

# BMPs For Fats, Oils and Grease

Fats, oil and grease (FOG) can be managed effectively in the food service industry to minimize adverse impacts on municipal wastewater systems and the environment. Municipal pretreatment staff and food service industry workers have developed Best Management Practices (BMPs) that, when implemented, will minimize the adverse impacts of FOG.

The chart below summarizes these BMPs, and other important information, including the reason for BMPs, the benefit of BMPs to the food industry, and inspection tips for SJSU staff to determine if the BMPs are being implemented.

## Train Kitchen Staff

<b>BMP</b>	Train kitchen staff and other employees about how they can help ensure BMPs are implemented.
<b>Reason For</b>	People are more willing to support an effort if they understand the basis for it.
<b>Benefit to Food Establishment</b>	All of the subsequent benefits of BMPs will have a better chance of being implemented.
<b>Pretreatment Inspection Tips</b>	Talk to the establishment manager about the training program that he/she has implemented.

## Post “No Grease” Signs

<b>BMP</b>	Post “No Grease” signs above sinks and on the front of dishwashers.
<b>Reason For</b>	Signs serve as a constant reminder for staff working in kitchens.
<b>Benefit to Food Establishment</b>	These reminders will help minimize grease discharge to the traps and interceptors and reduce the cost of cleaning and disposal.
<b>Pretreatment Inspection Tips</b>	Check appropriate locations for “No Grease” signs.

# BMPs For Fats, Oils and Grease cont.

## Use Water Temperatures less than 140 degrees Fahrenheit

<b>BMP</b>	<ul style="list-style-type: none"> <li>• Use water temperatures less than 140 degrees Fahrenheit in all sinks, especially the pre-rinse sink before the mechanical dishwasher.</li> <li>• The mechanical dishwasher requires a minimum temperature of 160 degrees Fahrenheit, but the Uniform Plumbing Code (UPC) prohibits discharging the dishwasher into grease traps.</li> </ul>
<b>Reason For</b>	Temperatures in excess of 140 degrees Fahrenheit will dissolve grease, but the grease can re-congeal or solidify in the sanitary sewer system as the water cools.
<b>Benefit to Food Establishment</b>	The food producing establishment will reduce its cost for energy – gas or electric – for heating the water.
<b>Pretreatment Inspection Tips</b>	Check boiler or hot water heater discharge temperature. Measure the temperature of the hot water being discharged from the closest sink.

## Use a Three-Sink Dishwashing System

<b>BMP</b>	The three-sink system uses water temperatures less than 140 degrees Fahrenheit where a mechanical dishwasher requires a minimum of 160 degrees Fahrenheit. <b>NOTE:</b> The UPC prohibits the discharge of dishwasher water to grease traps.
<b>Reason For</b>	The three-sink system uses water temperatures less than 140 degrees Fahrenheit where a mechanical dishwasher requires a minimum of 160 degrees Fahrenheit.
<b>Benefit to Food Establishment</b>	The food producing establishment will reduce its costs for the energy – gas or electric – for heating the water for the mechanical dishwasher and for operating the dishwasher.
<b>Pretreatment Inspection Tips</b>	Measure the temperature of the hot water at the three-sink system.

# BMPs For Fats, Oils and Grease cont.

## Recycle Waste Cooking Oil

<b>BMP</b>	Recycle waste cooking oil.
<b>Reason For</b>	There are many waste oil recyclers throughout California. This is a cost recovery opportunity.
<b>Benefit to Food Establishment</b>	The food producing establishment will be paid for the waste material and will reduce the amount of garbage it must pay to have hauled away.
<b>Pretreatment Inspection Tips</b>	<ul style="list-style-type: none"> <li>• Obtain the name of the recycler used.</li> <li>• Review recycling records and confirm records with the recycler.</li> </ul>

## “Dry Wipe” Pots, Pans and Dishware Prior to Dishwashing

<b>BMP</b>	“Dry Wipe” pots, pans, and dishware prior to dishwashing.
<b>Reason For</b>	The grease and food that remain in pots, pans, and dishware will likely go to the landfill. By “dry wiping” and disposing in garbage receptacles, the material will not be sent to the grease traps and interceptors.
<b>Benefit to Food Establishment</b>	This will reduce the amount of material going to grease traps and interceptors, which will require less frequent cleaning, reducing maintenance costs.
<b>Pretreatment Inspection Tips</b>	Observe dishwashing practices.

# BMPs For Fats, Oils and Grease cont.

## Dispose of Food Waste by Recycling and/or Solid Waste Removal

<b>BMP</b>	Dispose of food waste by recycling and/or solid waste removal
<b>Reason For</b>	Some recyclers will take food waste for animal feed. In the absence of such recyclers, the food waste can be disposed of as solid waste in landfills by solid waste haulers.
<b>Benefit to Food Establishment</b>	Recycling food wastes will reduce the cost of solid waste disposal. Solid waste disposal of food waste will reduce the frequency and cost of grease trap and interceptor cleaning.
<b>Pretreatment Inspection Tips</b>	Inspect grease traps and interceptors for food waste accumulation. Confirm the recycler or solid waste removal company with the establishment manager.

## Witness All Grease Trap or Interceptor Cleaning and Maintenance

<b>BMP</b>	Witness all grease trap or interceptor cleaning and maintenance activities to ensure that the device is properly operating.
<b>Reason For</b>	Grease trap / interceptor haulers and recyclers may take shortcuts. If the establishment manager inspects the cleaning operation and ensures it is consistent with the procedures in Grease Trap and Interceptor Maintenance, they are more assured of getting full value for their money.
<b>Benefit to Food Establishment</b>	The establishment will ensure it is getting value for the cost of cleaning the grease trap or interceptor. Otherwise the establishment may be paying for cleaning more often than necessary.
<b>Pretreatment Inspection Tips</b>	None.

# BMPs For Fats, Oils and Grease cont.

## Clean Grease Traps

<b>BMP</b>	Grease traps must be cleaned every 30 days.
<b>Reason For</b>	<ul style="list-style-type: none"> <li>• If grease traps are more than 50 percent full when cleaned monthly, the cleaning frequency needs to be increased. Under-sink grease traps have less volume than grease interceptors.</li> <li>• Routine cleaning of grease traps by the establishment’s own maintenance staff will reduce the cost of cleaning the grease interceptor.</li> <li>• If the establishment does not have a grease interceptor, the under-sink grease trap is the only means of preventing grease from entering the sanitary sewer system. If the grease trap is not providing adequate protection, the local sewer agency may require installation of a grease interceptor.</li> </ul>
<b>Benefit to Food Establishment</b>	This will extend the length of the cleaning cycle for grease interceptors that the establishment maintains.
<b>Pretreatment Inspection Tips</b>	<ul style="list-style-type: none"> <li>• Visually inspect the contents of the under-sink grease trap.</li> <li>• Inspect cleaning records.</li> </ul>

## Clean Grease Interceptors Routinely

<b>BMP</b>	Clean grease interceptors routinely. At a minimum, interceptors must be cleaned every 90 days.
<b>Reason For</b>	Grease interceptors must be cleaned routinely to ensure that grease accumulation does not cause the interceptor to operate poorly. The cleaning frequency is a function of the type of establishment, the size of the interceptor, and the volume of flow discharged by the establishment.
<b>Benefit to Food Establishment</b>	Routine cleaning will prevent plugging of the sewer line between the food producing establishment and the sanitary sewer system. If the line plugs, the sewer line may back up into the establishment.
<b>Pretreatment Inspection Tips</b>	<ul style="list-style-type: none"> <li>• Interceptor should have no more than 1/3 the depth as grease, AND</li> <li>• Interceptor should have no more than ¼ the depth as sediment, AND</li> <li>• No more than 25 percent of the depth should be a combination of grease (top) and sediment (bottom).</li> </ul>

# BMPs For Fats, Oils and Grease cont.

## Keep a Maintenance Log

<b>BMP</b>	Keep a maintenance log.
<b>Reason For</b>	The maintenance log serves as a record of the frequency and volume of cleaning the interceptor. It is required by the pretreatment program to ensure that grease trap / interceptor maintenance is performed on a regular basis.
<b>Benefit to Food Establishment</b>	The maintenance log serves as a record of cleaning frequency and can help the establishment manager optimize cleaning frequency to reduce costs.
<b>Pretreatment Inspection Tips</b>	Inspect maintenance log. Provide the establishment with a sample maintenance log if it does not have one. Confirm the maintenance log with the grease hauler identified.

## Cover Outdoor Grease and Oil Storage Containers

<b>BMP</b>	Cover outdoor grease and oil storage containers. Some jurisdictions will have BMPs in place for storm water also.
<b>Reason For</b>	Uncovered grease and oil storage containers can collect rainwater. Since grease and oil float, the rainwater can cause an overflow onto the ground. Such an overflow will eventually reach the storm water system and nearby streams.
<b>Benefit to Food Establishment</b>	<ul style="list-style-type: none"> <li>• The discharge of grease and oil to the storm drain system will degrade the water quality of receiving streams by adding biological and chemical oxygen demand to the stream.</li> <li>• Discharge of grease and oil to the storm drain might also result in legal penalties or fines.</li> </ul>
<b>Pretreatment Inspection Tips</b>	<ul style="list-style-type: none"> <li>• Observe storage area for signs of oil and grease. Inspect containers for covers.</li> <li>• Remove covers to ensure containers have not overflowed and do not have excess water.</li> </ul>

# BMPs For Fats, Oils and Grease cont.

## Locate Grease Dumpsters & Storage Containers Away from Storm

### Drain Catch Basins

<b>BMP</b>	Locate grease dumpsters and storage containers away from storm drain catch basins.
<b>Reason For</b>	<ul style="list-style-type: none"> <li>• The farther away from the catch basin, the more time someone has to clean up spills or drainage prior to entering the storm drain system.</li> <li>• Be aware of oil and grease dripped on the ground while</li> <li>• carrying waste to the dumpster, as well as oil and grease that may “ooze” from the dumpster.</li> </ul>
<b>Benefit to Food Establishment</b>	<ul style="list-style-type: none"> <li>• The discharge of grease and oil to the storm drain system will degrade the water quality of receiving streams by adding biological and chemical oxygen demand to the stream.</li> <li>• Discharge of grease and oil to the storm drain might also result in legal penalties or fines.</li> </ul>
<b>Pretreatment Inspection Tips</b>	Observe storage area for signs of oil and grease. Inspect the closest catch basin for signs of accumulated grease and oil.

## Use Absorbent Pads or Other Material in Storm Drain Catch Basins

<b>BMP</b>	Use absorbent pads or other material in the storm drain catch basins if grease dumpsters and containers must be located nearby. Do not use free flowing absorbent materials such as “kitty litter” or sawdust.
<b>Reason For</b>	Absorbent pads and other materials can serve as an effective barrier to grease and oil entering the storm drain system.
<b>Benefit to Food Establishment</b>	<ul style="list-style-type: none"> <li>• The discharge of grease and oil to the storm drain system will degrade the water quality of receiving streams by adding biological and chemical oxygen demand to the stream.</li> <li>• Discharge of grease and oil to the storm drain might also result in legal penalties or fines.</li> </ul>
<b>Pretreatment Inspection Tips</b>	<ul style="list-style-type: none"> <li>• Check for the nearest catch basin and drainage paths for signs of grease and oil.</li> <li>• Require absorbent pads if the basin is within 20 feet of grease dumpsters or containers, or if there are signs of grease in the catch basin at any distance.</li> <li>• Do not permit the use of free flowing absorbent material such as “kitty litter”.</li> </ul>

# BMPs For Fats, Oils and Grease cont.

## Use Absorbent Pads or Other Material to Clean Up Spilled Material

<b>BMP</b>	<ul style="list-style-type: none"> <li>• Use absorbent pads or other material to clean up spilled material around outdoor equipment, containers or dumpsters.</li> <li>• Do not use free flowing absorbent materials such as “kitty litter” or sawdust that can be discharged to the storm drain system.</li> </ul>
<b>Reason For</b>	Absorbent pads or materials can help clean up grease and oil that is spilled on the ground and prevent it from flowing to the storm drain system.
<b>Benefit to Food Establishment</b>	<ul style="list-style-type: none"> <li>• The discharge of grease and oil to the storm drain system will degrade the water quality of receiving streams by adding biological and chemical oxygen demand to the stream.</li> <li>• Discharge of grease and oil to the storm drain might also result in legal penalties or fines.</li> </ul>
<b>Pretreatment Inspection Tips</b>	<ul style="list-style-type: none"> <li>• If grease and oil are observed on the ground in the storage area, recommend the use of absorbents to minimize movement of grease and oil.</li> <li>• Do not permit the use of free flowing absorbent material such as “kitty litter”.</li> </ul>

## Routinely Clean Kitchen Exhaust System Filters

<b>BMP</b>	Routinely clean kitchen exhaust system filters.
<b>Reason For</b>	If grease and oil escape through the kitchen exhaust system, it can accumulate on the roof of the establishment and eventually enter the storm drain system when it rains.
<b>Benefit to Food Establishment</b>	<ul style="list-style-type: none"> <li>• The discharge of grease and oil to the storm drain system will degrade the water quality of receiving streams by adding biological and chemical oxygen demand to the stream.</li> <li>• Discharge of grease and oil to the storm drain might also result in legal penalties or fines.</li> </ul>
<b>Pretreatment Inspection Tips</b>	Inspect roof (if safely accessible) for signs of oil and grease. Require a maintenance schedule and records for cleaning exhaust filters. Cleaning is usually by washing, which will discharge the grease to the interceptor where it can be controlled.