ON-SITE RECYCLED WATER IRRIGATION SYSTEMS MANUAL

GUIDELINES AND REQUIREMENTS FOR THE ON-SITE USE OF RECYCLED WATER

December 1, 2016
This manual includes an overview of the guidelines and requirements for the on-site use of recycled water for landscape irrigation, including an overview of the plan submittal and acceptance process for on-site recycled water irrigation systems.

For recycled water service to public, commercial/industrial, or institutional projects, the initial point of contact is Rancho California Water District’s (RCWD/District) Engineering Services Department. Applicable regulations, guidelines, and requirements have been established by RCWD to protect public safety and to ensure compliance with all state and federal rules & regulations pertaining to the on-site use of recycled water. Non-compliance with any applicable regulations and requirements may result in termination of water service and/or financial penalties.

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Ten Steps to Obtain On-Site Recycled Water

1. **Site Assessment/Notice of Determination** The Developer shall submit a completed project information worksheet (available from RCWD) specifying the site location. RCWD staff will assess the site to determine if it is located within the specified proximity of existing recycled water mains and respond on the worksheet as to the need for the project proponent to request a “Notice of Determination” (NOD) to assess the feasibility of obtaining recycled water service at the site. A letter containing the annual irrigation demands, location, and contact information is sent by the Developer to RCWD requesting staff to perform the NOD.

2. **Design Drawings** Developer will have a qualified Engineer or Landscape Architect prepare design and construction drawings specific to the site, in accordance with applicable regulations and requirements for recycled water use.

3. **Design Review and Plan Check** Applicant’s Engineer or Landscape Architect is to submit design/construction plans and applicable plan check/inspection deposits. RCWD staff reviews design/construction plans for conformance with applicable regulations and design guidelines. Design of new irrigation meters must be completed by a licensed Civil Engineer if the Developer’s contractor is to make the installation, or financial arrangements may be made for RCWD’s construction staff to perform the work, if time and resources are available.

4. **Application/User Agreement** Applicant meets with RCWD staff to initiate Application and Recycled Water (User) Agreement to comply with applicable regulations and design guidelines.

5. **Pre-Construction Meeting** Upon RCWD’s approval of design/construction plans and User’s execution of the Recycled Water Agreement, RCWD staff to conduct a pre-construction meeting at RCWD offices with Developer’s contractor present.

6. **System Construction/Service Lateral Installation** Applicant’s contractor(s) will construct the on-site recycled water system and off-site recycled water distribution pipeline(s) and/or service lateral(s). RCWD staff must inspect all construction.

7. **Temporary Potable Water Connection** Developer’s contractor to arrange for installation of temporary potable water connection to supply on-site recycled water system. Applicant to pay applicable fees for temporary potable water connection.
8. **Test System**  RCWD staff to perform cross-connection shutdown testing and coverage testing of on-site recycled water system to comply with applicable regulations for recycled water use.

9. **Recycled Water Meter Installation**  Upon successful completion of on-site recycled water system testing, applicant’s contractor to meet with RCWD staff and pay applicable recycled water meter fees/deposits. RCWD staff to install recycled water meter, and applicant’s contractor to remove temporary potable water connection.

10. **Training**  Applicant or appointee to obtain necessary “site supervisor” training, if not already certified.
Practical DOs and DON’Ts

DOs
- Install and maintain signs at all points of entry (pedestrian and vehicular).
- Install and maintain labels and tags on recycled and potable water systems.
- Operate irrigation system:
  - Between 9:00 p.m. and 6:00 a.m., if automatically controlled (unless other restrictions apply).
  - At other times if manually controlled and supervised (by dedicated Site Supervisor) to make sure the recycled water doesn’t come in contact with the public.
  - At any time if use site is restricted to the general public.
- Use quick couplers instead of hose bibbs.
- Contact RCWD if any water system (potable or recycled) modifications are anticipated within the use site.
- Immediately contact RCWD if any of the following has occurred:
  - A recycled water line break, spill, or off-site discharge of recycled water.
  - A violation of water recycling requirements.
  - A cross-connection between the recycled and potable water systems.
- Educate/train site workers on safe use and restrictions of recycled water.
- Keep records and as-built drawings up to date and accessible.
- Assist and cooperate during Periodic Visual Inspections.
- Assist and cooperate during Periodic Cross-Connection Testing.

DON’Ts
- Don’t drink recycled water.
- Don’t use recycled water to wash hands or any other part of body.
- Don’t remove recycled water identification signs, tags, or labels.
- Don’t cross-connect two dissimilar water systems (recycled to potable).
- Don’t allow recycled water to contact drinking fountains or eating areas.
- Don’t allow recycled water to pond or puddle.
- Don’t allow recycled water to run off the use site property by either overspray or overwatering.
- Don’t use recycled water on an unapproved site.
- Don’t put hose bibbs on recycled water systems.
- Don’t use the same equipment on both recycled water and domestic water systems (for example: quick couplers, tools, etc.).
- Don’t modify any water system without prior approval of RCWD.
Water to the customer's on-site recycled water system shall be fed through a highline connection via fire hydrant that is properly protected with a reduced pressure principle device (RPPD). Upon completion of shutdown and coverage tests, this connection shall be severed and the system connected to the recycled meter.

RCWD processes Developer's Recycled Water User Agreement, inspection deposits, and provides customer with use requirements.

RCWD notifies Developer of plan approval.

Pre-construction meeting held.

Irrigation plans accepted.

System accepted.

Water to the customer's on-site recycled water system shall be fed through a highline connection via fire hydrant that is properly protected with a reduced pressure principle device (RPPD). Upon completion of shutdown and coverage tests, this connection shall be severed and the system connected to the recycled meter.

Signed User Agreement returned.

RCWD inspects exposed landscape plumbing.

System accepted.

RCWD conducts cross-connection & coverage test.

Contractor makes necessary corrections.

Property service enters "existing site" inspection cycle.

Make necessary changes & resubmit.

Engineering Department reviews & comments.

START

Project Information Worksheet completed by Project Proponent & RCWD identifies the potential for recycled water at the site.

Developer requests a “Notice of Determination” from RCWD to determine if recycled water will be required.

Plans, Recycled Water Agreement exhibits, & deposits submitted by Development for Engineering Department to Plan Check.
DESIGN GUIDELINES

SITE PLANNING

The site plan should consider natural drainage features to prevent all runoff. The landscape topography should be designed to capture as much nuisance water and storm water as possible, thereby avoiding off-site runoff. The use of pervious surfaces and areas is preferred; the use of impervious surfaces and materials within the landscaped area should be limited to the greatest extent possible.

SEPARATION REQUIREMENTS

All irrigation pressure mainline piping shall be installed to maintain 10-foot minimum horizontal, one-foot minimum vertical separation from all potable water piping, with potable on top. Where recycled water irrigation and potable water pressure piping cross, the recycled water irrigation line shall be installed at a minimum of one-foot below the potable waterline, per detail drawing OS-1.

All temporary potable connections for construction or irrigation must be highlined from an alternate potable source only, as approved by RCWD, per detail drawing OS-3. Said connection must be made through a temporary construction meter and an approved above-ground reduced pressure principle backflow prevention device (RPPD), per detail drawing OS-3. No purple-colored piping or appurtenances shall be connected to any potable water source.

No recycled water may be used within 50 feet of an existing well site, as required in Title 22 (§60310).

SOILS

RCWD recommends that a soil analysis be used to determine appropriate plant selection, soil amendment, and irrigation scheduling. An agronomic soil analysis, based on a random sampling, should be performed by a reputable soil-testing lab. The analysis should contain the following information:

- Determination of soil texture, indicating percentage of organic matter.
- Measurement of pH and total soluble salts.
- Estimated soil infiltration rate.

Organic soil amendments should be incorporated, as necessary, to achieve a recommended percolation rate of greater than one (1) inch per hour to avoid ponding and runoff.
IRRIGATION PIPING AND FITTINGS

A. All irrigation water piping shall be installed in accordance with the latest edition of the California Plumbing Code and all other local governing codes, rules, and rules & regulations. All piping shall be continuously and permanently marked with the manufacturer’s name or trademark, nominal size, and schedule or class indicating the pressure rating. All on-site irrigation pressure mainline piping shall be purple PVC pipe, in accordance with the requirements specified herein.

B. The minimum class or schedule of purple PVC piping and fittings for pressure mains shall be as follows:

- PVC constant-pressure mainline piping 2 inches and larger: Rubber-ring joint, PVC Class 160, or solvent weld joint, PVC Class 315.
- PVC constant-pressure mainline piping 1½ inches and smaller: Solvent weld joint, PVC Schedule 40.
- PVC intermittent pressure lateral line piping: Solvent weld joint, PVC Class 200.
- PVC fittings: PVC Schedule 40 solvent weld and factory-manufactured, or Schedule 40 with rubber-ring joint.

C. Minimum marking requirements for constant-pressure rating in pounds per square inch (psi) at 73 degrees; ASTM designations such as 1785, 2241, 2672, 3139; and printing shall be placed continuously on two sides of the pipe.

D. UV stabilized PVC pipe for above-grade piping may be allowed if labeled to identify it as conveying recycled water.

E. For low pressure (drip) and intermittent pressure applications, other pipe materials may be accepted by RCWD on a case-by-case basis, as long as all Title 22 requirements (§116815) for purple pipe are met. Full product submittal will be required for review and approval.

CONTROLLER AND VALVES

A. An automatic irrigation controller is required. RCWD recommends the use of a self-adjusting “smart” irrigation controller. The controller should have, at a minimum, the following capabilities:

- Water budgeting feature (percent adjustment).
- Multiple start time capability to reduce potential runoff (cycle and soak).
- Run time durations able to support low-volume applications.
- Irrigation intervals for days of the week or same day intervals.
- More than one operating program: A (turf) / B (shrubs) / C (water feature).

B. Individual valve zones (stations) should only irrigate similar hydrozones.

C. Irrigation system should be designed to achieve 70% or greater distribution uniformity in turf areas and greater than 80% in all other landscaped areas.

The plans and controller enclosure must contain a controller schedule with the minimum level of detail, as shown in detail drawing OS-2, and must be identified as a recycled water controller with placard labels. The schedule shall clearly show the start, stop, and run times for each zone. The sum of the run times shown in the programming chart cannot exceed the total hours within the watering window. A note on the plans directing the contractor to program the controller to operate within the allowable timeframe cannot be used in lieu of a detailed programming schedule. A normally closed master control valve is required at the point(s) of connection for all recycled water irrigation systems.

Weather-based controllers that do not have the ability to define start and run times must be programmed to only operate during the watering window and have a normally closed master control valve that only opens during the times allowed by RCWD. For this specific scenario, the minimum level of detail for the programming information specified in detail drawing OS-2 will not be required, but must be replaced with the programming chart provided by the manufacturer and completed by the Landscape Architect on the plans.

**IRRIGATION SPRINKLER HEADS**

A. Irrigation sprinkler heads are required to be equipped with purple identifier caps or collars.

B. Irrigation operating pressures should be maintained near thirty (30) psi, or per manufacturer’s specifications, to eliminate misting and runoff potential.

C. Sprinkler spray patterns should be designed to prevent overspray onto fountains, swimming pools, patio decks, public sidewalks, structures, food preparation areas, or adjoining property.

D. Sprinkler precipitation rates should not exceed soil infiltration rates (1 inch per hour).

**LOW VOLUME IRRIGATION**

A. Non-turf shrub areas should be irrigated with low-volume micro spray, drip irrigation, or single-point application devices, where
manufacturer’s specification indicates output measured and expressed in gallons per hour (GPH).

B. All low-volume irrigation systems should have a filter installed on the supply side, unless non-clog drip emitters are used.

C. Low-volume irrigation systems should have a manual flush valve at the end of all lateral runs, per detail drawing OS-7.

D. Buried end caps on drip laterals will be allowed to establish a “closed” no-flush drip system.

HOSE BIBBS AND QUICK COUPLERS

A. All potable water hose bibbs exterior to the structure must be plumbed in copper and properly protected by a RPPD installed at the point of connection, per detail drawing OS-12.

B. Hose bibbs, automatic flush valves, and ball valves are not allowed on the recycled water irrigation system for flushing purposes.

C. Quick couplers will be allowed on the recycled water system ONLY if they are marked for recycled water use, per detail drawing OS-7, and enclosed in appropriately marked purple irrigation boxes, per detail drawing OS-13.

IRRIGATION METER AND VALVE BOXES

Irrigation boxes for valves shall be purple in color and installed per detail drawing OS-13. If concrete boxes are used, the removable concrete lid portion shall be painted purple.

Irrigation meter box placement shall follow the instructions per detail drawing OS-8 for 2-inch meters and smaller. Meter installation from the main to the meter shall be designed by a licensed Civil Engineer and submitted for plan check. Meters 2½-inch and larger shall also be detailed by a Civil Engineer as an above-grade installation and submitted to RCWD for review and approval. See RCWD Water Standard Drawing RW-51A for reference. A 3/8-inch test port shall be installed downstream of all meters.

Meter sizing shall be based on the zone (or zones if more than one operates simultaneously) with the highest demand and selected from the maximum continuous flow column identified below. Pressure loss curves are available upon request for the actual meters used by RCWD. Oversizing of meters is not allowed, but laterals may be oversized to accommodate sites with marginal pressures or planned phasing for future demands.
<table>
<thead>
<tr>
<th>Lateral Size</th>
<th>Meter Size/Type</th>
<th>Maximum Continuous Capacity (GPM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1”</td>
<td>¾” Disc/Multi-Jet</td>
<td>25</td>
</tr>
<tr>
<td>1”</td>
<td>1” Disc/Multi-Jet</td>
<td>50</td>
</tr>
<tr>
<td>2”</td>
<td>1½” Disc/Multi Jet</td>
<td>80</td>
</tr>
<tr>
<td>2”</td>
<td>2” Disc/Multi Jet</td>
<td>100</td>
</tr>
<tr>
<td>2”</td>
<td>2” Turbine</td>
<td>200</td>
</tr>
<tr>
<td>4”</td>
<td>3” Turbine</td>
<td>450</td>
</tr>
<tr>
<td>4”</td>
<td>4” Turbine</td>
<td>1000</td>
</tr>
</tbody>
</table>

A RPPD is not required to be installed on recycled water meters, except for sites that use a chemical/fertilizer injection system. The RPPD should be the same size as the meter or no more than one size larger than the meter.

**POTABLE WATER PIPING**

A. Potable water may **NOT** be used for landscape irrigation purposes on recycled water use sites unless approved by RCWD for unique circumstances where public health or regulatory concerns may exist by using recycled water.

B. RCWD requires that all potable water piping located in softscape areas exterior to structures be copper pipe and constructed in accordance with the Uniform Plumbing Code (UPC). Potable water piping located under hardscape areas may be made from other materials, with approval by RCWD, as long as the hardscape is a minimum of 3 feet wide, with the potable water pipe centered under the pavement. The Landscape Architect is responsible for conveying and coordinating this requirement with the Civil or Mechanical Engineer responsible for the design of the on-site water system prior to design efforts being initiated. Potable and fire pipelines greater than 3 inches are exempt from the copper pipe requirement, as long as they are identified as potable by using blue pipe.

C. A RPPD is required to be installed on the potable waterline downstream of the water meter, in accordance with RCWD’s cross-connection control ordinance. Potable water uses external to the building shall also have a RPPD for each supply line that branches off from the on-site potable water piping. Examples of these types of uses include fill lines for swimming pools, ponds, fountains, and areas predetermined to be irrigated with potable water such as vegetable gardens and creek banks. See detail drawings OS-12 and OS-15 for reference.

**RECYCLED WATER SIGNAGE**

All paths of entry to the property shall be clearly marked with recycled water notification signs, per detail drawing OS-4. Large signs are required at all driveway entrances. Additional requirements for the posting of signs, labeling,
and tagging that may be imposed by RCWD are identified in detail drawing OS-16B (note 13).

**DRINKING FOUNTAINS**

Exterior drinking fountains must be shown and called-out on the recycled water system plans. If no exterior drinking fountains are present in the design area, it must be specifically stated on the plans that none exist. The potable waterline supplying the drinking fountain must be copper pipe and must have a warning tape, per detail drawing OS-5, and maintain proper separation from recycled water lines. Drinking fountains must be protected from the direct spray of recycled water, either by proper placement within the design area or the use of a covered drinking fountain approved for this purpose, per detail drawing OS-6. All on-site potable water lines must be protected by an approved RPPD at the point of connection.

**SEPARATION WITH MOW-STRIP**

If the recycled water system has spray heads at the property perimeter, they need to be separated by 10 feet head-to-head from the adjoining property’s irrigation, and there is to be a physical barrier such as a concrete mow-strip, per detail drawing OS-11, or block wall. Other barriers may be approved on a case-by-case basis, only after full submittal is made. All barriers or alternative barriers shall be clearly shown on the plans, along with locations where they begin and end. A barrier is also required between any adjoining potable and recycled water irrigation areas. In addition, the potential for recycled water spray, mist, or runoff, and overall system adjustment/operations, will be evaluated and appropriate modifications determined by RCWD.

Mow strip, per detail drawing OS-11, may also be required to provide above-grade separation and delineation of recycled facilities, as determined by RCWD.

**WATER QUALITY BASINS**

Landscaping within the engineered water quality basins required by California’s Low Impact Development standards is allowable under the following conditions:

- Pressurized recycled water mainline(s) shall be located at top of the slope.
- Recycled water mainline appurtenances (remote control valves, quick coupler valves, flow sensors, etc.) shall be installed on top of the slope.
- Master control valve shall be normally closed and shall be installed at the point of connection.
- The recycled water irrigation systems must have an evapotranspiration-based monitoring system, including automatic rain shut-off devices or soil moisture sensors located within the basin.
- If recycled water sprinklers are designed to be installed below the high level waterline of the basin, an approved RPPD must be installed at the point of connection.
- Recycled water shall not leave the use site. This shall be accomplished by an irrigation design and selection of components, as accepted by RCWD, which ensure that irrigation does not occur while storm water exists within the basin.

CREEK BANKS

Irrigation of creek banks and bottom with recycled water is not allowed due to the potential for live stream discharges caused by mechanical failures in the irrigation system. Overbanks may be irrigated with recycled water upon RCWD review and approval of proposed site locations.
IRRIGATION PLANS (CHECKLISTS FOR SUBMITTED DRAWINGS)

PROJECT __________________ PLAN CHECK # ___ RCWD W.O. _______

LEGEND

✓ = Complete
O = Complete, but needs revision
X = Not Complete
N/A = Not applicable
? = Not Known, Design Engineer to Verify

Prior to construction or installation of any buried irrigation system or system component, the developer shall be in possession of the final irrigation plans that have been reviewed and accepted by RCWD. RCWD requires a minimum of thirty (30) calendar days per submittal for the review period. Plans shall show all the following features:

<table>
<thead>
<tr>
<th>STATUS</th>
<th>TITLE SHEET CHECKLIST</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Project legal description (or defined boundary of use area), APN, tract/parcel map number, project name, site address, etc.</td>
</tr>
<tr>
<td></td>
<td>Engineer/architect of work name, address, phone number, CA registration number, expiration date, and stamp (current and signed).</td>
</tr>
<tr>
<td></td>
<td>Declaration of responsible charge a.k.a Site Supervisor (date and signature), per detail drawing OS-17.</td>
</tr>
<tr>
<td></td>
<td>Index of sheets.</td>
</tr>
<tr>
<td></td>
<td>Vicinity map of general area showing project site, major streets, North arrow, and project boundary.</td>
</tr>
<tr>
<td></td>
<td>Landscape maintenance responsibility note, per detail drawing OS-17.</td>
</tr>
<tr>
<td></td>
<td>Acceptance time limitation note that plans expire after 1 year, per detail drawing OS-18.</td>
</tr>
<tr>
<td></td>
<td>RCWD on-site irrigation plans disclaimer, per detail drawing OS-17.</td>
</tr>
<tr>
<td></td>
<td>RCWD on-site recycled water notes (if space permits – otherwise on index map sheet), per detail drawing OS-16.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>STATUS</th>
<th>INDEX MAP CHECKLIST</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>North arrow.</td>
</tr>
<tr>
<td></td>
<td>Street names.</td>
</tr>
<tr>
<td></td>
<td>Existing/proposed utilities (potable water, sewers, etc.).</td>
</tr>
<tr>
<td></td>
<td>Existing (and proposed, if applicable) utilities in streets: type, size, and class of pipe.</td>
</tr>
<tr>
<td></td>
<td>Location of recycled water warning signs, per detail drawing OS-4. The location for warning signs shall be called-out at all driveway entrances, walkway entrances, recycled water meters, and posted every 250 feet along fence lines or property lines.</td>
</tr>
<tr>
<td></td>
<td>Abbreviations.</td>
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</tbody>
</table>
### STATUS

#### INDEX MAP CHECKLIST (Continued)

| Location of meters (recycled and potable) with irrigation plan and/or civil sheet number reference. |
| Show all pressure mainlines (recycled and potable), mainline valves, and POC equipment. |
| Delineation of all public facilities, including designated tot lots, food preparation areas, and picnic areas. |
| Drinking and decorative fountains and potable waterlines to buildings and restrooms are clearly defined and labeled on plans. |
| Size of mainlines is shown and matches irrigation sheets. |
| Legend and symbols identifying all equipment shown on index map. |
| Layout of individual irrigation plan sheets with reference to sheet numbers. |

#### IRRIGATION PLAN SHEETS CHECKLIST

| Everything listed on Index Sheet checklist. |
| Point of connection meter data table: at each meter location, per detail drawing OS-9. |
| Indicate meter size, size of connection lateral, and size/type of mainline tying into (inches). |
| Matchlines. |
| Irrigation control valves, quick couplers, and other equipment shown and tagged, per detail drawing OS-5. |
| Quick couplers used for flushing, per detail drawing OS-7. |
| Non-pressurized irrigation laterals and heads. |
| Delineation of recycled versus potable irrigation areas. |
| New or existing backflow devices for on-site potable water systems, fire systems, etc. |
| Property lines and building footprints, including dwellings, garages, sheds, etc. |
| All potable, fire, and irrigation waterlines exterior to the dwelling structure. |
| All existing and future points of connection for potable, fire, and recycled water. |
| Potable water hose bibbs, per detail drawing OS-12. |
| Fountains, pools, hose bibbs, etc. and means for supplying potable water, per detail drawing OS-15. |
| Drinking fountains shown and called-out, per detail drawing OS-6. |
| Location and type of fencing or walls. |
| Location of mow strips, per detail drawing OS-11. |
| Driveways, walkways, patios, etc. |
| Detail showing the potable water service (include water meter and valves), per detail drawing OS-8. |
| Termination points of all exterior potable water lines and irrigation lines. |
**IRRIGATION PLAN SHEETS CHECKLIST (Continued)**

<table>
<thead>
<tr>
<th>STATUS</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Irrigation control valves and electrical controllers.</td>
<td></td>
</tr>
<tr>
<td>Material schedule.</td>
<td></td>
</tr>
<tr>
<td>Copper pipe is called-out for all potable waterlines in softscape.</td>
<td></td>
</tr>
<tr>
<td>Purple pipe is called-out and specified.</td>
<td></td>
</tr>
<tr>
<td>Purple valve boxes are called-out and specified on all details, per detail drawing OS-13.</td>
<td></td>
</tr>
<tr>
<td>Purple sprinkler caps/labels are called-out and specified on all sprinklers, per detail drawing OS-10.</td>
<td></td>
</tr>
<tr>
<td>Recycled water backflow devices for systems with fertilizer injection.</td>
<td></td>
</tr>
<tr>
<td>Controller schedule shows start, stop, and run times, per detail drawing OS-2.</td>
<td></td>
</tr>
<tr>
<td>Controller schedule’s operating hours are within watering window.</td>
<td></td>
</tr>
<tr>
<td>Controller tags and placards, per detail drawing OS-5.</td>
<td></td>
</tr>
<tr>
<td>Pipe warning tape shown, per detail drawing OS-5.</td>
<td></td>
</tr>
<tr>
<td>Master control valve is installed at all point(s) of connection.</td>
<td></td>
</tr>
<tr>
<td>Recycled water meter is not oversized and consistent with guidelines.</td>
<td></td>
</tr>
<tr>
<td>No recycled water irrigation within 50 feet of existing well sites.</td>
<td></td>
</tr>
<tr>
<td>Potable and recycled water separation note (per note 8, detail drawing OS-16A) and separation detail (per detail drawing OS-1).</td>
<td></td>
</tr>
</tbody>
</table>

**ALL SHEETS CHECKLIST**

<table>
<thead>
<tr>
<th>STATUS</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan Size: 24&quot;x 36&quot;.</td>
<td></td>
</tr>
<tr>
<td>RCWD sheets shall be consecutively numbered and include total number of sheets.</td>
<td></td>
</tr>
<tr>
<td>Stamp and signature of licensed California landscape architect (current and signed).</td>
<td></td>
</tr>
<tr>
<td>Project title block (lower right corner of all sheets), per detail drawing OS-18.</td>
<td></td>
</tr>
<tr>
<td>RCWD acceptance block, per detail drawing OS-18.</td>
<td></td>
</tr>
<tr>
<td>Revision block, per detail drawing OS-18.</td>
<td></td>
</tr>
<tr>
<td>Property boundary (as applicable).</td>
<td></td>
</tr>
<tr>
<td>Scale.</td>
<td></td>
</tr>
<tr>
<td>North Arrow.</td>
<td></td>
</tr>
<tr>
<td>Lettered in a neat and legible style. No hand-lettering smaller than 1/8 inch and no machine lettering smaller than 1/10 inch.</td>
<td></td>
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</table>
SUBMITTAL REQUIREMENTS

PLAN CHECK
1) Plan Check Application (available through Engineering Services).
3) One Copy of Recycled Water Plans.
4) One Copy of Exhibit A for Recycled Water Agreement.
5) Compact Disk with CAD files of Exhibit A.

INSPECTION
1) Inspection Application (available through Engineering Services).
3) Four Copies of Approved Recycled Water Plans.
INSPECTION, MAINTENANCE, AND TESTING

INSPECTION SCHEDULE (IRRIGATION SYSTEM CONSTRUCTION)

1) Landscape Contractor/Recycled Water “User” is responsible for notifying RCWD in advance for the following irrigation system inspection, according to the time indicated:
   (a) Pre-job conference: 7 calendar days’ notice required.
   (b) Pressure mainline installation inspection: 48 hours’ notice required.
   (c) Irrigation systems and components: 48 hours’ notice required.
   (d) Cross-connection test (initial): 48 hours’ notice required.
   (e) Coverage tests (initial): 48 hours’ notice required.
   (f) Final irrigation inspection: 48 hours’ notice required.

2) Before any final inspection takes place, record as-built drawings with all system changes incorporated must be submitted to RCWD.

3) These inspections are for installation conformance with applicable regulations and requirements. In no way does the inspection relieve the Landscape Architect, Landscape Contractor, or Recycled Water User of any liabilities that may be incurred. Recycled water service will not be granted until the installation of the landscape irrigation system has been witnessed by RCWD and the system has passed the required cross-connection and coverage tests.

HOURS OF OPERATION

The recycled irrigation system shall be operated within the time period of 9:00 p.m. to 6:00 a.m., unless otherwise approved by RCWD.
RECURRING INSPECTION, MAINTENANCE, AND TESTING

All recycled water use sites are surveyed once per quarter for compliance with the RCWD use requirements, State Water Resources Control Board (SWRCB) regulations, and the requirements identified in RCWD’s Recycled Water Permit issued by the California Regional Water Quality Control Board.

CROSS-CONNECTION SHUTDOWN TESTS

Once per year, dual-plumbed sites (single family homes, sites where recycled water is used for industrial processes) are required to conduct a cross-connection shutdown or pressure test. Otherwise, every fourth year, identified use sites are required to conduct a cross-connection shutdown or pressure test. The test shall be conducted by RCWD or parties approved by RCWD.

COVERAGE TESTS

Once per year, use sites are required to conduct a system coverage test. The owner/user is responsible for controlling overspray and runoff from recycled water irrigation systems. To ensure the limitation of overspray and runoff is in accordance with RCWD on-site recycled water use requirements, an inspection will be conducted of the completed on-site recycled water irrigation system by RCWD. When the sprinkler system is completed and the planting installed, the owner or owner’s representative shall contact RCWD at (951) 296-6900 and arrange for a coverage test walkthrough. The owner or owner’s representative must be in attendance and have persons capable of making system adjustments. If modifications to the system are required, other than minor adjustments, the owner will be notified in writing of the changes required. To obtain permanent service, the modifications must be made in a timely manner. All modifications to the system are the responsibility of the owner, applicant, or customer, and said owner, applicant, or customer shall pay all costs associated with such modifications.

SITE SUPERVISOR DESIGNATION

All recycled water users are required to have a designated “SITE SUPERVISOR.” The owner will usually be designated as the Site Supervisor. The Site Supervisor must/will:

a) Be knowledgeable about recycled water and how it is manufactured.
b) Be the contact person at user’s site, and be available at all times to contact and respond in the event of an emergency.
c) Be knowledgeable about the practices and procedures of using recycled water.
d) Be responsible for the safe and efficient use of recycled water.
e) Provide instruction and training to on-site personnel in the proper handling of recycled water and the potential health hazards involved with its use.
f) Submit plans to the District for all proposed changes to the irrigation system on the user’s site for review and approval prior to any modifications being made.

g) Have all proposed changes approved by the District inspected by the District’s staff during construction.

h) Maintain irrigation system record drawings of user’s site.

i) Communicate all recycled water rules & regulations to on-site personnel.

j) Be knowledgeable of all on-site potable water systems, and take appropriate measures to prevent cross-connection with the recycled water system.

k) Inform the District of all system failures or cross-connection events so that appropriate measures may be taken to mitigate the contamination or pollution.

If the user desires to designate another person as Site Supervisor, then the user is responsible for notifying the District in writing of such action. In the event that someone other than the user is designated as the Site Supervisor and this person is no longer associated with the property, the user shall again be considered the Site Supervisor and will assume the above-listed requirements until an approved Site Supervisor is designated.

MAINTENANCE PROCEDURES

Repairs or modifications to the recycled water irrigation piping or potable water piping exterior to structures, consisting of the removal of existing irrigation systems or the addition of potable or non-potable systems, shall be reviewed and approved by RCWD. On-site record plans must be modified to depict changes/additions proposed. Plans shall be submitted to RCWD for review and acceptance prior to any work being performed. In the event of an emergency, all repair work must be left exposed until visual inspection and approval is made by RCWD. Cross-connections, including temporary jumper connections between potable water facilities and irrigation water facilities, are strictly prohibited.

In the event purple PVC pipe is not available for an emergency repair on the irrigation system, non-purple plastic pipe may be temporarily used for the repair until purple PVC pipe can be obtained. The repaired portion of the irrigation system must remain exposed until a permanent repair is made and subsequently approved.

RCWD INSPECTION RIGHTS

RCWD staff has the right to enter upon the customer’s premises during reasonable hours for the purpose of inspecting the customer’s potable water and irrigation water systems. Although every effort will be made to notify the property owner in advance, if the presence of a hazardous water condition is suspected, RCWD reserves the right to enter upon the customer’s premises without advance notification.
WATER SERVICE CONDITIONS

When RCWD determines that water uses or conditions may represent a clear or immediate hazard to the RCWD water supply that cannot be immediately abated, RCWD will institute action for discontinuing all water use (both potable and recycled). Conditions or water uses that may create a basis for water service termination shall include, but are not limited to, the following:

- Failure to execute the required Recycled Water Service Agreement.
- Failure to comply with any provision(s) of the Recycled Water Service Agreement.
- Failure to notify RCWD of a change in property ownership.
- Failure to install the required backflow prevention device(s).
- Failure to test backflow prevention device(s), as required.
- Failure to repair any faulty backflow prevention device.
- Failure to replace any faulty backflow prevention device.
- Direct or indirect connection between the potable water system and the recycled water system.
- Direct or indirect connection between the potable water system and a sewer.
- Unprotected direct or indirect connection between the potable water system and equipment containing contaminants.
- Unprotected direct or indirect connection between the potable water system and an auxiliary water system.
- A situation that presents an immediate health hazard to RCWD’s water system, as determined by RCWD.
- Whenever copper piping is not installed for the potable water system or purple PVC pipe for the irrigation water system.
- Failure to report a plumbing change exterior to the dwelling structure.
- Commencement of work/modifications prior to receiving RCWD approval.
- Failure to correct noted deficiency in a timely manner.
- Failure to pay water service fees in a timely manner.

RCWD will not be responsible for landscape or property damages resulting from the termination of any water services under the above conditions.
RECYCLED WATER GLOSSARY (Reference)

acre-foot • 325,851 gallons or enough water to cover an acre of land one foot deep.

advanced treatment • Additional treatment provided to remove suspended and dissolved substances after conventional secondary treatment.

application rate • The rate of delivery by an irrigation circuit, in inches for sprinkler irrigation, in gallons for drip irrigation.

applied water • The portion of water supplied by the distribution system to the place of use.

arid climate • A climate characterized by less than 10 inches of annual precipitation.

backflow • (1) The backing up of water through a conduit or channel in the direction opposite to normal flow. (2) The undesirable flow of water from a plumbing system back into the community potable water supply.

backflow preventer • A device that allows liquids to flow in only one direction in a pipe. Backflow preventers are used on sewer pipes to prevent a reverse flow during flooding situations. They are also used at connections to drinking water systems to prevent potentially contaminated water from flowing into drinking water supplies.

Best Management Practices (BMP) • A generally accepted practice for some aspect of natural resources management to protect or achieve the best use of the resources, such as water conservation measures, drainage management measures, or erosion control measures. Typically incorporates conservation criteria.

bubbler • A type of sprinkler head that delivers a relatively large volume of water to a level area where standing water gradually infiltrates into the soil. The flow rate is large relative to the area to which the water is delivered. Bubblers are used to irrigate trees and shrubs.

check valve • A device that prevents drainage of water from the low points of an irrigation circuit after irrigation. Also called anti-drain valve.

chlorination • The application of chlorine or one of its compounds to water or wastewater, often for disinfection or oxidation purposes.

chlorine residual • The concentration of chlorine remaining in water or wastewater at the end of a specified contact period that will react chemically and biologically.
CIMIS • A computerized network of weather stations, called the California Irrigation Management Information System, developed by the California Department of Water Resources and used to calculate ET.

clarification • A process or combination of processes where the primary purpose is to reduce the concentration of suspended matter in a liquid.

controlled reuse • The use of recycled water under legal and physical control or restraint even though the recycled water may be co-mingled with water in a natural water body.

crop coefficient (Kc) • A factor used to adjust reference evapotranspiration and calculate water requirements for a given plant species (also called plant factor).

Cross-connection • A physical connection between two water systems, typically between a potable water system and any source or system of water or other substance that is not approved for drinking.

distribution uniformity (DU) • A measure of the efficiency of overhead irrigation calculated by analyzing the results of catch-can tests or by applying a formula to the dimensions and specifications of an irrigation plan.

drip irrigation • The slow, accurate application of water to plant root zones with a system of pipe and emitters usually operated under reduced pressure.

drought • An extended period of below-average precipitation resulting in increased demand and/or above-average reduction of water storage levels.

dual and multiple programming • The capacity of an irrigation controller to schedule the frequency and duration of irrigation cycles to meet varying water requirements of plants served by a system. Grouping plants and laying out irrigation circuits by similar water requirements facilitate multiple programming.

effective precipitation (EP) • The amount of rainfall that contributes to meeting plant ET demand. In a given day, effective precipitation is less than, or equal to, the daily evapotranspiration.

emitter • A drip irrigation component that dispenses water to plants at a predictable rate, measured in gallons per hour.

evapotranspiration (ET) • The quantity of water evaporated from adjacent soil surfaces and transpired by plants during a specific time.

flow rate • The amount of water dispensed by an irrigation pipe, head, or emitter, measured in gallons per minute or gallons per hour.

GPH • gallons per hour
GPM • gallons per minute

graywater use • The part of the untreated domestic wastewater that has not come into contact with toilet or kitchen waste, and is used for on-site recycled water landscape irrigation.

HCF • A unit of water equal to 100 cubic feet of water or 748 gallons; used by RCWD as a billing unit.

high-water-use plants • Plants with a crop coefficient greater than 0.7.

hydrozone • A portion of a landscape area having plants with similar water needs that are either not irrigated or irrigated by a circuit or circuits with the same schedule.

impact head • A type of single-stream rotor that uses a lever driven by its impact on the stream of water to rotate a nozzle in a full circle or arc. Impact heads have large radii and relatively low precipitation rates but do not provide matched precipitation rates for varying arc patterns.

infiltration rate • The rate at which water permeates soil, expressed as a depth of water per unit of time (inches per hour).

irrigated area • The portion of a landscape that requires supplemental irrigation, usually expressed in square feet or acres.

irrigation circuit • A group of irrigation components, including heads or emitters and pipes, controlled and operated simultaneously by a remote control valve.

irrigation controller • A mechanical or electronic clock that can be programmed to operate remote-control valves to control watering times; also referred to as an irrigation timer.

irrigation cycle • A scheduled application of water by an irrigation circuit defined by a start time and its duration. Multiple cycles can be scheduled, separated by time intervals, to allow infiltration of applied water.

irrigation scheduling • The process of developing a schedule for an automatic irrigation system that applies the right amount of water, matched to the plant needs, which varies daily, weekly, or seasonally.

landscape coefficient • A factor used to modify reference evapotranspiration and to calculate water requirements for a hydrozone.

landscape water budget (LWB) • A water budget or water allowance required by ordinance usually expressed in terms of Eto.
**low-head drainage** • Drainage of water from irrigation lines at the low elevations in an irrigation circuit.

**low-water-use plants** • Plants with a crop coefficient of less than 0.3.

**matched precipitation rates** • Equal water-delivery rate of sprinkler irrigation heads with varying arc patterns within an irrigation circuit. Matched precipitation rates are important to achieve uniform distribution of water.

**matched sprinkler heads** • Sprinkler heads with the same precipitation rate.

**Mediterranean climate** • A climate characterized by moderate temperatures throughout the year, dry summers, and rainy winters.

**medium-water-use plants** • Plants with a crop coefficient of 0.4 to 0.6.

**meter** • An instrument for measuring and recording water volume.

**microclimate** • The climate of a specific place within a given area.

**mulch** • A protective covering of various substances, especially organic, such as wood chips, placed on the earth around plants to reduce weed growth and evaporation of moisture from the soil surface and to maintain even temperatures around plant roots.

**multiple start times** • An irrigation controller's capacity to accept programming of more than one irrigation cycle for a circuit in a given day.

**native and adapted plants** • Plants indigenous to an area or from a similar climate that require little or no supplemental irrigation once established.

**operating pressure** • Water pressure measured in pounds per square inch (psi) required for proper function of irrigation system components.

**overspray** • Application of water, usually via sprinkler irrigation, to areas other than the intended area.

**percent switch** • A feature of an irrigation controller that allows percent changes in the duration of programmed irrigation.

**precipitation rate** • Application rate for landscape irrigation (measured in inches).

**pressure-compensating emitter** • A drip-irrigation emitter designed to deliver water at a consistent flow rate under a range of operating pressure.

**pressure loss** • The reduction in water pressure due to friction of water against the inner walls of pipe and components.
**pressure reducer** • A water system component that reduces the downstream pressure of water moving to irrigation lines and other points of use.

**rain shutoff device** • A device connected to an irrigation controller that overrides scheduled irrigation when significant precipitation has been detected.

**retrofit** • Replacement of parts for a fixture or appliance to make the device more efficient.

**reference evapotranspiration (Et₀)** • A standard measurement which estimates the evapotranspiration of a broad expanse of well-watered, 4 to 7 inch-tall cool-season grass.

**remote-control valve** • An electric solenoid valve, wired to an irrigation controller, that controls the flow of water to an irrigation circuit.

**rotary nozzle** • A retrofit device designed to replace fixed spray sprinkler nozzles with a low precipitation rate nozzle.

**RPPD** • Reduced Pressure Principle Backflow Device

**runoff** • Surface drainage of irrigation water from the intended area.

**semi-arid climate** • A climate characterized by 10 inches to 20 inches of annual precipitation.

**site supervisor** • Responsible person in charge of a recycled water use site.

**smart irrigation controller** • Unlike traditional controllers, which are really just timers, “smart” controllers work by monitoring and using information about site conditions (such as soil moisture, rain, wind, slope, soil, plant type, and more), and applying the right amount of water based on those factors to maintain healthy growing conditions.

**soil amendment** • Organic and inorganic materials added to soils to improve texture, nutrients, moisture holding capacity, and infiltration rates.

**soils report** • A report by a soils engineer or lab indicating soil type(s), organic content, soil depth, uniformity, infiltration rates, and pH for a given site.

**spray head** • A sprinkler irrigation nozzle installed on a riser that delivers water in a fixed pattern. Flow rates of spray heads are high relative to the area covered by the spray pattern.

**sprinkler circuit** • A group of sprinklers irrigated on the same station.
**sprinkler irrigation** • Overhead delivery of water using bubblers, spray heads, stream rotors, or impact heads. Precipitation rates will vary depending on system layout and type of head used.

**sprinkler run time** • The minutes of irrigation per irrigation day, based on the irrigation requirement and irrigation days per week.

**station** • An irrigation valve.

**stream rotors** • Sprinkler irrigation heads that deliver rotating streams of water in arcs or full circles. Some types use a gear mechanism and water pressure to generate a single stream or multiple streams. Stream rotors have relatively low precipitation rates.

**subsurface irrigation** • The application of water via buried pipe and emitters, with flow rates measured in gallons per hour.

**SWRCB** • State Water Resources Control Board

**transpiration** • The passing of water through living plant membranes.

**use site** • Land area that will use recycled water within its perimeter.

**water audit** • The on-site survey and measurement of hardware and management efficiency and the generation of recommendations to improve efficiency.

**water budget approach** • A method of establishing water-efficiency standards by describing limits on water consumption for irrigated landscapes.

**water-efficient landscape** • A landscape that minimizes water requirements and consumption through proper design, installation, and management.

**water rationing** • Mandatory water restrictions temporarily placed on customers, as with short-term shortage or drought programs.

**wetted area (pattern)** • The soil area wetted by an irrigation system.
DETAIL DRAWINGS

OS-1 .................. HORIZONTAL & VERTICAL PIPE SEPARATION
OS-2 .................. CONTROLLER SCHEDULE (MIN. LEVEL OF DETAIL)
OS-3 .................. TEMPORARY HIGH LINE POTABLE WATER TEST CONNECTION
OS-4 .................. RECYCLED WATER SIGNS
OS-5 .................. RECYCLED WATER TAGS & PIPING LABELS
OS-6 .................. DRINKING FOUNTAIN COVER
OS-7 .................. QUICK COUPLER/FLUSH VALVE
OS-8 .................. METER CONNECTION 2” & SMALLER
OS-9 .................. RECYCLED WATER POINT OF CONNECTION DATA TABLE
OS-10 ............... IRRIGATION HEAD AND DRIPLINE COLOR CODING
OS-11 ............... MOW STRIP SEPARATION
OS-12 ............... POTABLE WATER BACKFLOW PREVENTION LAYOUT
OS-13 ............... VALVE BOXES
OS-14 ............... RETROFIT P.O.C. REQUIREMENTS
OS-15 ............... SAMPLE IRRIGATION PLAN FOR SITES WITH POOLS, PONDS, AND FOUNTAINS
OS-16A&B ...... ON-SITE RECYCLED WATER IRRIGATION NOTES
OS-17 ............... RECYCLED WATER RESPONSIBILITY NOTES
OS-18 ............... PLAN DOCUMENT BORDER REQUIREMENTS
CROSSING DETAIL

POTABLE WATER

12” MIN VERTICAL SEPARATION

RECYCLED WATER

PARALLEL CONSTRUCTION

POTABLE WATER PIPELINE

10’ MIN

RECYCLED WATER PIPELINE

RECYCLED WATER IRRIGATION PIPELINES AND PRIVATE POTABLE WATER PIPELINES SHALL BE INSTALLED IN SEPARATE TRENCHES WITH THE GREATEST POSSIBLE SEPARATION. MINIMUM CLEARANCES OF TEN (10)-FEET HORIZONTAL AND ONE (1)-FOOT VERTICAL SHALL BE MAINTAINED BETWEEN POTABLE AND RECYCLED WATER LINES. WHERE RECYCLED WATER IRRIGATION PIPELINES AND PRIVATE POTABLE WATER PIPELINES CROSS, THE POTABLE WATER PIPE SHALL BE INSTALLED A MINIMUM OF TWELVE (12) INCHES ABOVE THE RECYCLED WATER PIPING.
<table>
<thead>
<tr>
<th>CALENDAR DAY</th>
<th>PROGRAM A</th>
<th>PROGRAM B</th>
<th>PROGRAM C</th>
<th>PROGRAM D</th>
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<td>S</td>
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TEMPORARY CONSTRUCTION

FH METER (SUPPLIED BY RCWD AT CUSTOMER EXPENSE)

APPROVED REDUCED PRESSURE
BACKFLOW PREVENTION ASSEMBLY
(SUPPLIED AND CERTIFIED BY APPROVED
BACKFLOW TESTER AT CONTRACTOR EXPENSE)

WHITE PVC PIPE
OR COPPER PIPE

GATE OR BALL VALVE

TEMP.
PIPE
SUPPORTS

RECYCLED WATER
METER BOX

NOTES:

1) CUSTOMER MUST SUPPLY ALL FITTINGS, NIPPLES, VALVES, AND APPROVED REDUCED
PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY. PRESSURE REGULATOR, IF NEEDED, SHALL BE
INSTALLED AFTER THE LAST DOWNSTREAM BACKFLOW PREVENTOR ASSEMBLY. ALL FITTINGS AND NIPPLES FROM
HYDRANT TO DOWNSTREAM SIDE OF PRESSURE REGULATOR MUST BE BRASS. THE DISTRICT SHALL
SUPPLY THE TEMPORARY CONSTRUCTION WATER METER.

2) BACKFLOW ASSEMBLY MUST BE TESTED AND CERTIFIED BEFORE USE BY A CERTIFIED BACKFLOW
ASSEMBLY TESTER APPROVED BY RCWD AT CONTRACTOR’S EXPENSE.

3) HYDRANT MUST BE FULLY OPENED DURING USE.

4) CUSTOMER TO PROVIDE ADJUSTABLE PIPE SUPPORT AS REQUIRED BY RCWD.
LARGEST SIGN
SYMBOL ON PLANS:
   ⚫

SMALL SIGN
SYMBOL ON PLANS:
   ⚫

NOTES:
1) SIGNS SHALL BE MANUFACTURED OF ALUMINUM SHEET, THICKNESS 0.063" OR 18 GAUGE OR AS OTHERWISE APPROVED BY RCWD.
2) THE SIGN SHALL INCORPORATE A PURPLE BACKGROUND WITH WHITE LETTERS AND SYMBOLS.
3) LARGE SIGN POST SHALL BE PERFORATED STEEL POSTS WITH TWO PIECE ANCHOR AND "TELESPAR" SLEEVE. THE ANCHOR AND SLEEVE ASSEMBLY SHALL CONSIST OF A 2 1/2" SQUARE BY 30" (THROUGH SIDEWALK) OR 36" (THROUGH SOIL). ANCHOR WITH A 2 1/4" SQUARE BY 10" SLEEVE. SECURE POST INTO THE ANCHOR ASSEMBLY WITH TWO 3/8" DRIVE RIVETS. ANCHOR ASSEMBLY SHALL NEVER BE SECURED IN CONCRETE FOOTING.
4) SMALL SIGN MAY BE MOUNTED ON A METAL STAKE OR OTHER POST, AS APPROVED BY RCWD.
NOTES:
1. USE IDENTIFICATION MATERIALS ABOVE OR APPROVED EQUALS
2. LETTERS SHALL BE BLACK ON PURPLE BACKGROUND
QUICK COUPLER/DRIP LINE FLUSH VALVE

SECTION VIEW – N.T.S.

NOTES:

1) ACME THREAD QUICK COUPLING VALVE FOR RECYCLED WATER USE
   (MODEL 075-SLSC OR EQUAL)

2) USE PURPLE RECYCLED WATER BOX AND COVER

DISCHARGE LIMITATIONS

FLUSHING OF RECYCLED WATER THROUGH IRRIGATION SYSTEM PIPING SHALL BE
PERFORMED IN ACCORDANCE WITH NPDES REQUIREMENTS. DISCHARGES FROM THE SITE
AND PONDING ARE NOT PERMITTED. IF NECESSARY, FLUSHING MAY BE DONE BY
DIVERTING RECYCLED WATER INTO A STORAGE TANK, TANK TRUCK, OR OTHER APPROVED
HOLDING FACILITY. HOLDING FACILITIES MUST BE CLEARLY MARKED WITH WARNING SIGNS.
RECYCLED WATER SHALL BE TRANSPORTED AND DISCHARGED AT A SITE APPROVED BY
RCWD.

<table>
<thead>
<tr>
<th>APPROVED</th>
<th>ENGINEERING</th>
<th>DATE</th>
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Quick Coupler / Flush Valve

Rancho Water

Rancho California Water District

Drawing No: OS-7
NOTES:
1) REFERENCE RCWD STANDARD DRAWING RW-16 FOR 3/4" AND 1" METERS
2) REFERENCE RCWD STD DRAWING RW-13 FOR 1" OR RW-14 FOR 2" SERVICE CONNECTIONS
3) MARKING OF METER BOX & LID TO BE PURPLE
4) METER REGISTER CAP TO BE PURPLE
5) 3/8" BRASS BALL VALVE INSTALLED AS TEST PORT ON DOWNSTREAM SIDE OF METER.
# POC Meter Data Table

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<tbody>
<tr>
<td>P.O.C. Designation</td>
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<tr>
<td>Street Station</td>
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<tr>
<td>Service Lateral Line Size (IN)</td>
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<tr>
<td>Recycled Water Meter Size (IN)</td>
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<tr>
<td>RCWD Meter Detail Reference Number</td>
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<td>Design Max Flow (GPM)</td>
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<td>Chemical Injection System (Y/N)</td>
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<td>Backflow Size (IN)</td>
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<td>Booster Pump (PSI Boost)</td>
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<tr>
<td>Pressure Zone (FT)</td>
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<td>Meter Elevation (FT)</td>
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<td>Static Pressure (PSI)</td>
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<td>Design Pressure (PSI)</td>
<td>80 PSI</td>
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<td>Total Area Served (SF)</td>
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<td>Source of Water Supply</td>
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<td>Irrigation Type (Drip, Spray, Rotor, Etc)</td>
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<td>Water Window Restriction</td>
<td>9:00 PM-6:00 AM</td>
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</tbody>
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## Notes:
1. Backflow devices are only required for systems with a chemical injection system.
2. Design Max Flow is the zone(s) with the highest demands for meter sizing.
3. Design Pressure is the pressure that the pressure reducing valve is set to.

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<table>
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<td>R&amp;R Detail</td>
<td>POD</td>
<td>2/16</td>
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ROTORS

PURPLE DRIP HEAD

PURPLE DRIP LINE

PURPLE SPRAY HEADS

SHRUB SPRAY WITH DECAL
6" WIDE X 18" DEEP CONCRETE BARRIER, STEEL TROWEL FINISH. 1/2" RADIUS AT EDGES. SCORE LINES EVERY TEN (10) FEET. 3/8" FELT EXPANSION JOINTS AT 20' ON CENTER OR AT WALLS, CURBS, OR SIDEWALKS.

FINISH GRADE

ONE #3 REBAR (CONTINUOUS)

560-C-3250 CONCRETE MIX

MOW STRIP SEPARATION
NOTES:
1. SEE RCWD STANDARD DRAWINGS RW–18 & RW–19 FOR BACKFLOW PREVENTION ASSEMBLY INFORMATION.
2. ATTACH APPROPRIATE IDENTIFICATION TAPES, LABELS, AND TAGS ON POTABLE WATER CONNECTIONS AS DIRECTED BY RCWD.
3. IDENTIFY ALL PIPING AS DIRECTED BY RCWD.
4. HOSES CONNECTED TO POTABLE WATER SUPPLIES MUST BE BLUE WITH A VACUUM BREAKER LOCATED AT THE POINT OF CONNECTION.

![Diagram of water system with labels]

- DRINKING FOUNTAIN/CONCESSION STAND OR SERVICE TO BUILDINGS
- COPPER PIPE (NEW INSTALLATION)
- P.O.C. / WATER METER (POTABLE)
- APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTOR ASSEMBLY
- POTABLE WATER QUICK COUPLING VALVE, HOSE BIBB, OR IRRIGATION SYSTEM
NOTES:

1) REFER TO DRAWING OS-5 FOR EQUIPMENT ID TAGS.
2) ALL BOXES AND LIDS TO BE COLOR PURPLE.
3) HEAT BRAND LIDS WITH APPROPRIATE FUNCTION LABELING AS SHOWN.
EX. IRRIGATION (TYP)

NEW LATERAL TIE IN

INSTALL RPPD BACKFLOW PREVENTOR
EXISTING POTABLE WATER LATERAL

PHYSICAL DISCONNECTION

BUILDING

HOSE BIBB (TYP)

10' MIN

INSTALL RP BACKFLOW PREVENTOR

NEW RECYCLED WATER METER & LATERAL

10' MIN

EXISTING POTABLE WATER METER & LATERAL

RECYCLED WATER MAIN

POTABLE WATER MAIN

RW RECYCLED WATER METER

X POTABLE WATER METER

X APPROVED RPPD BACKFLOW ASSEMBLY
10' MIN SEPARATION
POTABLE WATER
HOSE
BIBB: CONNECTION FOR
WATER FEATURE FILL LINE
RP BACKFLOW DEVICE
REQUIRED IF FILL LINE
IS PRESSURIZED.

PRESSURE REDUCING
VALVE (IF APPLICABLE)
RP BACKFLOW PREVENTOR

POTABLE WATER METER
STREET

NOTES:
1. THIS SAMPLE IRRIGATION PLAN FOR A LOT WITH A PROPOSED POND, POOL, OR FOUNTAIN
   WHICH REQUIRED A POTABLE WATER SUPPLY PROTECTED WITH A BACKFLOW PREVENTION DEVICE.
2. IRRIGATION LEGEND AND NOTES SHALL BE INCLUDED WITH THE PLAN, PER DRAWING OS-16
ON-SITE RECYCLED WATER IRRIGATION NOTES

1. THE INSTALLATION, OPERATION, MAINTENANCE, AND REPAIR OF THE IRRIGATION WATER SYSTEM SHALL CONFORM TO ALL REQUIREMENTS AS SET FORTH WITHIN THE LATEST VERSIONS OF APPLICABLE RANCHO CALIFORNIA WATER DISTRICT (RCWD) REGULATIONS AND ORDINANCES.

2. ANY MODIFICATIONS TO THE POTABLE WATER OR IRRIGATION PIPING AND SYSTEMS SHOWN ON THESE PLANS MUST BE APPROVED IN WRITING BY RANCHO CALIFORNIA WATER DISTRICT.

3. ALL ON-SITE IRRIGATION PIPING SHALL BE PURPLE POLYVINYL CHLORIDE (PVC) AND IDENTIFIED IN ACCORDANCE WITH THE CURRENT STATE WATER RESOURCES CONTROL BOARD REQUIREMENTS.

4. ALL POTABLE WATER PIPING EXTERIOR TO STRUCTURES SHALL BE COPPER AND BE PROTECTED BY AN APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY INSTALLED AT THE POINT OF CONNECTION. POTABLE WATER PIPING SHALL NOT BE TAPPED INTO FOR IRRIGATION USE. CROSS CONNECTIONS BETWEEN RECYCLED WATER LINES AND POTABLE WATER LINES ARE STRICTLY PROHIBITED. FINES MAY BE LEVIED.

5. QUICK COUPLERS ON THE RECYCLED WATER SYSTEM MUST BE ACME THREADED AND MUST BE PURPLE IN COLOR AND MARKED FOR THE USE OF RECYCLED WATER. QUICK COUPLING VALVES SHALL BE OF A TYPE APPROVED FOR RECYCLED WATER USE ONLY. QUICK COUPLER VALVES CANNOT BE LOCATED WITHIN 50 FEET OF FOOD PREPARATION, OUTDOOR EATING AREAS, OR DESIGNATED CHILDREN PLAY EQUIPMENT OR WITHIN THE FENCED PERIMETER SURROUNDING SWIMMING POOLS. AUTOMATIC FLUSH VALVES ARE NOT ALLOWED.

6. PRIOR TO THE FINAL COVERAGE TEST, ONE (1) COMPLETE SET OF LAMINATED CONTROLLER CHARTS AND IRRIGATION AS-BUILT DRAWINGS SHALL BE PROVIDED TO THE DISTRICT. AT RCWD DIRECTION, A SECOND COPY OF CONTROLLER CHARTS SHALL BE PLACED IN THE CONTROLLER CABINET.

7. RCWD SHALL BE NOTIFIED SEVEN (7) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (951) 296-6900 TO SCHEDULE A PRE-CONSTRUCTION MEETING.

8. ALL IRRIGATION PRESSURE MAIN LINE PIPING SHALL BE INSTALLED TO MAINTAIN TEN (10) FOOT MINIMUM HORIZONTAL, ONE (1) FOOT MINIMUM VERTICAL SEPARATION FROM ALL POTABLE WATER PIPING WITH POTABLE WATER PIPING LOCATED ABOVE. WHERE IRRIGATION AND POTABLE WATER PRESSURE PIPING CROSS, THE IRRIGATION LINE SHALL BE INSTALLED AT A MINIMUM OF ONE-FOOT BELOW THE POTABLE WATERLINE.

9. THE RECYCLED IRRIGATION SYSTEM SHALL BE OPERATED WITHIN THE TIME PERIOD OF 9:00 P.M. TO 6:00 A.M., UNLESS OTHERWISE ESTABLISHED BY THE RANCHO CALIFORNIA WATER DISTRICT.

10. HOSE BIBBS ARE STRICTLY PROHIBITED ON RECYCLED WATER SYSTEMS.

11. RECYCLED WATER PIPING SHALL NOT BE INSTALLED INTERIOR TO ANY STRUCTURE.

12. IRRIGATION WITH RECYCLED WATER SHALL NOT RESULT IN PONDING OR RUNOFF. ADJUST ALL SPRINKLER HEADS TO MINIMIZE OVER SPRAY ONTO SIDEWALKS, STREETS, DRINKING AND DECORATIVE FOUNTAINS, COMFORT STATIONS, PLAYGROUND EQUIPMENT, PICNIC TABLES, BBQ, PRIVATE LOTS, ETC.
13. SIGNS OR DECALS IN ENGLISH AND SPANISH READING "RECYCLED WATER, DO NOT DRINK" AND THE "DO NOT DRINK" SYMBOL MUST BE POSTED ON PUMP CABINETS, ON CONTROLLER STATIONS AND AT SITE ENTRANCES OR ALONG WALKWAYS AND AT EVERY 250’ ALONG FENCE OR PROPERTY LINES, AS DESIGNATED ON PLANS. RECYCLED WATER SPRINKLERS AND SPRAY HEADS MUST HAVE PURPLE CAPS, PURPLE COLLARS, AND THE RISERS HAVE A RECYCLED WATER DECAL. LARGE-THROW HEADS MUST HAVE PURPLE INSERTS. PURPLE CAPS AND COLLARS MUST BE FIRMLY AFFIXED TO SPRINKLER HEADS. ALL OTHER ABOVE GROUND EQUIPMENT MUST BE COLORED PURPLE OR HAVE A "RECYCLED WATER, DO NOT DRINK" DECAL OR SIGN.

14. ALL VALVE BOXES FOR ON-SITE BURIED VALVES AND QUICK-COUPLERS SHALL BE IN ACCORDANCE WITH DETAIL DRAWING NO. OS-13.

15. WARNING TAPE FOR THE RECYCLED WATER PIPING SHALL BE PURPLE IN COLOR PER DETAIL DRAWING OS-5, WITH THE WORDS "CAUTION: RECYCLED WATER" IMPRINTED IN MINIMUM 1 INCH HIGH LETTERS BLACK IN COLOR. IMPRINTING SHALL BE CONTINUOUS AND PERMANENT.

16. WHEN POTABLE WATER IS ONSITE, THE REQUIRED CDPH TITLE 22 CROSS CONNECTION SHUTDOWN TEST SHALL PRECEDE THE FINAL RELEASE OF THE IRRIGATION SYSTEM. THIS TEST WILL BE CONDUCTED BY RCWD.

17. ALL PUBLIC AND PRIVATE POTABLE WATER MAINS INCLUDING FIRE MAINS AND ANY WATER WELLS, AS WELL AS ALL WATER COURSES WITHIN THE RECYCLED WATER PROJECT SHALL BE SHOWN ON THE PLANS.

18. IRRIGATION SYSTEMS MUST BE COMPLETELY SEPARATED FROM THE DOMESTIC POTABLE SYSTEM. ALL TEMPORARY POTABLE CONNECTIONS FOR CONSTRUCTION OR IRRIGATION MUST BE HIGH LINED FROM AN ALTERNATE POTABLE SOURCE ONLY AS APPROVED BY RCWD. SAID CONNECTION MUST BE MADE THROUGH A TEMPORARY CONSTRUCTION METER AND AN APPROVED ABOVE GROUND REDUCED PRESSURE PRINCIPLE BACKFLOW DEVICE (RPPD) PER DETAIL DRAWING OS-3. NO PURPLE COLORED PIPING OR APPURtenances SHALL BE CONNECTED TO ANY POTABLE WATER SOURCE.

19. A SITE SUPERVISOR SHALL BE DESIGNATED IN WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH PLUMBING SYSTEMS WITHIN THE PROPERTY, WITH THE BASIC CONCEPTS OF BACKFLOW/CROSS CONNECTION PROTECTION, THE RECYCLED WATER RULES AND REGULATIONS, AND THE SPECIFIC REQUIREMENTS OF A RECYCLED WATER SYSTEM. SAID PERSON IS REQUIRED TO PROVIDE A 24-HOUR CONTACT PHONE NUMBER AND ATTEND APPROVED SITE SUPERVISOR TRAINING. COPIES OF THE DESIGNATION, WITH CONTACT PHONE NUMBERS SHALL BE PROVIDED TO RCWD.

20. INTERCONNECTION OF IRRIGATION PRESSURE SUPPLY LINES ORIGINATING FROM MORE THAN ONE METER IS STRICTLY PROHIBITED.

21. FLUSHING OF RECYCLED WATER THROUGH IRRIGATION SYSTEM PIPING SHALL BE PERFORMED IN ACCORDANCE WITH NPDES REQUIREMENTS. DISCHARGES FROM THE SITE AND PONDING ARE NOT PERMITTED. IF NECESSARY, FLUSHING MAY BE DONE BY DIVERTING RECYCLED WATER INTO A STORAGE TANK, TANK TRUCK OR OTHER APPROVED HOLDING FACILITY. HOLDING FACILITIES MUST BE CLEARLY MARKED WITH WARNING SIGNS. RECYCLED WATER SHALL BE TRANSPORTED AND DISCHARGED AT AN APPROVED SITE IN AN APPROVED MANNER.

22. FAILURE TO COMPLY WITH ANY OR ALL OF THE ABOVE REQUIREMENTS MAY RESULT IN TERMINATION OF SERVICE UNTIL THE APPROPRIATE CORRECTIVE STEPS HAVE BEEN TAKEN.
RCWD ON-SITE IRRIGATION PLANS DISCLAIMER
(TITLE SHEET ONLY)

RCWD’S REVIEW AND ACCEPTANCE OF THE IRRIGATION PLANS ARE FOR THE PURPOSES OF GENERAL COMPLIANCE WITH APPLICABLE LAWS, CODES AND ORDINANCES, AS WELL AS COMPLIANCE WITH SPECIFIC RCWD REGULATIONS AND REQUIREMENTS. RCWD’S ACCEPTANCE DOES NOT REPRESENT AN ENDORSEMENT OR APPROVAL OF THE HYDRAULIC ADEQUACY OR RELIABILITY OF THE PLANNED IRRIGATION SYSTEM DESIGN. THE DESIGN OF THE IRRIGATION SYSTEM SHALL ACCOUNT FOR PRESSURE FLUCTUATIONS THAT ARE COMMON WITHIN THE RECYCLED WATER DISTRIBUTION SYSTEM AND IF NEEDED INCLUDE INSTALLATION OF A PUMP (WITH LOW FLOW / LOW PRESSURE CUT OFF SWITCH), TO ENSURE ADEQUATE SYSTEM WATER PRESSURE FOR IRRIGATION.

LANDSCAPE MAINTENANCE RESPONSIBILITY NOTE
(TITLE SHEET ONLY)

IT SHALL BE THE RESPONSIBILITY OF (ENTITY) TO MAINTAIN ALL ON SITE RECYCLED WATER IRRIGATION SYSTEMS IN ACCORDANCE WITH RCWD REQUIREMENTS AND ALL APPLICABLE CODES AND ORDINANCES.

DECLARATION OF RESPONSIBLE IN CHARGE
(TITLE SHEET ONLY)

I HERBY DECLARE THAT I AM THE ENGINEER OR LANDSCAPE ARCHITECT OF RECORD FOR THIS PROJECT, THAT I HAVE EXCERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THIS PROJECT, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT APPLICABLE LAWS, CODES, AND ORDINANCES.

I UNDERSTAND THAT THE PLAN CHECK OF THE PROJECT DRAWINGS AND SPECIFICATIONS BY CITY, COUNTY, RECREATION DISTRICT, RANCHO CALIFORNIA WATER DISTRICT, AND OTHER AGENCIES IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS THE ENGINEER OR LANDSCAPE ARCHITECT OF RECORD, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

FIRM NAME & ADDRESS:
____________________________________
____________________________________
________________     _________
SIGNATURE                   DATE                                           REGISTRATION NO.
RCWD ACCEPTANCE BLOCK

ON-SITE RECYCLED WATER ACCEPTED FOR CONSTRUCTION:*  
RCWD JOB: ______________

RANCHO CALIFORNIA WATER DISTRICT  
DATE
*APPROVAL IS VALID FOR ONE YEAR FROM THE DATE THAT THE PLANS WERE SIGNED BY RCWD.

PROJECT TITLE BLOCK (MINIMUM DETAIL)

ON-SITE RECYCLED WATER IRRIGATION SYSTEM  
SHEET  
(TRACT OR PROJECT NAME):  
OF __ SHEETS

REVISION BLOCK (MINIMUM DETAIL)

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ENGR. / ARCH.

RCWD

3/16 PDD REV. TEXT.  PDD  3/16
DATE BY REVISION APP’D DATE

PLANT DOCUMENT BORDER REQUIREMENTS

3/16 PDD REV. TEXT.  PDD  3/16
DRAWING NO: OS-18
RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO:

RANCHO CALIFORNIA WATER DISTRICT
42135 Winchester Road
Post Office Box 9017
Temecula, CA 92589-9017

Exempt from Recording Fee (Gov. Code §6103)

APN: xxx-xxx-xx

ACCOUNT NO. _______________

LOCATION NO. _______________

(SAMPLE)
RECYCLED WATER AGREEMENT

RANCHO CALIFORNIA WATER DISTRICT

THIS AGREEMENT is made and entered into this ______ day of _________ 20__, by and between Rancho California Water District, a public agency ("DISTRICT"), and (Property Owner[s]/Company Name) ("Owner"). Owner shall hereinafter be referred to as "USER."

A. The Santa Rosa Regional Resources Authority (“SRRRA"), a Joint Powers Authority formed by several water districts including the DISTRICT, owns and operates a major system of sewage interceptor, transmission, treatment, disposal, and water reclamation facilities, hereafter referred to as DISTRICT'S Regional Water Reclamation System; and

B. Water that has been completely treated through the DISTRICT'S Regional Water Reclamation System shall hereinafter be referred to as recycled water; and

C. Pipelines conveying recycled water shall hereinafter be referred to as recycled water mains; and

D. In accordance with DISTRICT policies, the recycled water, which results from the operation of the DISTRICT'S Regional Water Reclamation System, has been made available for approved uses; and

E. USER desires to purchase, accept delivery of, control, and use the quantity of recycled water provided for in Paragraph 4 herein for approved irrigation purposes within the boundaries of the DISTRICT, under the terms and conditions set forth below; and

F. Such sales and deliveries would be in accordance with the DISTRICT'S policy of using recycled water for beneficial purposes; and

G. DISTRICT is willing to sell and deliver recycled water for irrigation purposes under the terms and conditions set forth below.
In consideration of the mutual covenants herein contained, it is mutually agreed as follows:

1. **SALE AND DELIVERY TERMS AND CONDITIONS**

   A. **Point of Delivery**

      The recycled water delivered pursuant to this Agreement shall be measured through the DISTRICT-owned, -operated, and -maintained metering facilities located at the Point of Delivery shown on the attached Exhibit "A." Any facilities that have been or shall be installed by DISTRICT at USER'S request shall be paid for by the USER, in accordance with applicable DISTRICT Rules and Regulations.

   B. **Availability Acknowledgment**

      The USER acknowledges that the DISTRICT does not guarantee the availability of recycled water throughout the term of this Agreement due to possible changes in regulatory agency requirements, reduction in plant flow, demands from other recycled water use areas, and/or other conditions beyond DISTRICT'S control.

      USER holds DISTRICT free and harmless from any and all legal liabilities and/or economic losses that it may sustain as the result of discontinuance or reduction in amount of delivery of recycled water as specified above.

   C. **Pressure**

      The recycled water to be delivered pursuant to this Agreement shall, as far as possible, be delivered at the Point of Delivery shown on the attached Exhibit "A." USER shall be responsible for, at its cost, providing any and all devices to increase or decrease delivery pressure, and/or any and all conveyance equipment (e.g. piping, pumps, etc.) required to deliver the recycled water to the point(s) of use.

      USER agrees not to operate their recycled water system in a fashion that may cause surge pressures to propagate past the Point of Delivery into the DISTRICT'S recycled water mains.

   D. **Facility Provision and Operational Responsibility**

      (1) DISTRICT shall be responsible for providing and operating its Regional Water Reclamation System facilities, up to and including the Point of Delivery, in compliance with the applicable requirements of DISTRICT, federal, state, and local regulatory agencies.

      DISTRICT shall be responsible for supplying recycled water, which meets or exceeds all applicable federal, state, and local regulatory agency quality standards.

      DISTRICT shall monitor recycled water deliveries and use sites as it deems necessary and in accordance with applicable federal, state, and local regulatory agency requirements.
(2) USER shall:

- Make application for recycled water service.
- Pay all fees and deposits for recycled water service.
- Post all required warning signs informing the public and all on-site personnel (employees, tenants, and/or occupants) that recycled water is being used on-site for irrigation purposes.
- Install and maintain a certified backflow device on all potable water sources including, but not limited to, the DISTRICT’S potable water meters, all exterior sources of potable water on site, and all potable water supplies to fountains, ponds, and/or swimming pools.
- Designate a **Site Supervisor.** The Site Supervisor must/will:

  a) Be knowledgeable about recycled water and how it is manufactured.
  b) Be the contact person at USER’s site, and be available at all times to contact and respond in the event of an emergency.
  c) Be knowledgeable about the practices and procedures of using recycled water.
  d) Be responsible for the safe and efficient use of recycled water.
  e) Provide instruction and training to on-site personnel in the proper handling of recycled water and the potential health hazards involved with its use.
  f) Submit plans to the DISTRICT for all proposed changes to the irrigation system on the USER’s site for review and approval prior to any modifications being made.
  g) Have all proposed changes approved by the DISTRICT inspected by the DISTRICT’S staff during construction.
  h) Maintain irrigation system record drawings of USER’s site.
  i) Communicate all recycled water rules and regulations to on-site personnel.
  j) Be knowledgeable of all on-site potable water systems, and take appropriate measures to prevent cross-connection with the recycled water system.
  k) Inform DISTRICT of all system failures or cross-connection events so that appropriate measures may be taken to mitigate the contamination or pollution.

If the USER desires to designate another person as Site Supervisor, then the USER is responsible for notifying DISTRICT in writing of such action. In the event that someone other than the USER is designated as the Site Supervisor and this person is no longer associated with the property, the USER shall again be considered the Site Supervisor and will assume the above-listed requirements until an approved Site Supervisor is designated.

- Identify all above-ground fittings and appurtenances, etc. as containing recycled water and not suitable for human consumption.
Signs shall be painted or otherwise permanently affixed to equipment.

- Altogether avoid introducing recycled water into any potable/domestic water piping system and no connection shall be made between equipment containing, or having contained, recycled water and/or any part of a domestic water system until such time as equipment has been properly disinfected.

- Take full responsibility for providing, operating, maintaining, and repairing USER pipelines, together with all appurtenant facilities, as are necessary to accept, convey, control, and use the recycled water in compliance with the applicable requirements of DISTRICT, federal, state, and local regulatory agencies on their respective owned or controlled lands.

- Allow recycled water to be used only on the areas depicted on the attached exhibit and irrigation construction plans.

- Allow recycled water use between the hours of 9:00 p.m. and 6:00 a.m.

E. USER Acknowledgment

USER acknowledges it is understood that:

1. DISTRICT’S Regional Water Reclamation System’s purpose is to control the biological quality of the recycled water resulting from its operation.

2. Said System is not equipped to detect, treat, or remove harmful chemicals or toxic materials, except as required to meet federal, state, and local regulatory agency discharge standards.

F. Indemnification

USER agrees to hold DISTRICT free and harmless from any and all legal liability and/or economic loss that it may sustain as a result of the recycled water delivered in compliance with all applicable discharge standards under this Agreement.

2. USE TERMS AND CONDITIONS

Use of the recycled water delivered pursuant to this Agreement shall be subject to the following terms and conditions:

A. Rules and Regulations

All recycled water delivered pursuant to this Agreement shall be used only for approved uses on the specified use site, as shown and depicted as USER lands on attached Exhibit "A," in compliance with applicable rules and regulations of DISTRICT, federal, state, and local regulatory agencies.

This Agreement has no application to the operation of the DISTRICT’S sewer and domestic water operation, including the assessment of fees and the enforcement of rules and regulations pertaining thereto. USER must comply with all rules and
regulations of the DISTRICT pertaining to any properties owned by USER that connect to the DISTRICT’S Regional Water Reclamation System.

Failure to observe all regulations governing the use of recycled water will result in the immediate termination of recycled water service until such time as the deficiencies are corrected to the satisfaction of the DISTRICT.

Failure to observe said regulations shall be subject to Unauthorized Use Charges established by the DISTRICT.

B. Reclamation Requirements

USER shall apply to the DISTRICT for all applicable use permits. DISTRICT shall apply for all required Permits of Reclamation Requirements from the California Regional Water Quality Control Board, hereinafter referred to as the Regional Board, covering the use of the disinfected recycled water to be delivered and used pursuant to this Agreement. USER shall comply with the provisions of such Reclamation Requirements. USER shall use recycled water on only those areas specified in such Reclamation Requirements, unless otherwise provided for in future amendments to said Reclamation Requirements.

C. Responsibility for Conveyance and Control

(1) DISTRICT

DISTRICT shall be solely responsible for conveying and controlling the recycled water up to and including the Point of Delivery provided for in Paragraph 1.A., above.

(2) USER

USER shall be responsible for conveying and controlling, in compliance with applicable regulatory agency requirements, the recycled water delivered through USER’s facilities, from the Point of Delivery as shown on the attached Exhibit “A,” and the DISTRICT shall have no responsibility whatsoever relative to said USER’s facilities.

3. PURCHASE PRICE

During the term of this Agreement, the USER shall pay to the DISTRICT the in-effect commodity and applicable service charges, which are modified from time to time, as published in the DISTRICT’S Customer Guide to Rates and Charges.

* The District reserves the right to modify or adjust the rate schedule(s) for providing recycled water to reflect changes in the District’s operating costs, if any, as determined by the District.

4. QUANTITY

DISTRICT agrees to sell and deliver and USER agrees to purchase, accept delivery of, control, and use recycled water at an average basic quantity in the amount of (daily use) gallons per day. Said quantity shall be delivered on an "as available" basis.

5. BILLING FOR RECYCLED WATER

DISTRICT will render monthly billings for recycled water deliveries made during the preceding month, based on the meter reading at the Point of Delivery. Billings, in accordance with the DISTRICT’S prevailing rules and regulations, shall be paid within thirty days of the date thereof. Any late payments shall be considered delinquent and shall
be subject to the DISTRICT'S standard penalty charges and disconnection procedures then in effect.

6. **ASSIGNMENT**

Except as provided below, the USER shall not assign any of its individual or collective rights under this Agreement to any person or entity, or become associated with any other party involving, in any way, the recycled water to be delivered pursuant to this Agreement without the prior written consent of the DISTRICT and of any regulatory agencies having jurisdiction, which consent shall not be unreasonably withheld.

In the event USER desires to enter into a transaction for the sale or financing of the use site, DISTRICT will not unreasonably withhold its consent to continue to provide recycled water contingent upon the new owner complying with the terms of this Agreement.

7. **TERM OF AGREEMENT**

The term of this Agreement shall begin with the date of Agreement (first written above) and shall continue until terminated by the USER or DISTRICT.

8. **CANCELLATION**

   A. USER or DISTRICT shall have the right to terminate this Agreement, with no financial liability to the other party, by giving thirty working days' written notice, as long as both parties mutually agree.

   B. DISTRICT shall have the right to terminate this Agreement, with no financial liability to the USER, for USER'S noncompliance with applicable use and/or payment requirements.

   C. Notwithstanding Paragraph 1.B., the DISTRICT shall also have the right to terminate this Agreement by giving the USER ten days' written notice in the event the wastewater treatment criteria under which the DISTRICT currently operates is changed by operation of law, or by any regulatory agency having jurisdiction, such that the DISTRICT'S Regional Water Reclamation System, as it presently exists, cannot produce wastewater that complies with such changes without incurring additional costs or modifications to said facilities.

   D. Upon termination of this Agreement by either the USER or the DISTRICT, within thirty calendar days of termination, the USER shall make a payment to the DISTRICT for all costs to remove recycled water service from the Point of Delivery to the DISTRICT'S recycled water main (hereinafter referred to a “Service Lateral”). After thirty calendar days, if a payment has not been made by the USER, the DISTRICT may elect to remove the Service Lateral and lien the USER lands for the amount due.

9. **RECORDATION AGAINST TITLE**

This Agreement shall be recorded against the title to the real property for which recycled water is used pursuant to this Agreement in the county in which the real property is situated. The obligations set forth herein shall accordingly transfer to subsequent purchasers of the real property.
10. **ATTORNEYS’ FEES**

   In the event of litigation or arbitration between the parties hereto arising out of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and costs to be fixed by the court or by arbitration.

11. **PREPARATION OF THIS AGREEMENT**

   This Agreement shall not be construed against the party preparing it, but shall be construed as if both parties prepared it.

12. **CAPTIONS**

   Captions to Paragraph/Subparagraphs of this Agreement are for convenience purposes only and are not part of this Agreement.

13. **PROVISIONS BINDING**

   This Agreement and Exhibit "A" attached shall be binding upon and shall inure to the USER, heirs, representatives, successors, and assigns of the parties of this Agreement. The DISTRICT and USER intend that the benefits and burdens described herein constitute covenants running with the land for the benefit of the USER lands.

14. **CERTIFICATION**

   The undersigned PROPERTY OWNER and RECYCLED WATER SITE SUPERVISOR hereby certify compliance with all operational responsibilities contained in Section 1.D.(2) above.

15. **AUTHORITY TO SIGN AGREEMENT**

   The undersigned individuals hereby warrant and represent that they each have full legal authority to sign this Agreement and bind the parties hereto.

   [SIGNATURES ON FOLLOWING PAGE]
IN WITNESS WHEREOF, this Agreement has been executed as of the day, month, and year first above written.

RANCHO CALIFORNIA WATER DISTRICT

By: ______________________________
    Jeffrey D. Armstrong, General Manager    Date

(OWNER/COMPANY NAME)

By: ______________________________
    (Print Name)    Date

By: ______________________________
    (Print Name)    Date

Page 8 of 10
Exhibit “A”
RANCHO CALIFORNIA WATER DISTRICT
APPLICATION FOR
USE OF RECYCLED WATER

PROJECT NAME: _______________________________________________________

PROJECT ADDRESS: ___________________________________________________

LOCATION: __________________________________________________________

DEVELOPER: _________________________________________________________

CONTACT PERSON: ___________________________________________________

ADDRESS: __________________________________________________________

PHONE: _____________________________________________________________

*SITE SUPERVISOR: ___________________________________________________

PHONE: (DAY) _______________________________________________________

(NIGHT) ___________________________________________________________

PAGER: _____________________________________________________________

DESCRIPTION OF RECYCLED WATER USE:

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________

START DATE: _________________________________________________________

END DATE: __________________________________________________________

QUANTITY (GALLONS PER DAY): (DAILY USE) __________________________

MEANS OF DISTRIBUTION:

_____________________________________________________________________

_____________________________________________________________________

DEVELOPER SIGNATURE __________________________ CUSTOMER SIGNATURE

DATE __________________________ DATE __________________________

*MUST BE ABLE TO CONTACT 24 HOURS/DAY