

Consultation on the draft National Policy Statement for Water Resources Infrastructure

January 2019 – a response from the Blueprint for Water

Blueprint for Water is a unique coalition of environmental, water efficiency, fisheries and recreational organisations, part of the wider environmental NGO coalition, Wildlife and Countryside Link. Blueprint members come together to form a powerful joint voice across a range of water based issues.

- 1) Do you think the draft NPS sets out a clear need for nationally significant water resources infrastructure? Please provide reasons to support your answer.

There is a clear need for water resources as set out in the draft NPS as demonstrated through the work of the National Infrastructure Commission, Climate Change Committee and the Water UK report on long term water resources planning.

However, what has not been made clear enough is the potential role that demand management can play in helping to meet the demand for water and consequently what that means for the scale of need for nationally significant water resources infrastructure. The draft NPS suggests that “*maintaining the current level of resilience in the future will require at least an additional 3,300 Ml/d of additional capacity in the water supply system by 2050*”. Yet there is no indication of how much capacity could be gained from demand management. In fact, [the National Infrastructure Commission](#) suggest aiming for additional capacity of 4,000 Ml/day will require a minimum of 1,300 Ml/day additional supply infrastructure by the 2030s in addition to around 1,400 cubic meters being met through leakage reduction and 1,500 cubic meters being met through efficiency and metering. It is this relationship which is not iterated within the NPS.

We welcome the proposed twin track approach which determines a need for both demand management and water resources infrastructure, yet the NPS remains vague about the criteria for determining whether this approach has been met. The current reliance on Water Resource Management Planning (WRMP) to ensure water companies undertake demand management is inadequate. This is highlighted through the requirement to set a target for leakage reductions for PR19 – a target few water companies were proposing before the target was set. Similar levels of action on reducing Per Capita Consumption were not proposed by most companies, demonstrating the importance of a strong steer from Ofwat, which saw companies proposing action on leakage.

- 2) Do you think the draft NPS makes clear for water undertakers, the Examining Authority and the Secretary of State the relationship between water resources management planning and applying for nationally significant infrastructure project development consent? Please provide reasons to support your answer.

Yes, however, we do not agree with the reliance on the WRMP process to deliver the most appropriate scheme at a regional and national scale. Addressing this fundamental flaw in the NPS relies on proposed policy/legislative change which has not yet occurred. The NPS must also identify any need, and propose/assess solutions, that do not rely on water companies.

In light of this, we propose the NPS needs to clearly state that a proposed Nationally Strategic Infrastructure Project (NSIP) must take a regional and national perspective.

Currently whilst there are regional initiatives such as Water Resources East, we have seen that solutions identified as most beneficial regionally are not necessarily reflected in individual companies' plans. In the absence of policy or legislative change to drive this, we welcome the approach being taken in the south east where participating companies in WRSE have taken the step of forming an overarching company which will produce a single integrated WRMP for the region for PR24. However, the NPS should not be finalised until this crucial gap is addressed in law following the current Defra consultation "[Improving our management of water in the environment](#)".

Under section 2.5 – the role of WRMPs in identifying the need - there is no mention of the role of demand management and how it is expected that NSIP scheme proponents demonstrate they are meeting a twin track approach or the process of determining that water companies are proposing ambitious demand management options before proposing a supply side scheme.

- 3) Are the assessment criteria included in the draft NPS appropriate? Please tell us your views, including any further relevant criteria you can identify.

We support the proposed requirement for a scheme to achieve net environmental gain. However, it should be made clear that net environmental gain must require first and foremost a biodiversity net gain, as proposed for development under the National Planning Policy Framework. In addition, we support the requirement for an environmental statement. This should play a valuable role in understanding the environmental trade-offs and overall approach taken by the developer.

We also request the NPS ensures guidance is published (via a process involving stakeholder engagement) to ensure a standard approach to measuring net gain is applied. This should take account of the conclusions from the current [biodiversity net gain consultation](#), for example regarding how to measure biodiversity and using the Defra biodiversity net gain metric.

Furthermore, the criteria needs to make it much clearer that the mitigation hierarchy must still be adequately applied. Net Gain must be additional to the hierarchy and come into play only once the impacts of any infrastructure proposals have first been avoided, mitigated and compensated.

As the location of such infrastructure is often a key factor with respect to environmental impact the NPS should also make it clearer that the requirements laid out in the National Planning Policy Framework still apply to decision making around location.

- 4) Does the draft NPS comprehensively cover the impacts of water resources infrastructure development and the effectiveness (including avoiding the creation of excessive costs or other potential barriers to the development) of associated mitigation measures? Please tell us your views, including any further impacts or mitigation measures you think should be included.

Although generally the NPS does a reasonable job to cover the impacts of water resources infrastructure development and mitigation measures we propose the following:

- The NPS should make clear that the summary impacts and mitigation tables are not exhaustive.
- Section 4.3. Biodiversity and nature conservation – gives no indication of where development should not go ahead. This essentially gives a presumption in favour of development regardless of biodiversity loss. We recommend that a sentence is included which states that “*serious consideration should be given as to whether to allow the development if significant harm cannot be avoided, mitigated or compensated for locally.*”
- Section 4.3.7 states that “*Where significant harm cannot be avoided or mitigated, as a last resort, appropriate compensation measures should be sought to provide net gains for biodiversity.*” However, there is no information about what pertains to “*appropriate compensation measures*”. European protected areas have specific requirements for the provision of compensatory habitat, however, as this statement relates to loss of biodiversity more generally then there is no such requirement. We propose that the NPS requires compensation measures to be provided following the guidelines for European protected sites.
- Section 4.4. Carbon emissions – we propose that all NSIPs covered by this NPS should aim for carbon neutrality given the long term nature of the infrastructure and the need for significant reductions in energy use. We acknowledge this may be difficult particularly relating to desalination, however, not impossible, especially given developing technology and offsetting. We therefore suggest that a hierarchy approach is adopted, with developments required to look to energy efficiency, followed by green energy provision and use, with carbon offsetting as a backstop.
- Table 5 – mitigation measures – to include opportunities to provide carbon sequestration through habitat creation. For example planting trees (it varies according to tree size and species but a tree can sequester around 0.02 tonnes CO₂ per year¹) but also ponds can sequester around 0.333 tonnes of carbon per m² per year.²
- Section 4.5 Coastal Change – infrastructure on the coast will determine coastal defences for many years to come. It is important that any planned large infrastructure scheme is not developed in an area where long term plans do not support maintaining defences. The document should make specific reference to taking account of Shoreline Management Plan policies which cover the next 90 years or so.
- Section 4.15. Water quality and resources, table 14 – mitigation measures should include potential for habitat creation such as ponds and wetlands to treat water. Benefits include removal of:
 - Up to 99.9 per cent of faecal coliforms³
 - Between 30 and 94 per cent of phosphorus^{4,5}
 - Between 50 and 99 per cent of nitrogen⁴

¹ Average using itree <https://www.itreetools.org/>

² Charlesworth, S.M. (2010) [A review of the adaptation and mitigation of global climate change using sustainable drainage in cities](#). Journal of Water and Climate Change, 1(3): 165-180

³ Mackenzie, S. & McIlwraith, C. (2012) WWT Slimbridge, Wetland Treatment Systems and SuDS. Unpublished

⁴ Dunne, E.J., *et al.* (2005) An integrated constructed wetland to treat contaminants and nutrients from dairy farmyard dirty water, *Ecological Engineering*, 24(3) 219-232

⁵ Vymazal, J. (2002). The use of sub-surface constructed wetlands for wastewater treatment in the Czech Republic: 10 years experience. *Ecological Engineering*, 18(5), 633-646.

- 88 per cent of total suspended solids in domestic wastewater⁶ **Error! Bookmark not defined.**
- And reductions of 98% (Iron), 90% (Chromium), 59% (Nickel) and 57% (Zinc) have been observed⁷
- In addition there is no reference under decision making around “no deterioration”, only that the Secretary of State should be satisfied that a proposal “*has had regard to the River Basin Management Plans and the requirements of Water Framework Directive*”. We propose the wording of this is strengthened as follows “*The Secretary of State should seriously consider refusing permission for development if the development is shown to risk deterioration of a water body or water bodies under the requirements of the Water Framework Directive. The Secretary of State must be satisfied with any derogation from this. In addition, the Secretary of State must be satisfied that all efforts have been made to where possible improve water quality and achieve good ecological status.*”

5) Do you have any other comments on the draft NPS which are not covered by the previous questions?

Section 2.6 should include potential environmental costs under each of the supply options as well as the benefits.

3.6 Criteria for ‘good design’ for water resources infrastructure – we support the statement that “*appropriate weight should be given to outstanding or innovative designs which promote high levels of sustainability.*” However, we recommend that there should be additional clarity about a requirement to assess social and environmental as well as economic cost-benefit so that these can be adequately taken into account during decision making.

Although this applies as an England only NPS there are obviously potential areas where close collaboration between England and Wales, and possibly even England and Scotland are needed. This also relates to assessment of environmental impact. Clarity around roles and expectation in this area within the NPS would be welcomed.

- 5) Do you agree with the findings (of ‘likely significant effects’) of the Appraisal of Sustainability Report? If not, what other significant effects do you think have been missed, and why? Please provide reasons to support your answer.
- 6) Do you agree with the conclusions of the Appraisal of Sustainability Report and the recommendations for enhancing positive effects associated with the implementation of the draft NPS? If not, what do you think should be the key recommendations and why?

We have the following additional recommendations in response to questions 5 and 6:

Table 3.2 Summary of Key Objectives Identified from the Review of Plans and Programmes Relevant to the AoS - Summary Objectives from Other Plans and Programmes – Biodiversity

⁶ Karathanasis, A.D., Potter, C.L., & Coyne, M.S. (2003) Vegetation effects on fecal bacteria, BOD, and suspended solid removal in constructed wetlands treating domestic wastewater, *Ecological Engineering*, 20(2) 157-169

⁷ Di Luca, G. A., *et al.* (2011). Metal retention and distribution in the sediment of a constructed wetland for industrial wastewater treatment. *Ecological Engineering*, 37(9), 1267-1275.

and Nature Conservation; UK, England, Scotland and Wales: should include avoiding spread of invasive non-native species (GB INNS strategy, 25 Year Environment Plan).

Table 3.3 Key Issues Relevant to the NPS for Water Resources Infrastructure – Summary of key issues – Biodiversity and Nature Conservation – key trends, highlights general biodiversity loss and results from the UK biodiversity indicators. However, this should pull out the relevant indicators and sites which will be impacted by the NPS rather what is currently listed which are blanket trends. The trends and status of aquatic and riparian sites, habitats and species could be significantly different from the general trends shown particularly as 13% of freshwater and wetland species are currently threatened with extinction from Great Britain and 51% of freshwater species have declined since 2002⁸.

Cumulative Effects In-combination with Other Plans and Programmes – should also include the National Planning Policy Framework as well as other NPSs.

We disagree with your conclusion regarding a statement made by Blueprint in the previous consultation. We stated that “*The Environment Agency’s approach to abstraction management is supposed to reduce current levels of over abstraction but is not currently going to address potential over abstraction arising from a changing climate.*”

Appendix 19 reported that “The Environment Agency’s approach to managing water abstraction takes full account of the pressures on water resources resulting from climate change.”

In order for abstraction to be sustainable in the light of climate change, we believe there needs to be further action around the following:

- There is currently no understanding about the impact of climate change on environmental need and how this may affect abstraction volumes. Although we hope that the National Framework will be able to fill this gap, this is a significant gap in knowledge
- In taking a local needs approach we need to ensure the necessary local expertise is available and resourced in order to make effective catchment-scale decisions.
- What environmental safeguards will be required to ensure that water trading and competition do not lead to perverse outcomes for the environment.

We reiterate that the potential for abstraction to continue to contribute to environmental damage of our rivers and wetlands should be acknowledged and the potential for climate change to increase this impact.

In general, we agree that the draft NPS should result in a net positive benefit for water quality assuming that the mitigation measures listed within the NPS are put into practice. However, we have a number of recommendations to strengthen the NPS to help ensure mitigation measures do have a net positive benefit. These are:

Acknowledging the possibility of derogations, the NPS should specifically reference its expectations regarding “no deterioration”. There is currently no mention in the NPS around expectation regarding “no deterioration”.

The NPS text should be more strongly worded. Most of the referenced sections on page 80 of the AoS highlight wording in the NPS which is woolly and may not actually deliver the

⁸ State of Nature Report 2016

<https://www.rspb.org.uk/globalassets/downloads/documents/conservation-projects/state-of-nature/state-of-nature-uk-report-2016.pdf>

mitigation required. For example “should assess impacts”, “have regard to” neither of which actually require mitigation measures to be put into effect.

We support all the recommendations under Appendix F under water quality. We also propose that mitigation measures around flows should be included with respect to water transfers (see previous points). We also support the recommendations made under Appendix F related to Climatic Factors.

- 7) Do you agree with the proposed arrangements for monitoring the significant effects of the implementation of the draft NPS? If not, what measures do you propose?

We support the need for ongoing monitoring and to ensuring the environmental mitigation measures laid out within the NPS are effective.

An additional potential monitoring indicator is needed around environmental net gain, in addition a sub-indicator on implementation of any compensatory habitat.

The NPS calls to avoid significant biodiversity loss if at all possible yet all the indicators are species specific or relate to protected areas rather than an indicator of biodiversity. We suggest there should also be a measure of biodiversity change.

Water quality indicators – consumption is not an adequate indicator to ensure flow levels are not affected by the infrastructure. We propose an indicator measures flow changes.

The post adoption statement should detail how monitoring will be resourced and expected reporting requirements to ensure that the results of monitoring are acted upon.

Blueprint for Water request further engagement on the monitoring package which appears key to making sure this NPS works as intended.

- 8) Please tell us your views on the findings from the Habitats Regulations Assessment Report for the draft NPS, providing reasons to support your answer.

We agree with the conclusions of the Habitats Regulations Assessment.

However, we would like to make the following comments regarding Section 3. Screening – operational impacts of water transfers.

We disagree with the statement “*With all schemes there is a theoretical risk of transfers influencing flows within watercourses post-consumption (i.e. following use) although this is generally considered to be nominal risk.*” It is feasible in drought conditions a transfer could have a significant impact on the donor water body and its associated habitats. We therefore propose the addition that this statement assumes relevant measures are in place to avoid damage during low flows and environmental flow indicators are met at all times. In addition, there are certain European sites which rely on periodic inundation. It must be assured that the transfer does not result in reduced inundation to the extent that this affects the ecological functioning of the European site. The statement in the HRA we propose also assumes that there is no significant distance between the release site of the transfer and the abstraction point which does not have to be the case. Piped water could be taken from the donor source to the recipient water body, released and then abstracted at any point downstream, therefore affecting the flows between the release site and the abstraction point.

In addition this section assumes that piped water transfers will be treated before being released into the receiving water body. This should be made a clearly stated assumption as it has implications for several areas including water quality and the transfer of invasive non-native species or pathogens.

This response is supported by the following organisations:

A Rocha UK

Amphibian and Reptile Conservation

Angling Trust

British Canoeing

Freshwater Habitats Trust

Institute of Fisheries Management

Salmon & Trout Conservation

The Rivers Trust

The Wildlife Trusts

Waterwise

Wildfowl & Wetlands Trust

WWF-UK

ZSL