

S. DeMeo

CLF MEETING 7-27-11

Mar & Kevin

INTAKE & DISCHARGE ISSUES.

- ↳ I+E better fish return & CCC, BPT, BTA 316(b)
- Thermal → 316(a) analysis & BATA
- FGD → BAT

PSNH <sup>causing</sup> → loss of resident fish pop. in Hookset Pool.

→ no impingement survival.

→ 10-11,000 fish/yr. by 2 units.

CLF wants continuous <sup>mod.</sup> screen operation. to save 50%.

50% assumption → not acceptable #.

Entrapment - Normandeau 2007

2.8 m fish & lar. May-Sept.

2.4 m Sept. → ?

CLF → CCC reduces loss by 99%.

greater @ night.

EPA has looked back thru 40 yrs data. - Eric.

(Norm. report snapshot but indicative of whats

E } happening now in Hookset Pool.

aw. dept. 10 ft. w-100 ft.

Anadromous fish - dams preventing migration?

most can't get above Hookset & then others

past dam upstream of Hookset.

E { fish <sup>(passage)</sup> return will be required - PSNH operates dams.

(Aggressive restocking program. inc. spawning & release.

by F&G. F&W - 13. thru FERC.

abuse  
shad.

easier to reach trigger.

Sometimes flow thro. dam not suff. to run plant.  
265 M g/d monthly ave.  
ROR during low-flow.

ecological impact? if dam controls flow during lowflow.

- temp.
- entrain.

E - plant  $\frac{1}{2}$  way up Pool  $\therefore$  affect of least  $\frac{1}{2}$  habitat.  
CCC  $\rightarrow$  evaporate (depending on humidity)

@ 2010 looking @ exceeding 50% of river w/one thro.

Effect of climate change in future.

additional stressor we have to take into consideration.

% # less taking out.

PSNH Concern  $\rightarrow$  CCC will reduce flow in river.

~~1986 - they think they protect aquatic life.~~

Max 105° temp.

100°<sup>is</sup> above bluegill upper tolerances.

CLF  $\rightarrow$  need CCC.

"mixing zone" defined in current permit?

54 sampling location - 68° cut off  
if highest have to turn on spray modules.  
316(a) variance.  $\rightarrow$  roughly 2000 ft. downstream.

or 1/10 of

well defined study area between dams.  
dam have effects on other species beside fish  
but data not as good. In this case fish is  
representative.

70 grams/yr. Hg to River.

Threshold - <sup>Regional</sup> TMDL factored into analysis.  
most Hg is from atmospheric deposition.

adding Hg from FGD would cause/contribute  
to water quality standards.

0.05 MGD 1 ug/L? (0.19  
50,400 gpd  
(35 ppm)

0.013 ug/L ← ?

Antideq Study - CLF  
didn't get all of it.  
PSNH wrote & DES approved

ZLD →

nitrogen loading → 3,000 tons.

pass thro to wastewater.  
nitrates & ammonia - excess quantities  
can lead to eutro.

Antideq → nitrogen w/ limit in draft permit?  
phos.

~~nitrogen~~ will  
nitrogen be removed  
even if biologic  
targeted to  
Se?