#### **CITY OF LOS ANGELES**

#### INTER-DEPARTMENTAL CORRESPONDENCE

DATE:

November 23, 2015

TO:

Honorable Felipe Fuentes, Chair

Honorable Bob Blumenfield, Vice Chair Honorable Gilbert Cedillo, Member Honorable Mitch O'Farrell, Member Honorable Paul Koretz, Member Energy and Environment Committee

FROM:

Enrique C. Zaldivar, Director

LA Sanitation

**SUBJECT:** 

LOS ANGELES SANITATION RESPONSE FOR MATERIALS OF

SEWAGE ORIGIN ON SANTA MONICA BAY BEACHES (CF 15-1218)

This report is in response to Council Motion No. 15-1218 (Bonin-Fuentes) introduced on October 13, 2015 requesting that the Bureau of Sanitation (LASAN) report relative to Materials of Sewage Origin that washed up on Santa Monica Bay beaches. This response is organized based on the specific areas of concern identified in the motion.

#### **BACKGROUND**

Los Angeles has separate systems for the collection, conveyance and treatment of wastewater (sewage) and stormwater (runoff from rain events). Both systems are under the responsibility of LASAN. The City's sewage collection system consists of more than 6,700 miles of sewers. The wastewater is treated at the City's four water reclamation plants: Donald C. Tillman Water Reclamation Plant, Los Angeles Glendale Water Reclamation Plant, Terminal Island Water Reclamation Plant, and Hyperion Water Reclamation Plant (HWRP).

HWRP is the largest of the four water reclamation plants owned and operated by LASAN. On average, 269 million gallons of wastewater flows into HWRP on a dry weather day. Because the amount of wastewater entering HWRP can double on rainy days, the plant was designed to accommodate both dry and wet weather days with a maximum daily flow of 450 million gallons per day (MGD) and peak wet weather flow of 850 MGD.

The first step in the wastewater treatment process is Preliminary Treatment. Preliminary Treatment consists of a screening process, and sand/grit removal. The screening process involves the use of eight bar screens (large metal racks of steel bars spaced 34 inches apart) to remove large objects from the wastewater. A large mechanical rake removes unwanted materials (consisting mostly of rags, wood, and other non-recyclable/non-beneficial materials) from the bar screens which are then loaded onto a hauling truck and taken to a landfill for disposal.

The next step in treating wastewater is Primary Treatment. Wastewater enters the plant at an average speed of 2 to 5 feet per second; however, during Primary Treatment, wastewater is slowed to 2 to 3 feet per minute. Underground Large Primary tanks (roughly 300 feet long and 15 feet deep) hold wastewater for 2 hours allowing heavy solids to settle to the bottom, while oil and grease and other floatable materials float to the top, and are skimmed off. These tanks can remove 70-75% of the solids in wastewater, and about 50-55% of the organic material. The heavy solids are then removed and transported to the solids handling area of the plant for further processing.

After the wastewater has been processed through Primary Treatment, it is pumped into HWRP's secondary biological reactors where naturally occurring bacteria (aerobic bacteria) are cultivated in huge numbers, and mixed with mechanical mixers to stir the wastewater and oxygen aiding the bacteria in consuming organic waste. The treated effluent flows to another set of settling tanks (called circular clarifiers) where any remaining solids settle to the bottom before the final treated water is discharged to the Santa Monica Bay through the Five Mile Outfall.

The Five Mile Outfall has been the main outfall used for discharge of HWRP's effluent since it was placed in service in 1960. Prior to that, the One Mile Outfall was in service between 1951 and 1960. After the Five Mile Outfall was placed in service, the One Mile Outfall remained as a backup to the Five Mile Outfall for use in case of emergencies or planned maintenance on the Five Mile Outfall.

#### THE CAUSE OF THE SEPTEMBER SPILL OF MATERIALS OF SEWAGE ORIGIN INTO SANTA MONICA BAY

On the night of September 22, 2015, Councilmember Mike Bonin notified LASAN of reports of possible Material of Sewage Origin (MOSO), including plastic casings for feminine hygiene products, as well as syringes, washing ashore on Dockweiler Beach.

LASAN and Los Angeles County Department of Beaches and Harbor immediately began cleanup efforts the following morning on September 23, 2015, and Los Angeles County Department of Environmental Health issued a beach closure for Dockweiler and El Segundo beaches on that same day.

A joint task force of LASAN, Los Angeles County Department of Environmental Health, and Los Angeles County Department of Beaches and Harbor held numerous discussions, and after reviewing data, Los Angeles County Department of Environmental Health reopened all beaches by September 26, 2015.

These events occurred after HWRP used the One Mile Outfall for the emergency discharge of chlorinated secondary effluent on September 15, 2015. The emergency use of the One Mile Outfall was due to the malfunction of valves that resulted in flooding in the plant's Effluent Pumping station. HWRP also used the One Mile Outfall during the planned diversion of

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secondary effluent from the Five Mile Outfall that began on September 21<sup>st</sup> and lasted until November 1, 2015 to facilitate repair work on the Five Mile Outfall effluent discharge system. Considering that plant treatment processes are designed to remove floatable materials and were fully functional during the period when debris began washing ashore on the beach, the investigation moved on to the in-plant storm drain system that connects to the One Mile Outfall as a possible source of debris on the beach.

After an extensive investigation, it is our conclusion that the debris originated from an overflow of raw sewage from a collapsed sewer in 2005. This incident resulted in raw sewage spilling from a maintenance hole within the plant and overflowing into the plant storm drain system tributary to the One Mile Outfall. Debris of the type recently deposited on the beaches is characteristic of materials found in raw sewage. In 2005 at the time of the spill cleanup, it was thought that all raw sewage and related debris flowed through and out of the in-plant storm drain system. Subsequent to recent inspection of the storm drain system and findings of residual debris, it was concluded that material had in fact remained in the system since the raw sewage spill in 2005.

The first extensive use of the One Mile Outfall in ten years flushed out materials that had remained in the One Mile Outfall and the connected storm drain system from the 2005 sewage spill. This is a one-time event that is unlikely to be repeated. LASAN believes that the 6-week flow of effluent through the One Mile Outfall flushed out the residual material from the 2005 sewage spill and we are investigating a way to perform a remote video inspection of the inside of the One Mile Outfall, and remove any residual material that may be found.

LASAN has also tasked an expert advisory panel to review what occurred and provide their assessment and recommendations to prevent the occurrence of a similar incident in the future. A report of our findings is due to the Regional Water Quality Control Board on January 4th 2016.

#### REVIEW OF THE CLEANUP OPERATION AND WHETHER THE RELEASE OF MOSO HAS SUBSIDED

Consistent with our mission to protect public health and the environment, LASAN has devoted significant resources to beach cleanup activities, and has made this effort a top priority. LASAN began cleaning Dockweiler Beach on September 23, 2015, and although the release of MOSO has subsided significantly, and is nonexistent on some days, the cleanup efforts continue in order to ensure the beach-going experience is safe and enjoyable. Four miles of shoreline is cleaned one to two times a day after high tide to remove any material that does not belong on the beach.

As of November 22nd, LASAN has collected over 4917 feminine hygiene plastic casings, 217 syringes, and 103 lancets for a total of 34.5 lbs of MOSO, and 6362 lbs of trash overall. The release of MOSO has subsided significantly as shown in the table below:

Material	Daily High	As Of November 22, 2015	
Plastic Casings	2000	1	
Syringes	32	1	
Lancets	20	0	

WHAT PREPARATIONS ARE UNDERWAY TO MANAGE OPERATIONS AT HYPERION PLANT IN THE EVENT OF EXCESSIVE RAINFALL FROM EL NINO RELATED STORMS, INCLUDING WHAT PROACTIVE STEPS ARE BEING TAKEN TO KEEP MOSO FROM BEING RELEASED

The source of the debris that washed ashore on the beach is a result of an overflow of raw sewage from a collapsed sewer in 2005. The collapse inundated a sewer upstream of Hyperion and resulted in raw sewage spilling from a maintenance hole within the plant and overflowing into the plant storm drain tributary to the One Mile Outfall.

On September 15, 2015, the first extensive use of the One Mile Outfall in ten years flushed out materials that remained in the storm drain and One Mile Outfall from the 2005 sewage spill. This is a one-time event that is unlikely to be repeated.

LASAN replaced the Effluent Pumping Plant valves that malfunctioned on September 15, 2015 as planned under the Effluent Pumping Plant Discharge System Replacement project. The retrofit work on the pumps, valves, and piping will ensure that Hyperion can treat a maximum of 850 million gallons per day of wastewater during the expected El Nino storms, and this flow is in the range of flows received at the plant during previous El Nino Storms. Excess storm water from the plant, by design and permit from the Regional Water Quality Control Board, is discharged through the One Mile Outfall.

Along with these efforts, additional response measures LASAN has implemented include:

- installation of screens on the Hyperion effluent channel that ensure the type of materials found on the beach don't exit the plant,
- cleaning of the storm drain system through which the 2005 sewage spill was conveyed into the One Mile Outfall,
- dedication of extra resources to the manual skimming of plant clarifiers to remove floatable materials from the wastewater,
- installation of a screen to prevent plastics and other floatable materials from flowing out with the stormwater, and
- installation of a net at the terminus of the One Mile Outfall.

#### MAXIMIZE RECYCLE WATER OPPORTUNITIES

Consistent with the Mayor's Executive Directive #5 addressing the drought, and the LA Sustainability Plan, LASAN has begun analysis of strategies to meet the City's goal of reducing imported water by 50% by 2025.

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LASAN is planning to design and construct facilities at HWRP that will produce up to 70 MGD of advanced treated water for recycling by 2025. This project will contribute to a reduction in the amount of potable water imported for use in the City of Los Angeles.

Hyperion also has a 10 micron filtration system with a hydraulic capacity of 25 MGD that is used to treat plant effluent for internal use as cooling water for the oxygen generating system. The hydraulic capacity of the ten micron filtration system will be expanded from 25 MGD to 67 MGD by 2016 to increase the amount of plant effluent used internally for plant processes. The filtered secondary effluent will be used mainly as cooling water for the oxygen generating system and the steam and power generating equipment under the Hyperion Digester Gas Utilization Project.

THE STATUS OF ANY OUTREACH PROGRAMS BY SANITATION INTENDED TO BETTER EDUCATE THE PUBLIC ON PROPER DISPOSAL OF PERSONAL HYGIENE AND MEDICAL PRODUCTS IN THAT THEY SHOULD NOT BE DISPOSED OF IN THE TOILET

LASAN is developing a "What Not To Flush" campaign (see attached) to educate the public on proper disposal of personal hygiene and medical products. The plan is to provide the information on LASAN's website, and to distribute the outreach materials at LASAN Open House events, meetings with neighborhood councils, and through collaboration with environmental groups and non-governmental organizations to better inform the public.

California Health and Safety Code (H&SC §118286), makes it illegal to dispose of homegenerated sharps waste (hypodermic needles, pen needles, intravenous needles, lancets, and other devices that are used to penetrate the skin for the delivery of medications) in the trash or recycling containers, and requires that all sharps waste be transported to a collection center in a sharps container approved by the local enforcement agency.

LASAN operates seven SAFE Centers that accept sharps from the public for proper disposal. SAFE centers are located in Northridge, San Pedro, Hyperion, Los Angeles Glendale Water Reclamation Plant, UCLA, Sun Valley and in the mid-city area. Information on the SAFE Centers (see attached) is available on the LASAN website and will be distributed at LASAN Open House events, meetings with neighborhood councils, and could be provided to Council field offices.

#### THE STATUS OF THE FIVE-MILE OUTFALL RENOVATION PROJECT

The Five Mile and One Mile Outfalls are important assets for HWRP as well as for the City, which are not easily replaceable. In 2006, an extensive inspection was performed inside the Five Mile Outfall and the effluent pumping system. The inspection revealed that the Five Mile Outfall pipe was in a good condition but the effluent pumping system was in need of refurbishment, and could fail in the future if not fixed. It was determined that a shutdown of the Five Mile Outfall and its pumping system was required to conduct necessary replacement and repair work on the effluent pumping system.

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The Effluent Pumping Plant Discharge Replacement System project was necessary to avoid a potential catastrophic failure of the plant's discharge system. The repair work cost approximately \$10 million, and required 6 weeks shutdown of Five Mile Outfall (September 21 – Nov 1, 2015). During the 6 week period, HWRP's highly treated disinfected effluent was discharged through the One Mile Outfall. The repair work was performed continuously (24 hours a day, 7 days a week) to minimize the shutdown of the Five Mile Outfall, and was strategically scheduled to occur after peak summer beach attendance and before the wet weather season. LASAN also conducted extensive environmental monitoring of Santa Monica Bay, during the Five Mile Outfall shutdown and One Mile Outfall diversion. Extensive public outreach presentations for stakeholders, governmental agencies and the public took place prior to the repair work.

The major work on the HWRP discharge system replacement project was completed on November 1, 2015, and flows were returned to the Five Mile Outfall. The valves that malfunctioned on September 15th were replaced as planned under the Effluent Pumping Plant Discharge System Replacement project, and retrofit work conducted on the pumps, valves, and piping will ensure reliability of the Five Mile Outfall for another 50 years. Additional minor work will continue on the effluent pumps which can be performed in conjunction with flow out the Five Mile Outfall.

#### RESPONSE TEAM TO ASSIST SANITATION IN PUBLIC NOTIFICATION IN THE EVENT OF FUTURE SPILLS OR EMERGENCIES

LASAN, LA County Department of Beaches and Harbor, and LA County Department of Public Health are part of the current Joint Task Force that worked to reopen the beaches. This task force would be activated in the event of a future spill affecting the Santa Monica Bay.

Currently, in the event of a spill from HWRP affecting Santa Monica Bay, LASAN notifies Council District 11, the Regional Water Quality Control Board, US Environmental Protection Agency Region 9, Los Angeles County Department of Public Health, State Department of Fish and Wildlife, State Office of Emergency Services, Los Angeles County Lifeguard, State Department of Health Services, Heal the Bay, and American Oceans Campaign. LASAN will expand its notification to include delegates of elected officials representing coastal areas in City and County government, community stakeholders, conservation organizations, and other relevant groups.

#### **CONCLUSION**

It is our conclusion that the overflow of raw sewage from a collapsed sewer in 2005 that flowed via the plant storm drain system into the One Mile Outfall is the source of the debris that washed ashore on the beach. Upon becoming aware of the situation, LASAN addressed the issue with the utmost urgency and immediate response measures were taken to alleviate the impact. Additional follow up inspections of the in-plant storm drain system have been scheduled to ensure that all residual debris has been removed and that similar incidents will not occur in the future. Notwithstanding, LASAN will continue to work proactively to maintain its mission of protecting public health and the environment and that includes the precious Santa Monica Bay.

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If you have any questions, or require further information, for LASAN, please contact Tim Dafeta, Hyperion Plant Manager at (310) 648-5555, or Marisela Reyes, LASAN Governmental affairs (213) 485-3558.

Attachment(s) or Enclosure(s) c: LASAN Executive Team

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#### DRAFT

#### **DON'T FLUSH THAT!**

#### Think before you flush!

Take SHARPS (needles, carpules, lancets, endo files, and EpiPens) to household hazardous waste collection centers, doctor's offices, hospitals, pharmacies and health departments.

For more info call: (800)773-2489 Mon—Fri: 7:30 am—4:45pm

#### Unused medication should be:

- Taken to household hazardous waste collection centers or events (controlled substances aren't allowed), or
- Put into a sealed container, then into a trashcan where children and animals can't reach them.

For more info please visit: www.nodrugsdownthedrain.org



#### WHAT NOT TO FLUSH:

feminine hygiene plastic casings, condoms, wipes medications, dental floss, syringes, and lancets



Flushing these down the drain clog sewer lines and damage pipes. Clogs can cause raw sewage to overflow into homes, streets and beaches, impacting public health and causing environmental harm. The toilet is not a trash can.

The only things going down your toilet should be human waste and toilet paper.





As a covered entity under, title it of the Americans with Disabilities act, the City of Los Amofles does not decembrate on the base of disability and, under heaving, will belowing era norable accommonation to entitle equal acts to its brockers, services, and activities.



City of Los Angeles
Department of Public Works • Bureau of Sanitation



A Home Guide to

# Syringe Disposal (SHARPS)

City of Los Angeles
Department of Public Works
Bureau of Sanitation
Solid Resources Citywide
Recycling Division

1-800-98-TOXIC

www.lacity.org/san



### **SHARPS**

"SHARPS" is a term that describes an item that can puncture skin.

Examples of sharps are: carpules, needles, lancets, suture needles, endo files, etc.

Containers that are filled with sharps should be taped shut, marked "contains sharps" and taken to an appropriate collection site for safe disposal.

Beginning September 1, 2008 home-generated sharps can no longer be thrown in the trash.



Dangers of Improper Disposal

You can injure sanitation workers
when you toss sharps into the
regular trash, recycling container
or green waste container.
Leftover liquid in syringes can
seep into and contaminate the
groundwater from which we drink
and/or the ocean from which we
derive our fish and other seafood.

#### **How To Safely Manage SHARPS**

- NEVER DISPOSE OF SHARPS IN THE TRASH IT IS ILLEGAL EFFECTIVE SEPTEMBER 1, 2008.
- Use only an approved Sharps container or a rigid, puncture resistant container, secured with a screw top such as: a bleach bottle or laundry detergent bottle. Please put tape over the cap and write "contains Sharps"
- Do not use empty water bottles as these are made of flimsy plastic that SHARPS can puncture through!

 Keep your SHARPS container out of reach of children and pets.

 Do not fill your container to **NEVER** flush your syringes or medications down the toilet!

the top! Allow two to three inches of space in-between the syringes or lancets and the top of the container.

• Put a lid on it! After you use a syringe or lancet, put it directly into your Sharps container. Use a tight cap or lid for your sharps container.

Once your sharps container is about 3/4 full, secure the cap or lid, put tape over the cap and write on the container "CONTAINS SHARPS." Safely dispose of it by doing any of the following:

- 1 Return the **sealed container** to your **physician**
- Return the **sealed container** to your participating pharmacy
- Bring your **sealed container** to a **Household Hazardous** Waste Mobile event or to a S.A.F.E. center.

Call 800-988-6942 for more information regarding Mobile events and/or S.A.F.E. Centers near you.



**DO NOT** toss your sealed sharps containers into your black trash bin, blue recycling bin or green waste bin!



#### For More Information

To learn more about how to safely manage and dispose of lancets, syringes, needles and other Sharps:

Call the Bureau of Sanitation Hotline at

(800) 98-TOXIC

(800) 988-6942

or

Call the City of Los Angeles Information Line at

3-1-1

or

Go online to:

www.lacity.org/SAN/index.htm www.earth911.org or www.cleanla.com

As a covered entity under Title II of the Americans with Disabilities Act, the city of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities.

# SAFE COLLECTION CENTERS (Solvents/Automotive/Flammables/Electronics)

For Residents of the City of Los Angeles and the County of Los Angeles

#### **IMPORTANT**

- It is against the law to transport more than 15 gallons or 125 pounds of hazardous wastes to collection sites.
- Pack your wastes properly to prevent tipping or spilling of wastes during transportation. Remove all other items from your trunk.
- Wastes will be collected with its containers.
- For data containing devices, remove data before disposal.
- Smoking is prohibited at all S.A.F.E Centers.
- Remain in your vehicle while trained personnel remove the hazardous wastes from your trunk.
- Waste collection is suspended during rain.

#### **WE ACCEPT**

- · Used motor oil and filters
- Paint and Solvents
- E-waste such as computers, cell phones and televisions
- Household cleaning products
- · Car and household batteries
- Fluorescent tubes and bulbs
- Home generated Sharps such as needles and lancets
- Unused medicine (except controlled substances)

#### WE DO NOT ACCEPT

- · Business/Commercial wastes
- Bulky Items such as furniture and large appliances
- Ammunition
- Explosives
- Radioactive materials
- Medical/Biological wastes
- Tires
- Marine flares/firecrackers

#### **CENTRAL LOS ANGELES**

LA-GLENDALE SAFE CENTER 4600 Colorado Bivd. Los Angeles CA 90039 Sat & Sun 9a.m - 3p.m.



#### **WEST LOS ANGELES**

U.C.L.A. SAFE CENTER 550 Charles E, Young Dr. West Los Angeles CA 90095 Thur, Fri & Sat 8a.m - 2p.m.



#### **PLAYA DEL REY**

HYPERION SAFE CENTER
7660 West Imperial Highway, Gate B
Playa Del Rey CA 90293 / Sat & Sun 9a,m - 3p,m,



#### **HARBOR AREA**

GAFFEY ST. SAFE CENTER 1400 N. Gaffey St. San Pedro, CA 90731 Sat & Sun 9a.m - 3p.m.



## For Information, Please Call: 1-800-773-CITY (2489)

www.lacitysan.org

#### **EAST LOS ANGELES**

WASHINGTON BLVD. SAFE CENTER 2649 E. Washington Blvd. Los Angeles, CA 90021 Sat & Sun 9a.m - 3p.m.



#### **NORTH VALLEY**

NICOLE BERNSON SAFE CENTER
10241 N. Balboa Blvd. Northridge CA 91325



#### **EAST VALLEY**

RANDALL ST. SAFE CENTER 11025 Randall St. Sun Valley CA 91352 Sat & Sun 9a.m - 3p.m.













# E CENTROS DE (Solvents/Automotive/Flammables/Electronics) COLECCIÓN

Para Residentes de la Ciudad de Los Ángeles y el Condado de Los Ángeles

#### **IMPORTANTE**

- Es contra la ley transportar más de 15 galones ó 125 libras de desperdicios tóxicos a centros de collection.
- Favor de empacar sus desechos tóxicos apropiadamente para evitar que caigan o se derramen durante su transporte al centro. Remuva todo otro articulo de la cajuela de su auto.
- · Los desechos peligosos se recogerán junto con su contenedor o envase.
- Elimine los datos que estan almacenades en los dispositivos electronicos antes de deshacerse de ellos.
- Prohibido fumar en el Centro de SAFE.
- ·Quédese en su vehículo mientras que el personal capacitado baja los desechos peligrosos de la cajuela.
- La colección se suspenderá si llueve.

#### **ACEPTAMOS**

- Aceite usado y filtros usados
- Pinturas y solventes
- Desechos Electrónicos como computadoras, celulares y televisores
- Químicos para limpieza de casa
- Baterias de auto y de uso residencial (alcalina)
- Bombillos y tubos fluorescents
- . "SHARPS" de uso domestico (objectos capaz de causar lesiones en la piel como agujas, jeringuillas y otros objetos afilados)
- Medicinas (excepto sustancias controladas)

#### **NO ACEPTAMOS**

- Desechos de negocio
- Muebles, refrigeradores, lavadoras y secadoras de ropa, artículos voluminosos
- Municiones
- Explosivos
- Materiales radioactivos
- Desperdicios medicos/biologicos
- Llantas
- Luces de bengala marina cohetes

#### CENTRAL LOS ANGELES

LA-GLENDALE SAFE CENTER 4600 Colorado Blvd. Los Angeles CA 90039 Sábado y Domingo 9a.m - 3p.m.



#### WEST LOS ANGELES

**U.C.L.A. SAFE CENTER** 550 Charles E. Young Dr. West Los Angeles CA 90095 Jueves, Viernes y Sábado 8a,m - 2p,m,



#### **PLAYA DEL REY**

HYPERION SAFE CENTER 7660 West Imperial Highway. Gate B Playa Del Rey CA 90293 Sábado y Domingo 9a.m - 3p.m.



#### **HARBOR AREA**

**GAFFEY ST. SAFE CENTER** 1400 N. Gaffey St. San Pedro, CA 90731 Sábado y Domingo 9a.m - 3p.m.



Para más información, llame al: 1-800-773-CITY

www.lacitysan.org

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**WASHINGTON BLVD. SAFE CENTER** 2649 E. Washington Blvd, Los Angeles, CA 90021 Sábado y Domingo 9a.m - 3p.m.



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**NICOLE BERNSON SAFE CENTER** 10241 N. Balboa Blvd. Northridge CA 91325 Sábado y Domingo 9a.m - 3p.m.



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