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RESOURCE FIRST

“Green” Hatchery Initiative

Among the many Commission programs paid for by angler dollars, perhaps none garners quite as much attention as our fish culture stations. Small wonder: Each year, the Commission raises and releases some 5.2 million adult trout and another 100 million juvenile and adult coolwater and warmwater species such as muskellunge and bass.

From a recreation perspective, our 14 hatcheries are a significant driving force behind the 20 million fishing trips taken in Pennsylvania each year. Resident state anglers average 18 days fishing each. Almost half of all that activity is geared toward trout, and roughly half of these trout fishing trips are targeted at trout stocked by the Commission. The Commission’s warmwater and coolwater production programs also contribute significantly to the availability of fish targeted by anglers. I think that the economic effect of fishing in Pennsylvania is even more impressive, more than the effect on recreation days.

Fishing produced \$1.34 billion in economic output for Pennsylvania in 1996. This supported more than 16,000 jobs and provided \$357 million in worker earnings. The Commonwealth benefits from fishing-related activity to the tune of \$49 million in “direct income” from fishing in the form of state sales and income taxes. This translates to “a lot of bang for the buck” when you consider that the Commonwealth investment of your state tax dollars totals 0! Talk about a return on investment. You will not find a lower cost/higher benefit recreation program for the Commonwealth.

Why is all of this economic information important? Even though hatcheries produce fish, in turn, fish produce fish waste. Nationally, and here in Pennsylvania, hatcheries are coming under increased scrutiny for their environmental effects. The Commission’s fish culture system effluents are in compliance with the applicable permit and regulatory requirements. As a conservation agency, the Commission is striving to do much more. Making sure that effluents are “as good as they can be” is simply the right thing to do. The Commission is committed to improving our hatchery effluents through engineering, operational and maintenance improvements. Meeting this commitment won’t come without a price tag. We have established proactive and aggressive effluent improvement goals, which require, in part, a substantial capital investment.

At Governor Ridge’s direction, all state agencies were asked to identify issues to include in a Commonwealth of Pennsylvania “Green Plan” for 1998-99. I have identified the discharge of treated wastewater from Commission fish culture facilities as the Commission “green” issue. The Commission has set a goal of reducing the total statewide waste load from all of its fish culture stations by 25 percent by the year 2003. This goal is now identified in the Governor’s Green Government Council “Green Plan 1998-99.” The

Commission infrastructure improvement needs, to accomplish part of this task, are also identified separately in our 1998-1999 budget request.

This year the Commission will make substantial changes statewide. To be successful, our “green” hatchery initiative will need a mixed approach combining operational changes with construction/development projects. With limited capital improvement dollars, we plan to make real short-term gains by addressing the whole production process. We plan to implement pollution prevention measures like expanded use of high quality/low phosphorus feed. This change in feed is expected to provide better conversion rates of fish food to fish flesh. This will result in less feed used, shorter growing “seasons,” and better feed use—all resulting in reductions in our hatchery effluent waste loads. Along with the better feed, we have also installed or will install oxygen systems at many of the hatcheries to improve the health of fish and their ability to convert fish food. We need to be clear about the purpose behind these operational modifications. These changes to fish diet and implementation of the oxygen enhancement systems are not designed to grow more or bigger fish; these operational changes are intended to help us meet our commitment to improving hatchery effluents.

Another major component of our efforts is the development of station-specific effluent treatment system operation and maintenance procedures. The goal of these procedures is to ensure that the current and new systems that are coming online are operated at peak efficiency. Each hatchery and effluent treatment system is unique because of variations in flow, station biomass, clarifier influent loading, necessary clarifier retention time, and clarifier capacity. The Commission’s Green Team and the hatchery managers will be looking hard at this issue and developing specific operating and maintenance guidance for each station’s effluent treatment system. These new operation and maintenance guidelines will be implemented in the near future.

The Commission looks upon the goal of continuing to improve hatchery effluent as an exciting challenge. It will test our skills as fish culturists, as natural resource managers, and as a conservation agency. We must devise solutions to each hatchery’s complex set of operational, maintenance, and structural problems so that we find ways to discharge the cleanest water possible. The fish produced by the Commission clearly benefit all anglers and the Commonwealth as a whole. It is important that the Commission continue the important work of providing fishing and boating opportunities through the protection and management of the resource. The green hatchery initiative is a perfect example of how the Commission is working both to protect and manage the resource.

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