What is claimed is:

1. A method for cleaning greywater, the method comprising:

flowing, into a mixing chamber of a water treatment tank, a first volume of untreated greywater;

flowing, into the mixing chamber, a second volume of recirculated greywater, wherein the recirculated greywater is mixed with ozone gas, and wherein the first and second volumes of greywater combine to produce a third volume of ozone-treated greywater;

flowing the third volume of ozone-treated greywater into a storage tank of the water treatment tank;

diverting a first portion of the third volume of ozone-treated greywater out of the water treatment tank; and

diverting a second portion of the third volume of ozone-treated greywater into a recirculation line, wherein the recirculation line is configured to flow the second portion of the third volume of ozone-treated greywater into the mixing chamber.

2. The method of claim 1, further comprising:

flowing an ozone gas flow into the recirculation line.

3. The method of claim 2, wherein the second volume of recirculated greywater flows into the mixing chamber from the recirculation line, and wherein the ozone gas is mixed with the second volume of recirculated greywater upon contact between the ozone gas flow and the second volume of recirculated greywater.

4. The method of claim 2, wherein the second portion of the third volume of ozone-treated greywater is contacted by the ozone gas flow.

5. The method of any of claims 1-4, wherein producing the third volume of ozone-treated greywater comprises introducing the first volume of untreated greywater and the second volume of recirculated greywater into a serpentine flow-path within the mixing chamber to produce a turbulent flow, wherein the turbulent flow causes the ozone gas to dissolve.

6. The method of any of claims 1-5, wherein diverting the first portion of the third volume of ozone-treated greywater out of the water treatment tank comprises diverting the first portion of the third volume of ozone-treated greywater to a grinding apparatus.

7. The method of any of claims 1-6, wherein the greywater is a byproduct of an aerobic food waste digester.

8. The method of any of claims 1-7, wherein a flow rate of the recirculation line is between about 40 gallons per minute (gpm) and about 80 gpm.

9. The method of claim 8, wherein the flow rate of the recirculation line is about 60 gpm.

10. A water treatment tank comprising:

a storage chamber; and

a mixing chamber fluidly coupled to the storage chamber, the mixing chamber having a first inlet disposed on a top surface of the mixing chamber, and a second inlet disposed on a first bottom surface of the mixing chamber, wherein the first inlet is configured to receive greywater from an aerobic food waste digester, and the second inlet is configured to receive recirculated greywater from the storage chamber.

11. The water treatment tank of claim 10, further comprising:

a first outlet disposed along an interior sidewall of the storage chamber, wherein the first outlet is configured to flow fluid stored in the storage chamber outside of the water treatment tank.

12. The water treatment tank of claim 11, wherein the first outlet is fluidly coupled to a grinding apparatus.

13. The water treatment tank of any of claims 10-12, further comprising:

a second outlet disposed along a second bottom surface of the storage chamber, wherein the second outlet is fluidly coupled to the second inlet via a recirculation line.

14. The water treatment tank of claim 13, wherein the recirculation line comprises a venturi injector configured to introduce a flow of ozone gas into the recirculation line.

15. The water treatment tank of any of claims 10-14, wherein the mixing chamber comprises:

a central dividing wall disposed between the top surface and the bottom surface, wherein the central dividing wall divides the mixing chamber into two volumes; and

a plurality of baffle panels, each of the plurality of baffle panels bisecting the central dividing wall.

16. The water treatment tank of claim 15, wherein the central dividing wall includes a plurality of openings, wherein the plurality of openings together with the plurality of baffle panels define a serpentine flow path within the mixing chamber.

17. The water treatment tank of any of claims 10-16, further comprising:

a plurality of weep holes disposed along the top surface of the mixing chamber.

18. The water treatment tank of any of claims 10-17, further comprising:

an overflow drain disposed along a sidewall of the storage chamber, wherein the overflow drain defines a maximum volume fill line of the storage chamber.

19. The water treatment tank of claim 18, wherein the top surface of the mixing chamber substantially coincides with the fill line of the storage chamber.

20. A water treatment system comprising:

the water treatment tank of any of claims 10-19;

an aerobic food digester fluidly coupled to the first inlet of the mixing chamber of the water treatment tank; and

an ozone gas source fluidly coupled to the second inlet of the mixing chamber of the water treatment tank.

What is claimed is:

1. A method for cleaning greywater, the method comprising:

flowing, into a mixing chamber of a water treatment tank, a first volume of untreated greywater;

flowing, into the mixing chamber, a second volume of recirculated greywater, wherein the recirculated greywater is mixed with ozone gas, and wherein the first and second volumes of greywater combine to produce a third volume of ozone-treated greywater;

flowing the third volume of ozone-treated greywater into a storage tank of the water treatment tank;

diverting a first portion of the third volume of ozone-treated greywater out of the water treatment tank; and

diverting a second portion of the third volume of ozone-treated greywater into a recirculation line, wherein the recirculation line is configured to flow the second portion of the third volume of ozone-treated greywater into the mixing chamber.

2. The method of claim 1, further comprising:

flowing an ozone gas flow into the recirculation line.

3. The method of claim 2, wherein the second volume of recirculated greywater flows into the mixing chamber from the recirculation line, and wherein the ozone gas is mixed with the second volume of recirculated greywater upon contact between the ozone gas flow and the second volume of recirculated greywater.

4. The method of claim 2, wherein the second portion of the third volume of ozone-treated greywater is contacted by the ozone gas flow.

5. The method of any of claims 1-4, wherein producing the third volume of ozone-treated greywater comprises introducing the first volume of untreated greywater and the second volume of recirculated greywater into a serpentine flow-path within the mixing chamber to produce a turbulent flow, wherein the turbulent flow causes the ozone gas to dissolve.

6. The method of any of claims 1-5, wherein diverting the first portion of the third volume of ozone-treated greywater out of the water treatment tank comprises diverting the first portion of the third volume of ozone-treated greywater to a grinding apparatus.

7. The method of any of claims 1-6, wherein the greywater is a byproduct of an aerobic food waste digester.

8. The method of any of claims 1-7, wherein a flow rate of the recirculation line is between about 40 gallons per minute (gpm) and about 80 gpm.

9. A water treatment tank comprising:

a storage chamber; and

a mixing chamber fluidly coupled to the storage chamber, the mixing chamber having a first inlet disposed on a top surface of the mixing chamber, and a second inlet disposed on a first bottom surface of the mixing chamber, wherein the first inlet is configured to receive greywater from an aerobic food waste digester, and the second inlet is configured to receive recirculated greywater from the storage chamber.

10. The water treatment tank of claim 9, further comprising:

a first outlet disposed along an interior sidewall of the storage chamber, wherein the first outlet is configured to flow fluid stored in the storage chamber outside of the water treatment tank.

11. The water treatment tank of claim 10, wherein the first outlet is fluidly coupled to a grinding apparatus.

12. The water treatment tank of any of claims 9-11, further comprising:

a second outlet disposed along a second bottom surface of the storage chamber, wherein the second outlet is fluidly coupled to the second inlet via a recirculation line.

13. The water treatment tank of claim 12, wherein the recirculation line comprises a venturi injector configured to introduce a flow of ozone gas into the recirculation line.

14. The water treatment tank of any of claims 9-13, wherein the mixing chamber comprises:

a central dividing wall disposed between the top surface and the bottom surface, wherein the central dividing wall divides the mixing chamber into two volumes; and

a plurality of baffle panels, each of the plurality of baffle panels bisecting the central dividing wall.

15. The water treatment tank of claim 14, wherein the central dividing wall includes a plurality of openings, wherein the plurality of openings together with the plurality of baffle panels define a serpentine flow path within the mixing chamber.