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SUBMISSION ON THE WATER SERVICES BILL

1. The Royal Forest & Bird Protection Society of New Zealand Inc (Forest & Bird) is New Zealand's longest running independent conservation organisation. Its constitutional purpose is to take all reasonable steps within its power for the preservation and protection of the indigenous flora and fauna and the natural features of New Zealand.
2. Over generations Forest & Bird has helped make New Zealand a better place to live by standing with community to protect forests, lakes, and rivers from destruction, campaigning to create marine reserves and eco-sanctuaries, and working to save threatened species. Forest & Bird has worked for nearly a century on protecting nature for its values and rights but also the benefit of all of us who depend on land and water for our enjoyment, cultural identity, and survival.
3. Forest & Bird has long advocated for the protection and restoration of fresh water. It is an active participant in resource management decisions relating to fresh water and undertakes practical projects that protect and enhance the quality of freshwater catchments, including managing the 550Ha Lenz Reserve in the Catlins. Much of Forest & Bird's earliest advocacy sought forest protection for soil and water conservation reasons.
4. Forest & Bird welcomes efforts to reform drinking water provisions but considers changes to the Bill are needed to ensure it is best able to deliver on its intent.

Forest & Bird asks to be heard in support of its submission

Forest and Bird Recommendations

5. Forest & Bird recommends the Bill proceed subject to the following amendments:
 - a. Amend the purpose of the act to also refer to the ‘protection’ of source water, as that is a key component of what the Bill attempts to do.
 - b. Amend the risk assessment framework in the purpose to include a reference to mitigating risk, rather than managing risk.
 - c. Amend the purpose to read “best practice internationally” rather than “internationally accepted best practice”
 - d. Amend Taumata Arowai’s function to include the power to exercise effective oversight to protect source water, including compelling regional and local government to meet the requirements of the Resource Management Act and its successor legislation. This will require close involvement with local authorities and their cooperation.
 - e. Amend the Bill to include requirement for different scenarios of ‘ordinary requirement of drinking water’ and an acknowledgment that quantity requirements will be dependent on water available through replenishment via the hydrologic cycle and impacts of climate change.
 - f. Amend the Bill to provide direction on avoiding the cumulative adverse effects of land use on drinking water sources. These are the greatest existing threat to source water, and their mention is missing from this legislation.
 - g. Amend the Bill to include consideration of the impacts of climate change on source water, wastewater, and stormwater, and to require consideration of climate change in whatever Taumata Arowai has jurisdiction over, including by referencing the National Climate Change Risk Assessment and National Adaptation Plan in the Bill. Climate change is the single greatest *future* threat to source water and direction related to climate change is missing from this Bill. Climate change will undoubtedly impact the risk profile of both drinking water and source water therefore must be a part of planning.
 - h. “Serious risk” must be defined or a criterion must be designed.
 - i. Amend sections 136 and 141 to provide Taumata Arowai the jurisdiction to monitor and assess the compliance of individuals, organisations, and companies discharging to wastewater and stormwater networks with relevant resource consent and bylaws conditions or requirements.

INTRODUCTION

6. The Water Services Bill addresses the need for a regulatory regime that will “ensure that drinking water suppliers provide safe drinking water to consumers”.¹
7. In order to provide safe drinking water to consumers, the regulatory regime (through the Water Services Bill) must achieve four things:
 - a. Strong regulation
 - b. Effective oversight
 - c. Protection of water at source
 - d. Appropriate and safe disposal of wastewater

Local government oversight

8. In 2018 and 2020, Forest & Bird published reports which analysed council performance with respects to compliance, monitoring, and enforcement at national and council levels. The 2018 report focused on regional government regulation of the dairy sector and the 2020 report focused on the protection of biodiversity. Both reports highlighted significant gaps in the willingness and capability of local and regional government to protect ecosystems and natural resources.

Protecting water at source

9. In order to “provide safe drinking water to consumers” the quality of source water is paramount. This is ultimately tied to strong regulation and effective oversight. Although drinking water now (as a result of environmental degradation) needs end point treatment in many cases, the extent and cost of end point treatment depends on the quality of the source water. Allowing source water to become polluted simply shifts the cost burden from those who are polluting to local authorities tasked with providing safe drinking water. When systems fail, costs are then transferred to wider society, including the healthcare system, workers (who become ill, or need to care for ill family, and stay home from work), and employers (through sick leave). This was exemplified by the Havelock North campylobacter ‘outbreak’.
10. In areas where nature is protected, such as the conservation estate and in some water catchment reserves (e.g. the Turitea Stream catchment in the Manawatū, or the (upper) Hutt River catchment in Wellington), it is evident that water quality is near pristine and indigenous biodiversity thrives. This protection of nature has protected, and continues to protect, source water and is a primary source of clean fresh water in New Zealand.

¹ section 3

11. Taumata Arowai needs the power to oversee local and regional government performance, not just in the direct provision of drinking water but also in protecting the quality of source water. This must include the power to undertake enforcement action to protect source water and to require local and regional authorities to act on their resource management responsibilities (such as those under sections 5 and 5 of the RMA – and whatever subsequent legislation replaces these with).

WATER SERVICES BILL PURPOSE- SECTION 3 BEST INTERNATIONAL PRACTICE

12. Forest & Bird supports the Water Services Bill's purpose². We are especially interested in echoing the statements that safe drinking water can be made possible by "(a) providing a drinking water regulatory framework that is consistent with internationally accepted best practice, including a duty on drinking water suppliers"
13. We note that "internationally accepted best practice" as written in the Bill is not equal to "the best practice internationally," which Forest & Bird believes is more appropriate. By their nature, international decisions on what becomes accepted as best practice can be 'watered down' by competing interests, and the differing interests and capabilities of states. As a result, what is accepted as the international standard isn't always the best that can be achieved. Parliament should aim for the higher standard of best practice internationally, which would encourage Taumata Arowai to identify and adopt the best from around the world (rather than whatever has been 'accepted' as an international standard).
14. One example of this is the internationally acceptable best practice for levels of nitrate in drinking water. The current 'international' limit is more than 10 times what is now suggested to be linked to colorectal cancers based on a 2018 longitudinal study of the entire population of Denmark³. A recent report showed that if this same correlation of incidence was prevalent here in New Zealand, then up to 800,000 New Zealanders could be exposed to dangerous levels of nitrates through drinking water.⁴
15. Internationally accepted best practice for nitrate pollution in drinking water has been set at a value recommended by the World Health Organisation to protect infants under 6 months from Blue Baby Syndrome. We understand this limit to be the only drinking water standard based on 'acute' exposure to a pollutant, rather than 'chronic' exposure (e.g. as set for lead). We consider the current wording of the Bill will tend to drive decision making on limits towards higher pollution levels and away from a precautionary

² section 3

³ Schullehner J, Hansen B, Thygesen M, Pedersen CB, Sigsgaard T. Nitrate in drinking water and colorectal cancer risk: A nationwide population-based cohort study. *Int J Cancer*. 2018 Jul 1;143(1):73-79. doi: 10.1002/ijc.31306. Epub 2018 Feb 23. PMID: 29435982.

⁴ [Bowel cancer risk from nitrates in water could affect up to 800,000 | Stuff.co.nz](#)

approach for some pollutants (such as nitrate), and ignore the emerging best practice to reduce risks to human health. This needs to be addressed.

16. New Zealand strives to be world leaders in our dairy and tourism sectors. It would only be reasonable for us to apply this same thinking to that which protects our health and well-being and that of the natural environment. Agriculture and tourism rely on New Zealand's reputation of a wild and pristine environment (a.k.a. 'clean and green'). These industries are vulnerable to standards which are less than best international practice, and we should apply the same striving desire to be world leaders to the fundamental issue at hand, drinking water.

MITIGATE RISK TO SOURCE WATER

17. We support that safe drinking water can be made possible by:

“[...] (b) providing a source water risk management framework that, together with the Resource Management Act 1991, regulations made under that Act, and the National Policy Statement for Freshwater Management, enables risks to source water to be properly identified, managed, and monitored;”

18. However, we suggest the purpose of the act also refer to the 'protection' of source water, as that is a key component of what the Bill attempts to do.
19. We add in addition to identifying, managing, and monitoring risks to source water, we expect these risks will also be “mitigated” through actions within the power of Taumata Arowai.

MAINTAIN OR IMPROVE

20. Finally, the Bill's purpose to provide safe drinking water is also made possible by “ [...] (e) providing a framework for the continuous and progressive improvement of the quality of water services in New Zealand.”
21. We are eager to see the progression of this continuous and progressive improvement with milestones marking said improvement.
22. We recommend that a statement such as 'maintain or improve' be added to the requirements placed on drinking water suppliers with respect to quality of water services.
23. Further, quality of water services is not clear. Forest & Bird interprets that to be measured by way of compliance and reliability of water quality.

COMPLIANCE

24. We note that the quality of the services will be dependent on the compliance of the water suppliers with regulatory requirements, as well as the powers of Taumata Arowai being utilised to their full potential. We draw particular attention to the duties of oversight and compliance. Noting that
- e. “[s]afe drinking water is not always being supplied across the country. Approximately 20 per cent of networked supplies do not meet all Drinking Water Standards, with the level of compliance decreasing with the size of the supply. This 80 per cent compliance figure compares to 99 per cent compliance in the public water supplies in England and Wales.”⁵

QUANTITY

25. Section 25 stipulates that “(1) [a] drinking water supplier must ensure that a sufficient quantity of drinking water is provided to each point of supply to which that supplier supplies drinking water.” and that sufficient quantity means that which is enough to “support ordinary drinking water needs of consumers at the point of supply” with mention of a “formula for determining the quantity of drinking water that is sufficient to support the ordinary drinking water needs of consumers at a point of supply”.
26. Forest & Bird expresses concern that this formula take into account what is currently available in the water cycle, noting that precipitation or snow melt are essential ingredients in determining what is available.
27. Water availability is an essential component because demand alone cannot dictate the quantity of water required in the sense that what is required will not necessarily be available year on year.
28. Industry refers to this concept as ‘security of supply’, the reality is that water quantity at any given time will be significantly varied due to the effects of climate change. Water storage solutions such as reservoirs delays the inevitable which is demand exceeding supply.
29. Hence, why quantity supplied must take into account the effects of climate change and connect with the Zero Carbon Act required regulatory parts.
30. Forest & Bird would not like to see incentives for suppliers to build storage dams in order to meet requirements of quantity of water stipulated by a formula.

⁵ LGNZ Reference Group: Summary of research and analysis. Page 2. [LGNZ-Reference-Group-Summary.pdf \(dia.govt.nz\)](#)(2018)

31. Forest & Bird seeks to remove or rewrite section 25 such that incentives for water storage is removed and acknowledgement that climate change will influence the availability to meet demand.
32. If a formula is to be created, we recommend multiple formulas which indicate which reality the local situation is contextualised. A series of formulas shall address that 'ordinary drinking water needs will look different in winter and summer, and it will look different in arid regions or in wet regions, and it will be influenced by increase of drought or storm.
33. Section 26 additionally needs to be examined with an evaluation of the effects of climate change on availability of water.
34. We expect that robust climatic modelling will allow some level of certainty around the risk profile associated with supply water availability and the ability to meet demand.
35. There must be a provision for proactive forward planning of possible scenarios that are related to climate change and fall out of the required risk assessment plans.
36. In the event, that a 'ordinary drinking water demand' cannot be met in a particular location alternative solutions shall be examined.
37. We acknowledge that climate change will strain the dependability of supplies' quantity.
38. Though we would not want incentivisation of engineering solutions which alter the natural freshwater environment resulting in negative consequences for biodiversity and long term resilience to flood, droughts, disease and storms.

SUBPART 5 – SOURCE WATER

MITIGATE

39. Subpart 5 which pertains to source water is of particular significance to Forest & Bird and we believe will play a key role in the success of the Taumata Arowai. If the water is clean at its source, ongoing risk is reduced.
40. We acknowledge regulations will require cross-government collaboration and communication, as stated in Subpart 5:

“[t]he purpose of this subpart is to provide a framework to ensure that, together with measures set out in the Resource Management Act 1991, regulations made under that Act, and the National Policy Statement for Freshwater Management,—(a) the risks and hazards to source water are identified, assessed, managed, and monitored by drinking water suppliers and local

authorities; and (b) information on source water, and measures to manage risks and hazards to source water, are published on a regular basis by regional councils.”

41. As mentioned above, Forest & Bird contends that the risks and hazards to source water should be ‘identified, assessed, **mitigated** and monitored by drinking water suppliers and local authorities’. We believe that ‘managed’ does not encompass efficiently the responsibility to see that the risk are either reduced or eliminated. ‘Managed’ could be interpreted as contained but not ceased pollution or establishment of a public warning systems becoming sufficient proxies which would allow for increased risk over time.

CUMULATIVE EFFECTS

42. Section 42 Source Water Risk Management Plans outlines that local authorities are required

“to contribute to the development and implementation of source water risk management plans prepared by drinking water suppliers, including by—(a) providing information to suppliers in accordance with compliance rules issued by Taumata Arowai under section 48, [...] and (b) undertaking any actions to address risks or hazards to the source of a drinking water supply that local authorities have agreed to undertake on behalf of a drinking water supplier, as specified in a schedule attached to a source water risk management plan or otherwise agreed in writing.”

43. We support this involvement of local authorities in the development and implementation of source water risk management plans.
44. We emphasize that cumulative effects of land use must be fully understood and evaluated if we hope to appropriately assess the level of risk and do something about it.
45. We ask that assessing cumulative effects by regional councils is required criteria for developing the Source Water Risk Management Plan.

INFORMATION

46. Section 45 requires regional councils to publish information about source water. Part (3) states that “Taumata Arowai may issue compliance rules under **section 48** to regional councils on the format and content of the information they are required to publish under this section.”
47. Forest & Bird strongly recommends that there is a requirement for this information to be held at a national level with standardisation in delivery frequency and format of

information. This will ensure that a national evaluation and cross regional comparisons are aspects of the regulatory system ensuring that the identification of inefficiencies or systemic failings are evident to Taumata Arowai and the public.

48. After collecting data on dairy effluent breaches from 16 regional councils for one compliance-year, Forest & Bird found a variable level of data gathered at the council level and that one council was unable to access information digitally and another council's database would overwrite historical data.
49. These issues, among others, meant that comparing council performance to conduct an analysis of systemic inefficiencies or failings was labour intensive with some councils unable to meet time bound LGOIMA requests on basic information such as the number of dairy farms and the number of consents for effluent.⁶

TE MANA O TE WAI

50. Forest & Bird would like to extend support for the inclusion of Te Mana o te Wai in the Water Services Bill. This hierarchy must be understood and implemented across all legislation pertaining to fresh water.

CRITERIA FOR SERIOUS RISK IS MISSING

51. "Serious risk" is mentioned 74 times in 17 clauses yet has no definition or associated criteria.
52. Forest & Bird urges the next drafting of the Bill to include some guidance on criteria pertaining to the evaluation of risk and identification of "serious risk".
53. The Bill states what "serious risk to public health" relates to s.103-104 (e.g. "serious risk to public health means a serious risk relating to—"). However, it remains unclear as to how the risk is determined to be serious or not, or if outlining criteria for defining 'serious'.
54. It is understood that Taumata Arowai will be responsible for assessing if the risk is serious, however the determination of whether the risk is serious will be subjective to the individual occupying this role and/or the organisational culture.
55. Forest & Bird recommends the criteria for evaluating and ranking risk be identified as a task assigned to the Taumata Arowai to be completed and regularly evaluated.
56. This will require a clear definition of what is 'serious' and what other categories of ranking risk might be. This will enable consistency which is preferred to objectivity.

⁶ [Dairy Effluent CME report August 2018 - Dropbox](https://www.dropbox.com/s/1234567890/DairyEffluentCMEreportAugust2018.pdf?dl=1) bit.ly/DairyCME

CLIMATE CHANGE

57. It is surprising to see that ‘climate change’ does not appear in the Bill.
58. The extent to which New Zealand is vulnerable to increased risk of waterborne diseases due to climate change has not be adequately addressed and we would put this work squarely in the remit of office of Taumata Arowai.
59. This was emphasised in the recent “National Climate Change Risk Assessment for New Zealand” report,⁷ (See excerpt in Appendix)
60. We expect that Taumata Arowai would require that the risk management plans include the likelihood and potential magnitude of waterborne disease outbreaks due to climate change including increases in frequency and intensity due to anticipated changes in precipitation, temperature, weather events, and storm surges. Taumata Arowai should have a broad mandate to require impacts of climate change be considered in the source, storm, and waste water issues it has jurisdiction over.
61. We believe that there will be requirements for assessment of infrastructure, particularly around vulnerability of water systems to sewer overflow and flooding caused by extreme weather events, however we would expect that this level of detail would also connect with assessing the risk to source water and the risk management plans.
62. Forest & Bird doesn’t want to leave this type of assessment up to chance, we believe that climate change must be included in this Bill at multiple stages. We assert this for the sake of future infrastructure planning, for safety of the consumer and the desire to establish a regulatory connection between the three waters and facets of the Zero Carbon Act such as the required Adaptation Plan.
63. We recommend that climate change is included in the following sections:
- f. Section 31(1) “A drinking water safety plan must—”
 - g. Section 42(2) “A source water risk management plan must—”
64. Note that it isn’t enough to rely on an owner in the case of a drinking water safety plan or a drinking water supplier in the case of a source water risk management plan to assume that the following provisions should include an evaluation for the potential effects of climate change:

⁷ <https://www.mfe.govt.nz/climate-change/assessing-climate-change-risk>

- h. Section 31(1) “identify any hazards that relate to the drinking water supply, including emerging or potential hazards; and (c) assess any risks that are associated with those hazards” and
 - i. Section 42(2) “identify any hazards that relate to the source water, including emerging or potential hazards; and (b) assess any risks that are associated with those hazards”
65. These sections should specifically site the requirement to consider climate change as integral parts of each of the plans.
66. One approach Parliament could consider is to explicit reference both the National Climate Change Risk Assessment and the National Climate Change Adaptation Plan in sections 31(1) and 42(2). The risk assessment and adaptation plans are required under Climate Change Response (Zero Carbon) Amendment Act 2019.

WASTEWATER COMPLIANCE

67. Forest & Bird is concerned with a loophole in the trade waste bylaws as referenced in recent RNZ expose on compliance and the impact this has on wastewater treatment operators’ ability to meet environmental limits set by regional councils.⁷
68. In particular, the loophole in the law prevents local government from fining non-compliant dischargers of wastewater to its network and treatment plants.
69. In response to this issue, Local Government New Zealand suggested a law change was necessary to allow local councils to fine non-compliant companies and requested that the Minister undertake to make this law change. This request has been made of several Ministers over the last decade.
70. The current Minister assured the public this was not necessary⁸, as the Water Services Bill and establishment of Taumata Arowai would deal with this issue.
71. However, having now reviewed the Bill, Forest & Bird are concerned Taumata Arowai will not be able to deal with this issue. While Subpart 7 of the Bill deals with wastewater, it covers monitoring and reporting of wastewater discharge compliance with environmental limits (i.e. at the end discharge point to the environment), which would be set by the regional councils. It does not appear to have anything to do with increasing monitoring and reporting of those individuals, organisations, or companies discharging to the wastewater treatment facility under trade waste bylaws. It also doesn't strengthen a council's ability to take action against those discharging to their systems but not complying with bylaws, or give Taumata Arowai the jurisdiction to do

⁸ <https://www.rnz.co.nz/news/political/435189/contaminant-dumping-minister-says-companies-must-comply-with-consents>

that. We consider it misses this issue completely and does not do what the Minister indicated to the public it will do.

72. We consider (in lieu of a law change elsewhere to address the ‘loophole’ identified by LGNZ) the Bill needs to be amended to provide Taumata Arowai the scope to at least monitor and assess compliance with wastewater discharges under local bylaws.
73. This could be achieved through amendments (underlined in red) to sections 136 and 141 as below (or through an amendment elsewhere in the Bill with a similar effect):

136... Taumata Arowai must monitor and report in accordance with this subpart on the environmental performance of wastewater and stormwater networks and network operators for the purposes of—

(a) providing transparency about—

- i. the environmental performance of wastewater and stormwater networks and network operators; and
- ii. the extent to which wastewater and stormwater networks are complying with applicable standards, conditions, or requirements (whether under legislation or as part of a resource consent); and
- iii. the extent to which wastewater and stormwater network operators are avoiding, remedying, or mitigating any adverse effects on the environment arising from the operation of wastewater and stormwater networks; and
- iv. the extent to which individuals, companies, and organisations providing waste or storm water to the relevant networks are complying with applicable standards, conditions, or requirements of resource consents or bylaws;

...

141 Annual reporting on wastewater and stormwater networks

Taumata Arowai must, on an annual basis, publish a report on—

- a. the environmental performance of wastewater and stormwater networks and network operators, including their performance against environmental performance measures; and
- b. the extent to which wastewater and stormwater networks are complying with applicable standards, conditions, or requirements (whether under legislation or as part of a resource consent); and
- c. the extent to which wastewater and stormwater network operators are avoiding, remedying, or mitigating any adverse effects on the environment arising from the operation of wastewater and stormwater networks; and
- d. wastewater and stormwater practices, including—
 - i. examples of good practices; and
 - ii. specific risks or concerns that relate to individual performance and practices or system-wide performance and practices, or both; and
- e. recommendations for any actions that might be taken to address matters raised in the report.
- f. the extent to which individuals, companies, and organisations providing waste or storm water to the relevant networks are complying with applicable standards, conditions, or requirements of resource consents or bylaws;

74. The Bill should also be amended to provide Taumata Arowai compliance and enforcement powers over wastewater and stormwater non-compliance, particularly in relation to this issue.

CONCLUSION

75. Risks cannot simply be managed; they must be mitigated. Forst & Bird asks that the concept of mitigation be inserted into the Water Services Bill.

76. Effective oversight and strong regulation are required for protection of source water. This will require Taumata Arowai's close involvement with local authorities and their cooperation.

77. Multiple legislative instruments are linked to the success of the Taumata Arowai. Therefore, the efficacy of the implementation of the National Policy Statement for Freshwater Management and the National Environment Standards for Fresh water and the strength of regulation in the Resource Management Act reform will directly affect the level of risk to source water.

78. It is paramount that all legislations work well together and are swiftly implemented with source water and the effects of drinking water taken into account.

79. Local Authorities must do better at monitoring and enforcing compliance. If this is not taken seriously then strong regulation will be ineffectual.
80. The cumulative effect of land use is the single greatest existing threat to source water, and is missing from this legislation.
81. Quantity requirements must account for the varied nature of 'ordinary drinking water requirements' given local context as well as influence of water availability which will be determined by the hydrologic cycle and effected by climate change.
82. Climate change is the single greatest *future* threat and is missing from this Bill. Climate change will undoubtedly impact the risk profile of both drinking water and source water therefore must be a part of planning.
83. "Serious risk" must be defined or a criterion must be designed.
84. Forest & Bird wishes to take advantage of any opportunity to speak with policy or ministerial staff associated with this regulatory reform while drafting the final provisions.
85. If the Select Committee, Minister or staff has any queries about the contents of this submission, please contact myself, Tom Kay or William at Forest & Bird.

Nāku noa iti, nā,

Annabeth Cohen
Freshwater Conservation Advocate

APPENDIX

EXCERPT FROM National Climate Change Risk Assessment for New Zealand”

RISK TO POTABLE WATER SUPPLIES (AVAILABILITY AND QUALITY) DUE TO CHANGES IN RAINFALL, TEMPERATURE, DROUGHT, EXTREME WEATHER EVENTS AND ONGOING SEA-LEVEL RISE

...Many water supplies are at risk from drought, changes in mean annual rainfall, extreme weather events (including heavy rainfall) and sea-level rise. This risk is likely to increase in the future... Population growth is projected to increase, adding pressure on water supplies... Sea-level rise (leading to salinity stress) and increases in heavy rainfall (leading to flooding and sedimentation of water sources) are already affecting water quality around New Zealand, and this will likely increase. For Māori, water is seen as the essence of all life; impacts on water are a significant cultural issue. Some Māori communities also rely on non-reticulated water systems, making them vulnerable to drought and water contamination.

Heavy rainfall can lead to the contamination of water supplies that rely on freshwater rivers and lakes... As sea levels rise, coastal aquifers will become increasingly vulnerable to saltwater contamination. Salinisation of coastal aquifers is already occurring in Northland, Auckland, Waikato, Bay of Plenty, Taranaki, Wellington, Tasman, Marlborough, Canterbury and Dunedin...

Changes in water availability from drought and lower rainfall will have consequences for all domains. They may contribute to a rise in diseases due to water-borne pathogens or a lack of hygiene...

Increased human use may degrade rivers, lakes and streams (and associated ecosystems)...

Overall, there is high agreement that climate change will impact urban and rural water security.