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ANTONIO R. VILLARAIGOSA MAYOR

February 4, 2013

OFFICE OF THE BOARD OF PUBLIC WORKS

200 NORTH SPRING STREET ROOM 361, CITY HALL LOS ANGELES, CA 90012 (213) 978-0261 (213) 978-0278 Fax

> ARLEEN P. TAYLOR EXECUTIVE OFFICER

http://www.bpw.lacity.org

#1 BOS

Mayor Antonio R. Villaraigosa Room 305 City Hall

Attn: Mandy Morales

City Council Room 395 City Hall

Subject:

AUTHORITY APPLY. ACCEPT, NEGOTIATE. TO AND EXECUTE AGREEMENTS FOR CONTRACT FUNDING FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION IX, FOR THE CITY OF LOS ANGELES ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS) SURVEY PROJECT

As recommended in the accompanying report of the Director of the Bureau of Sanitation, which this Board has adopted, the Board of Public Works requests that the City Council, subject to concurrence of the Mayor, authorize the Director of the Bureau of Sanitation, or his designee, to execute and submit all documents, including, but not limited to, applications, agreements, or amendments, subject to the approval of the City Attorney as to form and legality, which may be necessary to secure an amount not to exceed \$75,000 from the U.S. Environmental Protection Agency for the City of Los Angeles Onsite Wastewater Treatment Systems (OWTS) Survey Project.

It is also requested, that the Bureau of Sanitation, or his designee, be authorized to receive contract funds and appropriate up to \$75,000 into the Environmental Affairs Trust Fund, Fund 537, Dept. 50, New Account (FY 2013 USEPA/ L.A. City OWTS Survey Project).

FISCAL IMPACT

There is no impact to the General Fund. Receipt of up to \$75,000 in contract funds will offset costs otherwise provided by the Environmental Affairs Trust Fund. The total estimated cost for the project is \$75,000.

Respectfully submitted,

Arleen P. Taylor, Executive Officer

Board of Public Works

APT:mp



DEPARTMENT OF PUBLIC WORKS

BUREAU OF SANITATION BOARD REPORT NO. 1 February 4, 2013

CD: ALL

ADOPTED BY THE BOARD
PUBLIC WORKS OF THE CITY

AND REFERRED TO THE MAYOR
FEB - 4 2013

AND REFERRED TO THE CITY COUNCIL

Executive Officer

AUTHORITY TO APPLY, ACCEPT, NEGOTIATE, AND EXECUTE AGREEMENTS FOR CONTRACT FUNDING FROM THE U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION IX, FOR THE CITY OF LOS ANGELES ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS) SURVEY PROJECT

RECOMMENDATIONS

- 1. Approve and forward this report forthwith, with its transmittals, to the Mayor and the City Council, with the recommendation that the City Council, subject to concurrence of the Mayor, authorize the Director of the Bureau of Sanitation, or their designee, to execute and submit all documents, including, but not limited to, applications, agreements, or amendments, subject to the approval of the City Attorney as to form, which may be necessary to secure an amount not to exceed \$75,000 from the U.S. Environmental Protection Agency for the City of Los Angeles Onsite Wastewater Treatment Systems (OWTS) Survey Project.
- 2. In the event that the agreement is executed, authorize the Bureau of Sanitation to receive contract funds and appropriate up to \$75,000 into the Environmental Affairs Trust Fund, Fund 537, Dept. 50, New Account (FY 2013 USEPA/ L.A. City OWTS Survey Project).

FISCAL IMPACT STATEMENT

There is no impact to the General Fund. Receipt of up to \$75,000 in contract funds will offset costs otherwise provided by the Environmental Affairs Trust Fund. The total estimated cost for the project is \$75,000.

TRANSMITTALS

- 1. A copy of the U.S. EPA, Region IX, Letter of Interest (Transmittal 1).
- 2. A copy of the Bureau of Sanitation's proposed Work Plan for the City of Los Angeles Onsite Wastewater Treatment Systems Survey Project (Transmittal 2).

DISCUSSION

The United States Environmental Protection Agency (EPA) implements the Underground Injection Control (UIC) regulations pursuant to the Safe Drinking Water Act.

Bureau of Sanitation Board Report No. 1 February 4, 2013

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 $\mathcal{F}(\mathcal{F}_{p}, \mathcal{F}_{p}^{(2)}) = 0$

These regulations affect owners and operator of large-scale capacity cesspools, some of which are suspected of existing in the City of Los Angeles (City). In 1999, the EPA's UIC regulations were amended to include a national ban on the use of large capacity cesspools. "Large Capacity" includes any cesspools with the capacity to receive wastewater from 2 or more residences or 20 or more persons per day for commercial properties. All such cesspools in operation in 1999 were required to have closed by 2005 to comply with EPA's regulations.

The City of Los Angeles has a total OWTS more commonly known as septic systems, with an inventory of approximately 13,000, but it is not known how many of them qualify as large capacity cesspools as defined by EPA's regulations. The EPA requests City of Los Angeles assistance to survey OWTS being used in the City to determine how many of them are considered large capacity cesspools, confirm their locations, and to pave the way for them to come into compliance. Compliance may entail connection to sewer, installation of a septic tank to pre-treat sewage, or other conversion of the system so that it does not meet the criteria as a large scale cesspool.

Therefore, the purpose of OWTS Survey Project is to identify, locate and confirm large cesspools in the City, especially those in High Risk areas and disadvantaged communities, which may be subject to EPA's UIC regulations.

In conducting the survey, EPA agrees that the City of Los Angeles shall target high risk OWTS for their higher potential to cause environmental and public health concerns due to their proximity to impaired surface water bodies or groundwater. Specifically, the City defines high risk OWTS as those that are located within any of the following distances:

- 1. 600 feet from 303(d) listed impaired water bodies due to nitrates and bacteria
- 2. 900 feet from active drinking water wells
- 3. 150 feet from streams
- 4. 5 feet from groundwater

An additional benefit of the survey project is that the City will use the site visits as an opportunity to outreach to its OWTS owners by providing home owner guides to proper septic system operation and maintenance, in English and Spanish (see attached brochures). The City of Los Angeles looks forward to working with the EPA on this survey project.

STATUS OF FINANCING

Funds not to exceed \$75,000 from the U.S. EPA will be deposited into the Environmental Affairs Trust Fund, Fund 537 Departmental Revenue Source 381100 (Other Federal Grants-General) and will be used for the City of Los Angeles OWTS Survey Project. Front funding will be provided by the Environmental Affairs Trust Fund.

Bureau of Sanitation Board Report No. 1 February 4, 2013

Page 3

Respectfully submitted,

ENRIQUE C. AR, Director

Bureau of Sa

APPROVED AS TO FUNDS:

VICTORIA A. SANTIAGO Director Office of Accounting

Prepared by:

Rodger Shimatsu (213) 485-2357

TRANSMITTAL 1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX

75 Hawthorne Street San Francisco, CA 94105-3901

Enrique C. Zaldivar, Director Department of Public Works, Bureau of Sanitation City of Los Angeles 1149 South Broadway Street, 9th Floor Los Angeles, CA 90015

Dear Mr. Zaldivar:

The United States Environmental Protection Agency implements the Underground Injection Control (UIC) regulations pursuant to the Safe Drinking Water Act. These regulations affect owners and operators of large-volume deep injection discharges, such as the biosolids injection well operated by the City of Los Angeles. They also affect thousands of owners and operators of very small, shallow injection discharges, which includes large capacity cesspools.

EPA's UIC regulations were amended in 1999 to include a national ban on the use of large capacity cesspools. "Large capacity" includes any cesspools with the capacity to receive wastewater from 2 or more residences or 20 or more persons per day for commercial properties. All such cesspools in operation in 1999 were required to have closed by 2005 to comply with EPA's regulations. To date, our office has focused primarily on addressing large capacity cesspools in Hawaii, where we have identified more than 4,000 such systems and have brought about two-thirds of those cesspools into compliance. Compliance may entail connection to sewer, installation of a septic tank to pretreat sewage, or other conversion of the system so that it does not meet the criteria as a large capacity cesspool.

Our staff have had discussions recently regarding the large number of unsewered parcels within the City of Los Angeles and the subset of those that may be subject to the UIC regulations, either due to volume or type of waste stream. Your staff has identified a subset of high-risk unsewered parcels (190 sites) where there is cause for environmental and public health concern due to the proximity to surface water bodies or potential risk to groundwater. EPA shares these concerns identified by your staff.

Over the last several years, EPA has contracted with a number of local government entities to conduct field surveys of onsite systems and other shallow subsurface discharges that may be subject to the federal UIC regulations. This contract funding, once it is awarded, reimburses the local agency for time spent carrying out site visits and reporting findings to EPA.

Specifically, EPA needs information on the location, condition, construction, and operation of such systems, to the extent that can be discerned from a site visit. EPA does not require that contract agencies perform any excavation or removal of lids and other devices during such site visits. However, these agencies may ask property owners to do so especially at commercial sites where sanitary waste may be commingled with high-strength or toxic wastewater. Most of the contract agencies have also used these site visits as an opportunity to explain to property owners any applicable local health and environmental regulations. Contract agency staff do not operate as federal inspectors, nor are they expected to interpret or enforce federal regulations.

LA City Onsite Sewage Survey Project September 18, 2012, page 2 of 2

This office would like to work with your organization to fund a survey (including site visits) of the high-risk onsite systems and unsewered commercial parcels identified by your staff. If your agency is interested in pursuing such a contract with EPA, please email by 12/1/2012 a draft workplan of 2-5 pages addressing the following:

- 1. a summary or a copy of the data that you already possess about such systems;
- an estimate of the cost for other data collection needed (such as review of sewer system maps, septic permits, collection of data from other local and state agencies) to refine site visit priorities:
- 3. a proposed list of field parameters to be collected during each site visit, such as:
 - a. does property owner or occupant know where system is located
 - b. reason(s) why this property is on/not on high risk list
 - c. are any lids visible if so what is material/color of lids
 - d. yard footprint of system and approximate distance from structures, property line
 - e. condition of ground around system (damp or dry relative to ambient surroundings)
 - f. is there access for repairs if a truck or backhoe needed entry
 - g. structure/occupancy of building (single or multi-family, more than 20 "users", wastewater other than sanitary waste) to determine applicability of UIC regulations
 - h. are there any private domestic wells on the property.
- 4. an estimate of the cost per address for City staff to conduct site visits;
- 5. proposed staffing (number of individuals, qualifications) conducting site visits; and
- a proposed timeline for this project that places the actions within the context of any prerequisite or related local actions, such as those pertaining to the pending city ordinance.

Please note that this letter does not constitute a formal contract offer. A contract offer will be contingent upon receipt of an acceptable draft workplan, proof of registration in the federal contractor digital registry (see www.SAM.gov), and confirmation of sufficient funds in EPA's UIC budget for federal fiscal year 2013.

If the City is not interested in pursuing such a contract, please let us know. For more discussion of this project, please contact Elizabeth Janes of my staff at (415) 972 3537 or email janes.elizabeth@epa.gov.

Sincerely,

Ec:

David Albright, Manager

Ground Water Office (WTR9)

Los Angeles Regional Water Quality Control Board, ewu@waterboards.ca.gov

LA City: adel.hgekhalil, ali.poosti, doug.walters, hyginus.mmeje, arnil.aguilar, traci.minamide

CITY OF LOS ANGEL S

BOARD OF

PUBLIC WORKS

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CALIFORNIA



ANTONIO R. VILLARAIGOSA **MAYOR**

#1 BOS 02-04-2013 TRANSMITTAL 2

BUREAU OF SANITATION

ENRIQUE C. ZALDIVAR

TRACI J. MINAMIDE CHIEF OPERATING OFFICER

VAROUJ S. ABKIAN ADEL H. HAGEKHALIL **ALEXANDER E. HELOU**

NEIL M. GUGLIELMO ACTING CHIEF FINANCIAL OFFICER

1149 SOUTH BROADWAY, 9TH FLOOR LOS ANGELES, CA 90015 TEL: (213) 485-2210 FAX: (213) 485-2979

November 16, 2012

Dear Mr. Albright:

Subject: City of Los Angeles Onsite Wastewater Treatment Systems (OWTS) **Survey Project**

This letter is to acknowledge receipt of your invitation letter dated September 18, 2012. It is also to express the Bureau of Sanitation's willingness to work together with the United States Environmental Protection Agency (EPA) in the above subject project for the purpose of identifying large capacity cesspools that exist within the City of Los Angeles and assist the owners to comply with appropriate regulations. To this end, the Bureau of Sanitation has developed a workplan that details how we envision to work together with you and is hereby submitting it to you for your consideration.

The workplan prioritizes the Onsite Wastewater Treatment Systems (OWTS) that will be surveyed according to level of concern, potential environmental impacts, and availability of funds. The first level of priority include approximately 963 OWTS that are high-risk due to their proximity to impaired water bodies, drinking water wells, etc., and are substandard because they were constructed prior to 1953 when cesspools where banned in the City of Los Angeles.

To ensure that lessons learned will be retained in-house, as recommended by the EPA, the survey will be conducted by a team of Bureau of Sanitation engineering and sewer maintenance personnel who are certified by the California Water Environment Association.. They will perform necessary planning & preparation for each site visit and collect essential information during the site visits that will include the location, condition, construction, and operation of each OWTS. As part of each site visit, OWTS owners (residential, multi-family, and commercial) will be provided with outreach information that provides guidance on how to properly operate and maintain their OWTS. The Bureau of Sanitation will collect and maintain a database of information obtained from the site visits that will form the bases for future reporting to the EPA.

Starting January 1, 2013, the project is expected to take 18 to 23 months to complete the survey of the top priority OWTS, utilizing the expected \$75,000 contract offer from EPA. However, if additional funds are provided, the project has the ability to be scaled up to address other OWTS on the priority list.

(TOPIC) (DATE) Page 2 of 2

Thank you for the opportunity and we look forward to hearing from you, soon. If you have any questions or require additional information, please, feel free to contact Doug Walters, Assistant Division Manager, Wastewater Engineering Services Division (WESD) at 323/342-6256 or Hyginus Mmeje, Sanitation Wastewater Manager, at 323/342-6241.

Sincerely,

Enrique Zaldivar, P.E., Director Bureau of Sanitation

Attachment: Workplan for City of Los Angeles Onsite Wastewater Treatment Systems (OWTS) Survey Project

CC: Elizabeth Janes, USEPA, Region IX
Eric Wu, Regional Water Quality Control Board
Traci Minamide, Chief Operating Officer, BOS
Adel Hagekhalili, Assistant Director, BOS
Ali Poosti, Division Manager, WESD/BOS
Doug Walters, Assistant Division Manager, WESD/BOS
Hyginus Mmeje, Sanitation Wastewater Manager, WESD/BOS
Lisa Mowery, Division Manager, FMD/BOS
Arnil Aguilar, Sr. Management Analyst, FMD/BOS

WORKPLAN FOR

CITY OF LOS ANGELES' ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS) SURVEY PROJECT





CITY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS BUREAU OF SANITATION WASTEWATER ENGINEERING SERVICES DIVISION

Enrique Zaldivar, Director, Bureau of Sanitation 1149 S. Broadway 9th Floor, Los Angeles, CA 90015

SUBMITTED ON DECEMBER 1, 2012

TO

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION IX

Attention: David Albright, Manager, Ground Water Office (WTR9)

75 Hawthorne Street, San Francisco, CA 94105-3901

REGULATORY OVERVIEW AND PURPOSE OF THE PROJECT

The United States Environmental Protection Agency (EPA) implements the Underground Injection Control (UIC) regulations pursuant to the Safe Drinking Water Act. In 1999, the EPA's UIC regulations were amended to include a national ban on the use of large capacity cesspools, some of which exist within the City of Los Angeles (City). The EPA defines "Large Capacity" cesspools as any cesspool with the capacity to receive wastewater from 2 or more residences or 20 or more persons per day for commercial properties. All such cesspools in operation nationally and in the City of Los Angeles, were required to have closed by 2005 to comply with EPA's regulations.

The City of Los Angeles has an Onsite Wastewater Treatment Systems (OWTS) (also known as septic systems) inventory of approximately 13,000, some of which are assumed to be large capacity cesspools. To determine if large capacity cesspools actually exist in the City of Los Angeles, a survey and a site visit effort of the type being requested by the EPA is necessary. The EPA is requesting the City's assistance to conduct necessary surveys and site visits to confirm locations of large capacity cesspools to bring them into compliance with EPA regulations. Compliance may entail connection to sewer, installation of a septic tank to pre-treat sewage, or other conversion of the system so that it does not meet the criteria as a large-scale cesspool.

Therefore, the purpose of the City of Los Angeles Onsite Wastewater Treatment Systems (OWTS) Survey Project is to identify, locate, and confirm large capacity cesspools in the City, especially those in High Risk areas. The City defines High Risk OWTS as those that are located within any of the following distances:

- 1. 600 feet from 303(d) listed impaired water bodies due to nitrates and bacteria
- 2. 900 feet from active drinking water wells
- 3. 150 feet from streams
- 4. 5 feet from groundwater

The EPA agrees that the City of Los Angeles should target High Risk OWTS for their higher potential to cause environmental and public health concerns, due to their proximity to impaired surface water bodies or groundwater.

One of the significant benefits of the survey project is that the City will have the opportunity to outreach to its OWTS owners, during the site visits, by providing them with home owner guides for proper septic system operation and maintenance, in English and Spanish (see attached brochures). The City of Los Angeles looks forward to working with the EPA on this survey project and is submitting the workplan as requested.

SITE VISIT PROCESS AND PROCEDURES

Scope of Site Visit Activities

During site visits, City staff will be using the OWTS Site Visit Checklist to obtain and record key information about each OWTS location, such as: homeowner and/or tenant information, OWTS location, OWTS type, OWTS age and condition, etc. Specifically, EPA needs information on the location, condition, construction, and operation of such systems, to the extent that can be discerned from a site visit. It should be noted that the EPA does not require that the City of Los Angeles perform any excavation or removal of lids and other devices during such site visits. However, according to EPA, the City may ask property owners to do so especially at commercial sites where sanitary waste may be commingled with high-strength or toxic wastewater. According to the EPA, City staff would not operate as federal inspectors during site visits, nor would City staff be expected to interpret or enforce federal regulations. Finally, the City will use site visits as an opportunity to conduct outreach to OWTS owners, by providing them with home owner guides to proper septic system operation and maintenance, in English and Spanish.

Preparation & Planning for Site Visits

To refine site visit priorities, City staff will compile a summary of information with data regarding all Onsite Wastewater Treatment Systems (OWTS), including residential, multi-family, and commercial septic systems. Information pertaining to these OWTS will include the proximity of each OWTS to the nearest 303(d) listed impaired water body, active drinking water well, stream, or groundwater to the extent possible. Information will also include the proximity of the each OWTS to the nearest sewer mainline to the extent possible. In addition, relevant sewer system maps will be reviewed to prioritize site visits, and a spreadsheet database could be developed to input data obtained during site visits. Safety equipment in addition to other necessary equipment would be provided for site visit team or crew members.

Proposed Staffing

To ensure that lessons learned are retained in-house as recommended by the EPA, the survey will be conducted by a team or crew members of Bureau of Sanitation engineering and field technicians. Additionally, septic system inspection, operation, and maintenance related training approved by the California Onsite Wastewater Association (COWA) and by the National Association of Wastewater Transporters (NAWT) may be provided at a later date to the team if necessary.

Conducting Site Visits

The first level of priority include approximately 181 High Risk OWTS, as previously defined, and which a majority are substandard because they were constructed prior to the 1953 cesspool ban in the City of Los Angeles. Additionally, there is a high probability that these OWTS may be subject to UIC regulations. Depending on the availability of time and funds, the project will be scaled up accordingly to address a second level of priority, consisting of other High Risk OWTS and substandard Commercial and Multi-Family OWTS (approximately 1,463). A third level of priority includes the remaining OWTS in the City (approximately 11,329).

Information to be obtained during site visits will include some of the following:

- 1. The location of the septic system on the property
- 2. Reason(s) why the property is on/not on the high risk list (if not already determined)
- 3. Information on the visibility of lids (material, color)
- 4. A yard footprint of the system, & the approximate distance from structures and the property line
- 5. The ground condition around the OWTS (damp, dry, etc)
- 6. Whether there is any access for repairs if a truck or backhoe needed entry
- 7. The structure/occupancy of the building (single, multi-family, 20+ users, etc)
- 8. Whether there are any private domestic wells on property

Note: Information will also be included in the OWTS Site Visit Checklist.

Outreach to OWTS Owners

During site visits, City staff will also provide educational materials, including homeowners guides, brochures, and fliers to proper septic system operation and maintenance. Brochures & fliers will also contain visuals along with information regarding the difference between a legal septic system versus a cesspool. Educational materials will be translated in Spanish, and will be kept by OWTS owners for their reference.

Post Site Visits

After site visits, crew members will thoroughly review the OWTS Site Visit Checklist to ensure that all field parameters were obtained. Crew members will then input field notes,

observations, and records into the excel spreadsheet database, and the progress of the project will be updated as needed.

FUNDING SOURCE

The City of Los Angeles' Onsite Wastewater Treatment Systems Survey Project is expecting to receive funds through the EPA. The City is willing to contract with the EPA to conduct citywide OWTS surveys to develop an inventory of large capacity cesspools that pose a threat to surface water and groundwater, and do not comply with UIC regulations. To initiate this Citywide planning effort, the EPA is willing to provide up to \$75,000 to assist with site visits using City staff personnel in order that the knowledge to be gained will be retained in-house.

BUDGET

Category	Item	Estimated Cost
Equipment, Materials & Supplies	Field work equipment (Ex. Laptop, camera, Microsoft Project software, helmets, gloves, measuring tapes, flash lights, safety vests, etc.)	\$5,000
Personnel	Travel, Time, data collection, research, permission/approvals needed for site visits	\$59,083
Educational Materials, Training & Outreach	Brochure printing, map printing	\$5,000
Research, Planning, and EPA Report	Research and planning during the 2 months prior to site visits and the 2 months after site visits, for EPA reporting	\$5,917

Costs per site

Time spent by City personnel (including planning, site visits, and post site visits), in addition to traveling distance, equipment & outreach costs were used to develop the cost per site. An average salary of \$44 per hour was used for 2 City Personnel (Engineer & Field Technician). The burdened salary was calculated using a factor of 1.8 (\$79.20). With a \$75,000 budget, the City will be able to conduct a total of 181 site visits based on a total cost per site of approximately \$414.36 (See table below).

Table 1: Cost Per Site Table

	Time (hrs)	\$/hr x burden factor	Crew	Cost
Pre-visit	1	\$79.20	2	\$158.40
Field visit	6	\$79.20	2	\$950.40
Post-visit	1	\$79.20	2	\$158.40
		roundtrip e (miles)	\$/mile	
Travel	70 0.55			\$38.50
Da	ily cost (8h	r working day):	\$1,305.70
Cost per site (4 sites/day):				\$326.43
Equipment, training, & outreach costs per site = (\$10,000/181 OWTS)				\$55.25
Research, planning, & EPA Report Preparation			\$32.69	
TOTAL COST PER SITE:				\$414.36
# Of Site Visits (based on \$75,000 Budget)				181

SITE VISIT PRIORITY LIST

Based on funding, time, and staffing available, the City has identified 181 large capacity OWTS property locations (referred to as top priority) for site visits because they are high-risk septic systems, and/or were constructed prior to the 1953 cesspool ban in the City of Los Angeles. Unless a site visit is performed, the City believes that pre-1953 constructed OWTS are likely to be cesspools due to their ease of construction and low cost, at the time. Although, the proposed priority list is tentative, and may change with further evaluation, the City strongly believes that the site visits of these 181 locations will be ideal, and a great start for the US EPA and the City of Los Angeles to partner and address these issues.

Table 2: Top Tier of Priority OWTS

Category	OWTS Type	Top Priority Subtotal	Cumulative Total
High Risk & Substandard	Commercial	71	71
High Risk & Substandard	Multi-family	25	96

High Risk	Commercial	68	164
High Risk	Multi-family	17	181
Total		181	181

It is important to note that not all OWTS within the City of Los Angeles will be addressed by this contract, due to limited funding, time and UIC focus. Additional funding sources,, staff, and resources, as they become readily available, would be used to address all OWTS within the City of Los Angeles

Table 3 below represents the second tier of priority OWTS (a total of 1,463) to be addressed given additional time and funds. Out of the 1,463 OWTS in the second tier, 867 are high risk, and all 1,463 are substandard.

Table 3: Second Tier of Priority OWTS

Category	OWTS Type	Second Tier Priority Subtotal	Cumulative Total
High Risk & Substandard	Residential (1-2 Dwelling Units)	867	1,048
Substandard (Pre 1953)	Commercial	431	1,479
Substandard (Pre 1953)	Multi-Family	165	1,644
Total		1,463	1,644

Table 4 below represents the third tier of priority OWTS (a total of 11,329) to be addressed given additional time and funds. The City believes this project is a tremendous opportunity to identify and assess the City's OWTS situation. As such, more funding and support will be needed in the future to completely address the City of Los Angeles' potential numerous and complex cesspool situation.

Table 4: Third Tier of Priority OWTS

Category	OWTS Type	Third Tier Priority Subtotal	Cumulative Total
High Risk	Residential (1-2 Dwelling Units)	1,404	3,048
Substandard (Pre 1953)	Residential (1-2 Dwelling Units)	5,131	8,179
Other	Commercial	405	8,584
Other	Multi-Family	117	8,701

Other	Residential (1-2 Dwelling Units)	4,272	12,973
Total		11,329	12,973

PROPOSED TIMELINE

The timeline is listed in detail below, with an estimated start date of January 7, 2013:

Date	Task	Duration
October 2012 – November 2012	Workplan Development	2 months
December 1st, 2012	US EPA Submittal Deadline	
December 2012	US EPA Review & Approval	1 month
January 2013 – February 2013	Research & Planning	2 months
March 2013 – to August 2013	Site Visits	6 months
September 2013 – October 2013	Final Report & Submittal to US EPA	2 months

Site Visit duration was calculated by assuming:

- One (1) team of crew members conducting site visits
- Four (4) site visits per day
- Conducting site visits two (2) days per week

(181 OWTS ÷ 8 OWTS per week) = Approximately 23 weeks, or 6 months

Attachments:

- 1. City of Los Angeles' homeowner's guide to septic systems.
- 2. OWTS Site Visit Checklist
- 3. City of Los Angeles OWTS map