APPENDIX A-1

INDUSTRIAL AND COMMERCIAL SUBDIVISION SERVICE AGREEMENT
FATS, OILS AND GREASE POLICIES AND PROCEDURES

The Industrial and Commercial Subdivision Service Agreement is an agreement for sanitary sewer service entered into with the District and establishes for an applicant the terms and conditions for service. The Fats, Oils and Grease Policy provides the basic standard provisions with which each applicant should comply. Occasionally, unique circumstances require modification to this Agreement. The staff, in negotiating, and the Board, in approving, non-standard Agreements, shall apply the spirit of existing rules, regulations, and policy to non-standard provisions and prepare those non-standard sections to better represent the interests and goals of the District.

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EXECUTIVE SUMMARY:

Fats, oil and grease, collectively known as FOG, are found in most residential and commercial kitchens. The discharge of FOG to sanitary sewer systems is a problem because the FOG can accumulate in the sewer and cause a backup or overflow resulting in significant hazards to public health, the environment, and to the public sewer system. This manual will serve to define the problems with FOG, what you as a food service establishment owner and manager can do within your business to control FOG discharges, and define the legal authority provided the Niwot Sanitation District (District) to regulate FOG discharges.

INTRODUCTION:

Who is governed by this policy?
All existing and new food service establishments in the Niwot Sanitation District are governed by this policy.

FOG: What is it?
FOG refers to fats, oil and grease found in most residential and commercial kitchens. Waste FOG is a semisolid, viscous or liquid material that is generated during the food cooking process or during cleaning, maintenance, and sanitizing processes. Many foods that are processed and served contain FOG, including; meats, sauces, soups, gravies, dressings, deep fried foods, baked goods, cheeses, butter and others. Residential users and many different businesses generate FOG wastes by processing or serving food, including; caterers, hospitals, churches, nursing homes, day care centers, schools, grocery stores, etc.

How does FOG affect the Niwot Sanitation District?
Liquid wastes containing FOG that are discharged down the sewer drain can coagulate and congeal into a hardened layer on the inside of building drain pipes (private service lines) and wastewater Collection Lines (District owned mainlines) in the Wastewater Treatment System. Over time this causes a reduction in the effectiveness of these wastewater pipes to transport wastewater away from residences and businesses to the wastewater treatment plant. Wastes containing FOG can accumulate on the inside of these wastewater pipes to such an extent, that the wastewater pipes become completely blocked with FOG. When building drain pipes and wastewater Collection Lines become blocked, the normal flow of wastewater is obstructed, which can cause wastewater to back up into residences and businesses within the vicinity of the blockage. If the FOG originates from your business, you may be the first one affected. These blockages can result in significant public health hazards as well as property damages. When building drain pipes or the wastewater Collection Lines become blocked with FOG, untreated wastewater may also overflow out of the Wastewater System into streets, parking lots, storm sewers, and ultimately to the environment.

According to Health Department regulations, a public health hazard is created in the event a food service establishment has a wastewater backup. It requires the business to shut down until the problem has been corrected and the contaminated area properly sanitized. This creates an obvious disruption to the operation of the food service establishment.

DEFINITIONS:

Best Management Practices (BMPs): For purposes of this manual, Best Management Practices are methods carried out within the food service establishment designed to reduce the discharge of Fats, Oil and Grease (FOG) to the building drain and to the Wastewater System. All food service establishments are required to develop and follow BMP's suitable for their location.

Collection Line: That portion of the Wastewater Treatment System through a network of pipes which collects and carries Wastewater from Users to the wastewater treatment plant, excluding Service Lines.

Domestic Wastes or Wastewaters: (i) Wastewater from normal residential activities including, but not limited to, Wastewater from kitchen, bath, and laundry facilities; (ii) Wastewater from the personal sanitary conveniences (toilets, showers, bathtubs, fountains, non-commercial sinks and similar structures) of commercial, industrial or institutional buildings, provided that the Wastewater exhibits characteristics that are similar to those of Wastewater from normal residential activities; and (iii) Specifically excluded is Wastewater from commercial, industrial or institutional laundries or food preparation facilities.

Effective Date: The date of adoption of this manual by the Niwot Sanitation District, or his/her designee, as provided on the adoption page to this manual.

Emulsifying Additives: Defined as any grease trap or grease interceptor additive that suspends fat, oil and grease in solution and enables fat, oil and grease get carried through the trap or interceptor to the wastewater collection system. These additives can include soaps, detergents and solvents.

Existing Food Service Establishment: Any Food Service Establishment, which is not a New Food Service Establishment.

Fat, Oil and Grease (FOG): A semi-solid, viscous liquid organic polar compound derived from animal and/or plant sources that contain multiple carbon chain triglyceride molecules. These substances are detectable and measurable using analytical test procedures established in 40 Code of Federal Regulations (CFR) Part 136, as may be amended.

Food Preparation: Preparing food such that any wastewater from the activity has the potential to cause harm or interference in the wastewater collection system.

Food Service Establishment: Commercial facilities partially or fully engaged in preparing and/or serving food for consumption by the public, such as restaurants, caterers, hospitals, churches, nursing homes, day care centers, schools, grocery stores, etc.

Grease Interceptor: For purposes of this manual, a Grease Interceptor is a large outside, underground, multi-compartment tank designed to capture all kitchen wastewater for removal of FOG prior to discharging into the Wastewater Treatment System.

Grease Trap: A device designed to retain grease from one to a maximum of four fixtures per International Plumbing Code. A Grease Trap is not appropriate for use on heated water (e.g., dishwasher) or in-line to a waste disposal unit (e.g., garbage disposal and grinders). For purposes of this manual, a Grease Trap is a smaller, indoor device.

Operator in Responsible Charge (ORC): The legally responsible person appointed pursuant to The District Rules and Regulations.

Interference: A discharge which, alone or in conjunction with a discharge or discharges from other sources:

i) Inhibits or disrupts the Wastewater Treatment Works, its treatment processes or operations, or its sludge processes, use or disposal; and
ii) Therefore is a cause of a violation of any requirement of the Wastewater Treatment Works' CDPS permit.

Liquid Waste Hauler: Any person, firm, corporation or other entity that collects, pumps, transports and/or disposes of liquid wastes.

New Food Service Establishment: (1) Any Food Service Establishment for which a contract for Significant Construction/Reconstruction, or for which tenant finish in a pre-existing building, was entered into after the Effective Date of this standard. (2) Any food service establishment for which a Substantial Change of Use occurs.

Non-emulsifying Biological/Chemical Additives: Defined as a grease trap or grease interceptor additive that has been proven through independent research to break down or digest fat, oil and grease.

Pretreatment: Application of physical, chemical and/or biological processes to reduce the amount of pollutants in or to alter the nature of the pollutant properties in wastewater prior to discharging such wastewater into the wastewater treatment system.

Domestic Wastewater Treatment Works (DWTW): For purposes of this manual means, any devices, facilities, structures, equipment or works owned by the District for the purpose of the transmission, storage, treatment, recycling and reclamation of Industrial and Domestic Wastes, or necessary to recycle or reuse water at the most economical cost over the estimated life of the system, including intercepting sewers, outfall sewers, Collection Lines, pumping, power and other equipment, and their appurtenances and excluding Service Lines.

Service Line: The wastewater collector line extending from the wastewater disposal facilities of the premises up to and including the connection to the Collection Line.

Significant Construction/Reconstruction: New construction, construction activities or plumbing modifications which have the possibility of causing harm to, or interference with, the wastewater collection or treatment system.

Substantial Change in Use: A change in cuisine, food preparation, menu items, seating capacity or similar operation which have the possibility of causing harm to, or interference with, the wastewater collection or treatment system.

User: Any person, firm, corporation, government or other entity that discharges, causes or permits the discharge of Wastewater into the DWTW.

Wastewater: The liquid and water-carried Industrial or Domestic Wastes and pollutants from dwellings, commercial buildings, industrial facilities and institutions, including hauled liquid waste, and any groundwater, surface water and storm water that may be present, whether treated or untreated.

Wastewater Treatment System: See definition of Domestic Wastewater Treatment Works.

LEGAL AUTHORITY:

The Niwot Sanitation District is the legal authority and have adopted the attached Fats, Oils and Grease Policies and Procedures as an appendix to the Industrial and Commercial Subdivision Service Agreement of its Rules and Regulations.

FOG CONTROL AUTHORITY:

The Fats, Oils and Grease Policies and Procedures program is implemented through the Niwot Sanitation District's Rules and Regulations Section 3.2.2. and Appendix A, which provides the legal authority for the specific provisions of this policy.

BEST MANAGEMENT PRACTICES (BMP) REQUIREMENTS:

Description and Applicability:

All food service establishments *not* having outside grease interceptors are required to follow Best Management Practices as suited to their operation. Food service establishments with outside grease interceptors are highly encouraged to follow Best Management Practices to reduce grease interceptor pumping frequency.

Best Management Practices are procedures and practices that reduce the discharge of FOG to the building drain system and to the Wastewater Treatment System. Best Management Practices can be implemented effectively in Food Service Establishments and private dwellings.

Applying Best Management Practices over the long term can be difficult to accomplish and requires constant reminder of employees.

Food Service Establishments:

The following Best Management Practices are provided as guidance and recommendations to assist Food Service Establishments with development of procedures and/or practices to reduce the amount of FOG in their Wastewater discharge.

Because of the variety of food service establishments that generate FOG, every Best Management Practice described in this manual may not apply to every establishment. It is recommended that Food Service Establishment operators identify the FOG sources at their establishment and adopt Best Management Practices to fit the establishment's needs. Operators are encouraged to contact the District if assistance with Best Management Practices selection is desired.

General Best Management Practices:

The following best management practices apply to ALL food service establishments:

- *Continually educate kitchen staff to scrape, wipe or sweep off oil/grease and food debris using "dry" methods such as disposable paper towel before washing any cooking or eating utensil. Proper disposal of disposable towels include discarding into a trash can rather than discarding into garbage disposal. Wet methods wash the waste materials into drains where it collects on interior walls of drainage pipes.*
- *Use paper towels to wipe down work areas or soak up spills.*
- *Consider the use of paper products rather than dishwasher to minimize dishwashing.*
- *Dispose of any spilled or waste food material into the trash.*

- *Eliminate the use of emulsifying additives in the grease trap or grease interceptor. Although emulsifying agents may serve to keep your interior drain lines open, they simply transfer the oil and grease problem to the service line and mainline. Use of emulsifying agents is strictly prohibited within the District service area.*
- *Non-emulsifying biological additives for grease traps and grease interceptors are acceptable; however, even with the use of non-emulsifying biological additives, grease traps or grease interceptors are required to be inspected at a minimum monthly and cleaned as necessary.*
- *Pour all liquid oil and grease into a grease waste container where it can be recycled or disposed of properly.*
- *Capture oil and grease wastes from cleaning of mats and ventilation/exhaust hoods.*
- *Post "Protect the Environment" signs in kitchen as a reminder to employees. See the sign written in English and Spanish in Attachments 1.*
- *Use screens over drains to capture waste food materials.*
- *Disconnect or minimize the use of garbage disposals.*

BMP's Specific to Industries with Interior Grease Traps:

- *Inspect the grease trap monthly or more often as necessary. Grease traps are required to be completely cleaned when floatable particles and solids occupy 25% of the holding capacity of the trap.*
- *Keep maintenance log on site of trap cleanings and inspections. On the maintenance log record who cleaned the grease trap, what day, approximate amount of floatable particles and solids removed, and how the floatable particles and solids were disposed.*
- *A properly sized flow restrictor and air relief valve must be permanently installed on the incoming plumbing to the grease trap. The restrictor maintains an acceptable flow of wastewater to the trap. The air valve aids in grease and oil removal.*
- *All baffles must be in place inside the grease trap. The baffles serve to lengthen the flow path of the wastewater to increase the time of separation while providing a non-turbulent environment for separation to take place.*
- *Do not discharge wastewater to the grease trap above 110 degrees Fahrenheit. Water above 110 degrees melts grease in the trap and puts the grease back into suspension.*
- *If a dishwasher is present, the dishwasher must bypass the grease trap and flow directly to the wastewater mainline.*

- *Garbage disposals are prohibited from connecting to the inside grease traps and must therefore flow directly to the wastewater service and mainline. The District prefers that garbage disposals are disconnected or used minimally.*
- *If a pre-wash sink that flows to the grease trap is present, eliminate the use of any detergents at this sink. The detergents will carry grease and oil from the trap into the service and mainlines.*
- *Most mop sinks do not connect to the grease trap, therefore, upon completion of moping, allow the used mop bucket to set for a time, then skim off any fat, oil and grease into the trash.*

BMP's Specific to Industries with Grease Interceptors:

- *Clean the interceptor based on the "25% Rule". A grease interceptor performance declines once the accumulation of floatable FOG material and settled solids total 25% of the total liquid depth of the grease interceptor.*
- *Keep a maintenance log on site of grease interceptor cleanings and inspections. Record all pertinent information, such as who cleaned the grease interceptor, what day, approximate time, volume removed, and disposal practices. Copies of these maintenance logs and manifests from hauling company must be retained on site. See "Outside Grease Trap/Interceptor & Used Fryer Oil Maintenance Log" in Attachment 3.*
- *In order to insure the pumping contractor properly cleans and pumps the grease interceptor, it is recommended someone familiar with the proper cleaning methods supervises or oversees the contractors pumping activities. See "Proper Pumping Procedure for Grease Interceptors" in Attachment 4.*
- *The grease interceptor shall be left empty upon completion of pumping; no liquids can be reintroduced back into the grease interceptor by the pumping contractor.*
- *Accessibility to the grease interceptor must be maintained. The lids to the interceptor must not be landscaped or paved over.*

PRETREATMENT REQUIRMENTS FOR FOOD SERVICE ESTABLISHMENTS:

New Food Service Establishments:

See definition of "New Food Service Establishment"

Grease interceptors shall be required, unless a variance is granted by the District Manager or their designee. In general, a grease interceptor is required for new food service establishments or when there is significant construction/reconstruction or a substantial change in use.

See definitions of "Significant Construction/Reconstruction" and "Substantial Change in Use".

Existing Food Service Establishments:

See definition of "Existing Food Service Establishment"

It is reasonable to expect that existing food service with inside grease traps do not need to upgrade to a grease interceptor assuming that the ownership/management implement Best Management Practices and do not cause harm to, obstruction of or interfere with the Publicly Owned Treatment Works. Facilities that the District determines as having an impact or are causing harm to the wastewater system may be required to provide additional maintenance, treatment or upgrade of existing grease removal facilities and/or devices.

If an existing food service establishment is not equipped with appropriate grease interceptor or trap to prevent obstruction of or interference with the operation of the Domestic Wastewater Treatment Works, it is at the discretion of the District to enforce upon the owner of existing food service establishment to install and maintain a properly sized grease interceptor or trap.

Commissary and Mobile Food Vendors:

Mobiles, carts, and peddlers must operate from a commissary in most cases and report to the commissary at least daily to prepare food, service and clean equipment, and fill and empty water and wastewater tanks.

A commissary is an approved catering establishment, restaurant, or other approved place in which food, containers, or supplies are kept, handled, prepared, packaged, or stored. If a written operation plan is approved by the District, a fully equipped mobile retail food establishment may not be required to report to the commissary daily. The written operation plan must include details about supplies storage, vehicle maintenance and cleaning, and arrangements for potable water tank and wastewater tank servicing. Before any changes are made to the plan, they must first be approved by the District. Check with the District Manager to determine qualification for this option.

Installation Requirements:

General:

Grease interceptors and grease traps shall be installed in accordance with District Rules and Regulations Section 3.2.2, International Plumbing Code, and the Boulder County Health Department(s). The size, type and location of each trap, or interceptor shall be approved and inspected by the District in accordance with the policies described within this manual.

In the event of unique conditions, the District may exercise its discretion to determine which FOG removal device and sizing is required to be installed at owners cost.

In the event a grease trap or grease interceptor is installed that was previously approved in new, existing/redeveloped or expanded food service establishment by the District, the user may be required to remove the device and install equipment that conforms to current standards.

Grease Traps:

See definition of "Grease Trap"

Grease traps are approved for installation by the District only through the variance process and under very limited conditions because of their minimal holding capacities, poor grease and oil separation capabilities and difficulty of cleaning. Internal grease traps are not approved by the District for installation in food service establishments that prepare food on-site, serve catered food, and have a dishwasher or a garbage disposal. Grease traps will only be considered on a case-by-case basis for locations that do minimal to no cooking on site, do not serve catered food (pre-packaged food may be acceptable), do not have a dishwasher or garbage disposal, and with the contingency that if conditions change (such as change in menu, the installation of additional kitchen fixtures or improper maintenance to the trap), a grease interceptor may be required.

If an interior grease trap is to be installed, the District requires that a staff member to inspect the size and location of intended installation prior to installation. The District General Manager can be reached at 303-652-2392.

Prior to using any non-emulsifying additive, a Safety Data Sheet (SDS) is required to be submitted to District Manager. The use of this product *may* or *may not* be authorized by the District.

Location:

Boulder County Department of Health & Environment, Colorado Retail Food Establishment Rules and Regulations; Section 5-204 states the following: *"If required by the local building, water or sanitation authority, when possible, a grease trap, grease interceptor, or solids interceptor should be located outside the establishment. When installed inside the establishment, a grease trap, grease interceptor, or solids interceptor shall be located away from the food preparation area and be easily accessible for cleaning."*

The District may allow for interior grease traps/interceptors to be installed within the establishment when the grease trap/interceptor is installed in a utility room or within an outside kitchen door and is easily accessible for inspection and cleaning.

Sizing Requirements:

The District requires that the capacity of any trap be no less than two hundred twenty (220) pounds grease retention.

Grease Interceptors:

See definition of "Grease Interceptors".

If a grease interceptor is required, all drains from the kitchen, food preparation, and dishwashing areas shall be connected to the grease interceptor to ensure proper grease handling and/removal. Fixtures to be connected to a grease interceptor include, but not limited to, scullery sinks, pot and pan sinks, mop sinks, dishwashing and sanitizing machines, soup kettles, hand sinks and floor drains in areas where grease-containing materials may exist.

Garbage disposals are strongly discouraged because they are not efficient. Food particles carry over to grease interceptor taking up interceptor capacity and providing a vehicle for grease carry-over into the wastewater service line and wastewater mainline. If installed, garbage disposals are required to be connected to an approved grease interceptor. Garbage disposals cannot discharge to a grease trap or directly to the Domestic Wastewater Treatment Works.

Location:

All grease interceptors shall be readily accessible for inspection and proper maintenance at all times. Therefore, interceptor manhole covers should not be covered with asphalt, concrete, landscaping, or other materials. Additionally, the use of ladders or the removal of bulky equipment such as dumpsters in order to inspect or maintain grease interceptors shall constitute a violation of accessibility. Where feasible, all interceptors shall be located outside of the facility served. Interceptors may not be installed in any part of a building where food is handled.

Sizing Requirements:

The designer shall size the grease interceptor using the "Grease Interceptor Sizing Form" spreadsheet shown at the end of this section and the restaurant types as described below.

The following descriptions are to be used to determine the recommended size of a grease interceptor for food preparation and/or food service establishments. To determine the grease interceptor size, consideration must be given to the fat content of the food prepared, number of kitchen drainage fixtures, seating capacity, customer turnover rate, previous problems with the service line or main, compliance history of the food establishment, eat-in or carryout, number of employees, hours of operation, frequency of kitchen use, size of kitchen, number

and type of cooking appliances, etc. The food service categories described below function only as a guide. Every food service establishment may not fit clearly within one category; therefore, it may be necessary to combine characteristics and expected size ranges from more than one category to determine the grease interceptor size.

- The minimum acceptable volume of a grease interceptor shall not be less than three hundred and twenty-five (325) gallons. (With a dishwasher – 1,000 gallons minimum size)
- A copy of the kitchen mechanical or plumbing plan, showing the number of fixtures (3-compartment sink, dishwasher, hand sink, floor drains, etc.) is required to be submitted to the District Manager to confirm the size of the grease interceptor.

High Volume:

Facilities often preparing three meals per day or having continuous food prep (cooking) throughout much of the day. These facilities may prepare large amounts of food for distribution to other locations. Examples may include full-service dine-in restaurants, buffets, hotels, large senior-living facilities, hospitals, food courts, grocery stores, caterers, etc. They typically have large or multiple kitchens with a wide range in plumbing fixtures. These facilities frequently have at least one large dishwasher with a large pre-wash sink, vegetable preparation sinks, mop sinks, hand sinks, etc. Food items may be served on disposable or washable dishware.

- Expected Size Range of Grease Interceptor: 2,500 – 3,500 gallons

Medium Volume – Sit Down:

Facilities often cooking two meals per day, such as lunch and dinner with washable eating utensils. They usually have a 50 – 150 person seating capacity. Examples may include small senior living facilities, steak houses, gourmet burger establishments, dine-in pizza places, seafood or ethnic restaurants high in fat content. They typically have medium to large kitchens with a medium to large dishwasher, 2 and/or 3-compartment sink, pre-wash sink with garbage disposal, vegetable preparation sink, mop sink, hand sinks, etc.

- Expected Size Range of Grease Interceptor: 1,500 – 3,000 gallons

Medium Volume – Fast Food:

Facilities often opening early and closing late that cook or fry a large variety of food items throughout the day such as burgers, chicken, tacos, fries, etc. high in fat content. These foods are all served on disposable paper products. They typically have medium to small kitchens with a 3-compartment sink, vegetable preparation sink, mop sink and hand sinks. A small countertop dishwasher may be installed, but usually a pre-wash sink or garbage disposal is not present.

- Expected Size Range of Grease Interceptor: 1,000 – 2,250 gallons

Low Volume – Sit Down:

Facilities having few employees and/or limited hours of operation and meals served. To a limited degree, foods may be prepared and cooked from scratch on site, but more often foods are prepared and cooked elsewhere and delivered here to be preheated. Most foods are served with washable eating utensils. These facilities have a seating capacity of between 25 and 50. The kitchens are medium to small with a wide range of plumbing fixtures. Potential plumbing fixtures include a single, 2 or 3-compartment sink, small dishwasher, pre-wash sink with or without a garbage disposal, vegetable preparation sink, hand sinks, and mop sink. Food service establishments in this category may be independent, family owned operations out of the main traffic flow, or some small schools.

Larger coffee houses will likely fall into this category. Although normally there is minimal food preparation, a considerable amount of oil and grease is generated from milk products disposed down the drain.

- Expected Size Range of Grease Interceptor: 800 – 1,250 gallons

Low Volume – Takeout:

Facilities having few employees and/or limited hours of operation and food served. The foods are pre-packaged and may be heated using limited means prior to consumption. All food is served on disposable paper products. These facilities are prohibited from having garbage disposals. Under-the-counter dishwashers will be considered on a case-by-case basis. Examples such as a convenience store, small coffee shop, hot dog or ice cream stand, may fit this category.

- Expected Size Range of Grease Interceptor: 325 – 1,000 gallons
    - Only one chamber is provided in 325 and 500 gallon grease interceptors.

EXAMPLE

GREASE INTERCEPTOR SIZING FORM

Project Name: Medium Volume Fast Food Restaurant

Address: Within Service Area

Project Number: 2020-CXXX

A. Determine Maximum Drainage Flow from Fixtures:

Type of Fixture	Flow Rate	Number of Fixtures	Flow Rate x Number of Fixtures
Mop Sink	20 gpm		
Single Compartment Sink	20 gpm	4	80
Single Compartment Sink with Garbage Disposal	35 gpm		
Double Compartment Sink	25 gpm		
Triple Compartment Sink	35 gpm	1	35
Up to 50 gal. Dishwasher	25 gpm		
Larger than 50 gal. Dishwasher	40 gpm		

B. Total Flow Rate = 80 gpm + 35 gpm = 115 gpm

C. Loading Factors:

- **Low Volume – Take Out = 0.02**
- **Low Volume – Sit Down = 0.09**
- **Medium Volume – Fast Food = 0.10**
- **Medium Volume – Sit Down = 0.10**
- **High Volume = 0.11**

D. (B) x (C) = Average Flow per Minute

- **= 115 gpm x 0.10 = 11.5 gpm**

E. (D) x 60 minutes = Average Flow per Hour

- **= 11.5 gpm x 60 min = 690 gph**

F. (E) x 2 Hours Retention Time = Volume of Interceptor in Gallons

- **= 690 gph x 2 hrs = 1,380 Gallons**

Additional Grease Interceptor Sizing Considerations:

While the initial capital investment may be less with a smaller capacity grease interceptor, a food service establishment risks paying more in pumping costs should the interceptor be undersized. Consider the possibility of future menu changes, later building expansion, etc. The District recommends food service establishments plan for the worst case scenario and invest in a grease interceptor that is slightly larger than the minimum size calculated. Typically, the difference in cost for the larger grease interceptor is not significant.

Maintenance and Recordkeeping:

The owner and/or lessee shall be jointly and severally responsible for efficient cleaning and maintenance of the grease trap or grease interceptor. Both the inside grease trap and outside grease interceptor are required to be completely cleaned when oil/grease and solids occupy 25% of the holding capacity. Grease traps and grease interceptors are required to be inspected monthly.

During each inspection of a grease interceptor, it is recommended that users document measurements of the grease layer in inches in both compartments by pushing a garden hoe or similar means through the grease layer, or taking a core sample with a "sludge judge". Confirm that the "Tee's" are intact to assure proper operation.

Maintenance records shall be kept on site for at least three (3) years. The District's Wastewater staff or other authorized personnel may perform unannounced inspections to verify compliance.

Cleaning Requirements for Exterior Grease Interceptors:

See definition of "Grease Interceptor"

Cleaning must be performed by a liquid waste hauler possessing a permit for liquid waste hauling. Both vaults of a grease interceptor shall be left completely empty upon completion of the pumping operation. The grease mat, liquids, sludge, and scrapings from the interior walls must be removed. Under no circumstances, may the liquid waste hauler reintroduce the removed water or materials back into the grease interceptor. Flushing an interceptor with hot water or the use of chemicals or other agents to dissolve or emulsify grease and allow it to flow into the wastewater treatment system is a violation of the District Rules and Regulations Section 3.2.2.

See "Proper Pumping Procedure for Grease Interceptors" in Attachment 4

Cleaning Requirements for Interior Grease Traps:

See definition of "Grease Trap"

Cleaning may be performed by an employee or permitted liquid waste hauler. Use a wet/dry vacuum designated for this purpose to vacuum out the contents of the grease trap. Afterwards, pour the waste into large (5-10 gallon) disposable buckets. Kitty litter, floor dry, or wood chips may be combined with the waste for liquid absorption. Once a bucket is full, securely seal the lid on the bucket and dispose of it in the trash. Grease traps should be cleaned after hours because the smell can permeate the business. Be sure to use rubber gloves and a face shield to avoid direct contact with the waste.

Variances:

Variances are given only with the approval of District Manager.

Variances to the above criteria shall be given only when the discharge from the user is in continuous compliance with the District Rules and Regulations Section 3.2.2. . A variance will be considered on a case-by-case basis for food service establishments that perform minimal to no cooking on-site, do not serve catered food, do not have a dishwasher, and do not have a garbage disposal. Only four (4) fixtures may be connected to a grease trap and typically include the 3-compartment sink, vegetable prep sink, hand sink and mop sink. Dishwasher cannot connect to grease traps. A "Request for Variance" form is required to be submitted to the District Manager stating what food related activities are planned at the address and identify the type and number of kitchen fixtures present. A menu must be included with this request. Before issuing a variance, the District personnel may perform a site visit. Generally, exceptional physical constraint or economic hardship does not qualify for a variance. Upon issuance of a variance, the food service establishment is required to notify the District in writing within 30 days of any substantial change in use, changes in food preparation methods, or additions to kitchen equipment that could change the nature of the wastewater discharge.

ENFORCEMENT PROCEDURES:

This section provides a general outline of enforcement procedures that apply to food service establishments that fail to comply with the requirements in the District Rules and Regulations Section 3.3.2. which provides the legal authority for the specific provisions of this manual.

Wastewater Blockage and Overflow Investigation:

Heavy FOG deposits in the wastewater mainline encountered by collections maintenance crews or customer complaints of a sewage back-up or overflow most often initiates enforcement activities by the District. Enforcement activities often commence with investigations of blockages and overflows of the Wastewater Treatment System through on-site inspection of food service establishments and closed-circuit television (CCTV) inspection of the wastewater mainline. The on-site inspections are performed to identify which food service establishment upstream of the FOG blockage may have contributed to the blockage. During the inspections, observations are made of the employee kitchen practices and an inventory of plumbing fixtures taken. Additionally, any inside grease trap or outside grease interceptor are inspected for

proper maintenance. The closed-circuit television inspections are performed to check the condition of the wastewater mainline to determine if it may have contributed to the blockage or overflow, and to seek visual evidence of FOG waste accumulation between the site of the blockage or overflow and the upstream food service establishments. If significant FOG accumulation is observed in the service line of an upstream food service establishment, that establishment may be identified as causing or contributing to the downstream blockage or overflow.

ENFORCEMENT RESPONSES:

The District works to help businesses maintain compliance using informal enforcement actions before having to use formal actions.

The brief descriptions of the responses that are used most frequently are provided below. The enforcement remedies may be used individually, sequentially, concurrently, or in any order.

Informal Administrative Enforcement Remedies:

Informal enforcement remedies include verbal notice, information production/compliance review meeting, demand inspections, field notices of observed violations, and notice of violations. Regarding field notices of observed violation and notices of violation, in informal conference with the District may be requested and an appeal is available after an informal conference. The field notice of violation and notification of violation is more fully explained below.

- **Field Notice of Observed Violation:** During an inspection of a food service establishment, if a violation is noted, a field notice of observed violation may be served. This document identifies the specific violation(s), the date(s) for corrective action to be completed, and other compliance actions that may be required.
- **Notification of Violation:** Whenever a food service establishment is determined to have committed a violation, a written notice of violation may be served. This document identifies the specific requirements that were violated, the fact alleged to constitute the violations, and it may include and corrective action(s) proposed to be required. Within ten (10) days of the receipt date of this notice, a written explanation of or response to the violation and a plan for the satisfactory correction and prevention thereof must be submitted.

The corrective actions contained in a Field Notice of Observed Violation or a Notification of Violation could include the following:

  - Implementing specific Best Management Practices as described by the District to control FOG wastes. Increasing the inspection and/or cleaning frequency of a grease trap or grease interceptor;

- Instituting periodic reporting requirements and provide adequate access to the grease trap or grease interceptor; and
- Other items deemed appropriate by the District Manager, or his/her designee.

ATTACHMENT MATERIALS TO THIS MANUAL:

The following attachments are included with the Fats, Oil and Grease Policies and Procedures Manual:

- Attachment 1. “Protect the Environment” sign in English and Spanish languages
- Attachment 2. “Inside Grease Trap & Used Fryer Oil Maintenance Log”
- Attachment 3. “Outside Grease Trap/Interceptor & Used Fryer Oil Maintenance Log”
- Attachment 4. “Proper Pumping Procedures for Grease Interceptors”
- Attachment 5. “Variance Request for Inside Grease Trap”

Attachment 1. "Protect the Environment" sign in English and Spanish languages.

Protect the Environment

Proteger el medio ambiente

Dispose of Fat, Oil and Grease Properly

Disponer de grasa, aceite y grasa correctamente

- Food waste from cookware and plates goes in the trash, not down the drain.
  Los desperdicios de alimentos de recipientes y los platos va a la basura, no por el desagüe.

- Disconnect or minimize the use of garbage disposals.
  Desconectar o reducir al mínimo el uso de trituradores de basura.

- Use fine mesh screen (1/8 or 3/16 inch) in sink drains to catch solids.
  Utilice la pantalla de malla fina (1/8 o 3/16 de pulgada) en el desagüe del fregadero para atrapar sólidos.

- Dispose of liquid grease and oil into waste container for recycling.
  Eliminar el líquido de grasa y aceite en un contenedor de residuos para su reciclaje.

- Inspect grease traps at least monthly and clean regularly.
  Inspeccionar las trampas de grasa por lo menos mensualmente y limpia con regularidad.

For additional information, please contact the Niwot Sanitation District at 303-652-2525.

Attachment 2. "Inside Grease Trap & Used Fryer Oil Maintenance Log"

Inside Grease Trap & Used Fryer Oil Maintenance Log

Business Name: _____

Address: _____

Location of Grease Trap: _____

(For example: Outside of kitchen doors)

DATE OF TRAP CLEANING OR INSPECTION?	NAME OF PERSON WHO CLEANED OR INSPECTED TRAP?	APPROXIMATE GALLONS/POUNDS OF GREASE AND/OR DEBRIS REMOVED? (2 CUPS = 1 POUND)	HOW WAS WASTE DISPOSED? (FOR EXAMPLE: PUT IN TRASH, ETC.)

Does your business use fryer oil? _____ Does your business recycle fryer oil? _____

If Yes, Name and Telephone Number of Recycler: _____

Are used fryer oil containers secured to reduce the possibility of spillage? _____

If fryer oil is not recycled, how is it disposed? _____

DATE OF USED FRYER OIL PICK-UP?	APPROXIMATE GALLONS OF USED FRYER OIL PICKED-UP?	WHERE IS THE USED FRYER OIL TAKEN AND HOW IS IT USED?

CERTIFICATION: *I certify under penalty of law that the above information is true and accurate and complete to the best of my knowledge. I am aware that there are significant penalties for submitting false information including the possibility of fine and/or imprisonment for knowing violations.*

_____ _____/_____

Signature of Authorized Representative Title Date

Attachment 3. "Outside Grease Trap / Interceptor & Used Fryer Oil Maintenance Log"

Outside Grease Trap / Interceptor & Used Fryer Oil Maintenance Log

Business Name: _____

Address: _____

Location of Grease Trap: _____

(For example: In parking lot on northwest side of building)

DATE OF CLEANING OR INSPECTION?	NAME OF PERSON OR COMPANY WHO CLEANED OR INSPECTED UNIT?	APPROXIMATE GALLONS OF GREASE AND/OR DEBRIS REMOVED?	HOW WAS WASTE DISPOSED?

CERTIFICATION: *I certify under penalty of law that the above indicated grease trap/interceptor has been inspected on the above indicated date(s). The grease trap/interceptor contains solids and grease which occupy less than 25% of the holding capacity of the trap/interceptor.*

_____ **_____/_____**

Signature of Authorized Representative Title Date

_____ **_____**

Date of last cleaning Approx. inches of grease and solids occupying trap/interceptor

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Does your business use fryer oil? _____ Name and Telephone Number of Company who picks up fryer oil: _____

Are used fryer oil containers secured to reduce the possibility of spillage? _____

If fryer oil is not picked up, how is it disposed? _____

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DATE OF USED FRYER OIL PICK-UP?	APPROXIMATE GALLONS OF USED FRYER OIL PICKED-UP?	WHERE IS THE USED FRYER OIL TAKEN AND HOW IS IT USED?

CERTIFICATION: *I certify under penalty of law that the above information is true and accurate and complete to the best of my knowledge. I am aware that there are significant penalties for submitting false information including the possibility of fine and/or imprisonment for knowing violations.*

_____ _____/_____

Signature of Authorized Representative Title Date

Attachment 4. "Proper Pumping Procedures for Grease Interceptors"

Proper Pumping Procedures for Grease Interceptors

Since the food service establishment is the generator of the grease and food waste, it is liable for the condition of their pretreatment devices, and is paying for the cleaning service, the food service establishment owner or designee may want to witness all cleaning/maintenance activities to verify that the grease interceptor is being fully cleaned and properly maintained. The following are the pumping practices required of permitted liquid waste haulers within the Niwot Sanitation District.

- Step 1: Skim the entire grease cap and debris from the top of the interceptor. The interceptor may need to be agitated slightly to loosen the grease cap.
- Step 2: Place vacuum tube all the way into the interceptor to suck remaining solids from bottom.
- Step 3: Vacuum water out of interceptor.
- Step 4: Clean the sides and bottom of the interceptor. This may be done by using a hot water source from the truck to hose down the interceptor. Make sure the interceptor is completely clean.
- Step 5: Vacuum remaining water out of interceptor.
- Step 6: Check the integrity of the sanitary "T's" on the inlet and outlet sides of the interceptor are not clogged, loose or broken.
- Step 7: Make sure that the baffle is secure and in place.
- Step 8: Inspect the interceptor for any cracks or defects.
- Step 9: Check that lids are securely and properly seated after completion of pumping.

The above information was obtained from the Grease Summit Manual presented by Environmental Biotech, Incorporated.

Attachment 5. "Variance Request for Inside Grease Trap"

VARIANCE REQUEST FOR INSIDE GREASE TRAP

Note: Inside grease traps are approved for installation by the Niwot Sanitation District only through the variance process on a case-by-case basis for locations that do no or minimal food preparation on site, typically do not have a dishwasher, and do not have a garbage disposal.

Name of Food Service Establishment:

_____

Address of Food Service Establishment:

_____

Owner or Person(s) in Responsible Charge and Title(s):

_____

Mailing address (if different from above) and Phone Number(s) of Owner(s) or Responsible Party/Parties:

_____

Describe in detail (use back if necessary) what food related activities are planned at this address, and identify the type and number of kitchen fixtures present. A menu and facility layout diagram showing the kitchen with fixtures and indoor seating must be included with this request. The District may conduct a site visit to verify the information provided.

_____
_____
_____
_____
_____

Upon completion, this form and any associated documents must be sent, faxed or emailed to the District for review.

Niwot Sanitation District

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Longmont, Colorado 80504

Office, 303-652-2525

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