

## Reg 84 Edible Crops - Residential Vegetable Gardens

### **Draft Requirements**

Revised 2/20/2019

#### **Key:**

- Already in Reg 84, applies to Cat 3 residential vegetable gardens
- New item specific to Cat 3 residential vegetable gardens
- For discussion and consideration, specific to Cat 3 residential veg gardens

#### **A. Items to consider:**

1. *Is there a situation when a residential customer will be using Cat 3 for a vegetable garden and not also use it for lawn irrigation?*
2. *Are there differences in construction for a home that does not have a basement?*
3. *Are there differences in construction for duplexes?*

#### **B. Construction BMPs:**

1. No exterior reuse hose bibs (already in Reg 84 [84.9,A,4])
2. Potable exterior hose bib for hand washing (already in Reg 84 [84.9,A,4])
3. Application rates to avoid ponding and run-off (already in Reg 84 [84.9,A,3])
4. No overspray (already in Reg 84 [84.11,D,2])
5. Differentiated marking of emitters, valve boxes, pipes (already in Reg 84 [84.9,A,5 and 84.11,D,4])
6. No supplemental supply with potable water (more restrictive than Reg 84 [see 84.11,D,7])
7. Backflow preventers (already in Reg 84 [84.11,D,5]) for potable connections to reuse system. Propose not allowing potable connections (see #6 above). But wonder if backflow preventers should be required on potable systems in case of accidental cross connection.
8. Drip emitters (and subsurface) only, no spray emitters
9. Separate irrigation zone than lawn

#### **C. Operational BMPs:**

1. Irrigate between certain hours? (currently a Cat 1 requirement). This could prevent some contact and ingestion.
2. No required fencing around veg garden. This would not specifically be stated in Reg 84, but we do not think it provides any additional safety since it is likely that the garden is surrounded by sod irrigated with Cat 3 water.
3. Report any visible leaks or ponding/saturated soils along supply line (this is currently required by Reg 84 [84.12,C]). How small of a leak should be reported? Do we need to define a volumetric amount?
4. Signage required to be displayed (currently required by Reg 84 [84.11,D,3], but supplied by utility (not in Reg 84).
5. May need to consider modifying the language regarding operation of the system [84.11,D,6].
6. Do we add language regarding:
  - All produce must be thoroughly washed with potable water prior to cooking and/or eating.
  - Hands must be washed with soap and potable water if in contact with irrigation water or garden produce and/or soil.

#### D. Treater Responsibilities:

*Note: Currently, the Treater is the legal representative for the Cat 3 UPCs unless another acceptable entity (like an HOA) assumes responsibility [84.11,A,6].*

1. Annual survey for presence of vegetable gardens
2. Maintain map of vegetable garden users (already in Reg 84 [84.9,A,5])
3. Develop and education program (already in Reg 84 [84.9,A,5])
  - Distribute in bills, CCR
  - Annual communication with customers? In person annual meeting or email video w/ test and/or digital confirmation? How realistic is it for a utility to host annual meetings and get reasonable attendance? Can the utility use technology to accomplish this?
4. Require the information to be provided to Buyer at Closing
5. Prepare document with practices for installing and repairing reuse system for distribution to customers and contractors (already in Reg 84 [84.9,A,5])
6. Cross connection control program (already in Reg 84 [84.9,A,5])
7. Periodic on-site inspections? (this is currently required by Reg 84 [84.12,A,1]) At what frequency? Each customer or a representative sample?
8. Monitor usage (already in Reg 84 [84.12,A,2])
9. Notify customers of violations and enforcement (already in Reg 84 [84.12,C])
10. Annual Report (already in Reg 84 [84.12,B])
  - # of veg garden users
  - Violations summary
  - Inspections summary
  - Usage summary
  - WQ summary
  - Certifications from customers (this is currently required by Reg 84 [84.12,B,6]).

## Reg 84 Edible Crops - Residential Vegetable Gardens **Summary of Florida Requirements**

### **Key:**

Already in Reg 84 for Cat 3 residential lawn irrigation

### **A. Background:**

1. Part III of Florida's "Reuse of Reclaimed Water and Land Application" document allows for irrigation of Public Access Areas, Residential Lawns, and Edible Crops.
2. Section 62-610.475 of Florida's "Reuse of Reclaimed Water and Land Application" document allows for the irrigation of edible crops. These edible crops must be peeled, skinned, cooked or thermally processed before consumption is allowed. Direct contact of the reclaimed water with such edible crops is allowed. Irrigation of edible crops that will not be peeled, skinned, cooked or thermally processed is allowed if indirect application method . . . (ridge and furrow irrigation, drip irrigation, or subsurface irrigation) is used. Direct irrigation without processing is prohibited.
3. On 12/22/15 the City of Pompano Beach filed a Petition for Variance to allow for the direct irrigation of edible crops that will not be processed. The specific purpose was to provide reuse irrigation water to residential home gardens.
4. On 6/23/16 the variance was granted with some requirements.
5. According to Utilities Director Randy Brown:
  - a. Pompano Beach is the only utility in Florida with this variance.
  - b. 76% of the homes that can have residential irrigation have an edible crop connection.
  - c. A customer that requests the edible crop connection will have a separate service installed at the property. This can be piped to the vegetable garden with an irrigation system or the resident can use a hose that connects to the locked connection box.

### **B. Florida's Requirements for Residential Lawn Irrigation**

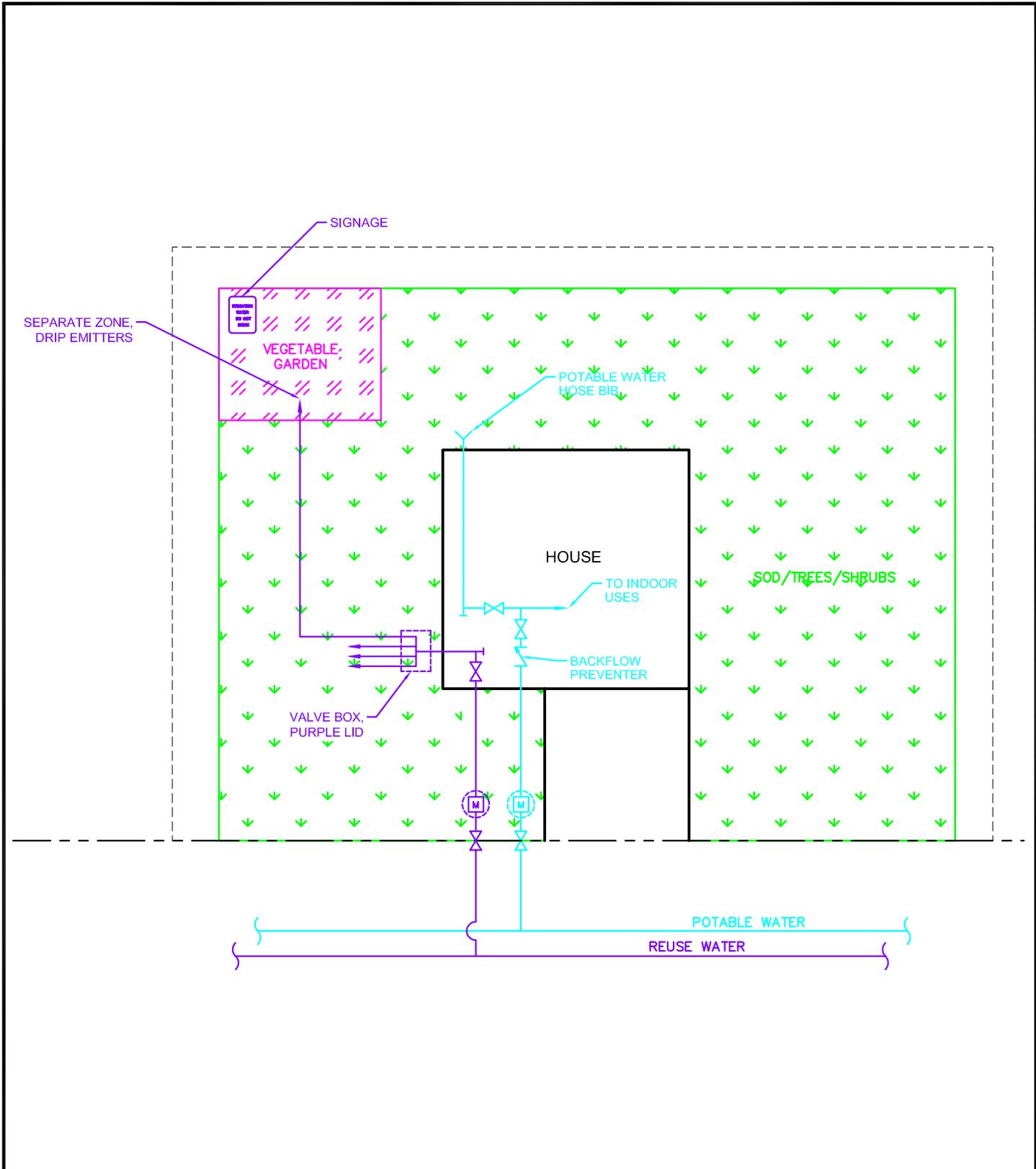
1. TSS limit of 5 mg/l.
2. Treatment requirements: filtration, disinfection, pre-treatment program.
3. Monitoring of Giardia and Crypto: 1x every 2 years (or 5 years for WRRF < 1.0 mgd) after disinfection process.
4. Advisory signs.
5. Use of purple on advisory signs and notices.
6. Notification.
7. No above ground hose bibbs. Hose bibbs shall be in locked vaults or service boxes.
8. Cross-connection control.
9. Reclaimed water cannot enter a building (except for toilet flushing).
10. No physical separation requirements on properties.
11. Marking of pipes, valves, etc.
12. Backflow devices on supplemental supplies.

### **C. Florida's Requirements for Edible Crop Irrigation**

1. Maintain an inventory of edible crop operations.

### **D. Pompano Beach's Variance Requirements**

1. Maximum single sample fecal shall not exceed 14/100 ml.
2. Sample for Giardia and Crypto 2x per year for the first 2 years.



**PRELIMINARY**

**REGULATION 84 EDIBLE CROPS**

**NON-COMMERCIAL USES (RESIDENTIAL GARDENS)**

**FIGURE 1 - SERVICE SCHEMATIC**

**FEBRUARY 2019**

**SCALE: NO SCALE**