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Review on State Water's Strategic 10-year Fish Passage Program

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To
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Summary

The strategic 10-year Fish Passage Program has its origins in the State Water Management Outcomes Plan (SWMOP) of 2002 but does not meet or exceed the outcomes outlined in the SWMOP which had a five year tenure.

The Strategic Planning Initiatives component of the Fish Passage Program does not break down costs associated with improved fish passage into CAPEX and OPEX costs for the *barriers to fish migration intervention prioritization table*. State Water is then unaware of the financial liability it holds in fixing the ecological liabilities it has created.

It would seem State Water gets a very great financial advantage from trade-offs as enunciated in the draft, but without a commensurate ecological advancement. Project managers should be instructed that "the ecological benefit derived from a trade-off scenario must be commensurate with or higher than the financial advantage obtained in not providing fish passage at the original Project site".

State Water partners with Catchment Management Authorities for the construction of fishways. We consider State Water should spread the net of partnership members by initiating partnerships with other owners of weirs such as local councils and trusts. These partnerships should include removal of weirs.



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The Fisheries Management Act does not provide for trade-offs. If State Water wishes to use a trade-off methodology in its Fish Passageway Program it should advise the Minister the legislation needs changing.

Trade-offs may be useful in some circumstances, providing ecological benefits prevail.

Expectations of the Program

After the passage of the Water Management Act 2000, the NSW Government gazetted the State Water Management Outcomes Plan (SWMOP) in 2002. In Division 8, Artificial barriers and openings, 12 targets were promulgated of which 6 relate to weirs acting as fish passage barriers. The Division mentioned no targets for dams acting as fish passage barriers but did refer to dams as cold water pollution sources.

The Inland Rivers Network expects that State Water meets or exceeds the Division 8 targets of the SWMOP, but it does not. Target 23b demands removal of “at least 10, and structurally modify 15 of the priority weirs recommended for action across the State (eg install fishways)” within 5 years. Planned Activities of the Fish Passage Program over 10 years removes no weirs and modifies 18 weirs. Of these 18, 3 are trade offs, 8 are already built, 2 are not funded by State Water except for monitoring, and only two are caused by a weir upgrade.

Recommendation

The number of weir removals and weir modifications for fish passage in the Fish Passage Program be increased to that provided for in the Targets of the SWMOP.

Budgets for the Fish Passage Program

The Strategic Planning Initiatives component of the Fish Passage Program does not break down costs associated with improved fish passage into CAPEX and OPEX costs for the *barriers to fish migration intervention prioritization table* in appendix 3. This reduces the capacity of government and non-government organisations to suggest budget amounts to Treasury. Also, State Water is unaware of the financial liability it holds in fixing the ecological liabilities it has created.

NSW Fisheries (now Industry and Investment) in 2006 published detailed reviews of weirs in all Catchment Management Authority areas providing estimated costs for preferred and non-



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preferred options to improve fish passage (see <http://www.dpi.nsw.gov.au/fisheries/habitat/rehabilitating/weir-removal>).

Recommendation

The barriers to fish migration intervention prioritization table be amended to include best practice CAPEX and OPEX costs associated with their modification or removal.

What is Cost Prohibitive/Cost-Effective?

Much of the Fish Passage Program centres around trade-offs as a mechanism to provide a budget for fish passage works. Many dams in NSW require works to make them safe and this triggers section 218 of the Fisheries Management Act 1994. In a deal done between Industry and Investment NSW and State Water, the requisite fish passage for a dam is not required as long as State Water provides fish passage to weirs on the same river valley.

Project leaders are asked to discuss trade-offs when “incorporating a fish passage activity that will not be cost-effective ...” But there is no guidance on what determines cost-effectiveness.

Recommendation

The Program be amended to clarify how to evaluate that a proposal is cost-effective or cost prohibitive.

Trade-offs

As mentioned, I&I NSW and State Water have an agreement to trade off fish passage structures required under s218 of the Fisheries Management Act for fish passage structures elsewhere in the river valley. The Program indicates that “the ecological benefit derived from a trade-off scenario must be equal to or greater than providing fish passage at the original Project site”.

It would seem State Water gets a very great financial advantage from this arrangement but without a commensurate ecological advancement.

For example, fish passages for Keepit Dam and Split Rock Dam have been traded for fish passages at Gunidgera, Mollee and Weeta weirs. Provision of fish passage at Keepit Dam has been estimated at more than \$20 million. In the absence of an estimate for Split Rock Dam, lets say \$20 million, as well. That’s a total of \$40 million.



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What are the costs for fish passage infrastructure at the weirs? \$5 million at Gunidgera, \$5 million at Mollee and \$5 million at Weeta. Total \$15 million. This is 37½% of the cost of fish passages on the dams. This advantages State Water by 2⅓.

And what of the ecological advantage? I&I NSW and State Water have not published the terms of the trade-off, so a close estimate cannot be given. It would be surprised if the ecological advantage of this trade-off is much more than 1.

Recommendations

Project managers should be instructed that “the ecological benefit derived from a trade-off scenario must be commensurate with or higher than the financial advantage obtained in not providing fish passage at the original Project site”.

Partnerships

Inland Rivers Network compliments State Water for initiating partnerships with Catchment Management Authorities for the construction of fishways.

Recommendation

We consider State Water should spread the net of partnership members by initiating partnerships with other owners of weirs such as local councils and trusts. These partnerships should include removal of weirs.

Legal Standing of Trade-Offs

The Fisheries Management Act does not provide for trade-offs. The Fish Passage Program is based on paragraph 4 of section 218 of the Fisheries Management Act.

(5) A public authority that proposes to construct, alter or modify a dam, weir or reservoir on a waterway (or to approve of any such construction, alteration or modification):

(a) must notify the Minister of the proposal, and

(b) must, if the Minister so requests, include as part of the works for the dam, weir or reservoir, or for its alteration or modification, a suitable fishway or fish by-pass.

Part b does not confer on the Minister for Fisheries the ability to approve other fish passage works as a replacement for not providing a fish by-pass for the infrastructure to be constructed, altered or modified.

Recommendation

If State Water wishes to use a trade-off methodology in its Fish Passageway Program it should advise the Minister the legislation needs changing.

Trade-offs may be useful in some circumstances, providing ecological benefits prevail.

END