



# Best Management Practices for Fats, Oils, and Grease (FOG)

Residual fats, oils, and grease (FOG) are by-products that food service establishments must constantly manage. Typically, FOG enters a facility’s plumbing system from ware washing, floor cleaning, and equipment sanitation. Sanitary sewer systems are neither designed nor equipped to handle the FOG that can accumulate on the interior of the municipal sewer collection system pipes from improperly maintained discharges. The best way to manage FOG is to keep the material out of the plumbing systems.

Best Management Practices (BMPs) reduce the amount of FOG entering the sanitary sewer system, preventing blockages and reducing the risk of a sanitary sewer overflow. The following are suggestions for proper FOG management.

<b>Best Management Practice</b>	<b>Reason for Implementation</b>	<b>Benefits to Food Service Establishment</b>
Do not discharge FOG into the sanitary sewer.	Grease can solidify and trap other solid particles to completely plug the wastewater collection system.	The discharge of FOG which has the potential to interfere with the sanitary sewer facilities is a violation of EMC 13.08.350. If an establishment is found to have caused a sanitary sewer blockage or overflow due to their FOG, they may be liable for cost recovery and/or fines.
Do not discharge caustics, acids, solvents, or other emulsifying agents.	Though emulsifying agents can dissolve solidified grease, the grease can re-congeal further downstream.	The use of these materials is prohibited by EMC 13.08.420.
Post “No Grease” signs above sinks and on the front of dishwashers.	Signs serve as a constant reminder for staff working in kitchens.	These reminders will help minimize FOG discharges to the traps and interceptors and reduce the cost of cleaning and disposal.
Do not drain the dishwasher to the grease retention device.	The high temperature of the water and the unutilized detergents will flush FOG further downstream.	If an establishment is found to have caused a sanitary sewer blockage or overflow due to their FOG, they may be liable for cost recovery and/or fines.
Use a three-sink dishwashing system, which includes sinks for washing, rinsing, and sanitizing in a 50-100ppm bleach solution.  Water temperatures are less than 140°F.	The three-sink system uses water temperatures less than 140°F, where a mechanical dishwasher requires a minimum temperature of 160°F.  Temperatures in excess of 140°F will dissolve grease, but the grease can re-congeal or solidify in the sanitary sewer collection system as the water cools.	The food service establishment will reduce its costs for the energy – gas or electric – for heating the water for the mechanical dishwasher and for operating the dishwasher.

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<p>Clean under-sink grease traps weekly.</p> <p>If grease traps are more than 50% full when cleaned weekly, the cleaning frequency needs to be increased.</p>	<p>Due to their smaller size, grease traps tend to fill to capacity more quickly than grease interceptors.</p> <p>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 City may require installation of a grease interceptor.</p>	<p>Weekly cleaning of under-sink grease traps by the establishment's own maintenance staff will reduce the cost of cleaning the grease interceptor.</p> <p>This will extend the length of the cleaning cycle for grease interceptors that the establishment maintains.</p>
<p>Clean grease interceptors routinely.</p>	<p>Once a grease interceptor reaches capacity, it loses efficiency, allowing FOG to enter the sanitary sewer system.</p> <p>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.</p>	<p>Routine cleaning will prevent plugging of the sewer line between the food service establishment and the sanitary sewer system. If the line plugs, the sewer line may back up into the establishment, and the business will need to hire someone to unplug it.</p> <p>The discharge of FOG which has the potential to interfere with the sanitary sewer facilities is a violation of EMC 13.08.350. If an establishment is found to have caused a sanitary sewer blockage or overflow due to their FOG, they may be liable for cost recovery and/or fines.</p>
<p>Make sure any cleaning or maintenance performed on the grease retention devices is done correctly. Inspect your interceptor after it has been cleaned. Witness grease trap cleaning by employees.</p> <p>Witness all grease trap or interceptor cleaning/maintenance activities to ensure the device is properly operating.</p>	<p>Experience with cleaning processes will help management recognize what proper cleaning looks like.</p> <p>Grease trap/interceptor pumpers may take shortcuts. If the establishment manager inspects the cleaning operation and ensures it is done correctly, they are more assured of getting full value for their money.</p>	<p>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.</p>
<p>Keep a maintenance log. Record date, amount of grease removed, who cleaned the device, etc.</p>	<p>Maintenance logs are required by the City of Modesto for all businesses with grease retention devices to ensure that grease trap/interceptor maintenance is performed on a regular basis.</p>	<p>The maintenance log serves as a record of cleaning frequency and can help the establishment manager optimize cleaning frequency to reduce cost.</p>
<p>Collect and recycle waste fryer grease, grill grease, and cooking oils for recycling. Contact a grease recycler to properly dispose of the collected grease.</p>	<p>These actions reduce grease loading on grease removal devices and the sewer. The food service establishment may be paid for the waste material.</p>	<p>This is a cost recovery opportunity and will reduce the amount of garbage the establishment must pay to have it hauled away.</p>

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“Dry wipe” post, pans, and dishware prior to dishwashing with paper towels or scrapers.	Dry wiping will reduce the grease loading in the system.	This will reduce cleaning frequency and maintenance costs for grease removal devices.
Use disposable high temperature pan liners.	Liners can reduce or eliminate the discharge of grease and food from the cleaning of pots and pans.	This will reduce cleaning frequency and maintenance costs for grease removal devices.
<p>Dispose of food waste by recycling and/or solid waste removal.</p> <p>Proper food waste disposal: food goes in the trash, not down the drain.</p>	<p>Some recyclers will take food waste for animal feed. In the absence of such recyclers, the food waste can be disposed as solid waste in landfills by solid waste haulers.</p> <p>Food particles in the pipes will fill the grease retention device faster and increase the likelihood of blockages.</p>	<p>Recycling of food wastes will reduce the cost of solid waste disposal.</p> <p>Solid waste disposal of food waste will reduce the frequency and cost of grease trap and interceptor cleaning.</p>
Make sure all drain screens are installed. Train employees to dispose of the captured materials in the garbage, NOT down the drain.	Food particles in the pipes will fill the grease retention device faster and increase the likelihood of blockages.	Solid waste disposal of food waste will reduce the frequency and cost of grease trap and interceptor cleaning.
Skim or filter the fryer grease daily and change the oil only when necessary. Test kits for fryer oil can be purchased.	Oil will need to be changed less frequently.	Cost reduction.
Train kitchen staff and other employees about how they can help ensure BMPs are implemented.	<p>People are more willing to support an effort if they understand the basis for it.</p> <p>Less FOG entering the system results in reduced maintenance costs and fewer problems with blockages and reduced capacity.</p>	All of the subsequent benefits of BMPs will have a better chance of being implemented.