



**SUBMISSION: Conservation (Indigenous Freshwater Fish) Amendment Bill**

*Date:* 25/10/2018  
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A handwritten signature in black ink, appearing to read "Andrew Curtis", is written over a light grey rectangular background.

**(Andrew Curtis, CEO Irrigation NZ)**

***IrrigationNZ (INZ) would appreciate the opportunity to engage with the appropriate staff prior to the development of any regulations made under this Act.***

## **Summary**

1. IrrigationNZ (INZ) is generally supportive of the Bill as it helps provide greater clarity to the existing legislation.
2. INZ represents the majority of New Zealand's irrigators who use surface water. Irrigators will potentially be a key party affected by regulations made under this Act in a number of areas.
3. INZ requests that we are consulted with prior to the development of the regulations made under this act to ensure the views of irrigators are represented. We have highlighted the areas we wish to be consulted on below.

## **Removal of native fish from waterways**

4. Due to the nature of some waterbodies, braided channels for example, fish screening often results in some fish being diverted from a waterbody through a water abstraction intake, and then being returned to the river through a bypass. This needs to be provided for in any future regulations.
5. There are a number of irrigation schemes with open channel races that are de-watered from time to time – for example when they are closed down for the winter or for periodic maintenance. Whilst fish rescuing operations are typically carried out when de-watering occurs, any future requirements around de-watering and fish rescue need to be practical and achievable.

## **Injury or killing of native fish**

6. In most regions in NZ, irrigators are required to install an effective fish screen. Fish screens are also used by hydro-electric generators and by Councils. Fish screen design and installation involves significant investment. It is estimated that for all fish screens across New Zealand to meet the 2008 NIWA Fish Screen guidelines the cost is approximately \$136 million. Given the large future capital outlay involved in fish screens, any regulations made under the Conservation (Indigenous Freshwater Fish) Amendment Bill need to be consistent with the performance standards for fish screening contained in the NIWA guidelines. This NIWA guideline has been adopted by a number of regional councils (through their rule framework) as the standard for fish screening.
7. There is currently a technical working party operating in Canterbury looking at how to improve fish screening. It has representatives from a wide range of interests including conservation and fishing groups, Environment Canterbury, DOC, MFE, IrrigationNZ and engineering consultants. Its areas of interests include fish screen design and installation (the construction of intakes and bypasses alongside the installation requirements of the different types of fish screen) and their operation. Fish screening is technically challenging in NZ due to the wide range of different environments. There is also a capability gap that needs to be filled, with an urgent need to upskill those designing, installing and operating fish screens.
8. A number of recent actions have resulted from this working party, including:

- a. a pilot study of fish screen effectiveness
  - b. a workshop with the service industry on how to improve screen design
  - c. IrrigationNZ has applied for an MPI Sustainable Farming Fund grant to develop an approved contractor programme which would require screen designers to demonstrate they meet the NIWA guidelines and regional plan rules
  - d. NIWA is also planning further research on native fish behaviour around screens.
9. The good practice fish screening practices and rules developed in Canterbury are now being adopted by other councils in NZ. However, it would be fair to state that all regions are struggling to overcome some of the challenges for designing, installing and operating effective fish screens.
10. Even with a range of improvements to fish screening being implemented through the application of the NIWA guidelines, the best designed fish screens can still cause inadvertent injury to fish in certain situations.
11. Future regulations around fish screens need to reflect this fact, and any best practice requirements around fish screens and performance standards need to have been proven to be achievable and also allow for future innovation in screen design.

### *About IrrigationNZ*

12. INZ represents over 3,500 irrigator members nationally, including most large irrigation schemes as well as individual irrigators. Our members include a wide range of farmers/ growers – dairy and cropping farmers, horticulturalists, winegrowers, and sheep and beef farmers. We also represent over 140 irrigation service industries – manufacturers, distributors, irrigation design and install companies, and irrigation decision support services.
13. As an organisation we actively promote best practice irrigation and carry out a range of training and education activities, including in efficient water and energy use. Over the last 5 years we have trained over 3,000 irrigators on different aspects of irrigation best practice to improve water use efficiency.
14. INZ members share the same goals as other New Zealanders:
- a. to make a contribution to their communities
  - b. to make a living for themselves and their families
  - c. to help improve our waterways.