NUTRIENT & DOP/DON FILTRATION PROCEDURE

GET IT TOGETHER:

- 60ml syringe for measuring sample volume
- acid-washed 50ml Corning tubes for nutrient samples
- clean 60ml wide-mouth square bottles (from Melack's lab)
- 0.6um 25mm Nuclepore membrane filters
- 25mm inline filter holders – to fit end of syringe
- forceps
- Sharpie and label tape

SAMPLE COLLECTION:

- Use the 60cc syringe to measure sample.
- Using forceps, place filter in inline filter holder and place holder on syringe.
- Pre-rinse filter by pushing ~10ml Nanopure through syringe.

SAMPLE FILTERING:

- Label the 50ml Corning tubes and the 60ml square bottles as per labeling protocol.
- Shake/swirl 4L carboy, rinse syringe and plunger 3 times with water from the 4L carboy.
- Fill syringe to brim and load plunger. Push through 5ml to rinse filter.
- Push ~5ml of sample into Corning tube, cap loosely, shake to rinse, discard. Do this 3 times to thoroughly rinse Corning tube.
- Push ~5ml of sample into 60ml square bottle, cap loosely, shake to rinse, discard. Do this 3 times to thoroughly rinse the bottle.
- Filter ~30ml of sample into rinsed Corning tube. Place tube in open rack (not styrofoam rack) and place rack in freezer. Store in –70^{o}C freezer until there are enough to submit for analysis – 60 samples minimum.
- Filter 60ml of sample into rinsed bottle – DO NOT OVERFILL! Place bottle in small cardboard box and place box in freezer. Frozen samples will go to Melack's lab monthly.

LOG EVERYTHING:

Record ALL information to log sheet. Make a note on the log sheet if any problems were encountered during filtration; i.e. a torn filter, leaking funnel - ANYTHING. Fill out entire log sheet – it may take a little time now, but it's worth it in the long run! Check your labeling.

CLEAN EVERYTHING:

Rinse all sample bottles 3X with Nanopure. Rinse all syringes 3x with Nanopure.