

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC HEALTH

Cross Connection & Water Pollution Control Plan Check Process for Alternate Water Systems

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I. INTRODUCTION

II. SB 966

III. DEFINE: ALTERNATE WATER SOURCES

IV. PLAN CHECK SUBMITTAL & REVIEW
PROCESS

V. SITE INSPECTIONS & FINAL

VI. CONCLUSION



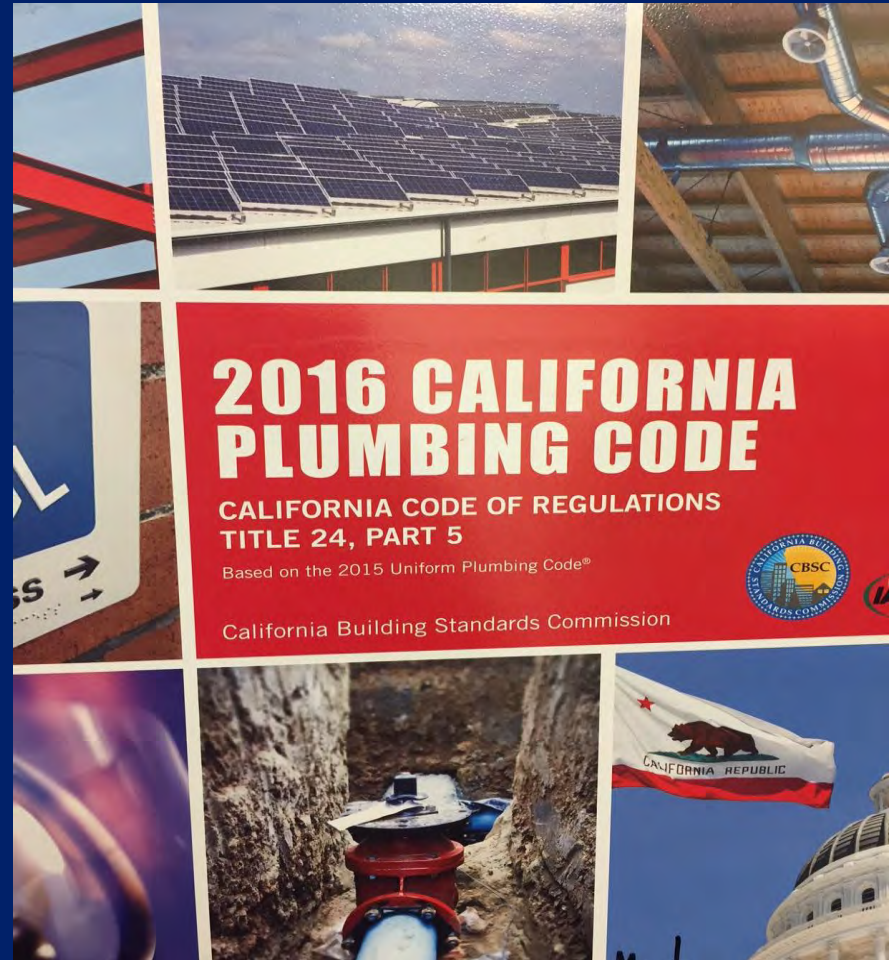
PROGRAM GOAL:

The Cross Connection & Water Pollution Control Program is responsible for the enforcement of statutes, regulations and applicable ordinances related to cross connection control, i.e., the prevention of non-potable/unapproved water supplies or other substances from entering the potable water supply system.



Why Establish a Cross Connection Program?

In every chapter associated with alternate water supplies (Chapter 15 & 16), a section for Cross-Connection testing is included



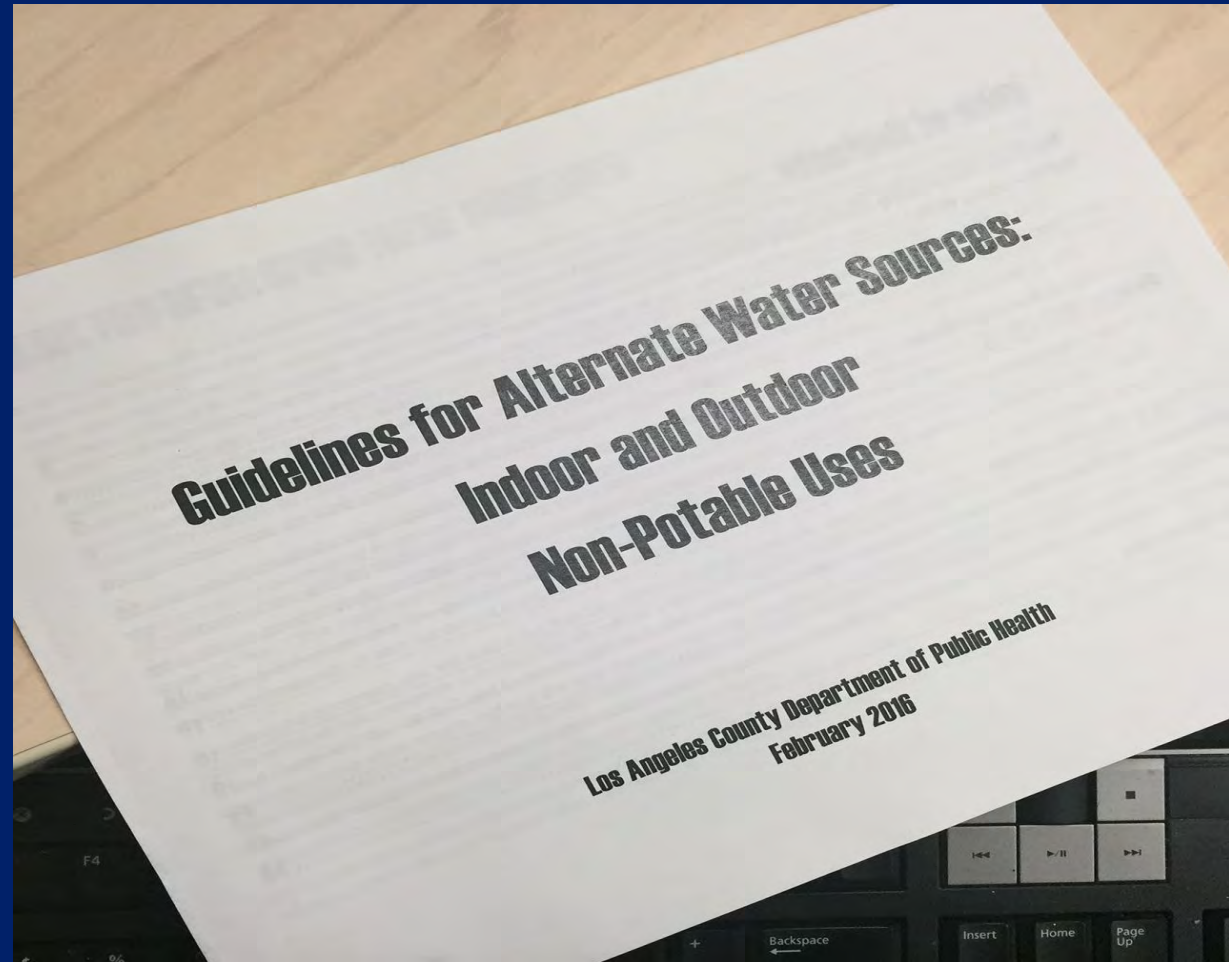
**Guidelines for Harvesting Rainwater, Stormwater, & Urban Runoff for
Outdoor Non-Potable Uses
September 2011**

Tier I On-site collection of rainwater in rain barrels for on-site use.			
Requirements	Types of Use	Minimum Water Quality Standard	Treatment Process
<ul style="list-style-type: none"> • Rain barrels must have a screened inflow opening, a spigot and/or hose bib, and an overflow pipe or equivalent. • Rain barrels shall be labeled to indicate non-potable water use only. • The system may not be connected to indoor/outdoor municipal potable plumbing, and shall not be pressurized or sprayed. • The systems must be installed in accordance with the rain barrel manufacturer's installation instructions, and installation requirements of local agencies. 	Landscape irrigation	Not applicable	Not applicable
	Car washing	Not applicable	Not applicable

- Guidelines for harvesting rainwater, stormwater & Urban runoff of outdoor non-potable uses
- A living document formulated in 2011
- No other guideline available

Alternate Water Matrix - 2016

Tier 1A: Rain (NP)
Tier 1B: Rain (P)
Tier 2: Gray
Tier 3: Storm
Tier 4 Recycled



Alternate Water Sources

- “Alternate Water Sources”
- Recycled water
- Rainwater - Harvested
- Stormwater - Collected
- Urban run-off
- Graywater – reuse
- Foundation Drainage Sys
- Black water



SENATE BILL 966

FOR ON-SITE TREATED NONPOTABLE WATER SYSTEMS WHICH REQUIRES STATE BOARD TO ADOPT REGULATIONS BY 12-1-2022 FOR RISK-BASED WATER QUALITY STANDARDS FOR MFD'S, COMMERCIAL AND MIXED-USE BUILDINGS.

REQUIRES LOCAL JURISDICTION TO ESTABLISH A PROGRAM FOR ON-SITE TREATED NONPOTABLE WATER SYSTEMS.

TREATED ALTERNATE WATER SOURCES: GRAY, RAIN, STORM, AND BLACK FOR IRRIGATION, TOILET & URINAL FLUSHING, DUST CONTROL, COMMERCIAL LAUNDRY SERVICES.

STATE TO ADDRESS ISSUES SUCH AS: PATHOGENS, MONITORING REQUIREMENTS, PUBLIC INFORMATION & NOTIFICATION, AND CROSS-CONNECTION CONTROL MEASURES.

DOES NOT ADDRESS UNTREATED NONPOTABLE WATER SYSTEMS.



COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC HEALTH CROSS CONNECTION & WATER POLLUTION CONTROL PROGRAM

Consists of: Chief, Office support staff, 9 inspectors
6 Plan Checkers (1 full time, 5 part time)
3 Field inspectors – surveys

2017 – 382 Plan submittals

59% Rainwater
33% Recycled water
8% Gray / Stormwater

2018 – 443 submittals so far



Plan Review Process for Alternate Water Systems

- Submit plans, application & fee
- Review within 21 calendar days
- Official Plan Review Report (contingent approval)
- Pre-construction meeting with contractor
- Inspections – different phases
- Final Cross-Connection Shutdown Test
- Alternate Water Site requiring registration
- Issuing an annual permit – renewing each year



PLAN CHECK & INSPECTION





ALTERNATE WATER SYSTEM PLAN APPLICATION

Date Project Name/Site/Facility Name/DBA

Job / Facility Address

Address City Zip

Submitted by / Contractor / Consultant Name

Name
Address City State Zip
Phone Email

Owner Information

Owner Name
Address City State Zip
Phone Email

Domestic Water Purveyor Recycled Water Purveyor

- | | | | |
|--|-------------|--|------------|
| <input type="checkbox"/> 5310 - Recycled Water, New or Conversion | \$1,791.00 | <input type="checkbox"/> 5340 - Graywater Residential Irrigation | \$1,960.00 |
| <input type="checkbox"/> 5311 - Shut-down Test for Final Approval | Hourly rate | <input type="checkbox"/> 5341 - Graywater Non-residential Irrigation | \$2,205.00 |
| <input type="checkbox"/> 5320 - Rainwater for Residential Outdoor | \$2,041.00 | <input type="checkbox"/> 5342 - Treated Graywater Residential Indoor | \$2,123.00 |
| <input type="checkbox"/> 5321 - Rainwater for Non-residential Outdoor | \$2,449.00 | <input type="checkbox"/> 5343 - Treated Graywater Non-residential Indoor | \$2,205.00 |
| <input type="checkbox"/> 5322 - Rainwater for Residential Indoor | \$2,205.00 | <input type="checkbox"/> 5351 - Stormwater Non-residential Outdoor | \$1,473.00 |
| <input type="checkbox"/> 5323 - Rainwater for Non-residential Indoor | \$2,613.00 | <input type="checkbox"/> 5351 - Stormwater Non-residential Indoor | \$3,520.00 |
| <input type="checkbox"/> 5330 - Untreated Graywater-sub-surface irrigation (septic systems, refer to Land Use Program) | \$1,878.00 | | |

Comments

INSTRUCTIONS FOR SUBMISSION OF PLANS

- Submit 2 copies of the plan with an electronic version in a CD/thumb drive format (include the final approval plans from the local building & safety.
- Checks/money orders must be for the exact fee, made out to: LOS ANGELES COUNTY PUBLIC HEALTH.
- Personal checks must bear a name, address and telephone number.
- This fee is not refundable nor is the application transferable.
- Your plans will not be reviewed or approved until a fee is paid.
- You will be contacted when your plans are ready.
- Attach a copy of this form to your plans. Keep a second copy of this form for your records.
- Plan approvals are valid for one year after the date of the approval.
- Plans are reviewed in the order they are received. Missing information or improperly prepared plans will delay the approval process.
- Note! Once your plans are reviewed, a letter of approval/denial will be issued to the persons submitting the plans, owner, water purveyor and State Water Resources Control Board.

FOR OFFICE USE ONLY

Date Filed Amount Paid

Cross Con Plan App 10/12/2017



Check List for Plan Submittal

- ☐ Overall site plan.
 - ☐ Utility Plans - meter locations, backflow assemblies, POCs.
 - ☐ Landscape irrigation plans.
 - ☐ Onsite plumbing schematics, both potable and alternate water.
 - ☐ Plan Application with appropriate fee.
 - ☐ Engineering Report - dual plumbed.
 - ☐ Authorization/Delegation Letter (recycled water projects only).
- All water meters (utilities/civil plans).
 - All irrigation connections, i.e. quick couplers, valve boxes, controllers, sprinklers, backflow devices, hose bibs, etc. (landscape plans).
 - Connection of the potable water in the street to the meter (up to the curb) (utility/civil plans).
 - Connection from the potable water meter to the building and the RPPD with make, model and serial number (plumbing plans).
 - Fire service connection(s), location, and backflow device information (plumbing plans).
 - Internal backflow devices, i.e. feeding industrial or other non-potable uses (plumbing plans).
 - All buried pressurized water lines shall be identified w/ continuous tape (Ca UPC, Sec. 601.2.2.1).
 - Potable (blue or green background w/ black lettering)
 - "Potable Water Line"**
 - Recycled (CCR Title 22 water, purple background w/ black lettering)
 - "Caution - Recycled/Reclaimed Water Line"**
 - Non-potable (Irrigation, from potable source, yellow background w/ black lettering)
 - "Caution - Non-potable Water Line"**
 - Industrial/Non-potable (Industrial application, yellow w/ black lettering & direction of flow)
 - "Caution - Industrial Water Line"**
 - Rainwater/Cistern Water (yellow or purple background w/ black lettering)
 - "Caution - Non-potable Cistern Water Irrigation System Sub-surface only, Danger - Unsafe Water"**
 - Fire Line (red background w/ black lettering)
 - "Fire Line"**
 - Graywater (gray or purple background w/ black lettering)
 - "Caution - Non-potable Graywater - Do Not Drink"**
 - Treated Graywater (gray or purple background w/ black lettering)
 - "Caution - On-site Treated Non-potable Water - Do Not Drink"**
 - Recycled, Graywater and Rainwater/Cistern projects may require an approved backflow prevention device on the potable service(s), installed as close to the meter(s) as possible.
 - Signs - Excluding single family dwellings, install signs at all entrances stating the use of either recycled, cistern or gray water for landscape irrigation.
 - Recycled water projects: The Los Angeles County DPH *Guidelines for Proposed Recycled Water Systems* shall be included in the contractors working plans as an addendum to the General Notes. State DPH has authorized this department to conduct recycled water project reviews within Los Angeles County.
 - Rainwater/cistern water projects: the Los Angeles County DPH *Guidelines to safe stormwater/Rainwater/Cistern water reuse, pipeline construction and installation* shall be included in the plan proposal.
 - Graywater projects shall obtain approvals from the administrative authority as per UPC, i.e. Building & Safety Department and/or County DPH - Land Use Program. Include approval documentation with application. Joint approval is required due to cross-connection requirements regulated by this department.







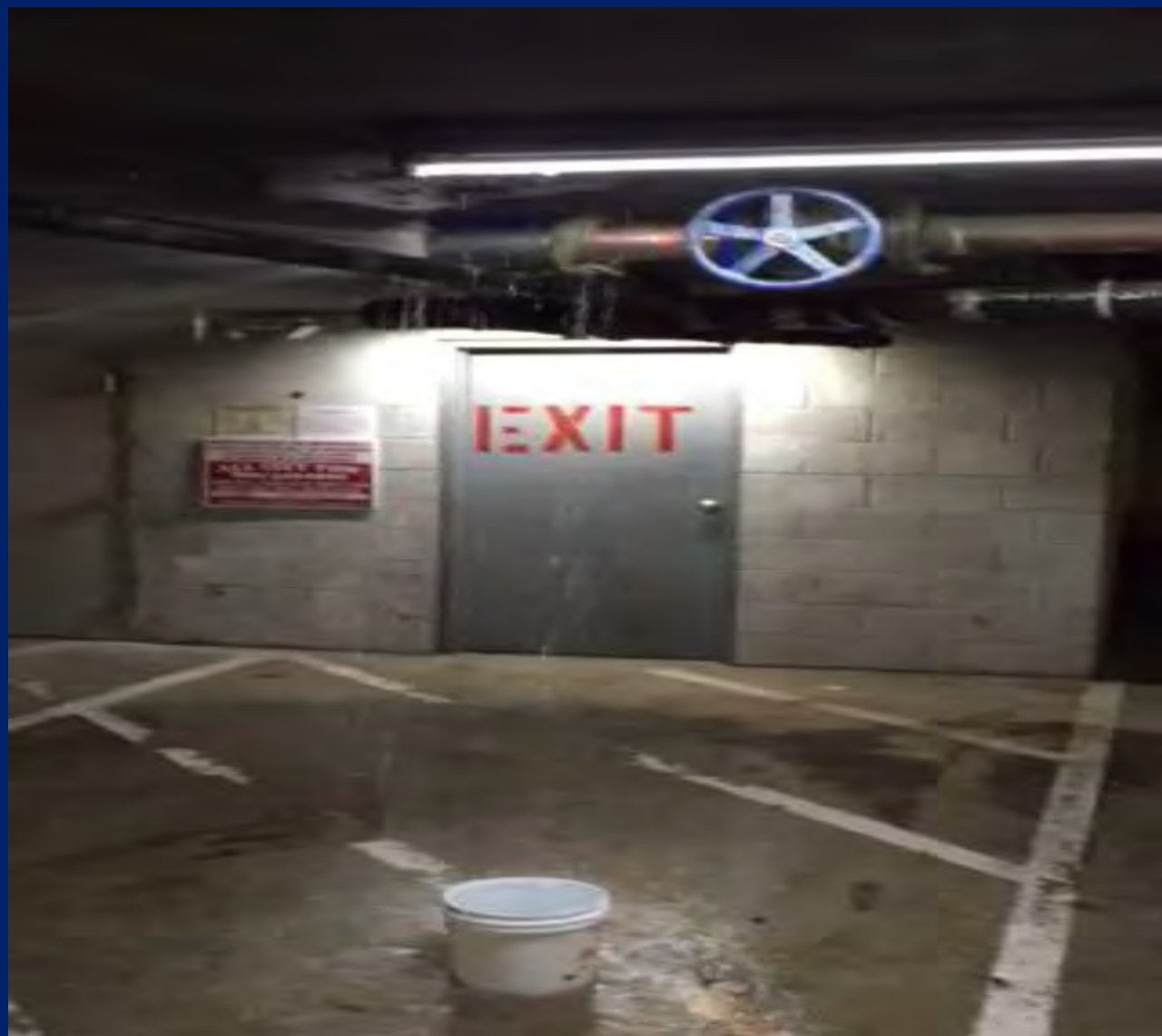


Foundation drainage



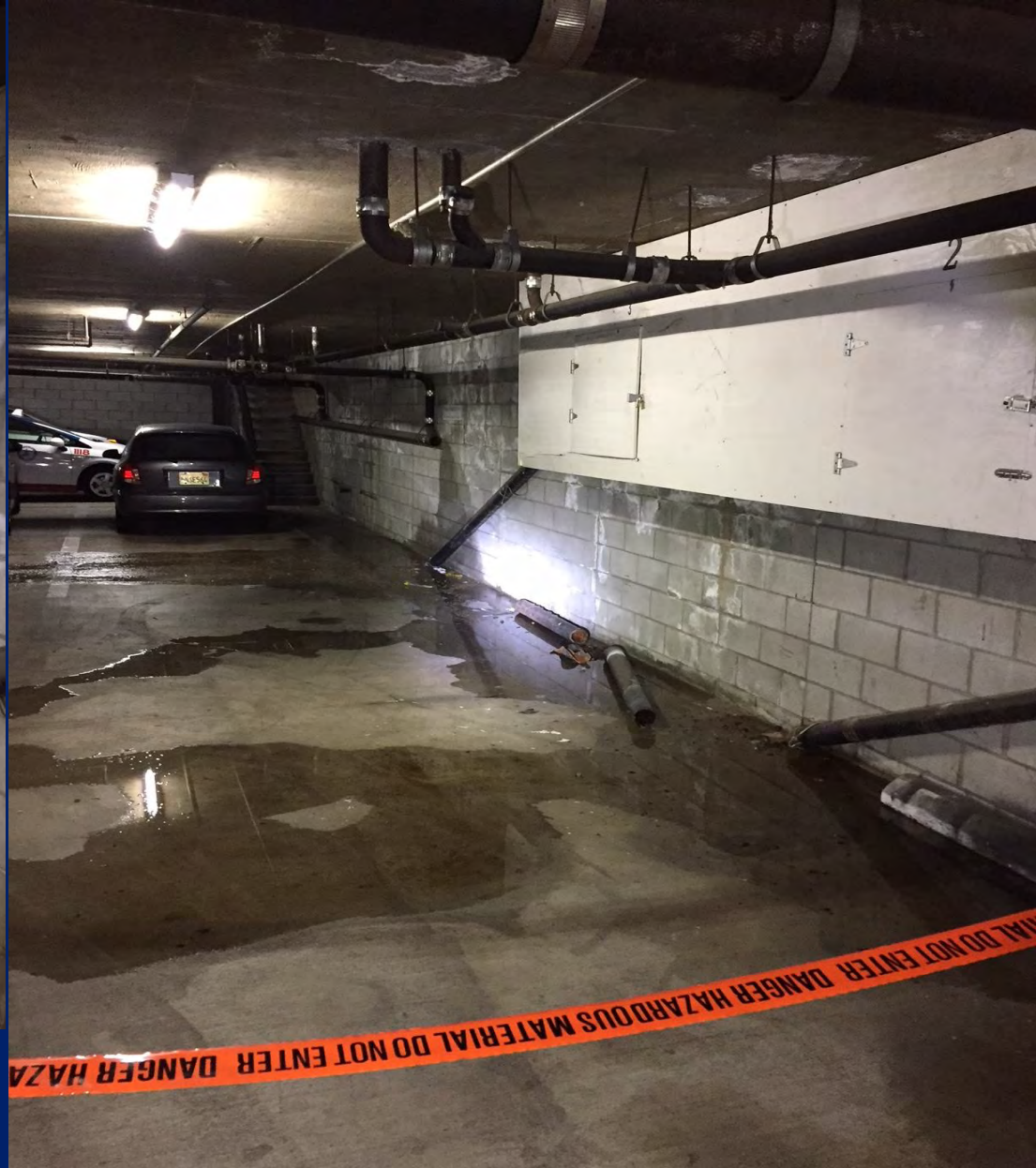


DOMESTIC WATER CONVERSION TO URBAN RUN-OFF



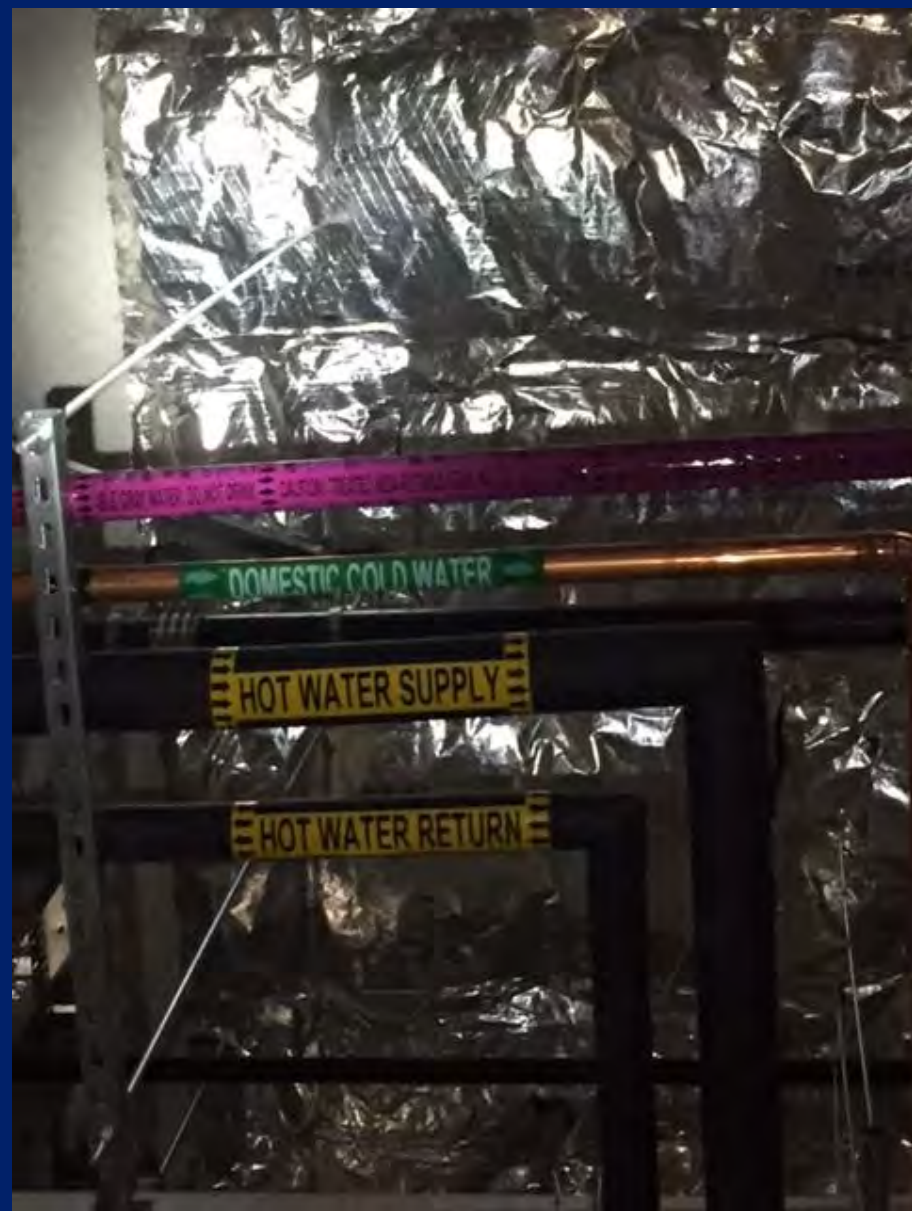
TIER 1A
BUCKET





UNPRESSURIZED SEWER LINE



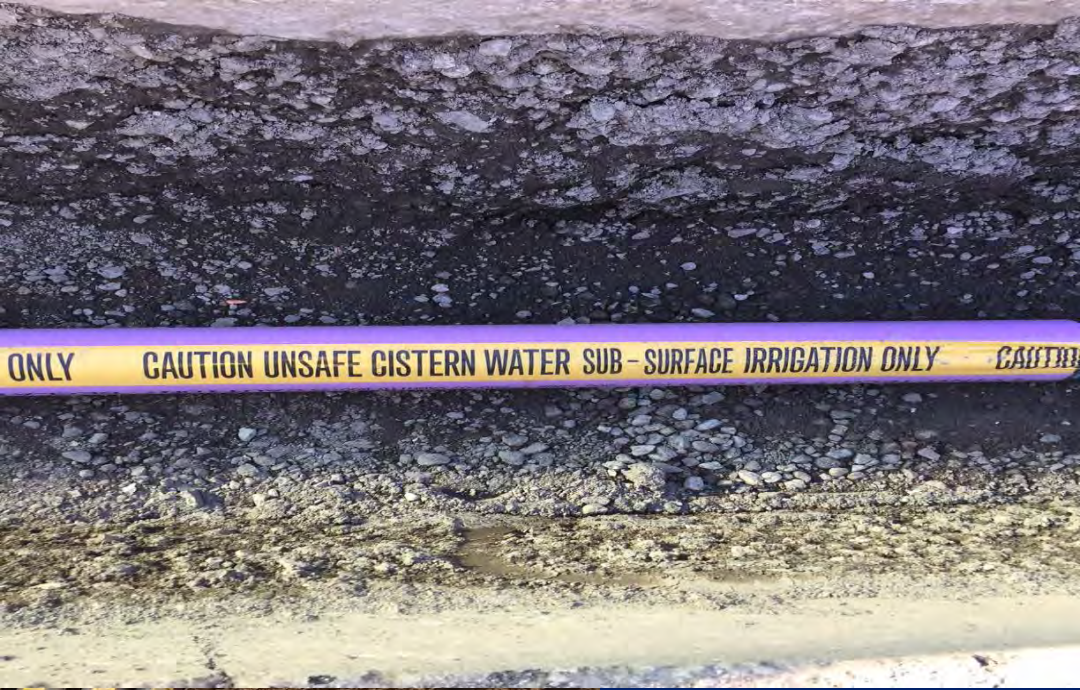


















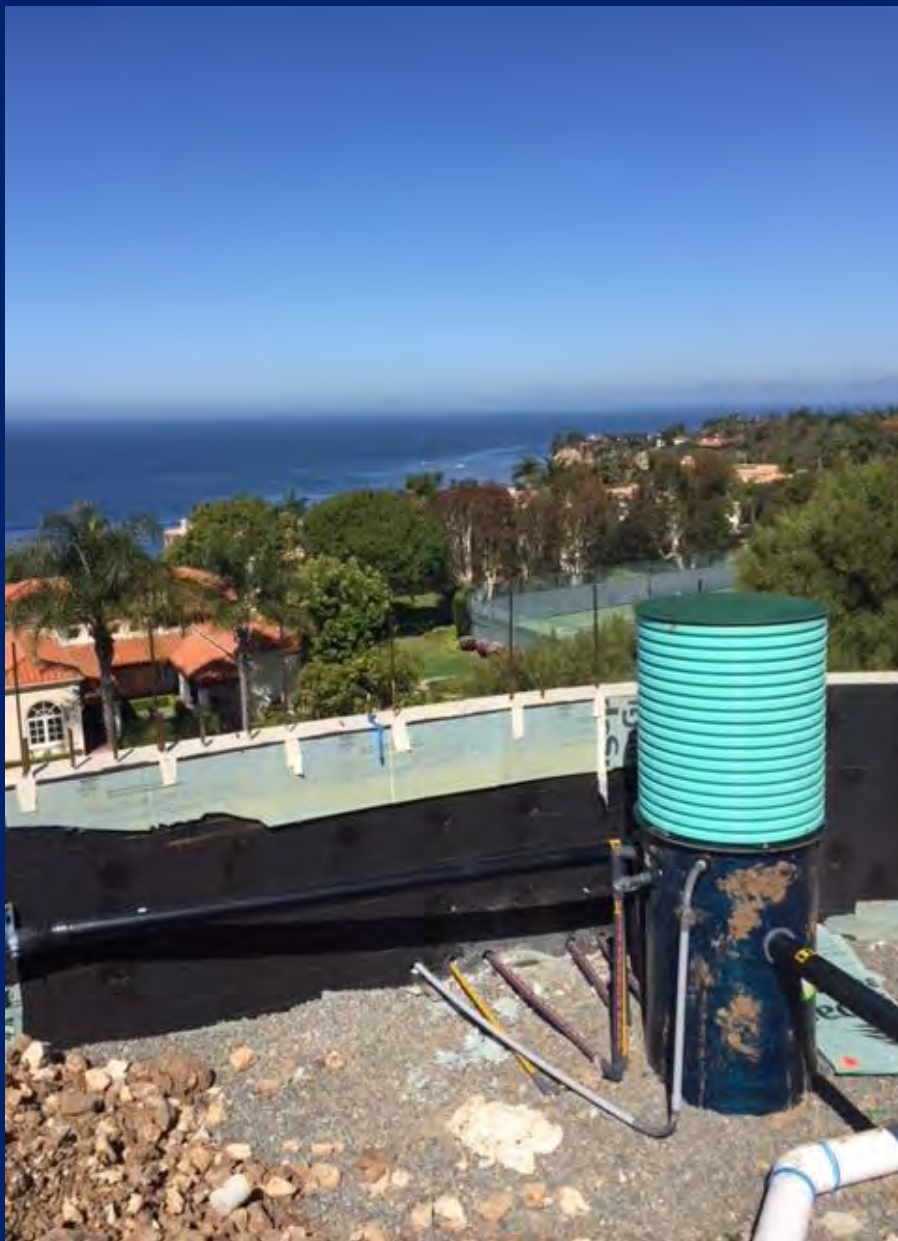






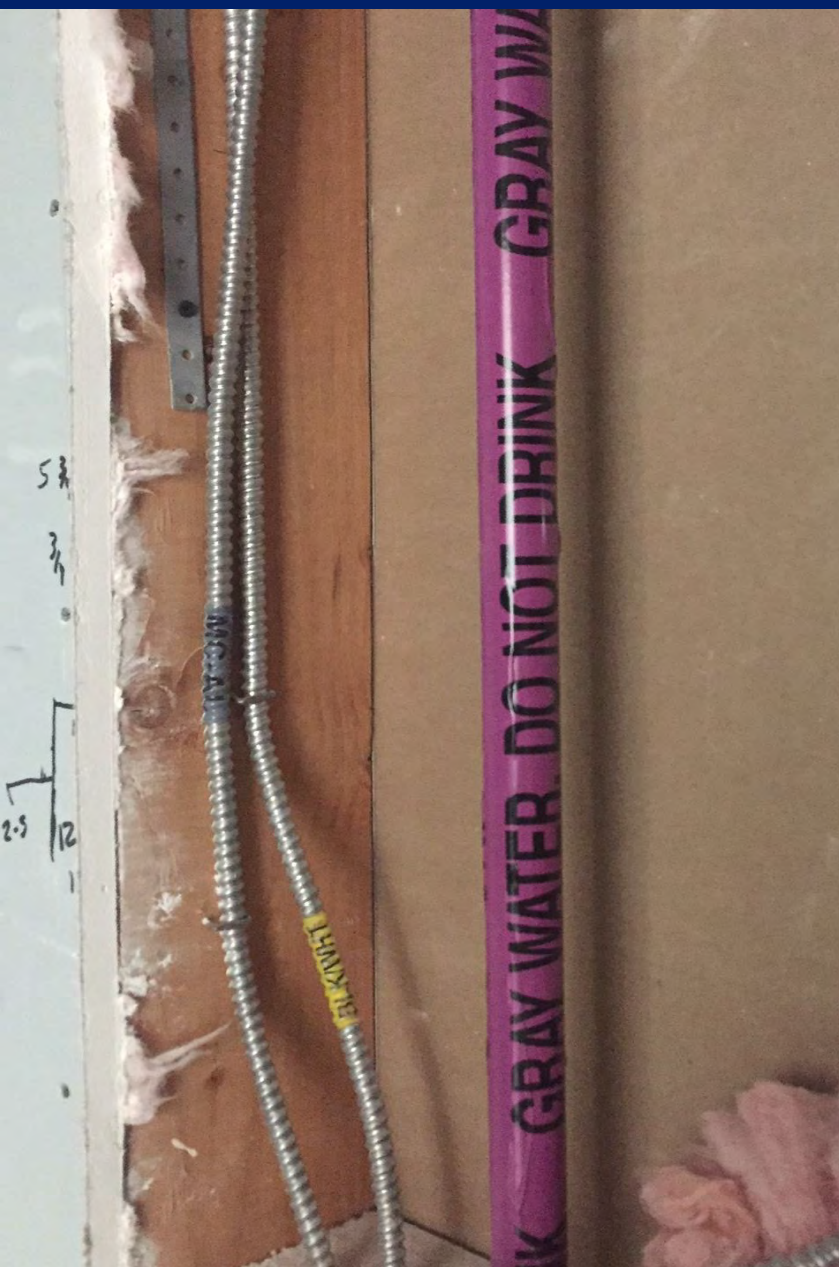






GRAYWATER









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