DNR Walleye stocking proposal for Leech Lake

Walleye fry – 2 out of 4 stocking.

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
22.x M	22.xM	22.0M	B	B	22.0M	22.0M	B	B	22.0M	22.0M

Why 2 out of 4? Normally in a situation when we have been stocking on a regular basis (annual or alternate) and are trying to determine if natural reproduction is sufficient to meet our walleye population goal, and provide a good fishery we need to provide gaps. We would first consider a 1 out of 3 stocking strategy to get B (lanks). With 1 out of 3 stocking there is a risk that extreme weather events or lack of recruitment from the one stocked year class would mean a long time between fish recruitment (assuming stocking is totally necessary and no wild fry). We know there is good spawning habitat on Leech, we know we have the brood stock in the lake to provide eggs, we know we have a hatch rate that approximates other large natural walleye lakes (Red). With annual netting on Leech we can compare years when the lake is stocked, to years when it is not, through trawling, electro-fishing and gill netting. 2 out of 4 provides an additional opportunity to get a stocking in, in case there is a bad year for stocking the preceding year. It's a built in backup plan.

Why 22.0 M? This is an amount that has been stocked the past few years. It is a reasonable amount to deal with; at times the fry all hatch in a very short period of time. Logistically, stocking more on an ongoing basis is problematic. It is about the maximum we could stock from the Boy River run, which is genetically the closest match (Ref- Loren Miller). There has been mistrust in making stocking adjustments based on wild fry calculations, it causes conflict between staff and some public. I think a planned stocked amount would alleviate tension, even though some years we will probably be stocking on top of very good wild fry production.

Why Boy River Run? Leech Lake is genetically most similar to Boy River run. This reduces genetic risk. We would not want to add another strain into the stocking "mix". This would increase genetic risk. (Ref- Loren Miller).

We reduce genetic risk by
*Reducing the numbers we stock
*Reduce the years we stock-Increases chances for population to purge "bad genes" if there are fitness effects
*Reduce number of sources- Stay with boy River Run. Do not add another source.