CLAIMS

1. A closed conduit system for use in a water supply system, the closed conduit system comprising: a recirculating unit configured to connect to a section of the water supply system between a first point and a second point, wherein the section remains under continuous water supply system pressure throughout operation of the closed conduit system, wherein the recirculating unit includes:

a first filter unit defining a first circuit that includes the section, wherein the first filter unit is adapted to perform a first treatment,

a second filter unit defining a second circuit that includes the section, wherein the second filter unit is adapted to perform a second treatment,

at least one pump capable of generating a circulating flow of water through the section counter-current to a normal water main flow current, and

a valve configured for being selectively disposed between a first position and a second position, wherein the valve controls the flow of the circulating flow of water through only the first filter unit when in the first position, and wherein the valve selectively controls the circulating flow of water through only the second filter unit when in the second position.

2. The closed conduit system of claim 1 wherein the section of the water supply system is defined between a first hydrant and a second hydrant.

3. The closed conduit system of claim 1 wherein all of the water which exits from the first point of the section is returned to the second point of the section throughout operation of the closed conduit system.

4. The closed conduit system of claim 1 wherein each of the first filter unit and the second filter unit includes either particulate filter media or no filter element.

5. The closed conduit system of claim 1 wherein the first filter unit includes particulate filter media and the second filter unit includes granular activated carbon filter media.

6. The closed conduit system of claim 1 wherein the recirculating unit is mounted on a vehicle.

7. The closed conduit system of claim 1 wherein the recirculating unit is configured to couple with a municipal water main, a private fire main, a recycled distribution water main or a municipal water storage tank.

8. The closed conduit system of claim 1 wherein the recirculating unit further includes:

an injector adapted to add material to the flow of water in one or both of the first circuit and the second circuit.

9. A method for testing, monitoring and/or cleaning a water supply system, the method comprising:

connecting a recirculating unit to a section of the water supply system between a first point and a second point, wherein the section remains under continuous water supply system pressure throughout the testing, monitoring and/or cleaning, and wherein the recirculating unit includes a first filter unit, a second filter unit, a valve and at least one pump;

forming a first circuit including the first filter unit of the recirculating unit and a second circuit including the second filter unit of the recirculating unit, wherein the valve is configured for being selectively disposed between a first position and a second position, wherein disposing the valve in the first position controls the flow of a circulating flow of water through only the first filter unit, and wherein disposing the valve in the second position controls the circulating flow of water only through the second filter unit;

selectively controlling flow to one of either the first circuit or the second circuit at a time by selectively disposing the valve in the first position or the second position, respectively; and

circulating water through the selected first or second circuit using the at least one pump.

10. The method of claim 9 wherein the water is circulated through the first circuit for a first period of time, wherein following the first period of time the valve is actuated to control flow to the second circuit wherein the water is circulated through the second circuit for a second period of time.

11. The method of claim 10 wherein each of the first filter unit and the second filter unit includes either particulate filter media or no filter element.

12. The method of claim 10 wherein the first filter unit includes particulate filter media and the second filter unit includes granular activated carbon filter media.

13. A method for testing, monitoring and/or cleaning a water supply system, the method comprising:

connecting a recirculating unit to a section of the water supply system between a first point and a second point, wherein the section remains under continuous water supply system pressure throughout the testing, monitoring and/or cleaning, and wherein the recirculating unit includes a first filter unit, a second filter unit, a valve and at least one pump;

forming a first circuit including the first filter unit of the recirculating unit and a second circuit including the second filter unit of the recirculating unit, wherein the valve is configured for being selectively disposed between a first position and a second position, wherein disposing the valve in the first position controls the flow of a circulating flow of water through only the first filter unit, and wherein disposing the valve in the second position controls the circulating flow of water only through the second filter unit;

selectively controlling flow to one of either the first circuit or the second circuit at a time by selectively disposing the valve in the first position or the second position, respectively; and

circulating water through the selected first or second circuit using the at least one pump, wherein the water is circulated through the first circuit for a first period of time, wherein following the first period of time the valve is actuated to control flow to the second circuit wherein the water is circulated through the second circuit for a second period of time, and wherein the water is initially circulated through the first circuit at a first flow rate with the first filter unit having no granular activated carbon filter media, and wherein the water is then circulated through the second circuit at a second flow rate with the second filter unit including particulate filter media, wherein the first flow rate is greater than the second flow rate.

14. The method of claim 11 wherein all of the water exiting from the first point of the section throughout the testing, monitoring and/or cleaning is returned to the second point of the section.

15. The method of claim 11 wherein the recirculating unit is mounted on a vehicle.

16. The method of claim 9 wherein the section of the water supply system is defined between a first hydrant and a second hydrant.

17. The method of claim 9 wherein the pump circulates the water counter-current to a normal water main flow current.

18. The method of claim 9 wherein the recirculating unit further includes an injector adapted to add material to the flow of water in one or both of the first circuit and the second circuit.