

Section 5, IV.

Fats, Oils, & Grease Control

For SSOs, if the overflow was identified as being caused by **Fats**, **Oils**, and **Grease**, **FOG**, the information is forwarded to Environmental Compliance for identification of the area that is contributing wastewater flow to the impacted sewer line. Arc View is used to identify the sewer manholes and lines, parcels and the owners that have sewer discharge to the lines are identified, an Excel spreadsheet is generated with names, addresses, etc., and then the spreadsheet is sent to Customer Services for Outbound calling and System Svcs. for the mailing of the Grease Notification flyer which is in English and Spanish. Exceptions to this procedure are when the grease restrictions are from commercial facilities, such as a restaurant, or from apartments/condos/townhouses. Commercial facilities would be identified and issued a notice of violation for discharges that cause obstruction to the POTW. Additional violations would require an escalation of enforcement actions which can include Show Cause Hearing, Administrative Orders, monetary penalties of up to \$10,000/day/violation, or termination of services. Apartments, condominiums, etc. where the individual owners can not be readily identified, Environmental Compliance contacts the complex management. The management is given a copy of the Grease Notification flyer (hard copy and electronic versions), their responsibility is explained and they will be held responsible for discharges from their facility. The complex management is requested to send copies of the Grease Notification flyer to all current and future tenants. The number sent is included in the total number of notification letters mailed.

Upon sending the mailings and the Outbound callings, information is returned to Environmental Compliance to document the number of letters mailed, how many total calls were sent, how many customers listened to the calls, how many calls went to answering machines, and how many calls went to faxes or went unanswered. Examples of these procedures are:

1. 389 Wimple Sewer Overflow – example of sewer line impact communicated to Environmental Compliance (see attachment 1)
2. Utilization of Arc View to identify potential contributors (see attachment 2)
3. Utilization of Outbound Calling to educate the public on proper FOG disposal (see attachment 3)
4. Reinforcement of proper FOG disposal to the public in heavy grease restrictions (see attachment 4)
5. Documentation of FOG problem areas and action taken (see attachment 5)

Attachment 1



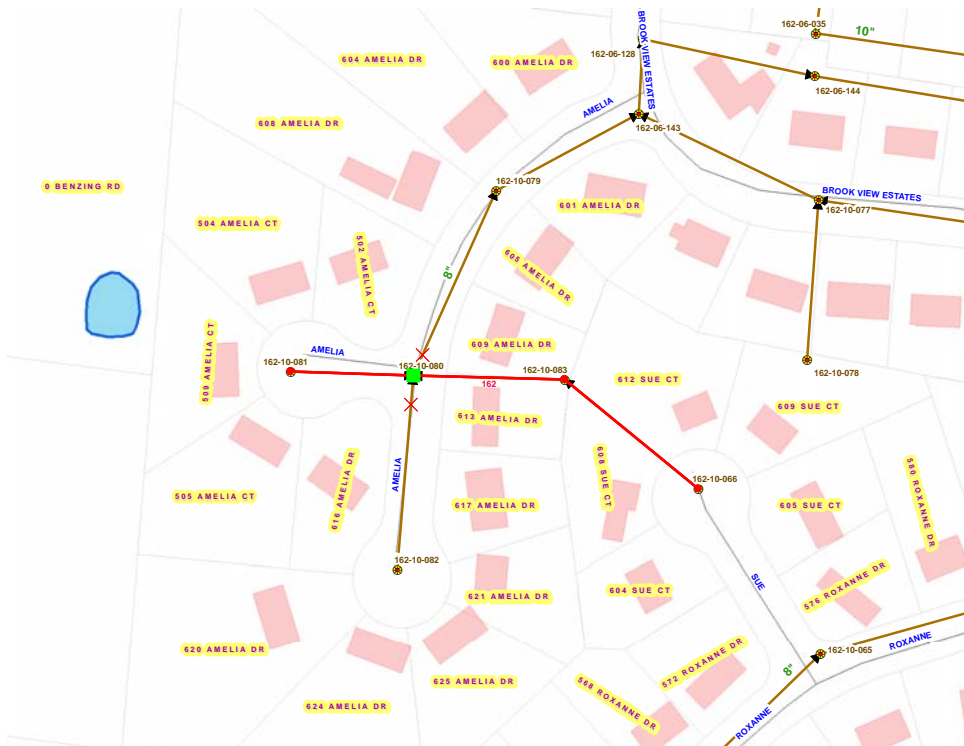
**Sewer Overflow Notification Form
Davidson County**

TO: Tennessee Department of Environment and Conservation
e-mail to: MWS Sewer Overflow Notification Group – this e-mail address includes
(Ann Rochelle (TDEC FAX: (615) 687-7078 OR (615) 687-7072), MWS – Hal Balthrop,
Anthony Waggoner, Jim Paulus, Brent Freeman, Michael Hunt, Leanne Scott, Dale
Binder, Steve Winesett, Cyrus Toosi, Greg Ballard, Mike Morris)

Check all that applies (fill in every line even if entry is n/a or unknown)

| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------|
| ORIGINAL NOTICE <input type="checkbox"/> | UPDATED NOTICE <input checked="" type="checkbox"/> | DATE: 8/13/07 |
| REPORTING CONTACT: | | |
| <input checked="" type="checkbox"/> Anthony Waggoner (615-566-3953) <input type="checkbox"/> Billy Raines (615-456-9212) <input type="checkbox"/> Eddie Waynick (615)-566-4015 <input type="checkbox"/> Other: <input type="checkbox"/> MWS Control Room (615) 862-4980 | | |
| MWS TELEPHONE NUMBER: 615-862-4600 (option 1 and option 3) | | |
| DATE OVERFLOW REPORTED: 8/08/07 TIME: 3:00 p.m. | | |
| TIMES: <input checked="" type="checkbox"/> Observed <input type="checkbox"/> Alarmed start: 12:30 <u>pm</u> end: 1:30 am <u>pm</u> | | |
| VOLUME OF OVERFLOW (Estimated): <input type="checkbox"/> seep <input checked="" type="checkbox"/> over 100 gallons <input type="checkbox"/> over 1000 gallons Other: | | |
| LOCATION OF PUMPING STATION, MANHOLE or BREAK : | | |
| <input checked="" type="checkbox"/> MH Page 119-07-045 <input type="checkbox"/> SPS name: Street or address: 389 Wimple & E. Thompson Ln | | |
| WATER BODY IMPACTED: <input checked="" type="checkbox"/> none (surrounding ground only) <input type="checkbox"/> stormwater system <input type="checkbox"/> Water body: _____ if unnamed indicate downstream water body : | | |
| CAUSE: <input checked="" type="checkbox"/> grease <input type="checkbox"/> grit/debris <input type="checkbox"/> roots <input type="checkbox"/> line break <input type="checkbox"/> under review <input type="checkbox"/> I/I (rain caused) <input type="checkbox"/> SPS mechanical <input type="checkbox"/> SPS power outage other (explain) | | |
| CORRECTIVE ACTION TAKEN/INCORPORATED: <input checked="" type="checkbox"/> remove blockage <input type="checkbox"/> Contained, est. volume <input type="checkbox"/> recovered, est. volume 1000gal <input type="checkbox"/> bypass pumpage <input type="checkbox"/> filtration (hay bales) <input type="checkbox"/> other | | |
| EXPECTED COMPLETION TIME & DATE FOR CORRECTIVE ACTION or REPAIRS & CLEAN-UP: | | |
| Follow-up clean-up necessary <input checked="" type="checkbox"/> yes <input type="checkbox"/> no due to: Date: 7/09/07 Time: <input type="checkbox"/> wildlife impacted Reported for televising <input checked="" type="checkbox"/> yes <input type="checkbox"/> no | | |
| ACTION TAKEN TO MINIMIZE HEALTH HAZARDS TO PUBLIC & IMPACT | | |
| ON WATER QUALITY: <input type="checkbox"/> none necessary <input type="checkbox"/> coordinated with MWS NPDES <input type="checkbox"/> WQ sampling public notice: <input type="checkbox"/> barricades <input checked="" type="checkbox"/> signage <input type="checkbox"/> door hanger <input type="checkbox"/> outbound call <input type="checkbox"/> website <input type="checkbox"/> press release | | |
| INFORMATION REPORTED BY: Anthony Waggoner | | |

Attachment 2



Staffmap.mxd - ArcMap - ArcView

File Edit View Insert Selection Tools Window Help

Network: SanitaryNetwork Flow Analysis Trace Task: Find Connected

1:1.720

Drawing: Arial 10 B I U

53%

- William_Roads
- wilson_roads
- MWSewerSvcContributors
- GRAVITY28THSP5
- CWWTP IUs
- IndustrialPointsCSO
- M54 Data
- Sanitary (Confidential)
 - sanitary sewer manhole
 - sanMeter
 - sanCleanout
 - sanSewerStructure
 - sanTreatmentPlant
 - sanDischargePoint
 - sanPump
 - sanService
 - gravity sanitary sewer
 - sanForceMain
- Water (Confidential)
- WLSParcels
- WMNPParcels
- CSO Basins (May 2006)
- InspectorAreas_CSI_010106
- 2ft Contour Elevation Lines
- Hydro
- Planning Department Info
 - Building Footprints
 - Property_with_LIS
- Roads and Bridges (Areas)

Display Source Selection

1.00 -0.43 Inches

| STANPAR | OBJECTID * | PIN | CENSUS_TRAC | COUNCIL_DISTRICT | TYPE | OWNER | ACQUIRED_DT | OWNER_DOCUMENT |
|--------------|------------|--------|-------------|------------------|------|------------------------------------------|-------------|---------------------|
| 08610001700 | 3972 | 111249 | 15608032 | 14 | PAR | KLAUSNER, W. CRAIG ET UX | 7/21/1981 | DB-00005772 0000738 |
| 08610005300 | 11141 | 111378 | 15608034 | 14 | PAR | HARPER, CAROLYN | 8/31/2005 | DB-20050916 0111599 |
| 08610006700 | 21840 | 111486 | 15608031 | 14 | PAR | MULLINS, BRIAN & EVIE | 11/30/2006 | DB-20061213 0153950 |
| 086060009500 | 25601 | 112057 | 15608032 | 14 | PAR | WEAVER, GARRY R. ET UX | 2/9/1993 | DB-00008864 0000030 |
| 08610006800 | 23675 | 111487 | 15608031 | 14 | PAR | HOWARD, MERLE RANDALL, TRUSTEE | 9/18/2006 | QC-20061113 0140161 |
| 08610007800 | 36681 | 111497 | 15608031 | 14 | PAR | FRANKLIN, DANA L. | 7/17/1992 | DB-00008685 0000596 |
| 08610002000 | 40604 | 111252 | 15608032 | 14 | PAR | HUNTER, PHILLIP A. ET UX | 2/3/1993 | DB-00008857 0000577 |
| 086060004000 | 44019 | 112056 | 15608032 | 14 | PAR | WEAVER, GARRY R. ET UX | 2/9/1993 | DB-00008864 0000030 |
| 086060007000 | 48193 | 112150 | 15608031 | 14 | PAR | CHAVEZ, MELISSA & CHAVEZ-GARCIA, IGNACIO | 5/4/2006 | DB-20060509 0054094 |
| 08610007900 | 47193 | 111498 | 15608031 | 14 | PAR | MCCORMICK, GLENDA | 5/19/1993 | DB-00008956 0000501 |
| 08610007700 | 48108 | 111496 | 15608031 | 14 | PAR | DOUGLAS, SUSAN B. | 10/24/1988 | DB-00007686 0000685 |
| 086060001000 | 50034 | 112051 | 15608032 | 14 | PAR | WEAVER, GARRY R. ET UX | 2/9/1993 | DB-00008864 0000030 |
| 086100026000 | 54364 | 111258 | 15608032 | 14 | PAR | VENTURA, MARVIN MISAEL | 6/6/2006 | DB-20060622 0074463 |
| 086100016000 | 65293 | 111248 | 15608032 | 14 | PAR | ROBERTS, JAMES | 6/26/2007 | TR-20070711 0082544 |
| 086100015000 | 78002 | 111247 | 15608032 | 14 | PAR | MULLINS, BRIAN & EVIE | 12/28/2006 | DB-20070109 0003512 |
| 086100021000 | 87028 | 111253 | 15608032 | 14 | PAR | MULLINS, BRIAN K. & EVIE | 11/30/2006 | DB-20061213 0153842 |
| 086060002000 | 94893 | 112053 | 15608031 | 14 | PAR | MULLINS, BRIAN K. & EVA W. | 10/11/2002 | DB-20021017 0127941 |
| 086100013000 | 99167 | 111245 | 15608032 | 14 | PAR | QUINTER, PHILLIP F. | 11/21/1985 | DB-00006719 0000276 |
| 086100014000 | 98580 | 111246 | 15608032 | 14 | PAR | SLOCUM, MICHAEL & THORPE, JAMES ET AL | 9/11/2006 | DB-20060915 0114419 |
| 086100024000 | 103132 | 111256 | 15608032 | 14 | PAR | WOODARD, BILLY JOE ET UX | 5/22/1991 | DB-00008363 0000346 |
| 086060006000 | 105173 | 112058 | 15608032 | 14 | PAR | WEAVER, GARRY R. ET UX | 2/9/1993 | DB-00008864 0000030 |
| 086100025000 | 107274 | 111257 | 15608032 | 14 | PAR | MCJUNKIN, LINDA L. & RUBY H. | 10/3/1992 | DB-00008750 0000758 |
| 086100054000 | 117410 | 111379 | 15608034 | 14 | PAR | AZZARITO, ROBERT | 4/12/2006 | DB-20060428 0049069 |
| 086100023000 | 134729 | 111255 | 15608032 | 14 | PAR | HOWARD, MERLE RANDALL, TRUSTEE | 9/18/2006 | QC-20061113 0140160 |
| 086100019000 | 162558 | 111251 | 15608032 | 14 | PAR | MULLINS, BRIAN K. & EVIE | 11/3/2006 | DB-20061113 0140770 |
| 086100012000 | 165127 | 111244 | 15608032 | 14 | PAR | ZUCKERMAN, TONYA J. | 7/1/2004 | DB-20040702 0079298 |
| 086100055000 | 188003 | 111380 | 15608034 | 14 | PAR | TIFFT, CINDY L. | 7/15/1999 | DB-00011587 0000455 |
| 086100022000 | 198799 | 111254 | 15608032 | 14 | PAR | HOWARD, MERLE RANDALL, TRUSTEE | 9/18/2006 | QC-20061113 0140159 |
| 086100066000 | 205578 | 111485 | 15608031 | 14 | PAR | MOSS, CYNTHIA J. | 9/16/1994 | QC-00009471 0000451 |
| 086100080000 | 220479 | 111499 | 15608031 | 14 | PAR | ALVARADO, PETER & LOATWALL, CHERYL | 6/27/2005 | DB-20050713 0081074 |
| 086100018000 | 212646 | 111250 | 15608032 | 14 | PAR | MULLINS, BRIAN K. & EVIE | 11/3/2006 | DB-20061113 0140773 |

Attachment 3

This is a very important message from Metro Water Services. People have been pouring cooking fats, oils, and grease down their drains in your neighborhood and this has caused a clog in the sewer lines. This obstruction can cause a sanitary sewer overflows which pollute Nashville streams, neighborhoods, and can potentially cause sewerage backup into your home. Please do not pour fats, oils, and grease down your drains, sanitary drains, or storm sewers. Instead, capture these products in a sealed container and take them to the Metro Public Works Omohundro Convenience Center or East Convenience Center for recycling or disposal. If you have any questions on recycling fats, oils, and grease, please call 862-4590 during normal business hours. To repeat this message please press 1.

The message is immediately repeated, but translated into Spanish

Attachment 4

NOTIFICATION

Your residential area was recently identified as causing obstruction to the sanitary sewer system due to Fats, Oils and Grease (FOG) discharged from houses in your neighborhood. FOG obstruction and interference to the sanitary sewer system can cause sanitary sewer overflows which pollute Nashville's streams. The United States Environmental Protection Agency (EPA) and the Tennessee Department of Environment & Conservation require Metro Water Services to take action to prevent sanitary sewer overflows. This notification is to make you aware of fats, oils and grease pollution prevention actions you should take to prevent sewer line blockages and sanitary sewer overflows.



Sanitary Sewer Overflows caused by fats, oils and grease.



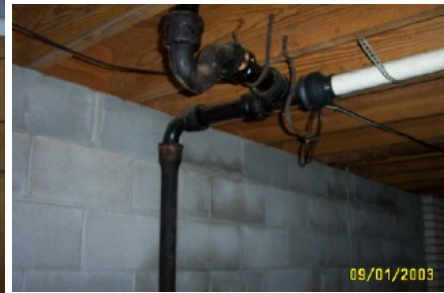
Sewer line blockage from grease.



Metro has to clean grease from sewer lines to prevent overflows.



Fats, oils & grease can cause blockage in your home's sewer system too.



Implement the following Best Management Practices to Prevent Fats, Oils & Grease Blockages & Problems:

1. Do **NOT** pour any cooking oils or grease into your kitchen sink, bathroom sink, toilet or other drain lines.
2. Pour all used cooking oils and grease into a small container so it can cool and harden. When the container is full, cap the container or cover it tightly, place in a bag to prevent leakage and put in garbage container.
3. Dry wipe all pots, pans and plates before washing in sink or dishwasher. Use paper towels and wipe grease and food contents into a garbage container.
4. If you have a kitchen sink garbage grinder, use this as little as possible since food particles and grease from the grinded material will still clog your pipes and affect the downstream sewer system.



Please do your part to prevent sewer line blockages and overflows & help prevent pollution of Nashville's streams.



N O T I C I A

El drenaje sanitario de tu vecindario esta' tapado, bloqueado, por grasas y aceites que han sido tirados en los lavabos y en drenajes sanitarios de las casas de tu vecindario. La obstruccion en el sistema del drenaje, causa el desbordamiento en las alcantarillas sanitarias causando la contaminacion en los arroyos de Nashville. La Agencia de Proteccion al Ambiente de los Estados Unidos de America exige a los Servicios de Agua y Drenaje del Gobierno Metropolitano. (Metro Water Services) tomar accion para prevenir el desbordamiento en las alcantarillas del drenaje. Esta informacion es para que te des cuenta y que te enteres de como puedes prevenir este problema causado por las grasas y aceites



Las grasas y Los aceites son la causa del desbordamiento de el drenaje Sanitario



Las grasa tapan las tuberías sanitarias



Metro tiene que limpiar las grasas de las tuberías Sanitarias para evitar desbordamientos



Tambien el sistema del drenaje de tu casa se puede bloquear a causa de las grasas y los aceites



Para evitar los bloqueos y los problemas del drenaje debemos realizar y practicar las siguientes recomendaciones:

- 1) No tire ninguna clace de grasas o aceites en los lavabos de la cosina o labamanos ni en las coladeras de su casa
- 2) Ponga el aceite o grasa en una lata o recipiente para que se enfrie, cuando se haya llenado el recipiente pongalo en una bolsa y tirelo en la basura
- 3) Con servilletas o toayas de papel limpie y tire en la basura los desperdicios de comida, las grasas y aceites de los platos, sartenes etc y despues puede lavarlos
- 4) Si tienes un triturador de comida usalo lo menos posible porque las particulas de comida tambie'n ira'n tapando las tuberías de su casa y el drenaje de tu vecindario



Por favor pon de tu parte para prevenir el tapado y los desbordamientos del drenaje y ayudar a prevenir la contaminacion de los arroyos de Nashville

Attachment 5

| SUMMARY of PRIMARY CAUSES | | | | | Total | % |
|----------------------------------|-------------------|-----------------------|--------------------|------------------------|--------------|------------|
| | <u>Commercial</u> | Commercial % of total | <u>Residential</u> | Residential % of total | | |
| Grease (FOG) | 0 | 0% | 20 | 67% | 20 | 67% |
| Roots | 1 | 3% | 3 | 10% | 4 | 13% |
| Debris (Rags, Gravel) | 2 | 7% | 2 | 7% | 4 | 13% |
| Structural | 1 | 3% | 1 | 3% | 2 | 7% |
| Total: | 4 | | 26 | | 30 | |

* 1 Residential FOG SSO was at private sewer manhole (#26)

Reported FOG related SSOs by WWTP:

| | <i>Central</i> | <i>Whites Ck</i> | <i>Dry Ck</i> | <i>Total</i> |
|---|----------------|------------------|---------------|--------------|
| # | 21 | 4 | 5 | 30 |
| % | 70% | 13% | 17% | |

| Date | Location | Outbound Calls | | | Other (No Answer, Fax, etc.) |
|----------|---------------|------------------|----------------------------|------------------------|------------------------------|
| | | Total Calls Sent | Msgs Played to Individuals | Msgs Played to Machine | |
| 3/7/07 | Holt Rd | 203 | 86 | 79 | 30 |
| 4/10/07 | Split Oak Dr. | 118 | 54 | 41 | 23 |
| 9/7/07 | Amelia Dr. | 10 | 7 | 2 | 1 |
| 9/22/07 | Wimpole Dr | 273 | 121 | 92 | 60 |
| | | | | | |
| | | | | | |
| | | | | | |
| 4 | | 604 | 268 | 214 | 114 |
| | | Percent: | 44% | 35% | 19% |

*This was not Overf low, only block age in line

