



# LIFEWATER

## ENGINEERING COMPANY

P.O. Box 10750, Fairbanks, AK 99710-0750  
www.lifewaterengineering.com

Ph: (907) 458-7024  
Fx: (907) 458-7025

### 24-MONTH ExtremeSTP™ MAINTENANCE INSPECTION AGREEMENT & OWNER'S RESPONSIBILITIES

This agreement pertains to the ExtremeSTP™ owned by:

Tagiugmiullu Nunamiullu Housing Authority

P.O. Box 409, Barrow, Alaska 99723 (OWNER)

Larry Burris and family (RESIDENT)

XSTP500UVP (MODEL)

This system is located at:

**Anaktuvuk Pass, Alaska House #509**

Lifewater Engineering Company or its designated representative agrees provide maintenance inspection services in accordance with this agreement:

1. Lifewater or its designated representative will make four (4) site inspections spaced approximately six months apart (6, 12, 18, and 24 months). An Inspection record will be kept on file at Lifewater or its designated representative and will be provided to the OWNER or ADEC upon request.
2. During each of the above field inspections Lifewater or its designated representative will check the air filters and blower housing, and clean them as necessary.
3. If the system has a UV disinfection unit Lifewater or its designated representative will also clean the UV bulb.
4. Lifewater or its designated representative will place the system into the proper operating mode (winter/summer) for the upcoming season.

The term of this agreement is from the date of delivery in August 25 2009 to August 25, 2011 (a period of two years). The cost of these maintenance inspection services is included in the purchase price of the ExtremeSTP™ except for:

1. Laboratory analysis costs associated with testing done to satisfy ADEC plan approval, permit, or other conditions, and
2. Costs for any parts and labor that are not covered under warranty.
3. Costs for travel outside the Fairbanks area

Laboratory analysis costs associated with testing done to satisfy ADEC plan approval, permit, or other conditions can either be paid directly to the laboratory by the OWNER or will be paid by Lifewater and be billed to the OWNER at cost plus 15 percent.



The OWNER/RESIDENT is responsible for those items listed under ExtremeSTP™ OWNER'S RESPONSIBILITIES, which follows Page 1 of this document. This agreement is transferable to any new owners who may purchase the property during the term of this agreement after they acknowledge that they understand the owner's responsibilities by reading and signing this agreement.

A long-term inspection and maintenance contract is available to continue these services after termination of this agreement.

## ExtremeSTP™ OWNER'S RESPONSIBILITIES

1. Read and comply with the ExtremeSTP™ Operation & Maintenance Manual including details on safety precautions (available online at [www.lifewaterengineering.com](http://www.lifewaterengineering.com)).
2. The OWNER/RESIDENT must, at least daily, verify that the blower is operating properly and air is bubbling into the system. This is especially important after a power outage. The sound of air bubbling inside the treatment plant (much like the sound of a Jacuzzi®) is an indication that the blower is working properly.
3. The OWNER/RESIDENT must also look for visual alarms, listen for audible alarms, and must take appropriate action if any of the following alarms or conditions occurs:
  - The red light on the Bio-Microbics control panel begins flashing and/or the audible alarm sounds.
  - The UV lamp beacon illuminates and/or the alarm sounds (if so equipped).
  - The high water alarm illuminates and/or sounds (if so equipped).
  - Anything out of the ordinary is noticed about the unit.
4. If the ExtremeSTP™ is covered under a MAINTENANCE INSPECTION AGREEMENT the OWNER/RESIDENT must notify Lifewater Engineering Company, or its designated representative, immediately if any one or more of the above conditions occur. If the unit is not covered under a MAINTENANCE INSPECTION AGREEMENT, the OWNER/RESIDENT must take immediate appropriate action if any one or more of the above conditions occur.
5. ExtremeSTP™ sewage treatment plants are designed to operate at temperatures as cold as -60°F, providing there is no interruption of electric power. If the electric power to the ExtremeSTP™ is off for any period of time during freezing conditions, it is the OWNER/RESIDENT responsibility to take immediate appropriate action. Such action must include monitoring the temperatures inside the system and taking whatever action is necessary to prevent freezing of any part of the system. This may include providing power to the unit by means of an auxiliary generator or otherwise protecting the unit from freezing.
6. The OWNER/RESIDENT must recognize that soils move, especially permafrost, and that it is the OWNER/RESIDENT responsibility to check and periodically adjust foundations and supports for the ExtremeSTP™, its inlet and outlet piping, and its electrical service.
7. Assure that:
  - i. The UV bulb and fresh air filter are cleaned every 6 months



- ii. The system is placed into the proper operating mode (winter/summer) for the upcoming season
  - iii. The recycle air filter (if present) is changed at least once per year (generally in the spring when the system is placed into the summer operating mode).
  - iv. The UV bulb is replaced every 1 to 2 years or when indicated by the UV alarm system, whichever comes first.
  - v. The inside of the blower housing and the blower rotor are cleaned every year when the system is placed into the summer operating mode. Cleaning should be done using a small brush, paper towels, and a cleanser designed to remove grease.
8. Hire an approved sludge/septage pumping company to pump scum and sludge from the unit (particularly the pretreatment and aerobic treatment compartments) and properly dispose of it every two years, or otherwise as needed.
  9. Never dispose of fats, oils, or greases especially whale blubber, seal oil, bear grease or similar substances down household drains. β
  10. Garbage disposals should be used only sparingly. Never use a garbage disposal to dispose of coffee grounds, meat, bones, or other food products that are difficult to biodegrade. A good rule is, if you can scoop the waste out of the sink with your hand and place it in the trash, do so. β
  11. Never use products that are designed to chemically remove hair, greases, or other obstructions from drains. Such obstructions should be removed by physical means such as using a wire with the end bent into a small hook to remove hair, using a plumber's snake to clean pipes, disassembling drains to remove objects that have fallen into or accumulated in the drain, etc. \*
  12. Always use cleaning agents and disinfectants sparingly in accordance with the manufacturer's directions. Never dispose of household cleaning fluids or unused antibiotics down the drain. \* β
  13. Never dispose of automotive fluids such as gas, oil, transmission or brake fluid, greases, or antifreeze down any drains. Do not connect a garage floor drain to an ExtremeSTP™ unless there is an oil/water separator between the floor drain and the sewer. \* β
  14. Do not dispose of or rinse any containers from pesticides, herbicides or other potentially toxic substances down any drain. Do not dispose of unused antibiotics down the drain. Antibiotics are especially designed to kill microbes, and they will also kill the microbes that are working for you in your sewage system. \* β
  15. Do not put any non-biodegradable substances or objects, such as cigarette butts, disposable diapers, plastics, rubber items, or feminine products (particularly tampons or feminine napkins) down any toilet or drain. These items should be placed directly into a solid waste container for disposal. β
  16. Eliminate water wastage. Fix leaking toilets, sinks, or other fixtures immediately.
  17. Try to run full loads in your washing machine and dishwasher. Spread laundry washing out through the week. For example, do not run six loads on Saturday and none on the other days. Γ

18. Do not use chemicals to "start up" or "clean" your system. These are unnecessary and may actually harm the system, the discharge area, surface water or groundwater.
19. Do not connect any "clear water" source such as a gutter, stormwater drain, or footing/foundation sump pump to the sewage system.
20. If you sell your house, you agree to inform the new owners of their responsibilities by providing them with this and all other OWNER'S documents relating to the sewage treatment system.

## ENDNOTES

\* Think of the ExtremeSTP™ as though it were a pet. You don't feed your pet poison so don't feed your sewage treatment system poisonous substances either!

β It makes more sense to dispose of these items before they get into the water rather than "flush them away" and then pay to remove them from the water or from a plugged drain or pipe.

γ Think of the ExtremeSTP™ as though it were a pet. Pets like to eat everyday not just once or twice per week.

By my signature I acknowledge receiving this document, and having read it I understand and will fulfill my responsibilities.

\_\_\_\_\_  
Signature for owner

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature for resident

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date



Jeffrey Freshman

12-21-2009

\_\_\_\_\_  
Signature for Lifewater

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date