SUBJECT: Consider Municipal Code Revisions to Allow for the Filtering of “Graywater” and the Reuse of Filtered Graywater for Household Purposes - Study Issue

REPORT IN BRIEF

At the December 9, 2008 Council meeting, discussion took place to consider any code revisions that would be necessary to allow for the filtering of "graywater" and the reuse of the filtered graywater for household use. The issue was sponsored by Councilmembers Whittum and Swegles and became study issue DPW 20 on March 30, 2009.

This report brings back current information and options following staff’s participation in the Santa Clara County Graywater Working Group, which developed a model ordinance that provides guidance, flexibility and additional protections to the environment with minor modifications to the California Plumbing Code.

Since the model ordinance developed by the working group is consistent with state requirements and incorporates input from regional stakeholders including the Santa Clara Valley Water District, staff recommends that Council adopt, by resolution, changes and modifications to the 2010 California Plumbing Code.

The new provisions allow for the installation of limited types of graywater systems and provide guidance, flexibility and nominal permitting requirements that will encourage graywater use.

BACKGROUND

Per Health and Safety Code Section 17922.12, “graywater” includes but is not limited to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs, but does not include wastewater from kitchen sinks or dishwashers.

Under the previously existing provisions graywater could only be used for irrigation through a system that was entirely buried 9 inches below the surface.
of the ground. This severely limited the use of graywater in California and made it ineffective as a water conservation measure.

On February 27, 2009, Governor Schwarzenegger issued a proclamation declaring a drought to be in existence and a state of emergency to exist within California. The proclamation directed, to the extent allowed by applicable law, state agencies within his administration to prioritize and streamline permitting and regulatory compliance actions for desalination, water conservation and recycling projects to provide drought relief.

As a result, the Department of Housing and Community Development adopted revised building standards through the emergency adoption process. These revised building standards, which included graywater regulations, were approved by the California Building Standards Commission and became effective on August 4, 2009.

Sunnyvale utilizes the California Plumbing Code (CPC), in which these revised standards are contained, and these revisions are currently in effect for the City.

**EXISTING POLICY**

The following existing City policies are from the Water Resources Sub-element of the General Plan:

3.1 WATER RESOURCES: GOALS, POLICIES AND ACTION STRATEGIES

**GOAL B: Water Conservation - Promote more efficient use of the City’s water resources to reduce the demands placed on the City’s water supplies.**

Policy B.1: Lower overall water demand through the effective use of water conservation programs designed to increase water use efficiency in the residential, commercial, industrial and landscaping arenas, partnering with our wholesalers.

**GOAL D: Water Quality - Ensure that all water meets state and federal standards for aesthetics, quality and health.**

Policy D.1: Maintain and update a comprehensive water quality monitoring program that meets or exceeds all state and federal requirements, while also meeting specific City and residents’ needs.
DISCUSSION

Through participation in the County Graywater Working Group, Sunnyvale has helped shape the model ordinance language for nominal permitting and inspection requirements, so that graywater use can be facilitated and public health can be protected. The major thrusts of these changes as a result of the working group are:

1. A graywater disposal system is prohibited if the graywater system disposal point is less than 5 vertical feet from groundwater for a simple system or 10 vertical feet for a complex system.
2. Nominal permitting/inspecting requirements to allow plumbing officials to confirm no cross connections exist between the graywater and potable water systems.

When the new rule went into effect Section 18941.7 was added to the Health and Safety Code, to read: 18941.7. A city, county, or other local agency may adopt, after a public hearing and enactment of an ordinance or resolution, building standards that prohibit entirely the use of graywater, or building standards that are more restrictive than the graywater building standards adopted by the department under Section 17922.12 and published in the California Building Standards Code.

FISCAL IMPACT

No fiscal impact is anticipated from the recent adoption of revised building standards relative to graywater systems. If model ordinance changes were adopted by the city, very minor costs may be incurred for permitting and inspection, which could be mitigated by permit fees if desired.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; reviewed and commented on by the Sustainability Commission; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City’s Web site.
ALTERNATIVES

1. Continue to implement the revised building standards as adopted by CBSC, without making any changes, including no permit requirements for Clothes washer and Single-fixture Systems.
3. Consider alternate plumbing code requirements, developed by staff and subject to full state requirements for proving the appropriateness of code requirements other than those adopted by the state.

RECOMMENDATION


Reviewed by:

John Stufflebean, Director, Department of Environmental Services

Hanson Hom, Director, Community Development Department

Prepared by: Lorrie Gervin, WPCP Division Manager

Approved by:

Gary M. Luebbers
City Manager

Attachments:
1. 2009 Council Study Issue (Municipal Code Revision for Graywater)
2. Proposed Resolution
3. Proposed Ordinance
DPW 20 Consider any code revisions that would be necessary to allow for the filtering of "gray water" and the reuse of the filtered gray water for household purposes.

Lead Department Public Works
Element or Sub-element 3.0 Environmental Management
New or Previous New
Status Pending History 1 year ago None 2 years ago None

1. What are the key elements of the issue? What precipitated it?

At the December 9, 2008 Council meeting, discussion took place to consider code revisions to allow filtering of gray water for household use. The issue was sponsored by Councilmembers Whittum and Swegles.

**Purpose** - Regulatory/Health Issues - Gray water is wastewater that has been used only for certain purposes that are generally considered cleaning, such as the washing of fruit, bathing, hand washing and teeth brushing. If gray water is kept separate from other sanitary waste, and receives some amount of local treatment, it is possible to use it for non-potable uses. Ensuring that this separation remains, and that the gray water is put only to certain, appropriate uses, is a health and safety issue that must be dealt with in developing the use of gray water. Regulations exist, and investigation has been performed by others as to the feasibility of using gray water for such appropriate purposes.

**Water Conservation** - The use of gray water at individual sites has the potential to offset potable water use for landscape irrigation, toilet flushing, and perhaps other outdoor uses. Such usage would also reduce the amount of wastewater going to the water pollution control plant and requiring treatment.

**City Role** - Given that this is a use of a particular water source at a particular site, gray water would not involve City infrastructure, but City roles of education about the uses and or concerns with gray water might be appropriate, and possibly some type of regulatory oversight role, to ensure that health and safety issues are addressed. This role would need to be researched vis-a-vis other regulatory purviews such as Dept of Health Services and Regional Water Quality Control Board.

2. How does this relate to the General Plan or existing City Policy?

**3.1 WATER RESOURCES: GOALS, POLICIES AND ACTION STRATEGIES**

**GOAL B: Water Conservation** - Promote more efficient use of the City’s water resources to reduce the demands placed on the City’s water supplies.

**Policy B.1:** Lower overall water demand through the effective use of water conservation programs designed to increase water use efficiency in the residential, commercial, industrial and landscaping arenas, partnering with our wholesalers.

**GOAL D: Water Quality** - Ensure that all water meets state and federal standards for aesthetics, quality and health.

**Policy D.1:** Maintain and update a comprehensive water quality-monitoring program that meets or exceeds all state and federal requirements, while also meeting specific City and residents’ needs.

3. Origin of issue
Council Member(s)  Whittum, Swegles
General Plan
City Staff
Public
Board or Commission none

4. Multiple Year Project? No  Planned Completion Year 2009

5. Expected participation involved in the study issue process?
   Does Council need to approve a work plan? No
   Does this issue require review by a Board/Commission? No
   If so, which?
   Is a Council Study Session anticipated? No
   What is the public participation process?
   Standard participation through the Council public hearing process.

6. Cost of Study
   Operating Budget Program covering costs
   344 Wastewater Treatment
   Project Budget covering costs
   Budget modification $ amount needed for study $40,000.00
   Explain below what the additional funding will be used for
   Use of outside specialists knowledgeable in the field to consider federal and state regulatory
   requirements, and the health implications based upon standard practices of the water industry for
   the use of grey water in varying situations.

7. Potential fiscal impact to implement recommendations in the Study approved by Council
   Capital expenditure range None
   Operating expenditure range $51K - $100K
   New revenues/savings range None
   Explain impact briefly
   Operating expenses to monitor/regulate grey water use if City adopts a program

8. Staff Recommendation
   Staff Recommendation  Against Study
   If 'For Study' or 'Against Study', explain
   Staff recommends against this study because there is no outside funding source identified
   and staff workloads are already at maximum levels due to increasing regulatory mandates.

9. Estimated consultant hours for completion of the study issue
   200

Managers

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<tr>
<th>Role</th>
<th>Manager</th>
<th>Hours</th>
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<tr>
<td>Lead</td>
<td>Gervin, Lorrie</td>
<td>Mgr CY1: 40  Mgr CY2: 0</td>
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Support  Craig, Jim

Staff CY1: 40  Staff CY2: 0
Mgr CY1: 25  Mgr CY2: 0
Staff CY1: 40  Staff CY2: 0

Total Hours CY1: 145
Total Hours CY2: 0

Note: If staff's recommendation is 'For Study' or 'Against Study', the Director should note the relative importance of this Study to other major projects that the Department is currently working on or that are soon to begin, and the impact on existing services/priorities.

Reviewed by

[Signature]
Department Director

Date
1/13/09

Approved by

[Signature]
City Manager

Date
1/14/09
Addendum

A. Board / Commission Recommendation

☐ Issue Created Too Late for B/C Ranking

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<th>Rank 2 years ago</th>
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Board or Commission ranking comments

B. Council

Council Rank (no rank yet)
Work Plan Review Date (blank)
Study Session Date (blank)
RTC Date (blank)
Actual Complete Date (blank)
Staff Contact
RESOLUTION NO. _______

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE FINDING AND DETERMINING THE NEED FOR MODIFICATIONS TO THE 2010 CALIFORNIA PLUMBING CODE

WHEREAS, minimum requirements for the installation of graywater systems in occupancies are regulated by the City Department of Environmental Services (DES); and

WHEREAS, amendments to Title 16, Chapter 16.24 of the Sunnyvale Municipal Code is intended to provide guidance to code users while providing flexibility that will encourage the use of graywater; and

WHEREAS, chapter 16.24 contains provisions which allow the installation of limited types of graywater systems to be installed without a construction permit; and

WHEREAS, it is not intended that exemptions from a construction permits be construed by code users as an exemption from the provisions of this Chapter or other lawfully enacted requirements imposed by a city, county, or city and county, nor does it eliminate the need for persons considering the installation of a graywater system from contacting local authorities to ensure they are adequately informed about any local requirements or prohibitions; and

WHEREAS, the emergency graywater regulations, which added Chapter 16A "Nonpotable Water Reuse Systems" into the 2007 California Plumbing Code, were approved by the California Building Standards Commission (CBSC) on July 30, 2009. The emergency regulations were subsequently filed with the Secretary of State on August 4, 2009, effective immediately upon filing; and

WHEREAS, the "Certificate of Compliance", along with the Final Express Terms, was unanimously approved by the CBSC and filed with the Secretary of State on January 27, 2010, and with rulemaking action complete, Title 24, Part 5, Chapter 16A, Part I emergency regulations of the 2007 California Plumbing Code were made permanent; and

WHEREAS, this Chapter is applicable to building occupancy is intended to:

1. Conserve water by facilitating greater reuse of laundry, shower, lavatory and similar sources of discharge for irrigation and/or indoor use.

2. Reduce the number of non-compliant graywater systems by making legal compliance easily achievable.

3. Provide guidance for avoiding potentially unhealthful conditions.

4. Provide an alternative way to relieve stress on a private sewage disposal system by diverting the graywater.

WHEREAS, the City of Sunnyvale is adopting the 2010 California Plumbing Code with certain changes and modifications;
NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SUNNYVALE that it finds and determines there is a need to adopt the changes or modifications to the 2010 California Plumbing Code set forth in Section 2. n. below because of local climatic, topographic, geological and related geographic conditions as discussed and set forth hereinbelow.

General Findings

1. Climatic

a. Precipitation. Precipitation ranges from 4.83 to 30.30 inches per year with an average of approximately 13.86 inches per year. Approximately 90% falls during the months of November through April and 10% from May through October. This area experienced a major drought in 1977-78 and a moderate drought the next five years; it is possible that more droughts will occur in the future. The local climate is characterized by markedly delineated rainy and dry seasons, which tend to maximize the expansive characteristics of soil.

b. Relative Humidity. Humidity generally ranges from 60% during daytime to 80% at night. It drops to 20% during the summer months and occasionally drops lower.

c. Temperatures. Temperatures have been recorded as high as 108° F. Average summer highs are in the 78°-82° F. range.

d. Winds. Prevailing winds are from the Northwest or Southeast. However, winds are experienced from virtually every direction at one time or another. Velocities are generally in the 5-mph to 15-mph range, gusting to 7.4 mph to 30 mph, particularly during the summer months. Extreme winds, up to 60 mph, have been known to occur.

e. Summary. These local climatic conditions affect the acceleration, intensity and size of fire in the community. Times of little or no rainfall, of low humidity and high temperatures create extremely hazardous conditions, particularly as they relate to wood shake and shingle roof fires and conflagrations. The winds experienced in this area can have a tremendous impact upon structure fires of buildings in close proximity to one another commonly found in Sunnyvale. During wood shake and shingle roof fires, or exposure fires, winds can carry sparks and burning brands to other structures, thus spreading the fire and causing conflagrations. In building fires, winds can literally force fires back into the building and can create a blowtorch effect, in addition to preventing "natural" ventilation and cross-ventilation efforts.

2. Geological, Geographic and Topographic

a. Geographic Location. Sunnyvale is located in the Santa Clara Valley. It has taken its place as the second largest city in the heart of the "Silicon Valley," the center for an expanding and changing technology industry.

b. Seismic Location. Sunnyvale is situated on alluvial soils between San Francisco Bay and the San Andreas Fault zone. The City's location makes it particularly vulnerable to damage to taller and older structures caused by seismic events. The relatively young geological processes that have created the San Francisco Bay Area are still active today. Seismically, the City sits between two active earthquake faults (San Andreas and the Hayward/Calaveras) and numerous potentially active faults.

c. Seismic and Fire Hazards. Gypsum wallboard and exterior portland cement plaster have performed poorly during recent California seismic events. The shear values for gypsum wallboard and portland cement stucco contained in the code are based on mono-directional testing. It is appropriate to limit the use of these products until cyclic loading testing are
performed and evaluated. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself.

Hazardous materials, particularly toxic gases, could pose the greatest threat to the largest number, should a significant seismic event occur. Public safety resources would have to be prioritized to mitigate the greatest threat, and may likely be unavailable for smaller single dwelling or structure fires.

Other variables may tend to intensify the situation:

1. The extent of damage to the water system;
2. The extent of isolation due to bridge and/or freeway overpass collapse;
3. The extent of roadway damage and/or amount of debris blocking the roadways;
4. Climatic conditions (hot, dry weather with high winds);
5. Time of day will influence the amount of traffic on roadways and could intensify the risk to life during normal business hours;
6. The availability of timely mutual aid or military assistance;
7. The large portion of dwellings with wood shingle roof coverings could result in conflagrations.

d. **Size and Population.** The City has an area over 24 square miles in size and a population estimated to be 140,450.

e. **Development.** Sunnyvale is a community, which is projected to add 7,200 new residential units within the next twenty-five years, primarily in multi-family configurations, for which building security is a matter of acute importance.

f. **Public Safety Department.** Sunnyvale utilizes a public safety (joint police/fire) department with personnel who function as both fire suppression and police officers, resulting in fewer personnel than otherwise would be required for a city of its size. A premium is therefore placed on built-in physical techniques and devices as crime preventative measures. It is therefore also imperative that fire detection and suppression occur as quickly as possible to minimize loss of property and life. For these reasons the most stringent provisions are required concerning fire detection, alarm and suppression systems.

**g. Roads and Streets.** The number of vehicle miles driven in the City is steadily increasing and considerable efforts in traffic and roadway improvements are being made to ease the crush of commuters to and through the City to their homes and places of work. Because of the City’s high concentration of jobs, much of the peak traffic is made by nonresidents traveling to or from Sunnyvale. The impact of planned developments and traffic flow will continue to have an effect on the Department of Public Safety and delivery of fire services.

**h. Industry.** Sunnyvale is the site of many manufacturing and research industries which use toxic, flammable and explosive chemicals and materials in potentially hazardous combinations. Special precautions thus are required to minimize the risk of damage to adjoining persons and properties.

i. **Mixed Industrial/Residential Uses.** High-density residential uses are located near high-risk industries, necessitating special precautions.

j. **Transportation.** Sunnyvale is divided by an interstate highway, which potentially could affect response times of fire suppression equipment.
k. Soil Conditions and Topography. Sunnyvale lies at the southern end of San Francisco Bay and is built atop the alluvial deposits that surround the margins of the Bay. The alluvium was created by the flooding of the many streams emptying into the San Francisco Bay depression, and from intermittent seawater inundation that has occurred over the last 2 or 3 million years. The areas closest to the Bay are overlain by unconsolidated fine silty clay, known as "Bay Mud" which varies in thickness from a few feet to as much as 30 feet. Generally, the older, more stable alluvium is to the south and the younger, less stable material is to the north. Bedrock lies beneath the area at depths generally 300' or more. The topography is essentially flat, dropping from an elevation of 300 feet to sea level. The slope across the City is in a northeasterly direction from the high point in the southwest corner to the Bay. The average slope is approximately 0.9%.

The Silicon Valley is within a very active seismic area and local soil conditions can be highly expansive (clay soils). The Northridge earthquake provided hundreds of examples of damage to plain concrete footings. This type of damage is extremely expensive to repair, in contrast to the small expense of providing nominal footing reinforcement. Footing reinforcement is also necessary to prevent damage due to pumping action caused by local expansive soils, which shrink and swell during seasonal drying and wetting conditions.

Most of the surface soils in the Silicon Valley are relatively young and unconsolidated sedimentary materials formed from a wide variety of parent materials. The varying chemical composition, degree of weathering, and the relatively acid environment have created soils of varying types, which are particularly corrosive in nature. Much of the surface soil in the Silicon Valley is highly expansive (i.e., shrink-swell behavior) and has low bearing strength.

l. Water/Sewer. Some parts of the Silicon Valley have hard water, which is corrosive to ferrous pipe. The groundwater table is unusually high in many places. Expansive soils create unstable conditions, which increase the potential of breaks in sewer laterals. To maintain health and sanitary services, it is necessary to gain access, to periodically maintain public sanitary laterals.

m. Buildings, Landscaping and Clearances. Many of the newer large buildings and building complexes are of designs, which greatly limit visibility and approach to and accessibility by Public Safety resources. Many houses and other buildings with wood roofs and/or sidings are so close together that fire will readily spread from one to another by both radiation and convection.

n. Water Conservation. Conserve water by facilitating greater reuse of laundry, shower, lavatory and similar sources of discharge for irrigation and/or indoor use. Reduce the number of non-compliant graywater systems by making legal compliance easily achievable and provide guidance for avoiding potentially unhealthful conditions. Provide an alternative way to relieve stress on a private sewage disposal system by diverting the graywater.

o. Summary. The stated local geological, geographic and topographical conditions increase the magnitude, exposure, accessibility problems and fire hazards presented to the Department of Public Safety. Lying beneath Sunnyvale are thick layers of sand, gravel and clay, known as alluvium, which amplify the effects of earthquakes. Based on the damage caused in Santa Clara Valley by the 1906 earthquake and the poor performance of alluvial deposits during earthquakes, this area could be subject to severe damage.
Findings.

With the exception of changes justified on administrative grounds, the local amendments of the 2010 California Plumbing Code are justified by all of the aforementioned general findings.

BE IT FURTHER RESOLVED that the City Clerk is hereby directed to cause a copy of this resolution, together with the ordinances making the changes and modifications to the enumerated uniform codes, to be filed with the State Department of Housing and Community Development.

Adopted by the City Council at a regular meeting held on _____________, by the following vote:

AYES:  
NOES:  
ABSTAIN:  
ABSENT:  

ATTEST:  

_____________________________  ____________________________  
City Clerk  
(SEAL)  

APPROVED:  

_____________________________  ____________________________  
Mayor  

APPROVED AS TO FORM AND LEGALITY:

_____________________________  
David E. Kahn, City Attorney
ORDINANCE NO. _______

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING CHAPTER 16.24 (UNIFORM PLUMBING CODE) OF TITLE 16 (BUILDING AND CONSTRUCTION) OF THE SUNNYVALE MUNICIPAL CODE, WITH CERTAIN AMENDMENT THERETO

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. CHAPTER 16.24 AMENDED. Chapter 16.24, SECTION 16.24.030 (Regulations for Graywater Systems) is hereby added to read as set forth in Exhibit “A” attached and incorporated by reference.

SECTION 2. CONSTITUTIONALITY; SEVERABILITY. If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be invalid by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance, and each section, subsection, sentence, clause and phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared invalid.

SECTION 3. CEQA EXEMPTION. The City Council finds, pursuant to Title 14 of the California Code of Regulations, Section 15061(b)(3), that this ordinance is exempt from the requirements of the California Environmental Quality Act (CEQA) in that it is not a Project which has the potential for causing a significant effect on the environment. The Council therefore directs that the Planning Division may file a Notice of Exemption with the Santa Clara County Clerk in accordance with the Sunnyvale Guidelines for the implementation of CEQA adopted by Resolution No. 118-04.

SECTION 4. EFFECTIVE DATE. This ordinance shall be in full force and effect thirty (30) days from and after the date of its adoption.

SECTION 5. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, of a notice setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.
Introduced at a regular meeting of the City Council held on ______________, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on ______________, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

ATTEST: 

APPROVED:

City Clerk

Date of Attestation: ______________

(SEAL)

APPROVED AS TO FORM AND LEGALITY:

____________________________________
David E. Kahn, City Attorney
Chapter 16.24.

PLUMBING CODE

16.24.010. Title.

16.24.010. Title.
This chapter shall be known and may be cited and referred to as the “Plumbing Code for the City of Sunnyvale.”

The “2010 California Plumbing Code” is hereby adopted by reference, with changes and modifications as hereinafter set forth, as the Plumbing Code of the City of Sunnyvale.

2010 California Plumbing Code Chapter 1 Division II is hereby amended as follows:
California Plumbing Code Chapter 1 Division II is hereby replaced by the applicable provisions of Chapters 16.16 and 16.17.

2010 California Plumbing Code Chapter 16A is amended to read as follows:

1604A.1 Groundwater Depth. Adequate groundwater separation shall be demonstrated to the satisfaction of the Enforcing Agency per the requirements below. Adequate demonstration of the requirements can be shown through documented seasonal high groundwater levels within the area or if there is no evidence of groundwater in a test hole of the required depth.

Clothes washer system or simple system: The deepest irrigation or disposal point of the proposed graywater system shall not extend within five (5) vertical feet (1,524 mm) of groundwater.

Complex system: The deepest irrigation or disposal point of the proposed graywater system shall not extend within ten (10) vertical feet (3,048 mm) of groundwater.

1607A.0 Required Area of Irrigation or Disposal Fields. Irrigation or disposal fields may have one or more valved zones. Each zone must be of adequate size to receive the graywater anticipated in that zone. No irrigation or disposal field shall extend to a depth where graywater contaminates the groundwater, ocean water or surface water. The applicant shall supply evidence of groundwater depth to the satisfaction of the Enforcing Agency in accordance with the requirements in Section 1604A.1.