## XV. RECYCLED WATER (NON-POTABLE WATER)

All design submittals shall show all lines necessary for the development including pipe sizes, pipe materials, appurtenant materials, valves (isolation, air relief, blow-off, etc.), and lateral locations. Submittals shall also show size and location of recycled water meters, backflow devices and intended use of recycled water. Exhibit A shows the existing recycled water distribution system plus proposed extensions.

### A. Design Criteria for Public Recycled Water Systems, Transmission Lines and Laterals (upstream of the water meter), Off-site systems

#### 1. Water Pressure

Designers should contact the City of Milpitas to determine the pressure available at their specific point of connection. The South Bay Water Recycling distribution system currently provides recycled water to customers at pressures that range from 60 psi to 130 psi. Agreements between SBWR and City of Milpitas specify a minimum supply pressure of 45 psi, well below the normal operating pressure.

#### 2. Headloss

Design velocity shall not exceed 8 feet per second. Headloss for pipes less than 16 inches in diameter shall not be greater than 10 ft/1000 ft (4.2 psig per 1000 feet). Headloss for pipes equal to or greater than 16 inches diameter shall not be greater than 5 ft/1000 ft (2.2 psig).

The Hazen & Williams formula with the coefficient of friction "c"= 110 for all pipe shall be used to estimate frictional headloss:

$$f = 0.2083\ (100/c)^{1.852}\ q^{1.852} / d_h^{4.8655}$$

*where:*

$f$ = *friction head loss in feet of water per 100 feet of pipe*

$c$ = *Hazen-Williams roughness constant*

$q$ = *volume flow (gal/min)*

$d_h$ = *inside hydraulic diameter (inches)*

#### 3. Easements

The minimum width for public easement is 10 feet. Trees and deep-rooted plants are not permitted within easements.

#### 4. Pipeline Extensions

Development projects within the Transit Area Specific Plan shall extend recycled water mains to serve their projects. Contact the City's Recycled Water Program Manager at (408) 586-3348. See Section titled Plans General Requirements for more information on design plan preparation.

**5. Pipeline Locations**

Pipes shall be installed 10 feet from centerline of the street, on the opposite side of the potable water line. Provide 10 feet separation from other parallel water lines per California Department of Public Health (CDPH) requirements. Also, see Exhibit C in Potable Water section for October 16, 2003 California Department of Public Health guidance criteria for minimum separation distance between sewer, storm, and potable water lines.

**6. Pipe Crossing Clearance**

The minimum pipe crossing clearance with other utilities is 1 foot. Where the minimum clearance cannot be met, encasement or cap shall be designed by the developer's engineer for approval by the City Engineer.

**7. Pipe Cover**

Pipes shall be buried at least 48 inches below ground surface.

**8. Minimum Pipe Size**

The minimum allowable pipe diameter is 8 inches.

**9. Dead Ends**

End lines with a blow-off valve, air and vacuum valve and plugged end assembly.

**10. Pipe Material**

**a.** Polyvinyl Chloride (PVC) Pipe: PVC pipe shall conform to the requirements of "Standard Specifications for PVC Pipe" (AWWA C900). However, C905 pipe may be allowed in areas where there is no requirement for future tapping of the transmission line upon approval (AWWA C905).

**b.** Ductile Iron (DI) Pipe: DI pipe shall conform to the requirements of "Standard Specifications for DI Pipe" ANSI A21.51 (AWWA C151).

**11. Pipe Identification**

All PVC pipe used for recycled water shall be purple in color. All ductile iron pipe shall be wrapped with purple identification tape clearly labeled as recycled water.

**12. Corrosion**

All metallic piping shall be protected against corrosion control per City standard specifications. Initial readings shall be shown on the record drawings on the City's Metallic Piping Standard Block; see section titled Plans General Requirements.

**13. Casings**

All recycled water system transmission and distribution piping spanning creeks, highways, railroad, transit corridors, and other physical barriers shall be contained in casings.

**14. Distribution System Valves**

**a.** Valves shall be gate valves (AWWA).

**b.** Valves shall be spaced no more than 500 feet apart.

**c.** One valve shall be placed at each leg of crossings.

**d.** The valve lids or covers shall be purple in color and 12 inch triangular, designated: “RECYCLED WATER LINE."

**15. Air Relief and Blow-off Valves**

Provide appropriate air relief valves (pressure air release at all high points to vent; air and vacuum to vent air while filling and to allow air to re-enter while draining to prevent collapse, etc.) at all high points in the pipe line. Air relief valves and air vacuum valves shall be located aboveground. Nozzle shall be set at whichever is greater; a minimum of one foot above the 100 year base flood elevation or adjacent grade. The air relief valve shall be installed in a protective cage. Installation shall include blow off pipe and valve at all low points in the pipeline. The blow off valves must be plumbed to sanitary sewer with appropriate air break.

**16. Water Service Agreement Required**

Developer shall complete Water Service Agreement to obtain recycled water service (contact Land Development Engineering). Water Service Agreement shall be completed prior to building permit issuance.

**17. House Laterals**

Use copper for all services (2 inch or smaller) from recycled water main to recycled water meter and ductile iron for services larger than 2 inches. Wet tap of the same size or larger than the recycled water main is not allowed. Service laterals shall be locked upon installation to prevent usage of recycled water prior to receiving all plan and field approvals. Each parcel shall have separate services unless ownership, operation, and maintenance responsibilities are sufficiently documented in Covenants, Conditions, and Restrictions.

**18. Meters**

All recycled water services and meters shall be sized by the Developer’s Engineer per AWWA M6 Manual and reviewed by the City. Minimum service/meter size may be required by City on a case-by-case basis. Recycled water meters may be installed only after all State, City, and South Bay Recycled Water requirements have been met.

**19. Backflow Preventers**

An air gap is required on all potable services where recycled water is used within a building. A reduced pressure principle (RP) backflow prevention device shall be installed on recycled water services in accordance with City Standard Drawing 734 on all irrigation, manufacturing, dual plumb, or cooling systems which may be equipped with pumps, injectors, pressurized tanks, or vessels. All backflow prevention devices shall be tested upon installation and annually thereafter.

### 20. Construction Water

Developers are required to obtain a Temporary Recycled Water Permit in order to get a recycled water construction meter. Recycled water use is limited to dust control and soil compaction. Trucking of recycled water off-site is not allowed. Contact City staff for Permit information.

### 21. Temporary Potable Water Supply

Developers shall stage construction such that landscape is planted only after all on-site approvals have been received and recycled water is made available. Developers are not permitted to use potable construction meters to provide temporary water supply for landscape that was planted prior to approvals. A temporary connection to the potable system is permitted only to supply water for the cross-connection test.

## B. On-Site Recycled Water Use

Recycled water use is governed by State law. These guidelines provide information that designers, contractors, and owners need to know. Plans will be checked for compliance by three agencies: City, South Bay Water Recycling, and State of California. Construction is not permitted until all approvals are granted. Field inspectors are required to verify several items and must complete a checklist. Contractor is alerted to insure inspections have occurred prior to covering components up. All on-site recycled water use shall be documented, approved, and authorized by Permit. The primary on-site use is for irrigation; however sites are beginning to use recycled water for dual-plumbing and cooling towers.

## C. Dual Plumbing

Dual plumbed sites are sites where the recycled water is used within a building in conjunction with a potable water system. Non-residential buildings of 4 stories or more shall be dual-plumbed for recycled water use at toilets and urinals. Projects shall include accommodations for potable back-up supply. Design plans and Engineering Reports shall be prepared in accordance with State and South Bay Recycled Water Program requirements and submitted as part of the building permit package to the Building Division for plan review and approval. Each parcel shall be provided with separate recycled water meters for irrigation and non-irrigation when appropriate and pre-approved by the Chief Building Official (i.e., industrial water and dual plumbing). The Chief Building Official may require separate recycled meters for industrial water and dual plumbing. Service laterals will be locked upon installation to prevent usage of recycled water prior to receiving all plan and field approvals. A cross-connection test demonstrating complete separation between the on-site potable and recycled water systems is required prior to receiving recycled water service. Owners are required to perform cross connection tests every four years, attend Site Supervisor training, and submit Annual Self Inspection Reports.

## D. Cooling Towers

If recycled water is used inside a building, all dual plumbed regulations apply. Applicant shall provide the Engineering Report for the proposed industrial use. Service laterals will be locked upon installation to prevent usage of recycled water prior to receiving all plan and field approvals. A cross-connection test demonstrating complete separation between the on-site potable and recycled water systems is required prior to receiving recycled water service. Owners are required to attend Site Supervisor training and submit Annual Self Inspection Reports. Owners are also required to perform cross connection tests every four years if recycled water is used inside a building.

## E. Private Recycled Water Irrigation Systems (downstream of the water meter), On-site Irrigation Systems

TABLE OF CONTENTS

## 1. Introduction

### a. Purpose

This document contains South Bay Water Recycling (Program) rules, regulations and guidance for design and operation of on-site recycled water facilities. The document covers requirements for existing sites and new developments and should give the customer information necessary to meet all applicable regulations. Every effort has been made to ensure that facilities designed, constructed and operated on the basis of this document will comply with all existing codes, laws, statutes and regulations concerning the use of recycled water. The Developer is responsible to insure that the proposed project documents are in compliance with City, Program, and State requirements.

### b. Determination to Use Recycled Water

All irrigation systems for landscaped areas adjacent to the existing or future recycled water alignment shall be designed and installed to allow for the current and future use of recycled water. See Exhibit A for existing and proposed recycled water alignment. The City Engineer may grant an exemption to a site if recycled

water will not be available to serve the project in the foreseeable future. All irrigation systems must be metered separately from the potable water supply system and must have no on-site cross-connections to the potable water supply system. Design of projects adjacent to the future recycled water alignment shall be limited to underground requirements. Above surface signage should be deferred until recycled water become available.

Parallel and separate potable and recycled water irrigation systems serving one site are prohibited. Irrigation water shall be either potable or recycled water, but not both. The only exception is for wrap-around buildings; potable irrigation only is permitted on the interior and recycled water is permitted on the exterior.

Infrastructure installed for sole benefit of a High-Density Development shall be private. It shall be owned, operated, and maintained by the property owner, HOA, or other property agent. Infrastructure to be dedicated to the City for public use shall be of high quality, meeting all City requirements for materials, workmanship, construction, and compatibility with existing infrastructure and site conditions to minimize the City's long-term costs for operation and maintenance to the maximum extent practicable.

**c. Approved Uses of Recycled Water**

Sites may use recycled water for a variety of uses approved by CDPH. These include, but are not limited to: landscape irrigation, agricultural irrigation, construction water, water for industrial purposes, impoundments (fountains) and indoor toilet and urinal flushing. Each use of recycled water must have a Permit from the Program prior to receiving recycled water. The State of California regulates the use of recycled water, as directed under Title 22. Local authorities, at their discretion, can require or specify what sites and/or uses of recycled water are to be utilized in their service area, so long as it complies with State requirements. Sites must use recycled water only for those uses approved by the Program and CDPH. Irrigation systems must be designed and operated to minimize overspray, runoff and ponding. This requirement does not apply to landscape impoundments such as ponds or lakes.

**d. Procedures For Obtaining Recycled Water Service**

The procedures for obtaining recycled water service are listed in Appendix C. The procedures are slightly different depending on whether the service is for a new facility or for an existing facility.

**2. Design, Installation and Inspection**

The purpose of this section is to provide designers of on-site irrigation systems rules and guidelines for the design, installation and inspection of recycled water irrigation systems.

**a. Design Requirements at the Service Connection**

1). Exceptions for Existing Irrigation Systems

With the exception of pipe identification and pipe separation, facilities where the existing buried piping system is converted from potable to recycled water must meet the same requirements as new facilities. However, any new buried piping added to existing piping at a retrofitted site must meet the identification and separation requirements for new systems. In addition, any existing piping uncovered for any reason during construction must be marked according to pipe identification requirements to the extent feasible.

2). Pressure

Designers should contact the City of Milpitas to determine the pressure available at their specific point of connection.

The South Bay Water Recycling distribution system currently provides recycled water to customers at pressures that range from 60 psi to 130 psi. Agreements between SBWR and City of Milpitas specify a minimum supply pressure of 45 psi, well below the normal operating pressure.

3). Required Wye Strainer and Pressure Regulator

Unless otherwise directed by the City Engineer, all recycled water services must be equipped with a wye-strainer (20-mesh or finer screen) installed as close as practicable to the meter box, and a pressure regulating valve installed immediately downstream of the strainer. Both of these devices must be installed in an underground box or boxes. Prior to determining available pressure, designers should take into account the pressure losses incurred by these facilities.

4). Point of Connection Location

Designers must contact the City of Milpitas or consult development plans to verify the water meter location, the size of the lateral, and meter

5). Separation Requirements

All recycled water service laterals and meters must be at least 10 feet (horizontal separation) from the nearest potable water facility, including pipelines, meters and hydrants. Designers should check to see that laterals and meters that serve their site meet these requirements. In the event that a horizontal separation less than 10 feet has been provided, designers should bring this to the attention of the developer or the City of Milpitas before proceeding with on-site system design.

6). Backflow Prevention: Protection of the Public Recycled System

Since recycled water is not used for drinking purposes, backflow protection is not normally necessary on recycled water irrigation systems. However, the Program must ensure that customers do not compromise the quality of the recycled water in the distribution system. Therefore, the Program will require backflow protection on the customer's recycled water

system if it is determined that there is a backflow hazard on-site which threatens the integrity of the distribution system.

Examples of sites that may be required to install backflow protection devices are:

i). Irrigation sites where direct chemical fertilizer injections systems are installed on the irrigation system,

ii). Irrigation sites where recycled water impoundment may cause a backflow hazard.

In such cases, backflow prevention devices might be required at the recycled water service connection or at specific, on-site locations as appropriate to the situation.

Devices must be properly maintained, inspected quarterly and tested at least annually. Backflow prevention devices, when required on recycled water systems, must be conspicuously labeled. Test equipment must be dedicated for use with recycled water. Backflow testing equipment used for recycled water must not be reused on potable water systems.

**b. <u>Design Requirements for On-site Facilities</u>**

1) No Cross-connections are allowed between the recycled water system and any other water system.

2) Pipe Separation

a) Horizontal Separation

A minimum horizontal separation of 10 feet between parallel, buried recycled and potable water pipelines should be maintained. If a ten-foot horizontal separation is not practical, a separation of at least 4 feet may be allowed subject to special construction conditions. (Designers should consult the Program for specific design requirements.) In no case is horizontal separation of less than 4 feet or construction in the same trench as potable facilities allowed.

b) Vertical Separation At Crossings

Where a buried constant pressure recycled water pipeline crosses a buried potable water pipeline, it must be located a minimum of 12 inches below the potable water pipeline. Constant pressure recycled water pipelines are allowed over potable water pipelines with a minimum of 12 inches vertical separation if a full standard pipe length is centered over the crossing, or the recycled water pipeline is installed in a pipe sleeve which extends a minimum of 10 feet on either side of the potable water piping.

- For sleeved recycled pipe—no special construction requirement

- Less than 1’ **below** potable—Not allowed
- Less than 1’ **above** potable—Not allowed
- 1’ or greater **below** potable—No special construction requirement
- 1’ or greater **above** potable—Depth of cover requirement must be satisfied. A full standard pipe length must be centered over the crossing, or the recycled pipeline must be installed in a pipe sleeve, which extends a minimum of 10 feet on either side of the potable water piping.

**Summary of Separation and Special Construction Requirements**

| **Horizontal Separation – Pressurized Recycled Water / Potable Water** | | | |
|---|---|---|---|
| <1’ | 1’ – 4’ | 4’-10’ | >= 10’ |
| Not allowed | Not allowed | Solvent welded PVC pipe on recycled water system.<br>Restrained PVC pipe for recycled or potable if larger than 4”.<br>Soldered copper pipe on recycled water system.<br>Sleeve potable pipe.<br>Sleeve recycled pipe. | No special construction required. |
| **Horizontal Separation – Non-Pressurized Recycled Water/Potable Water** | | | |
| <1’ | 1’ – 4’ | 4’-10’ | >= 10’ |
| Not allowed | No special construction required | No special construction required | No special construction required |
| **Vertical Separation – Pressurized Recycled Water/Potable Water** | | | |
| <1’ under potable | >= 1’ under potable | <1’ over potable | >= 1’ over potable |
| Not allowed | No special construction required | Not allowed | Depth of cover requirement must be satisfied. A full standard pipe length is centered over the crossing, or the recycled water pipe is sleeved for the same length. |

| Vertical Separation – Non-Pressurized Recycled Water/Potable Water | | | |
|---|---|---|---|
| Not allowed | No special construction required | Not allowed | No special construction required |

NOTE: Intermittently pressurized irrigation laterals may be located a minimum of 12 inches above potable water pipelines without sleeving.

3) Pipe Class

| Type of Recycled Water Piping | Size | Class |
|---|---|---|
| **Constant pressure PVC** | 1.5" diameter and smaller<br>2.0" diameter and larger | Schedule 40 or greater<br>Class 315 or greater |
| **Intermittent pressure PVC lateral piping** | | Class 200 or greater |
| **Copper piping** | | Type "K" or greater |

4) Depth of Cover and Thrust Blocking

Building foundation design shall take into account placement of underground utilities and shall accommodate future excavation for repair and replacement.

All on-site recycled water piping must be buried to a minimum depth from finished grade to top of pipe (minimum cover).

**Constant pressure** 3" diameter and larger requires 24” minimum cover from Finished grade.

**Constant pressure** 2.5" diameter and smaller requires 18” minimum cover from Finished grade.

**Intermittent pressure** All sizes requires 12” minimum cover from finished grade.

All recycled water piping other than PVC piping with solvent welded joints must be protected against movement with thrust blocks or restrained joints or other approved methods conforming to the UPC Section 609.1.4

5) Prevent Overspray, Runoff and Ponding

Irrigation systems must be designed and operated to minimize overspray, runoff and ponding. Designers must specify appropriate irrigation devices to prevent overspray in narrow areas. In the event that, during the coverage test, noticeable overspray, runoff and/or ponding is observed, facilities will

be adjusted or removed and relocated as needed. This requirement does not apply to landscape impoundments such as ponds or lakes.

6) Protection of Drinking Fountains and Outdoor Eating Areas

Drinking fountains, outdoor eating areas and other similar facilities (e.g. snack bars) located within the approved use area must be protected from overspray or contact with recycled water. Protection may be accomplished by relocating the irrigation system or relocating or modifying the protected facilities.

7) Protection of Aquifers

Irrigation systems must be designed to prevent irrigation of recycled water within 50 feet of any domestic water supply well. In addition, recycled water impoundments must be located at least 100 feet (horizontal separation) from any domestic water supply well.

8) Protection of Public Potable Water Systems— Backflow Prevention

Although not normally a part of onsite recycled water irrigation systems, it must be noted that backflow prevention devices are a required and important part of potable water service connections to sites where recycled water is used. At premises where both recycled water and potable water are present in separate piping systems with no interconnection, a reduced pressure (RP) principal backflow prevention device must be located as close as practicable to the downstream side of every potable water meter. All RP devices must be inspected quarterly and tested at least annually. The customer is responsible for the coordinating the testing. An AWWA-certified backflow prevention device tester must do the device testing. Test reports must be provided to the Program and the City of Milpitas. The customer, the Program, and the City of Milpitas must maintain records for a minimum of three (3) years.

9) Hose Bibs

Hose bibs are not allowed on recycled water systems.

## 2c. Design Approval

Before any new recycled water system is constructed or any existing recycled water system is modified, on-site recycled water system plans prepared by the customer must be approved by the City of Milpitas and the CDPH.

Approval will be contingent upon evidence that all applicable design requirements for a recycled water system are satisfied and that the system as designed can be operated in accordance with the Program Rules and Regulations. While the City of Milpitas and CDPH review plans, the customer is responsible for meeting all requirements, even those requirements not shown on the approved plans. See Appendix C.

## 2d. Information Required on Plans

The following is a brief list of the information required on the plans for every on-site recycled water system. Compliance with every item on this list does not guarantee that the plans will be approved, since regulations and policies may change and some sites may require additional provisions. For convenience, a copy of this list is provided in **Appendix F**- Sample Forms, in a checklist format.

i. Indicate all **sources of water** on the plans.

ii. Show the location and size of all **water meters** on the piping plans.

iii. Show location and type of all **backflow prevention devices** for potable water systems (generally, backflow prevention devices are not used on recycled water systems).

iv. Show location and type of all **strainers, pressure regulating valves, and master valves**.

v. Show location of all **water pipelines** (including potable and well lines) crossing the site. If space does not permit this information to be placed on the irrigation plans, then a separate site or utility plan can be used to show this information. Exception for an existing irrigation system converting to recycled water: Although it may not be possible to show the location of all water pipelines at this type of site, all locations where future recycled water piping must be separated from the potable water piping must be clearly indicated on the plans.

vi. Supply the following **information list** for each recycled water system with its own meter; place this information on the same sheet as the meter/point of connection it pertains to. Fill out the items as applicable, but do not delete any of them.

**General Site Information for Recycled Water Use**

1. LANDSCAPED RECYCLED WATER IRRIGATION USE AREA: *(square footage).*
2. PUBLIC ACCESS TO SITE GROUNDS IS *(indicate: UNRESTRICTED or RESTRICTED).*
3. OWNER: *(legal property owner's name).*
4. PROPERTY MANAGER CONTACT: *(name, title, and telephone number).*
5. TENANT (S): *[name(s) & phone number(s); if not applicable, state NOT APPLICABLE]*.
6. ON-SITE WELL LOCATIONS: *(for example, ONE; if none, state NONE).*

7. WELLS ON ADJACENT SITES LOCATED WITHIN 50 FT. OF RECYCLED WATER APPROVED USE AREA OR WITHIN 100 FT. OF ANY RECYCLED WATER IMPOUNDMENT: *(for example, ONE; if none, state NONE).*
8. OUTDOOR DRINKING FOUNTAINS IN/NEAR THE RECYCLED WATER APPROVED USE AREA: *(for example, ONE; if none, state NONE).*
9. OUTDOOR EATING AREA(S) IN/NEAR THE RECYCLED WATER APPROVED USE AREA: *(for example, ONE; if none, state NONE).*
10. WATER FEATURES ON SITE: *(examples below; if none, state NONE).*

| Number: | Type: | Water Source: |
|---|---|---|
| One | fountain | recycled |
| One | pond | potable |

vii. Clearly identify all adjacent **streets**, and locations of all major improvements on the site.

viii. Show the location of all drinking fountains, outdoor eating areas, and other **public facilities supplied with recycled or potable water** service. Public facilities include, but are not limited to, restrooms, snack bars, swimming pools, wading pools, decorative fountains and showers. Show the pipelines feeding all of these facilities.

ix. Show the location of any wells, lakes, ponds, reservoirs, or other **water impoundments** located on the site or within 100 feet of the site, and indicate the type of water source.

x. Indicate that the **separation between potable and recycled water lines** meets minimum requirements (see **Design Requirements**). Show sleeving where recycled water pipelines cross over potable water pipelines.

xi. When **potable water piping is not present** on the site, state in a note that the cross-connection test required by the Program is waived for sites where potable water piping is not present.

xii. **Show all details necessary** to properly construct the system, including the details conforming to the requirements of the agency responsible for reviewing the plans. The purpose of the details is to show the materials and methods necessary to clearly identify all water systems on the site.

xiii. Include an **irrigation equipment legend** specifying all materials of construction for the system, including:

xiv. A pipe schedule listing pipe sizes, materials of construction, and type of water conveyed by the piping.

xv. A listing of valve types, including quick coupling valves.

xvi. All pertinent information for each type of sprinkler head and/or emitter.

xvii. Indication of purple-colored pipe with recycled water stenciling and quick coupling valves with purple covers where recycled water is used.

xviii. Include the **Standard Notes** specified by the City of Milpitas.

xix. All sites using recycled water must post **clearly visible signs** conforming to the South Bay Water Recycling details. Show proposed sign locations on irrigation plans.

xx. For many sites, typical locations for signs are at the property line near crosswalks, at driveway entrances, and at outdoor eating areas.

xxi. For streetscapes (parkways, frontage or backup landscaping), place signs at street corners and entranceways as appropriate to notify passersby.

xxii. In any case, signs must be placed no further than 1,000 feet apart.

xxiii. For medians, a sign should be placed at the beginning and end of every median, and another approximately equidistant from the ends of the median for longer median areas.

xxiv. For decorative fountains, ponds, and other water features, refer to Rules and Regulations by SBWR.

xxv. Add **signature lines** for the CDPH and the City of Milpitas to all irrigation plan sheets, detail sheets, and specification sheets that pertain to the recycled water irrigation system.

**2e. <u>Installation and Construction Inspection</u>**

1) Installation criteria

i) Pipe Identification

All new piping, whether for a new or retrofitted system, must be installed according to the approved plans and marked per these requirements to clearly distinguish between recycled water and potable water systems.

**Identification of Buried Recycled Water Lines:** The use of purple colored pipe with continuous wording "RECYCLED WATER—DO NOT DRINK" printed on opposite sides of the pipe is the preferred method for identification of new buried recycled water piping (constant-pressure mainlines/intermittent-pressure laterals). Pipe must be laid with wording facing upwards.

An acceptable alternative: all new buried recycled water lines (constant-pressure mainlines/intermittent-pressure laterals) must be identified by continuous lettering on three inch (3") minimum width, purple marking tape with one inch black or white contrasting lettering bearing the continuous wording "RECYCLED WATER—DO NOT DRINK." This tape must run continuously on top of all piping (mainlines and laterals) and must be attached to piping with plastic tape banded around the marking tape and the pipe every five feet on center. Marking tape must extend to all valve boxes and/or vaults and exposed piping.

**Identification of Existing Buried Recycled Water Lines:** Existing buried piping which will be converted to recycled water use need not be marked unless the piping becomes exposed, such as during installation of

new pipeline or maintenance of existing pipe. The exposed section must be marked as indicated above for new piping.

**Identification of Above Grade Recycled Water Lines:** All above grade recycled water pipelines, whether new or existing, must be labeled with the words "RECYCLED WATER—DO NOT DRINK" and color coded purple to differentiate recycled water pipelines from potable water pipelines. If purple identification tape is used to label the pipe and/or color code the pipe, the tape must be adhesive, permanent, and resistant to environmental conditions. Purple bands may also be painted around the circumference of the pipe at ten-foot intervals for color-coding. Purple PVC pipe is not an acceptable alternative for color-coding because the purple color will fade when exposed to sunlight.

**Identification of Recycled Water Lines Inside Structures:** Exposed (not buried) constant-pressure recycled water irrigation pipelines, such as copper or galvanized pipelines, that might be used in a structure such as a parking garage to route recycled water, must be identified per UPC Appendix J, with the exception that the labeling on the piping must read "CAUTION: RECYCLED WATER—DO NOT DRINK." Intermittent-pressure lines inside a structure must be identified by affixing decals to the piping at ten-foot intervals and wherever the piping changes directions. These decals must be purple in color and must be imprinted in nominal one-inch-high, black, uppercase letters, with the words "RECYCLED WATER—DO NOT DRINK," and must be adhesive, permanent, and resistant to environmental conditions.

ii) Valve Boxes

All remote control valves, isolation valves, pressure reducing valves, and strainers for on-site recycled water systems must be installed below grade in a valve box. Green, black, or purple valve boxes and lids are acceptable. Valve boxes must have an advisory label or "nameplate" permanently molded into or affixed onto the lid with rivets, bolts, etc. Labels must be constructed of a purple weatherproof material with the wording "RECYCLED WATER—DO NOT DRINK—NO TOMAR" permanently stamped or molded into the label.

iii) Quick Coupling Valves

New quick coupling valves must be made specifically for recycled water use. New quick coupling valves must be 3/4-inch or one-inch nominal size and of brass construction with a maximum working pressure of 150 psi. The covers on all new quick coupling valves must be permanently attached and made of purple rubber or vinyl with the words "RECYCLED WATER" imprinted on the locking cover. To prevent unauthorized use, the valve must only be operated by a special coupler key for opening and closing the valve. New quick coupling valves must be installed approximately 12 inches from walks, curbs, header boards or paved areas.

Quick coupling valves used in the recycled water system must be installed in a valve box, where applicable, and a recycled water identification tag must be permanently attached to the quick coupling valve or the inside of the box so that it is clearly visible when the box lid is removed.

Any wands, sprinkler heads, fittings, or other attachments used in conjunction with the quick coupling valves must be labeled with the words, "RECYCLED WATER—DO NOT DRINK." Attachments used in a recycled water system must not be used in a potable water system.

The installation of quick coupling valves on a potable water system in the vicinity of a recycled water irrigation system must be of a different type to prevent accidental cross-connection or contamination by accidentally interconnecting or interchanging attachments. Keys and attachments must not be interchangeable. Retrofitted potable water system quick coupling valves must be modified to meet standards for new recycled water quick coupling valves.

iv) Other Valves and Devices

**Isolation Valves** New and existing isolation valves must be installed in a marked valve box with a recycled water identification tag on the valve operator or, if the valve operator is too deep to reach, at the top of the valve box extension.

**Remote Control Valves** New and existing remote control valves must be installed in a marked valve box with a recycled water identification tag on the valve.

**Pressure Regulating Valves and Strainers** New and existing pressure regulating valves and strainers must be installed in a marked valve box with a recycled water identification tag on the valve/strainer.

**Water Meters, Pumps, Pump Control Valves, Air/Vacuum Relief Valves** All of these recycled water devices must be tagged with a recycled water identification tag.

**Recycled Water Backflow Prevention Devices** If applicable, these devices must be tagged with a recycled water identification tag.

**Potable Water System Devices** At recycled water use sites where potable water is used, all potable water meters and above grade water devices, such as backflow prevention devices and hose bibs, must be tagged or labeled with potable water identification tags, or labels.

v) Identification Tags and Stickers

Identification tags and stickers must be weatherproof and durable, such as plastic or plastic coated. Recycled water identification tags and stickers must have a purple background with permanent black lettering stating "RECYCLED WATER—DO NOT DRINK" and "AVISO, AGUA IMPURA—NO TOMAR". Potable water identification tags and labels

must have a blue background with “POTABLE WATER” and “AGUA PARA TOMAR” in permanent black lettering.

vi) Irrigation Controllers

New recycled water system controllers must be automatic with multiple start/stop times for any 24 hour period and installed according to the approved plans and local codes.

All recycled water system controllers must be identified by affixing a sticker or “nameplate” to the outside of the controller cabinet, the inside of the controller cabinet, or the outside or inside of the controller cabinet enclosure. Stickers or nameplates must be weatherproof, and must contain wording in English and Spanish indicating that the controller is for a recycled water system.

vii) Irrigation & Water Feature Advisory Signs

All sites using recycled water must post clearly visible signs conforming to the South Bay Water Recycling details and installed per the locations indicated on the approved plans.

**Irrigation Systems at Fenced Facilities** Advisory signs indicating the use of recycled water must be installed at all entrances to the customer’s facility. The Program may require additional signing on a case by case basis.

**Irrigation Systems at Facilities Not Surrounded by Fences** Advisory signs must be placed where they can be easily seen. To the extent necessary to advise passerby, signs must be posted at the property line near crosswalks, at driveway entrances, at outdoor eating areas, or as otherwise determined by the Program. For streetscapes (parkways, frontage or backup landscaping), place signs at street corners as appropriate to notify passerby. Signs must be placed no further than 1,000 feet apart. For medians, a sign is usually placed at the beginning and end of every median, and another approximately equidistant from the ends of the median for longer median areas. The signs must include the words “IRRIGATED WITH RECYCLED WATER—DO NOT DRINK—NO BEBER.” The Program may also require the signs to include translations into other foreign languages if appropriate. The lettering on the signs must be a minimum of 1/2-inch in height and must be black or white on a purple colored background and include the Program logo. Where required for aesthetic or corporate identity purposes, alternate color-coding schemes may be adopted subject to the approval of the Program. Consult the Program for final approval of signs using alternate color-coding.

**Decorative Fountains, Ponds, and Other Water Features** Minimum requirements for water feature signs:

i) Minimum wording: “This ____ [insert type of water feature here, such as Fountain, Pond, etc.] Uses Recycled Water – Do Not Drink – No Beber.”

ii) Minimum size: no less than 4 inches high by 8 inches wide.

iii) Must be permanently, legibly printed and posted in conspicuous places.

iv) Colors for lettering and background follow the same guidelines as for irrigation signs.

The Program must be consulted for final approval of all signs, as well as the number of signs required per water feature and the placement of those signs.

viii) Required Temporary Connection to Potable Water Service

In order to prevent cross-connections, an irrigation system is not allowed to receive recycled water until its site has passed a required cross-connection test.

This means that this irrigation system must be supplied with water from a jumper (temporary connection) to an on-site potable water system up to and during the cross-connection test. After passing this test, the jumper must be removed and the system connected to the recycled water meter. Jumpers, providing water from the public recycled water system into the on-site recycled water system, are prohibited at all times. Irrigation systems not needing a temporary potable water source are usually systems where there is no potable water at the site, such as some streetscapes and medians.

2) Inspection

i) Construction Inspection

The RWQCB requires that the Program, City of Milpitas, or designated representatives conduct on-site inspections during the construction phase to ensure that materials, installation and procedures are in accordance with the approved plans, specifications, and all applicable regulations. Accordingly, the customer must notify City of Milpitas of the schedule for all phases of planning, construction and start up so that inspections can be scheduled. The constant-pressure mainline piping portion of all systems must conform to the requirements of the UPC Sections 103.5.1 through 103.5.4.2.

ii) Cross-Connection Test

The customer must conduct a cross-connection test (and the customer’s site must pass this test) before connecting the customer’s recycled water irrigation system to the City of Milpitas recycled water system at any use-site where both recycled and potable water are present in separate piping

systems. This test is to ensure the absolute separation of the recycled and potable water systems. The customer must notify City of Milpitas at least 48 hours prior to the test so that members of the appropriate agency may be present. The cross-connection test must be done under the supervision of the approving agency's representatives and performed by an AWWA-certified cross-connection control specialist hired by the customer. The Site Supervisor must be present at the test. The test must be done with potable water charging the irrigation system. A written report documenting the test results must be submitted by the certified cross-connection control specialist to the Site Supervisor and City of Milpitas following test completion. Cross-connection test procedures are contained in **Appendix E**.

The customer must notify the City of Milpitas of the schedule for all phases of planning, construction and start up so that inspections can be scheduled**.**

iii) Final Inspection and Approval to Receive Recycled Water

Before the recycled water irrigation system is connected to recycled water, City of Milpitas (or its designated representatives) will perform a final inspection to ensure all requirements have been met. This inspection may be coordinated with the cross-connection test. The City's inspector will check to see that the proper equipment was used and that all required tags, labels, and signs are in place. The Program must grant final approval before recycled water can be supplied to the site. Final approval will be granted when construction has been completed in accordance with approved plans and specifications, all cross-connection tests have been performed, a final on-site inspection has been conducted, and all requirements have been met satisfactorily. After the Recycled Water Use Permit is finalized by the Program, the Water Service Agreement is approved by the City of Milpitas (if applicable), and all applicable fees have been paid, the City of Milpitas will authorize the installation of the recycled water meter. The CDPH will be forwarded a copy of all test and inspection reports as well as notification that recycled water service has started. During the lifetime of the recycled water system, the City of Milpitas is responsible for approving the plans or the Program will periodically inspect the recycled water system to ensure compliance with all applicable Rules and Regulations.

iv) Coverage Test

The customer is responsible for minimizing overspray, runoff, and ponding from their recycled water irrigation systems—new or converted to recycled water. To ensure that any overspray, runoff, or ponding is in accordance with the Program rules and regulations, City of Milpitas will conduct an inspection of the on-site system. After the on-site system begins receiving recycled water, the customer or customer's representative

must contact City of Milpitas to schedule a coverage test walk through of the system. The customer or customer's representative must be in attendance and have persons in attendance capable of making system adjustments. If modifications to the system (other than minor adjustments) are required, the customer will be notified in writing of the changes required. Any required modifications to the system must be made in a timely manner. Modifications are the responsibility of the customer, and the customer must pay all costs associated with such modifications.

v) Record Drawings

The customer—or customer's contractor—must prepare record drawings to show the recycled water irrigation system as constructed. These drawings must include all changes in the work constituting departures from the original contract drawings including those involving both constant-pressure and intermittent-pressure lines and appurtenances. All conceptual or major design changes must be approved by the City of Milpitas before implementing the changes in the construction contract. The recycled water irrigation system record drawings must be submitted to the City of Milpitas within ninety (90) days of the site receiving recycled water.

## Appendix A: Definitions

Whenever the following terms (or pronouns used in their place) occur in this manual, the intent and meaning shall be interpreted as follows:

**AIR GAP** A physical separation between the free flowing discharge end of a water supply pipeline and an open or non-pressure receiving vessel. An approved air gap must be at least twice the diameter of the water supply pipe measured vertically above the overflow rim of the vessel, and in no case less than one inch.

**APPROVED USE** An application of recycled water in a manner, and for a purpose, designated in a Recycled Water Use Permit issued by the Program and in compliance with all applicable Regulatory Agency requirements.

**APPROVED USE AREA** A site with well-defined boundaries designated on the approved Site Drawings, to receive recycled water for an approved use and acknowledged by all applicable Regulatory Agencies.

**CROSS-CONNECTION** Any physical connection between any part of a water system used or intended to supply water for drinking purposes and any source or system containing water or substance that is not or cannot be approved for human consumption. This includes direct piping between the two systems, regardless of the presence of valves, backflow prevention devices, or other appurtenances.

**CUSTOMER** Any person, persons or firm including any public utility, municipality or other public body or institution issued a Recycled Water Use Permit by the Program. They may be the owner, tenant, or property manager as appropriate.

**INSPECTOR** Any person authorized by the City of Milpitas, the Local Authority, the Program or the local health agencies to perform inspections on or off the customer's site before construction, during construction, after construction and during operation.

**INTERMITTENTLY PRESSURIZED LINE** Also known as a "lateral," it is the pipe section(s) between the control valve and the sprinkler head or drip emitters.

**LANDSCAPE IMPOUNDMENT** A body of recycled water used for aesthetic enjoyment or which otherwise serves function not intended to include public contact.

**LATERAL** See "INTERMITTENTLY PRESSURIZED LINE"

**LOCAL AUTHORITY** The Local Authority is the entity having the responsibility of enforcing the rules and regulations for the end use of recycled water. The Local Authority is typically the City of Milpitas and is responsible for the implementation of the Rules and Regulations.

**NONPOTABLE RECYCLED WATER OR RECYCLED WATER**

Water that meets California Administration Code Title 22, Division 4 of the Environmental Health Water Reclamation Criteria and is approved for purposes other than human consumption. For the purpose of these Rules and Regulations, “recycled water” refers to “nonpotable recycled water.”

**NONPOTABLE WATER** Water that has not been treated for human consumption in conformance with the latest edition of the United States Public Health Service Drinking Water Standards, the California Safe Drinking Water Act, or any other applicable standards.

**OFF-SITE** Designates or relates to facilities including and upstream of the recycled water meter.

**ON-SITE** Designates or relates to all irrigation facilities downstream of the recycled water meter.

**OVERSPRAY** The spray of recycled water outside of the approved irrigation area.

**OWNER** Any holder of legal title, contract purchaser, or lessee under a lease with an unexpired term of more than one (1) year, for property for which recycled water service has been requested or established.

**POINT OF CONNECTION** This is the point where the customer’s system ties to the City of Milpitas system. This is usually at the water meter.

**PONDING** Unauthorized retention of recycled water on the surface of the ground or other natural or manmade surface for a period following the cessation of an approved recycled water use activity.

**POTABLE WATER** Water that is authorized for human consumption according to the latest edition of the California Safe-Drinking Water Act, or other applicable standards.

**POTABLE WATER FACILITY** Any facility, including fire service, used to convey potable water.

**PUBLIC** Any person or persons other than the site owner or employees who may come in contact with facilities and/or areas where recycled water is approved for use.

**RECYCLED WATER USE PERMIT** A permit issued to the customer as required by CDPH and the RWQCB that outlines monitoring, self-inspection, reporting, and site specific requirements.

**REDUCED PRESSURE PRINCIPAL BACKFLOW PREVENTION DEVICE**
A type of backflow prevention device, usually installed near a water meter, which prevents backflow by a combination of double check valves and a pressure differential relief valve, with a resilient seated shutoff valve on each end of the device.

**REGULATORY AGENCIES** Those public agencies legally constituted to protect the public health and water quality, and whose rules govern the use of recycled water, such as the CDPH, the RWQCB and the County DHS.

**RESTRAINED JOINT** Mechanically restrained. Solvent welded for PVC joints 4-inch diameter and smaller.

**RUNOFF** Recycled water that is allowed to drain outside the approved use area.

**SERVICE** The furnishing of recycled water to a customer through a metered connection to the onsite facilities.

**SITE SUPERVISOR** The responsible person designated by the customer to provide liaison with the Program, and the City of Milpitas. This person must have the authority to carry out any requirements of the Program and/or the City of Milpitas, must be responsible for the operation and maintenance of the recycled water system, and must prevent potential violations.

**STANDARD PIPE LENGTH** A section of pipe 18 to 20 feet in length that has no joints.

**UNAUTHORIZED DISCHARGE** Any release of recycled water that violates the rules and regulations of the Water Utility, the Local Authority, the Program or all applicable Federal, State or local statues, regulations, ordinances, contracts or other requirements.

**VIOLATION** Noncompliance with any condition of the Recycled Water Use Permit by any person, action or occurrence, intentional or unintentional.

**WATER RETAILER** The local purveyor of recycled water for the specified service area (public or private). The Water Retailer and the Local Authority may be one and the same (public municipal water supply).

## Appendix B: Supplemental Guidelines

### City of Milpitas Guideline Supplement

These guidelines apply to all system designs and installations where recycled water is used for sites within the City of Milpitas. The information supplements South Bay Water Recycling Rules and Regulations and describes additional requirements, which are generally unique to Milpitas. This supplement is intended to provide clarification on City of Milpitas review, approval and operational procedures. It also provides information on the promotion of long-term sustainability through proper horticultural design practices.

### APPLICATION OF GUIDELINES

The following systems shall be designed and installed to allow current or future use of recycled water:

1. All new and retrofitted landscape irrigation systems which are:
    - located adjacent to the existing recycled water mainline AND
    - in excess of 2500 square feet

2. Any future recycled water pipelines

Exhibit A identifies location of the existing and future pipelines in Milpitas. Other landscape irrigation systems may be designed for recycled water in anticipation of eventual recycled water use.

Pre-approval from the Chief Building Official is required when recycled water is proposed for industrial or dual plumbing use (where use is appropriate).

### CITY REVIEWS AND APPROVALS

The City of Milpitas will perform and approve recycled water design plans and construction inspections for the Program. Plan review and approval protocol varies depending upon type of submittal:

**Retrofit of an existing irrigation system to receive recycled water:**
Two (2) sets of plans and specifications shall be submitted to the Land Development Section, Engineering Division (408 586-3328) for plan review and approval. Inspection will be completed by the Public Works Inspection Section (408 586-2884).

**Retrofit of building plumbing or construction of a new building to use recycled water (irrigation, industrial, or dual plumbing use):** Design plans shall be submitted as part of the building permit package to the Building Division (408 586-3240) for plan review and approval.

**Construction of new building with a new recycled water landscape system:** Design plans shall be submitted as part of the building permit package to the Building Division (408 586-3240) for plan review and approval.

## DESIGN CRITERIA

**Service Lateral and Meter Requirements** Each parcel will be provided with separate recycled water meters for irrigation and non-irrigation when appropriate and pre-approved by the Chief Building Official (i.e. industrial water and dual plumbing). The Chief Building Official may require separate recycled meters for industrial water and dual plumbing. Every service lateral will be locked upon installation to prevent usage of recycled water prior to receiving all plan and field approval.

**Temporary Water Supply** A temporary jumper/feed from the potable system downstream of backflow device is necessary to provide water for the pressure and cross-connection test. For new or retrofitted recycled water irrigation systems, the feed point into the recycled system must be located in the recycled meter box. For an expansion of an existing recycled water irrigation system, a temporary air gap between the existing and new piping is required and the temporary jumper/ feed point must be identified on the plans. The contractor and inspector must coordinate to insure removal of all temporary feeds prior to recycled water meter installation (new or retrofitted sites) and removal of the temporary air gap (hook-up to existing irrigation system at expansion sites) upon completion of all recycled water requirements.

**Allowable Backup Water Supply Service** If a permanent potable water backup to the recycled water service is desired, installation should consist of a swivel connection at the service lateral connection prior to the meter, or equivalent. This would allow only one physical connection to either the recycled water or the potable water supply.

## IDENTIFICATION

**Pipeline** Each recycled water stub out shall be clearly marked by a 4-inch by 4-inch redwood post, painted purple with two inch white “Recycled Water” text on all four sides. Posts shall extend 2 feet above grade and be set in concrete at least 30 inches.

**Above Grade Identification** Piping shall be wrapped with purple tape or painted purple for the entire exposed surface, and labeled at 10-foot intervals. Pipes that are not accessible or visible (for example, behind a drywall) shall be labeled at wall entrance and exit penetrations. For new construction, piping shall be labeled continuously along its length. When sleeving is used, identification is required on either the sleeve or the interior pipe. The sleeve may be either purple pipe or plain pipe wrapped in identification tape. If the interior pipe is chosen to show the identification, it must be purple pipe (tape is not permitted).

**Valve Boxes** Purple plastic boxes or concrete boxes with a purple rim, each marked by “Recycled Water – Do not Drink” are acceptable valve box alternatives.

**Signs** Minimum sign size which indicates approved recycled water use area shall be 4-inch by 8-inch.
Advisory signs must be installed at the specified locations (the designer must state on the plans where the signs are to be installed). Typically, signs should be located at all driveways and public entrances to the site.

## DRINKING FOUNTAINS AND EATING FACILITIES

Show all drinking fountains and eating areas on plans. Design irrigation systems are to prevent over spray into these areas. Note on the plans if no drinking fountains, eating areas or food services are located in areas to receive recycled water.

## SIDEWALKS AND ROADWAYS

Design irrigation systems to prevent runoff, ponding, and over spray of recycled water onto the sidewalk and roadways.

## PROTOCOL

Notify City Inspector at least one workday (24 hours) in advance of any construction. Inspection may consist of verification of proper labeling, proper pipe clearances, completion of pressure testing, proper pipe backfilling, proper signage and tags, completion of acceptable cross-connection tests, proper installation of meter, completion of acceptable coverage tests, and other items for compliance with plans and minimum standards.
The City of Milpitas will coordinate with the Program to have a 120-Day Temporary Recycled Water Use Permit issued to user upon completion of acceptable inspection.

## CROSS-CONNECTION TEST

Notify City Inspectors at least one workday, (24 hours), in advance. A certification of acceptable evaluation by an AWWA certified cross-connection control program specialist must be submitted to the City Inspector as part of the inspection protocol completion.

## RECORD DRAWING

**Publicly-owned Systems:** Prepare one mylar set of record drawings and submit to City Land Development Engineer. Record drawings must show all field and other changes of the system constructed.

**Privately-owned Systems:** Prepare sheets showing field changes and other changes on 8-1/2 inch by 11-inch sheets and submit to Building Division.

## LANDSCAPE DOCUMENTATION PACKAGE FOR RECYCLED WATER

**General** Landscape Documentation Package (Ordinance 238) is required for all new and rehabilitated landscapes, 2,500 square feet or greater.
The Water Conservation Statement, submitted as part of the Documentation Package must indicate if recycled water is to be used.

**Estimated Applied Water Adjustment** A leaching water allowance factor may be added to the estimated applied water allowance to account for periodic leaching of salt accumulation from recycled water use. The statement shall indicate the amount of "leaching fraction" water added based upon the project's site-specific soil type(s). Irrigation schedule shall specify how much of a "leaching fraction" is to be used.

**Maintenance Schedule** Include provisions for recommendations for irrigation system maintenance published by the Program (call the Program at 408 363-4711 for further information). Submit the Maintenance and Management Schedule developed from the information

**Soil Analysis** The designer is encouraged to retain existing topsoil at the site for reuses whenever appropriate. Soil conditions and constituents must be identified to minimize potential plant problems.

**Recycled Water Checklist** A checklist of recycled water use requirements must be submitted if recycled water is used. The designer shall consider the special provisions identified in the checklist.

**Plants** A list of plant species determined to be tolerant of constituents in recycled water (higher dissolved solids content) may be obtained from the SBWR's Greener Landscapes with Recycled Water brochure. The designer may select other plants based upon experience or special horticultural provisions incorporated into the design.

Standard Notes The following Standard Notes shall be included on the plans for landscaping using recycled water:

1. Irrigation system using recycled water must comply with the Program Rules and Regulations.

2. Purple pipe must not be stored where exposed to sunlight.

3. Recycled water meter must not be set until the following items are completed satisfactorily:
   - Cross connection test
   - Identification of recycled water system
   - Inspection checklist completed by the inspectors

4. The potable water system (meter and backflow) shall also be identified (tagged) as potable when recycled water is delivered to the site.

5. The irrigation system design pressure is _____ psi. The ultimate pressure of the recycled water system is anticipated to be 60 psi maximum at the meter. Until build out (ultimate), the interim pressure is higher and a pressure regulator with wye strainer is required.

6. Irrigation system must be installed to prevent runoff and ponding. Overspray of recycled water to public areas is not permitted (sidewalks, parking areas, eating areas, etc.).

7. Hose bibs must not be used on the recycled water system.

8. Identification for recycled water applies to all pipes including mainlines and laterals. Quick coupling valves shall have purple looking lids. All valves must be installed in purple valve boxes or concrete boxes with a purple rim, each marked by "Recycled Water—Do Not Drink". Where pipe sleeves are used, either the sleeve or interior pipe must be identified as recycled water. Identification tape or purple color pipe is permitted on the sleeve. Purple color pipe is permitted for the interior pipe (tape is not allowed on the interior pipe).

9. Warning tags shall be installed on all recycled water system equipment, such as exposed piping, meter, valves, etc.

10. Depth of cover shall be at least 24" for mainlines of 3" diameter or greater, and 18" for mainlines with diameter of less than 3".

11. Prior to installation, locate domestic water mains and/or laterals. Maintain a minimum of 10' horizontal separation between recycled and potable water pipelines. At crossing, recycled water pipeline shall be at least 1' below the potable water pipeline within a 10' horizontal distance.

12. Advisory signs must be installed as shown on the plans. If the irrigation system is being installed in preparation for future recycled water system, then all requirements must be complied except the advisory signs are not installed and the recycled water meter is not installed. When the recycled water is ready to be delivered (meter), the advisory signs must be installed and the checklist items must be verified for compliance.

13. For on-site irrigation system, the City Public Works Inspection Department shall be notified for inspection at least 48 hours prior to: 1) backfill of pipe trenches, 2) pressure test, 3) coverage test. Call (408) 586-2884. For off-site water systems, contact the Public Works Inspection at (408) 586-2884 at least 48 hours prior to the work.

14. Record drawings (3 sets for on-site irrigation system, mylar for off-site irrigation system-see Public Work record drawing process) of the completed recycled irrigation system must be submitted to Engineering Land Development Section.

15. Public Works Engineering will not release for occupancy (final inspection if nonresidential) by Building Dept until all requirements are complied. If off-site, Public Works Engineering will not accept the public improvements until all requirements are complied.

16. Certificate of Substantial Completion (part of water efficient ordinance requirement) must be submitted to the City Building Inspector prior to Final Occupancy.

## Appendix C: Specific Procedures for obtaining Recycled Water Service

### New Construction and Existing Sites —Within the City of Milpitas Only

1. All projects containing landscaping and use of recycled water will submit plans to City of Milpitas for review and approval.

2. City's Project Engineer enters the project on the master recycled water database. This database will be updated as necessary throughout the design, construction and completion of each project.

3. City's Project Engineer performs plan check with respect to requirements.

4. City's Project Engineer obtains Customer # for each project through the SBWR Program.

5. Applicant/customer makes necessary corrections and resubmits plan to City.

6. City's Project Engineer reviews resubmitted plans, attaches "At Owner's Risk Letter" to plans and, when deemed ready, will recommend for approval to Land Development Engineer.

7. City's Project Engineer forwards City approved plans to:
   - One set to the Program
   - One set to CDPH

8. City's Project Engineer signs off/issues permit subject to CDPH changes (obtains at owner's risk letter).

9. Applicant installs landscaping improvements at their own risk

10. CDPH sends to City letter of approval, not approved or approved with comments.

11. CDPH letter is distributed to: Developer's Landscape Architect/representative, PW Inspection and Building Inspection (2 copies).

12. Developer's Landscape Architect makes necessary changes based on any comments from CDPH.

13. When work is completed and inspected by the City, Developer's Landscape Architect/ Contractor submits (3) sets of record drawings "as-built", together with required checklist and certificates, to the City's Public Works Inspection Department. The City's Public Works Inspection Department will then forward the completed package to the City's Project Engineer.

14. Record Drawings must be prepared by the Landscape Architect or installing Landscape Contractor and include all field changes.

15. City's Project Engineer distributes record drawings and certificates as follows:
    - Two sets to the Program (one set for CDPH)
    - One set to City's Utility Engineering

16. City's Signature Block Must use Recycled Water Standard Title Block

## MILPITAS RECYCLED WATER CHECKLIST FOR NEW CONSTRUCTION

**Project Name:** _____ **Site Address:** _____
**SBRWP Customer No.: MP - __ -** _____ **Meter Register No.** _____

Note: One checklist for each recycled water meter connection.

**A. Public Works Inspection** **Encroachment Permit # 200 __ -** _____
**Building Permit #** _____

| Date | Inspector | Item |
|---|---|---|
| _____ | _____ | 1. Recycled Water Curb stop locked off. |
| _____ | _____ | 2. Recycled Water vertical and horizontal clearances per plan. |
| _____ | _____ | 3. No jumpers providing recycled water on-site; use potable as temporary supply. |
| _____ | _____ | 4. Upon obtaining clearance for Item A3, set potable water meter. |
| _____ | _____ | a. Backflow certification obtained. |
| _____ | _____ | b. Meter Box OK. |
| _____ | _____ | 5. On-site piping (purple or taped), vertical/horizontal clearance, depth of cover. |
| _____ | _____ | 6. On-site piping pressure test passed. |
| _____ | _____ | 7. Cross-connection test certificate from AWWA Cross-Connection Specialist is attached (must use potable water for testing). |
| _____ | _____ | 8. Signage installed. |
| _____ | _____ | 9. Tagging of on-site valves etc. (both potable and recycled) installed. |
| _____ | _____ | 10. OK to set recycled water meter, when above items are completed. |
| _____ | _____ | 11. Coverage Test. |
| _____ | _____ | 12. Additional DPH requirements from letter (fill in below and attach as needed). |
| _____ | _____ | a. _____ |
| _____ | _____ | b. _____ |
| _____ | _____ | 13. Record Drawings “as-built” (3 sets), red-line ok. (Attached). |
| _____ | _____ | a. Record drawings reviewed for changes, signage and completeness. |
| _____ | _____ | b. _____ |
| _____ | _____ | 14. Interim Site Supervisor: Name _____ Phone # _____ |
| _____ | _____ | 15. PW Inspection complete. |

_____
PW Inspector signature Date

NOTE: Upon completion forward to Land Development Engineering

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**B. Land Development Engineering**

_____ _____ 1. Certificate of Substantial Completion (Ordinance 238 Landscape Water Conservation

_____ _____ 2. Forwarded Record Drawings & Checklist to SBRWP (2 sets) and Utility (1 set)

_____

Project

Engineer signature Date

NOTE: When items A and B above are completed, City Project Engineer will provide clearance to Building Division.

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**C. Utility Engineering**

_____ _____ 1. Site Supervisor: Name _____ Phone # _____

_____ _____ a. Recycled water training class attended date _____

_____ _____ b. Additional comments:_____

**Appendix D: South Bay Water Recycling (SBWR) Standard Notes for On-Site Recycled Water Irrigation Systems**

1. PRIOR TO RECEIVING RECYCLED WATER, THE SITE MUST BE PERMITTED BY SBWR. A PERMIT WILL BE GRANTED AFTER:

    - INSPECTION BY SBWR HAS BEEN COMPLETED SHOWING CONFORMANCE WITH SBWR RULES AND REGULATIONS;

    - A FINAL ON-SITE INSPECTION HAS BEEN CONDUCTED TO CONFIRM THAT ALL REQUIREMENTS HAVE BEEN MET;

    - SITE HAS PASSED REQUIRED CROSS-CONNECTION TEST PERFORMED BY A CERTIFIED AWWA CROSS-CONNECTION SPECIALIST (IF NO POTABLE WATER LINES CROSS THE SITE, THEN REQUIRED CROSS-CONNECTION TEST IS WAIVED); AND

THE OWNER'S OR TENANT'S REPRESENTATIVE MUST ALSO COMPLETE A SITE SUPERVISOR TRAINING CLASS OFFERED BY SBWR IN ORDER TO RECEIVE A PERMANENT PERMIT. IN THE INTERIM BETWEEN CONNECTION AND TRAINING, THE TENANT OR OWNER WILL RECEIVE A TEMPORARY RECYCLED WATER PERMIT.

CONTACT SBWR AT (408) 277-3671 FOR FURTHER INFORMATION.

2. ALL WORK SHALL CONFORM TO EXISTING REGULATIONS INCLUDING BUT NOT LIMITED TO:

    - SOUTH BAY WATER RECYCLING RULES AND REGULATIONS

    - CDPH REGULATIONS

3. CHANGES MADE TO THE APPROVED IRRIGATION PLANS SHALL BE SUBMITTED TO SBWR FOR REVIEW AND APPROVAL AT LEAST 2 WEEKS PRIOR TO START OF CONSTRUCTION.

4. AT LEAST TWO DAYS PRIOR TO START OF CONSTRUCTION, CONTRACTOR AND CITY PUBLIC WORKS INSPECTOR SHALL HOLD A PRE-CONSTRUCTION MEETING. TO SCHEDULE MEETING, CONTACT CITY PUBLIC WORKS INSPECTION SECTION AT (408) 586-2884.

5. NOTIFY PUBLIC WORKS INSPECTOR A MINIMUM OF AT LEAST 24 HRS BEFORE WORK BEGINS. PUBLIC WORKS INSPECTOR MUST INSPECT AND/OR VERIFY:

- PRESENCE OF PROPER BACKFLOW PREVENTION AT ALL POTABLE POINTS OF CONNECTION;

- NEW UNDERGROUND PIPING (LABELING, CLEARANCES, BURIAL DEPTH, SLEEVING);

- INSTALLATION OF SIGNS, TAGS, AND CONTROLLER DECALS;

- REQUIRED TEMPORARY CONNECTION TO POTABLE WATER SERVICE; IN MOST CASES, THE SITE'S IRRIGATION SYSTEM MUST BE CONNECTED TO A TEMPORARY SOURCE OF POTABLE WATER IN ORDER TO CONDUCT REQUIRED CROSS-CONNECTION TEST;

- SITE PASSED REQUIRED CROSS-CONNECTION TEST PERFORMED BY A CERTIFIED AWWA CROSS-CONNECTION SPECIALIST (IF APPLICABLE)

- NEW METER INSTALLATION - PRIOR TO RECEIVING RECYCLED WATER, PUBLIC WORKS INSPECTOR MUST INSPECT THE DISCONNECTION OF THE SITE'S IRRIGATION SYSTEM FROM THE TEMPORARY POTABLE WATER SUPPLY, AND THEN INSPECT THE CONNECTION OF THE SYSTEM TO THE RECYCLED WATER METER.

6. NO CROSS-CONNECTIONS BETWEEN THE POTABLE AND RECYCLED WATER SYSTEMS ARE PERMITTED.

7. ALL ON-SITE BURIED RECYCLED WATER PIPING SHALL BE IDENTIFIED BY ONE OF THE FOLLOWING METHODS:

   - USING PURPLE-COLORED PVC PIPE WITH CONTINUOUS WORDING: "CAUTION— RECYCLED WATER" PRINTED ON OPPOSITE SIDES OF THE PIPE; PIPE SHALL BE LAID WITH WORDING FACING UPWARDS.

   - WARNING TAPE WITH A MINIMUM WIDTH OF 3 INCHES READING: "CAUTION— RECYCLED WATER" (IN BLACK OR WHITE LETTERING ON PURPLE BACKGROUND) SHALL RUN CONTINUOUSLY ON TOP OF PIPING AND SHALL BE ATTACHED TO PIPING WITH PLASTIC TAPE BANDED AROUND THE WARNIING TAPE AND THE PIPE EVERY 5 FEET ON CENTER

8. PVC PIPE: CONSTANT-PRESSURE MAINLINE PIPING 11/2 INCHES AND SMALLER SHALL BE SCHEDULE 40; CONSTANT-PRESSURE MAINLINE PIPING 2 INCHES AND LARGER SHALL BE CLASS 315; INTERMITTENT-PRESSURE LATERAL PIPING SHALL BE CLASS 200 OR SCHEDULE 40. COPPER PIPE SHALL BE TYPE "K"

9. ALL ON-SITE RECYCLED WATER PIPING SHALL BE BURIED TO A MINIMUM DEPTH FROM FINISHED GRADE TO TOP OF PIPE (MINIMUM COVER) OF:

    - PRESSURIZED LINES 3 INCHES AND LARGER 24 INCHES
    - PRESSURIZED LINES 2 1/2 INCHES AND SMALLER 18 INCHES
    - INTERMITTENT-PRESSURE LINES 12 INCHES

10. ALL RECYCLED WATER PIPING OTHER THAN PVC PIPING WITH SOLVENT WELDED JOINTS SHALL BE PROTECTED AGAINST MOVEMENT WITH THRUST BLOCKS OR RESTRAINED JOINTS OR OTHER APPROVED METHOD PER SBWR DETAILS.

11. MAINTAIN A 10-FOOT HORIZONTAL SEPARATION BETWEEN BURIED PRESSURIZED RECYCLED WATER IRRIGATION PIPING AND BURIED POTABLE WATER PIPING UNLESS OTHERWISE NOTED. AT PIPE CROSSINGS, BURIED PRESSURIZED RECYCLED WATER IRRIGATION PIPING MUST BE 12 INCHES BELOW POTABLE WATER LINES. PRESSURIZED RECYCLED WATER PIPELINES ARE ALLOWED OVER POTABLE WATER PIPELINES WITH A MINIMUM OF 12 INCHES VERTICAL SEPARATION IF A FULL STANDARD PIPE LENGTH IS CENTERED OVER THE CROSSING, OR THE RECYCLED WATER PIPELINE IS INSTALLED IN A PIPE SLEEVE WHICH EXTENDS A MINIMUM OF 10 FEET ON EITHER SIDE OF THE POTABLE WATER PIPING. INTERMITTENTLY PRESSURIZED IRRIGATION LATERALS MAY BE LOCATED A MINIMUM OF 12 INCHES ABOVE POTABLE WATER PIPELINES WITHOUT SLEEVING.

12. ALL RECYCLED WATER SYSTEM REMOTE CONTROL VALVES, ISOLATION VALVES, QUICK COUPLING VALVES, STRAINERS, AND PRESSURE-REGULATING VALVES SHALL BE INSTALLED BELOW GRADE IN VALVE BOXES. GREEN, BLACK, OR PURPLE-COLORED BOXES AND LIDS ARE ACCEPTABLE. VALVE BOXES SHALL HAVE A WARNING LABEL OR NAMEPLATE PERMANENTLY MOLDED INTO OR ATTACHED ONTO THE LID WITH RIVETS, SCREWS, OR BOLTS. WARNING LABELS SHALL BE PER SBWR STANDARD DETAILS.

13. RECYCLED WATER QUICK-COUPLING VALVES SHALL HAVE A PURPLE COVER AND BE IDENTIFIED PER SBWR STANDARD DETAILS.

14. NO HOSE BIBS ARE ALLOWED ON THE RECYCLED WATER IRRIGATION SYSTEM. ANY EXTERIOR HOSE BIBS SERVED WITH POTABLE WATER MUST BE LABELED PER SBWR STANDARD DETAILS.

15. ALL RECYCLED WATER METERS, DEVICES, AND VALVES—E.G. ISOLATION VALVES, IRRIGATION CONTROLLERS, REMOTE CONTROL VALVES, PRESSURE

REGULATING VALVES, QUICK COUPLING VALVES, ETC. — SHALL BE TAGGED PER SBWR STANDARD DETAILS.

16. LABEL ALL POTABLE WATER METERS AND ABOVE GROUND POTABLE WATER PIPES/ DEVICES (BACKFLOW PREVENTERS, HOSE BIBS, ETC.) WITH TAGS OR LABELS READING: "POTABLE WATER" IN BLACK LETTERS ON BLUE BACKGROUND, PER SBWR DETAILS.

17. ALL RECYCLED WATER IRRIGATION SYSTEMS SHALL HAVE THE FOLLOWING:

    - A WYE STRAINER (WITH A 20-MESH OR FINER SCREEN) INSTALLED AS CLOSE AS PRACTICABLE TO THE RECYCLED WATER METER BOX.

    - A PRESSURE REGULATING VALVE INSTALLED IMMEDIATELY DOWNSTREAM OF THE STRAINER (UNLESS OTHERWISE DIRECTED BY SBWR).

    - THESE COMPONENTS SHALL BE INSTALLED WITH ISOLATION VALVES TO FACILITATE MAINTENANCE.

18. RECYCLED WATER ADVISORY SIGNS CONFORMING TO THE DETAILS AND SPECIFICATIONS ON THE SBWR-APPROVED IRRIGATION PLANS SHALL BE POSTED PER LOCATIONS SHOWN ON THOSE IRRIGATION PLANS.

19. INSTALLATION OF DIRECT INJECTION SYSTEMS ON THE RECYCLED WATER IRRIGATION SYSTEM IS NOT PERMITTED.

20. NO DRINKING FOUNTAINS OR EATING AREAS ARE ALLOWED IN THE APPROVED RECYCLEDWATER USE AREA UNLESS ADEQUATELY PROTECTED FROM OVERSPRAY.

21. ALL RECYCLED WATER METERS WILL BE SET BY THE CITY OF MILPITAS AFTER:

    - THE SITE'S OWNER, DEVELOPER, OR CONTRACTOR HAS APPLIED FOR RECYCLED WATER SERVICE WITH CITY OF MILPITAS, THE WATER SERVICE AGREEMENT HAS BEEN APPROVED (IF APPLICABLE), AND ALL APPLICABLE FEES HAVE BEEN PAID.

    - CITY OF MILPITAS HAS RECEIVED AUTHORIZATION FROM SBWR TO SET RECYCLED WATER METERS. PUBLIC WORKS INSPECTOR MUST INSPECT THE DISCONNECTION OF THE SITE'S IRRIGATION SYSTEM FROM THE TEMPORARY POTABLE WATER SUPPLY, AND THEN INSPECT THE CONNECTION OF THE SYSTEM TO THE RECYCLED WATER METER.

22. NO OVERSPRAY OR RUNOFF OF RECYCLED WATER IS ALLOWED ON ANY NON-APPROVED USE AREA. PONDING OF RECYCLED WATER DUE TO IRRIGATION IS NOT ALLOWED IN ANY AREA. UPON RECEIVING RECYCLED WATER, THE ON-SITE RECYCLED WATER IRRIGATION SYSTEM MUST PASS A COVERAGE TEST CONDUCTED BY PUBLIC WORKS INSPECTOR.

    CONTRACTOR SHALL SUBMIT AS-BUILT IRRIGATION PLANS TO SBWR WITHIN 90 DAYS OF SITE RECEIVING RECYCLED WATER.

## APPENDIX E Cross-Connection Control Test Procedure for On-Site Recycled Water Irrigation Systems

In the South Bay Water Recycling service area, the following method is used for conducting a cross-connection control test on all sites where both recycled water and potable water are intended to be used in separate piping systems. A certified AWWA Cross-Connection Specialist must perform the test.

### CROSS-CONNECTION CONTROL TEST PART I:

The potable water system shall be activated and pressurized. The recycled water irrigation system shall be shut down at its point of connection and depressurized—this is usually done by manually bleeding an irrigation control valve and/or quick-coupling valve that is located at the lowest point of elevation in the irrigation system.

1. The potable water system shall remain pressurized for a minimum period of time specified by the Cross-Connection Specialist while the irrigation system is depressurized. The minimum period of time the recycled water irrigation system is to remain depressurized shall be determined on a case by case basis, taking into account the size and complexity of the potable water and recycled water irrigation systems.

2. All recycled water irrigation control valves and quick-coupling valves, and any site features that are approved to be supplied with recycled water from the on-site irrigation system (such as decorative fountains) shall be tested and inspected for flow. If the recycled water system has been truly shut down at its point of connection, then continuous flow from any part of the recycled water system—irrigation system or decorative fountains, etc.—indicates a cross-connection.

3. All potable water fixtures (interior and exterior)—faucets, hose bibs, drinking fountains, toilets and urinals, supply lines to decorative fountains, etc.—shall be tested and inspected for flow. No flow from any potable water outlet indicates that it may be connected to the recycled water irrigation system.

4. If no cross-connections are discovered, proceed to the second part of the test. If any cross-connections are found, they must be disconnected, and the site must be re-tested by an AWWA Cross-Connection Specialist per these procedures.

### CROSS-CONNECTION CONTROL TEST PART II:

1. The potable water system shall be shut down at its point of connection (usually the meter) and depressurized. In the case of a potable water system in a multi-story building, the potable water system pressure may be reduced by the amount deemed necessary by the Cross-Connection Specialist and monitored with a gauge installed at a low point of elevation in the potable water system.

2. The recycled water irrigation system shall then be activated and pressurized.

3. The recycled water irrigation system shall remain pressurized for a minimum period of time specified by the Cross-Connection Control Specialist while the potable water system is depressurized (or, in the case of a multi-story building potable water system, remains in a state of reduced pressure). The minimum period of time the potable water system is to remain depressurized shall be determined on a case by case basis.

4. All potable water fixtures (interior and exterior)—faucets, hose bibs, drinking fountains, toilets and urinals, supply lines to decorative fountains, etc.—shall be tested and inspected for flow. Some flow may occur from water breaking loose from an air lock in an overhead water line. The amount of flow to cause a concern is a judgment call by the Cross-Connection Specialist. If the potable water system has been truly shut down at its point of connection, then continuous flow from any part of the potable water system (that is beyond the drainage generated by an air lock breaking free) indicates a cross-connection. In the case of a potable water system in a multi-story building, the testing of all fixtures may be used in combination with a pressure gauge (mentioned in no. 1. above), or the pressure gauge may be used instead of the testing of all fixtures. If the potable water system has been truly shut down at its point of connection, then an increase in the potable water system pressure viewed at the gauge over a period of time specified by the Cross-Connection Specialist indicates a cross-connection.

5. All recycled water irrigation control valves and quick-coupling valves, and any other site features that are approved to be supplied with recycled water from the on-site irrigation system (such as supply lines to decorative fountains) shall be tested and inspected for flow. No flow from a recycled water irrigation control valve, quick-coupling valve, or any other recycled water fixture indicates that it may be connected to the potable water system.

6. If no cross-connections are discovered, then the potable water system shall be re-pressurized. If any cross-connections are found, they must be disconnected, and the site must be re-tested by an AWWA Cross-Connection Specialist per these procedures.

The certified AWWA Cross-Connection Specialist responsible for completing the above test must indicate the results on a South Bay Water Recycling Cross-Connection Certification Form [call (408) 277-3671 to obtain form] and return it to Program. This completed form may be faxed to the Program at (408) 277-4954.

## APPENDIX F References

1. **California Code of Regulations (CCR), Title 22, Division 4, Chapter 3, "Water Recycling Criteria"**—These regulations are written by the CDPH and specify the approved uses and use area requirements, such as hose bib restrictions, prohibition of irrigation near wells, etc. The regulations govern both the City of Milpitas distribution system as well as the customer's on-site system.

2. **California Code of Regulations (CCR), Title 17, "Drinking Water Supply - Backflow Prevention"**—Title 17 specifies requirements intended to protect the public drinking water supply from contamination. Some requirements specified in Title 17 include backflow prevention devices, designation of a customer Site Supervisor, and cross-connection testing requirements.

3. **American Water Works Association (AWWA), California-Nevada Section, Guidelines For Distribution of Nonpotable Water** —This document provides recommended guidelines for planning, designing, constructing, and operating nonpotable water systems, including recycled water systems. The guidelines themselves are not regulations but many agencies have adopted them as general requirements. The document covers both installations of the City of Milpitas distribution systems and on-site use systems.

4. **International Association of Plumbing & Mechanical Officials (IAPMO) Uniform Plumbing Code, Appendix J**—Appendix J of the Uniform Plumbing Code sets forth requirements when recycled water is used within buildings in a dual-plumbed system for nonpotable domestic uses, such as toilet and urinal flushing. This section of the Uniform Plumbing Code does not apply to irrigation sites, where the recycled water system is located outside buildings, or industrial sites, where the recycled water is used for non-domestic industrial purposes. In addition, the pipe separation regulations indicated in this document are different than and take precedence over the Appendix J requirements. Appendix J has not been adopted by Milpitas, Santa Clara, or San Jose, and serves only as a reference.

5. **Regional Water Quality Control Board**—The San Francisco Bay Regional Water Quality Control Board (RWQCB) is the agency responsible for preserving the quality of California's water resources. The RWQCB is responsible for issuing National Pollutant Discharge Elimination System (NPDES) permits, which contains regulations concerning discharge of water into San Francisco Bay.

6. **Santa Clara Valley Urban Runoff Pollution Prevention Program**—The Santa Clara Valley Urban Runoff Pollution Prevention Program is an association of 13 cities and towns, the County of Santa Clara, and the Santa Clara Valley Water District that share a common National Pollutant Discharge Elimination System (NPDES) permit to discharge storm water to South San Francisco Bay. They are responsible for enforcing the NPDES permit by preventing the discharge of non-storm water into the storm drain systems.

7. **State of California Department of Health Services, Drinking Water Field Operations Branch, Santa Clara District**—The State Department of Public Health Drinking Water Field Operations Branch (DPH) is the agency responsible for protecting and promoting the safety of California's drinking water. They are responsible for developing the criteria and regulations for recycled water use, evaluating and approving recycled water systems, and for making recommendations to the RWQCB regarding the public health implications of recycled water use.