Pumpkinseed Sunfish		
	Yellow Perch		
	Largemouth Bass	One meal per week	
Woodstown Memorial Lake (Salem Co.)	Black Crappie	No restrictions	One meal per month
	Largemouth Bass		

(1) High-risk individuals include infants, children, pregnant women, nursing mothers and women of childbearing age.

(2) One meal is defined as an eight-ounce serving

(3) Eat only the fillet portions of the fish. Use proper trimming techniques to remove fat, and cooking methods that allow juices to drain from the fish (e.g., baking, broiling, frying, grilling, and steaming). See text for full description.

(4) Sunfish includes bluegill, pumpkinseed, and redbreast sunfish.

(5) No harvest means no taking or attempting to take any blue crabs from these waters.

Note: Not all species were found or analyzed in all water bodies, or inadequate data were available to list some species.

(P) = Pinelands Area

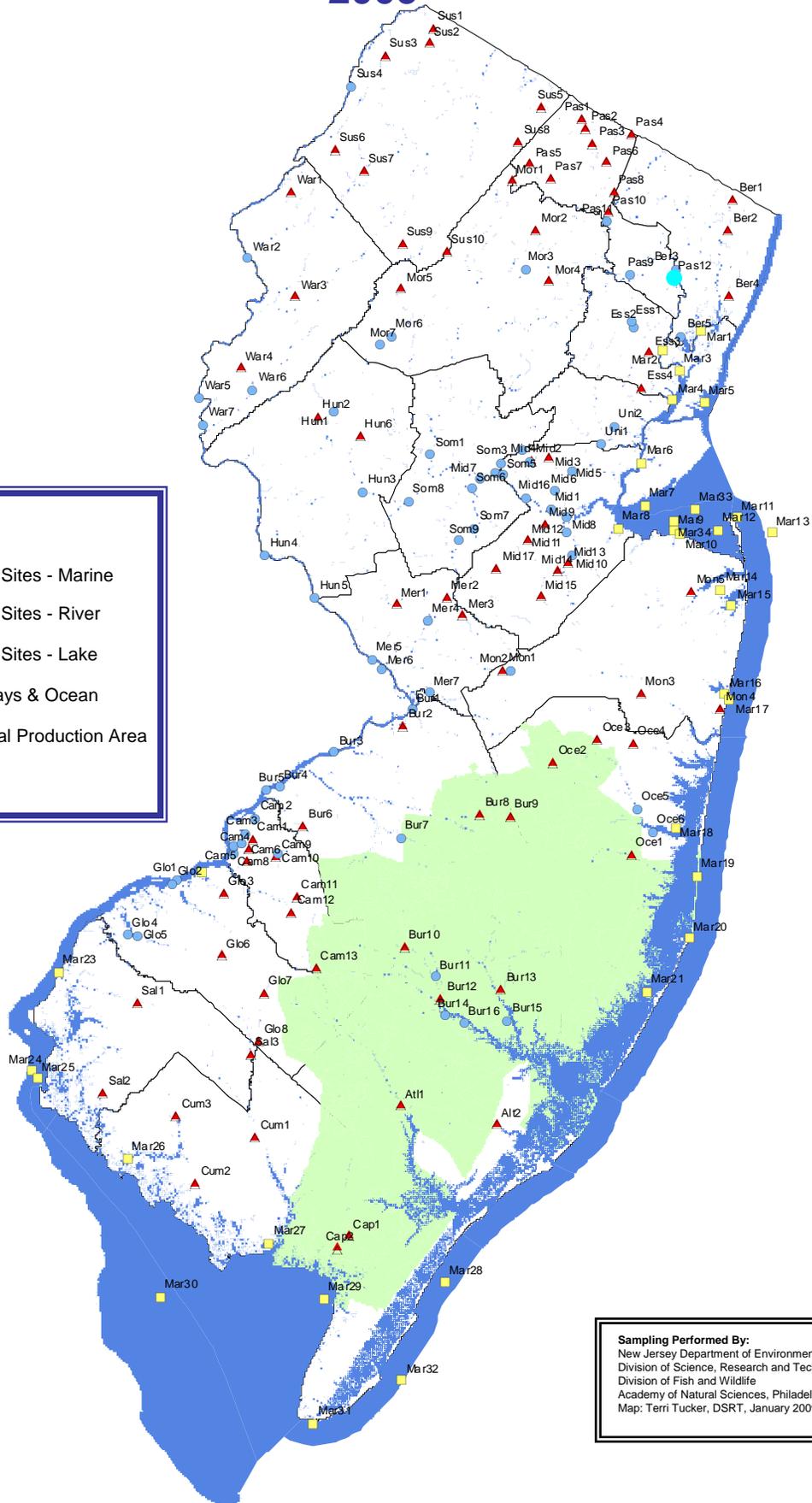
* Selling any of these species from designated water bodies is prohibited in New Jersey.

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New Jersey Fish Tissue Sampling Sites 2009

Legend

- Sampling Sites - Marine
- Sampling Sites - River
- Sampling Sites - Lake
- Rivers, Bays & Ocean
- Agricultural Production Area
- Counties



Sampling Performed By:
 New Jersey Department of Environmental Protection
 Division of Science, Research and Technology
 Division of Fish and Wildlife
 Academy of Natural Sciences, Philadelphia
 Map: Terri Tucker, DSRT, January 2009

Sampling Sites by County

<u>Name</u>	<u>County-#</u>	<u>type</u>	<u>Name</u>	<u>County-#</u>	<u>type</u>
Atlantic County			Gloucester County		
Atlantic City Reservoir	Atl2	▲ Lake	Alcyon Lake	Glo6	▲ Lake
Lake Lenape	Atl1	▲ Lake	Delaware River at Mantua Creek	Glo2	● River
Bergen County			Delaware River at Paulsboro	Glo1	● River
Oradell Reservoir	Ber2	▲ Lake	Malaga Lake	Glo8	▲ Lake
Overpeck Creek Lake	Ber4	▲ Lake	Raccoon Creek at mouth near Swedesboro	Glo4	● River
Passaic River at Elmwood Park	Ber3	● River	Rancocas Creek	Glo5	● River
Passaic River at Lyndhurst	Ber5	● River	Stewart Lake	Glo3	▲ Lake
Tappan Lake	Ber1	▲ Lake	Wilson Lake	Glo7	▲ Lake
Burlington County			Hunterdon County		
Atsion Lake	Bur10	▲ Lake	Delaware -Raritan Canal @ Lambertville	Hun5	● River
Batsto Lake	Bur12	▲ Lake	Delaware River at Byram	Hun4	● River
Crystal Lake	Bur2	▲ Lake	Raritan River South @ High Bridge	Hun1	● River
Delaware River at Crosswicks Creek	Bur1	● River	Raritan River South @Flemington	Hun3	● River
Delaware River at Palmyra	Bur5	● River	Round Valley Reservoir	Hun6	▲ Lake
Delaware River at Riverton	Bur4	● River	Spruce Run Reservoir	Hun2	▲ Lake
Delaware River mouth of Neshaminy Creek	Bur3	● River	Mercer County		
Harrisville Lake	Bur13	▲ Lake	Carnegie Lake	Mer2	▲ Lake
Mirror Lake	Bur8	▲ Lake	Crosswicks Creek	Mer7	● River
Mullica River	Bur14	● River	Delaware -Raritan Canal @ Port Mercer	Mer4	● River
Mullica River from Atsion to Pleasantville	Bur11	● River	Delaware -Raritan Canal @ Trenton	Mer5	● River
Mullican River between Green Bank and Batsto	Bur16	● River	Delaware River at Trenton	Mer6	● River
Rancocas Tributary between Vincetown/Buddtown	Bur7	● River	Grovers Mill Pond	Mer3	▲ Lake
Strawbridge Lake	Bur6	▲ Lake	Rosedale Lake in Pennington	Mer1	▲ Lake
Wading River	Bur15	● River	Middlesex County		
Whitesbog Pond	Bur9	▲ Lake	Below New Market Pond Dam	Mid4	● River
Camden County			Davidson Mill	Mid17	▲ Lake
Big Timber Creek	Cam8	● River	De Voe Lake	Mid14	▲ Lake
Clementon Lake	Cam1	▲ Lake	Duhernal Lake	Mid13	▲ Lake
Cooper River ar Cooper River Lake	Cam3	▲ Lake	Farrington Lake	Mid12	▲ Lake
Cooper River at mouth of Evans Pond	Cam10	● River	Manalapan Lake	Mid15	▲ Lake
Copper River Park Lake	Cam4	▲ Lake	New Market Pond	Mid2	▲ Lake
Evans Pond	Cam11	▲ Lake	Pompton River at Lincoln Park	Mid6	● River
Haddon Lake	Cam9	▲ Lake	Ramapo River at Pompton Feeder	Mid5	● River
Linden Lake	Cam12	▲ Lake	Raritan River at Millstone Creek	Mid16	● River
Little Timber Creek	Cam7	● River	Raritan River @ Millstone River	Mid7	● River
New Brooklyn Lake	Cam13	▲ Lake	Raritan River @ Route 1 Bridge	Mid1	● River
Newton Creek	Cam5	● River	Raritan River Upper at Rt 1	Mid8	● River
Newton Lake	Cam6	▲ Lake	South River at Old Bridge	Mid10	● River
Pennsauken Creek at Forked Landing	Cam2	● River	South River at Sayreville	Mid11	● River
Cape May County			Spring Lake (NMP)	Mid3	▲ Lake
Lake Nummy	Cap1	▲ Lake	Weston Mill Pond	Mid9	▲ Lake
East Creek Lake	Cap2	▲ Lake	Monmouth County		
Cumberland County			Assunpink Creek	Mon2	● River
Cedar Lake	Cum2	▲ Lake	Assunpink Lake	Mon1	▲ Lake
Sunset Lake	Cum3	▲ Lake	Manasquan Reservoir	Mon3	▲ Lake
Union Lake	Cum1	▲ Lake	Shadow Lake	Mon5	▲ Lake
Essex County			Spring Lake	Mon4	▲ Lake
Branchbrook Park Lake	Ess3	▲ Lake	Morris County		
Passaic River at Hatfield Swamp	Ess1	● River	Boonton Reservoir	Mor4	▲ Lake
Rockaway/ Whippany River	Ess2	● River	Budd Lake	Mor5	▲ Lake
Weequahic Lake	Ess4	▲ Lake	Oak Ridge Reservoir	Mor1	▲ Lake
			Raritan River South-@ Long Valley/Clairemont	Mor6	● River
			Raritan River, So. Branch, Clairemont Stretch	Mor7	● River
			Rockaway River	Mor3	● River
			Split Rock Reservoir	Mor2	▲ Lake

Sampling Sites by County

<u>Name</u>	<u>County-#</u>	<u>type</u>	<u>Name</u>		
Ocean County			Marine		
Butterfly Bogs	Oce3	▲ Lake	Arthur Kill		
Double Trouble Lake	Oce1	▲ Lake	Atlantic Ocean about 1 mile S. of Cape May	Mar6	■
Lake Carasaljo	Oce4	▲ Lake	Atlantic Ocean at Barnegat Light	Mar31	■
Ridgeway Branch of Toms River	Oce5	● River	Atlantic Ocean at Island Beach State Park	Mar20	■
Success Lake	Oce2	▲ Lake	Atlantic Ocean E of Sea Isle City, S of Ocean City	Mar19	■
Toms River	Oce6	● River	Atlantic Ocean just N of Sandy Hook	Mar28	■
Passaic County			Atlantic Ocean North	Mar11	■
Clinton Reservoir	Pas5	▲ Lake	Atlantic Ocean off Belmar	Mar13	■
Dundee Lake	Pas12	▲ Lake	Atlantic Ocean, Sea Isle City to Cape May	Mar17	■
Echo Lake	Pas7	▲ Lake	Barnegat Bay @ Manahawkin Bay	Mar32	■
Green Turtle Lake	Pas2	▲ Lake	Barnegat Bay at Toms River	Mar21	■
Greenwood Lake	Pas1	▲ Lake	Cohansey River at Greenwich	Mar18	■
Monksville Reservoir	Pas3	▲ Lake	Delaware Bay at Bower's Beach, DE	Mar26	■
Passaic River - Great Piece	Pas9	● River	Delaware Bay West of Reeds Beach, SE of Thorr	Mar30	■
Passaic River at Pompton	Pas11	● River	Delaware River at Deepwater	Mar29	■
Pompton Lake	Pas10	▲ Lake	Delaware River at National Park	Mar23	■
Ramapo Lake	Pas8	▲ Lake	Delaware River at Port Penn	Mar22	■
Sheppard Lake	Pas4	▲ Lake	Delaware River/Bay at Reedy Island	Mar24	■
Wanaque Reservoir	Pas6	▲ Lake	E. Raritan Bay at Keansburg	Mar25	■
Salem County			Hackensack River	Mar10	■
Maskells Mills Lake	Sal2	▲ Lake	Lower Passaic River	Mar1	■
Willow Grove Lake	Sal3	▲ Lake	Maurice River at Mauricetown	Mar3	■
Woodstown Memorial lake	Sal1	▲ Lake	Mid-Raritan Bay	Mar27	■
Somerset County			Navesink River at Fairhaven	Mar7	■
Bound Brook	Som4	● River	Newark Bay	Mar14	■
Bound Brook @ Shepard Rd.	Som3	● River	Passaic River by Kearny	Mar4	■
Delaware and Raritan Canal	Som9	● River	Raritan Bay at Keansburg	Mar2	■
Delaware -Raritan Canal @ Griggstown	Som7	● River	Raritan Bay Lower at Union Beach	Mar34	■
Delaware -Raritan Canal @ South Bound Brook	Som5	● River	Raritan River at Rt. 35	Mar9	■
Green Brook @ Madison Ave. Bridge	Som2	● River	Rahway River at Valley Road Pond	Mar8	■
Millstone River @Manville	Som6	● River	Sandy Hook Bay	Mar33	■
Raritan River at Neshanic Station	Som8	● River	Shark River at Belmar	Mar12	■
Raritan River North Branch at Branchburg	Som1	● River	Shrewsbury River at Oceanport	Mar16	■
Sussex County			Upper Bay	Mar15	■
Canistear Reservoir	Sus8	▲ Lake		Mar5	■
Cranberry Lake	Sus9	▲ Lake			
Crater Lake	Sus6	▲ Lake			
Delaware River Upstream of Water Gap	Sus4	● River			
Hainsville Pond	Sus3	▲ Lake			
Lake Hopatcong	Sus10	▲ Lake			
Saw Mill Lake	Sus2	▲ Lake			
Steenykill Lake	Sus1	▲ Lake			
Swartswood Lake	Sus7	▲ Lake			
Wawayanda Lake	Sus5	▲ Lake			
Union County					
Rahway River at Milton Lake	Uni1	● River			
Raritan Bay at Lower Bay	Uni2	● River			
Warren County					
Catfish Pond near Delaware Water Gap	War1	▲ Lake			
Delaware River at Easton	War5	● River			
Delaware River at Raubsville	War7	● River			
Delaware River Phillipsburg to Water Gap	War2	● River			

The NJDEP and NJDHSS can provide more information on the advisories and the health effects of chemical contaminants in the fish. To stay current with advisory updates and to request additional information, please contact the NJDEP Division of Science, Research and Technology at 1-609-984-6070 or check the website www.FishSmartEatSmartNJ.org or the NJDHSS at 1-609-588-3123.