

Curriculum Vitae

R. Torenbeek

- 1. Family name:** Torenbeek
2. First names: Reinder
3. Date of birth: 08-11-1960
4. Nationality: Dutch
5. Civil status: Single

6. Education:

Institution [Date from – Date to]	Degree(s) or Diploma(s) obtained:
1979 - 1985, Wageningen University, The Netherlands	MSc: Water Quality & Hydrobiology
1992, Organisation for Fishery Improvement, Amersfoort, the Netherlands	Certificate, course on Fish stock management and Integral water management

7. Language skills: (5 - excellent; 1 – basic)

Language	Reading	Speaking	Writing
English	5	5	5
German	3	3	2
French	2	2	2
Dutch	<i>mother tongue</i>		

8. Membership of professional bodies:

- Member NEDWORC Association. www.nedworc.org
- Member Waterforce. www.waterforce.nu
- Member Royal Dutch Water Net (KNW). www.waternetwerk.nl
- Member, Working Group Ecological Water Management (WEW). www.wew.nu
- Chairman, Subgroup Realisation of the Working Group Ecological Water management (WEW).

9. Other skills:

MS Word, MS Excel, MS PowerPoint, Basic, ArcView, Multivariate analyses (CANOCO, TWINSpan)

10. Present position:

Freelancer Specialist Water Management and Aquatic Ecology

11. Years within the firm:

3.5 years

12. Key qualifications:

Mr. Torenbeek holds a University Degree in Water Quality & Hydrobiology and has been engaged in water management and aquatic ecology for app. 25 years. He worked for 14 years with Water boards in the Netherlands as aquatic ecologist, where he gained in-depth knowledge of fresh water ecosystems, both for water courses and for lakes. Topics were monitoring, ecological assessment methods, lake and river rehabilitation, water pollution control, water management, etc.

From 2002 till 2007 he has been working with ARCADIS as specialist in water quality and aquatic ecology. He was involved in many projects in the Netherlands but also abroad, especially in new EU Member or accession States. Most international projects focussed on the Technical Assistance on the Implementation of the Water Framework Directive (PHARE and TACIS programmes). Torenbeek worked on the biological aspects, like monitoring programs, sampling methods, ecological assessment, the ecological impact of pressures, program of measures, and methods for definition of goals (good ecological status).

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In 2008 Mr. Torenbeek started as a freelancer and worked for many projects, mainly in the Netherlands, but again also abroad, like a project on Water Governance in the Western EECCA Countries and a project on the River Basin Management of the Yellow River (China).

13. International experience:

<i>Country</i>	<i>Date</i>
China (Yellow river basin)	2009/2011 (45 days)
Serbia (Nitrate Directive)	2009/2010 (40 days)
Belarus, Moldova, Ukraine, Armenia, Azerbaijan, Georgia (Water Governance)	2009 (10 days)
Ukraine/Balarus (Pripyat river basin)	2007 (20 days)
Ukraine/Rusland (Seversk Donets river basin)	2007 (20 days)
Bulgaria (Arda river basin)	2007 (15 days)
Ukraina (Lower Dnistr river basin)	2006-2007 (150 days)
Hungary (EU Water Framework Directive)	2006 (20 days)
Poland (EU Water Framework Directive)	2004-2005 (80 days)
Macedonia (Algea in irrigation systems)	2002 (10 days)

14. Professional experience:

Date from – to	Location	Company	Position	Description
2009/2011	China	DHV	Short Term Expert	Biomonitoring in the Yellow River Basin, based on EU Water Framework Directive principles.
2009/2010	Serbia	Mott McDonald	Water Expert	Monitoring for the EU Nitrate Directive (surface and ground water)
2009/2010	Belarus, Moldova, Ukraine, Armenia, Azerbaijan, Georgia	Mott McDonald	Biological Water Quality Monitoring specialist	Requirements for biological monitoring compliant to the EU Water Framework Directive
2008-present	Netherlands	Torenbeek Consultant	Freelancer	Specialist aquatic ecology
2007	Ukraine, Belarurs	ARCADIS-Euroconsult	Short Term Expert	Pripyat River Basin. Technical assistance on river basin management, based on EU Water Framework Directive principles: <ul style="list-style-type: none"> – Ecological monitoring – Ecological assessment methods
2007	Ukraina, Rusland	ARCADIS-Euroconsult	Short Term Expert	Seversk Donetsk River Basin. Technical assistance on river basin management, based on EU Water Framework Directive principles <ul style="list-style-type: none"> – Fieldtraining on biological sampling methods – Ecological assessment methods
2007	Bulgaria	ARCADIS-Euroconsult	Short Term Expert	Technical assistance on the implementation of the Water Framework Directive: <ul style="list-style-type: none"> – Definition of environmental objectives. – Workshops and Toolkit on pressures and measures.
2006-	Ukraina	ARCADIS-	Key expert	Lower Dnister River Basin. Technical assistance

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2007		Euroconsult		<p>on river basin management, based on EU Water Framework Directive principles</p> <ul style="list-style-type: none"> – Ecological monitoring programme – Field training on biological sampling techniques. – Assessment of biological monitoring results – Survey of pollution sources.
2006	Hungary	ARCADIS-Euroconsult	Short Term Expert	<p>Technical assistance on the implementation of the Water Framework Directive</p> <ul style="list-style-type: none"> – Ecological effects of hydro morphological pressures. – Ecological status assessment methods.
2004 - 2005	Poland	ARCADIS-Euroconsult	Output-leader Monitoring Team	<p>Technical assistance on the implementation of the Water Framework Directive</p> <ul style="list-style-type: none"> – In cooperation with local staff (WIOS in Wroclaw and Gizycko): sampling, analysis and assessment of macro-zoobenthos in rivers (Odra) and phytoplankton in lakes, in compliance with the WFD. – Contribution to the Feasibility study on Monitoring in compliance with the WFD
2002 – 2002	Macedonia	ARCADIS-Euroconsult	Short Term Specialist	<ul style="list-style-type: none"> – Advice for measures against algae problems in the Tikves and Bregalnica irrigation systems (Ministry of agriculture)
2008-present	Netherlands	Torenbeek Consultant	Owner	<p>See list of projects below (item 16).</p>
2002 – 2007	Netherlands	ARCADIS	Specialist/Project Manager	<ul style="list-style-type: none"> – Rhine-East (sub) River Basin Characterisation Report as part of the National WFD reporting to Brussels. – Quick scan: comparison between the WFD implementation approach/progress in Rhine-East (the Netherlands) and Nordrhein-Westfalen/Niedersachsen (Germany). – Quick scan: comparison between the WFD implementation approach/progress in the Netherlands and Belgium. – Argumentation for ‘derogation’ concerning the Water Framework Directive. – Hydrological and biological measurements for the Water Framework Directive: effects and costs. – Quick-Scan municipal waters (Waterboard Waterschap Velt en Vecht, the Netherlands). – Water management advise Lake 't Bovenwater (Municipal Lelystad, the Netherlands). – Monitoring program for farm chemicals in surface waters (Water Board Hunze & Aa's). – Sub-Basin Management Plan "River Land"

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				<p>of the Province of Gelderland, the Netherlands, with respect to hydro-ecological interventions in the flood plain of the River Rhine, aiming to enrich bio-diversity.</p> <ul style="list-style-type: none"> – Phosphorus and nitrogen balances for fertilized grasslands, effects on surface water quality (Ministry of Transport, Public works and Water management).
2000 – 2001	Netherlands	Water Board Reest & Wieden, The Netherlands	Aquatic ecologist	<ul style="list-style-type: none"> – Advisor water management and effects on aquatic ecology. – Project manager/Specialist ecological research. – Developing and operating a monitoring programme for surface water quality in relation to land use and agriculture. – Preparing the Water Management Plan of Water board Reest & Wieden. – Advisor nature development projects. – Specialist water quality assessment.
1988 – 1999	Netherlands	Waterboard Zuiveringsschap Drenthe, The Netherlands	Aquatic ecologist	<ul style="list-style-type: none"> – Advisor water management and effects on aquatic ecology. – Project manager/Specialist ecological research. – Advisor nature development projects, i.a. developing suitability criteria for groundwater and surface water conditions for forestation and nature development. – Conducting a pilot study on the capacity of marshes / engineered wetlands for water purification. – Specialist water quality assessment. – Project manager of a bio-manipulation /fish stock management pilot project to assess effect of reducing bream stock on water quality. During 5 years water quality, algae, vegetation and invertebrates were monitored. – Specialist ecological water assessment methodologies. – Member of supporting teams for the development of ecological assessment methods for surface waters in the Netherlands.
1985-1987	Netherlands	Research Institute for Nature management, the Netherlands	Specialist	<ul style="list-style-type: none"> – Monitoring programme and multivariate analysis of macro-invertebrates data. – Specialist hydrobiology and water management.

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15. Selected Relevant Publications

- M. Hokken, R. Torenbeek & J. Wanink, 2012. WFD-measures: are there any results yet? H2O 7 (2012): 25-27
- R. Torenbeek, 2012. Effectiveness of water bank rehabilitation and adapted mowing methods. A statistical analysis based on macro-invertebrate and macrophyte data. Waterboard Zuiderzeeland, the Netherlands. In Dutch.
- R. Torenbeek, 2012. Flora and fauna in ditches and lakes. Assessment of algae, water plants, diatoms, macro-invertebrate and fish data, sampled in the period 2000-2009. Waterboard Noorderzijlvest, the Netherlands. In Dutch..
- R. Torenbeek, 2011. Macro-invertebrate sampling in brackish waters. A statistical analysis of differences between spring and autumn data. Waterboard Hollandse Delta, the Netherlands. ARCADIS en Torenbeek Consultant. In Dutch.
- M. Griffiths, R. Torenbeek, 2011. Ecological and Biological Monitoring. European Water Framework Directive Guidance and Methods. EU-China River Basin Management Programme. Min. of Water Resources, Min. of Environmental Protection, China.
- ARCADIS & Torenbeek Consultant, 2011. Report on monitoring results for the water management plan city Den Helder, the Netherlands. Waterboard Hoogheemraadschap Hollands Noorderkwartier, the Netherlands. In Dutch.
- R. Torenbeek, 2011. Ecological survey of urban waters in the city Zwolle, the Netherlands. Waterboard Groot-Salland, the Netherlands. In Dutch.
- R. Torenbeek, 2011. Water quality in the village Tollebeek, the Netherlands. A quick scan of possible causes and measures. Waterboard Zuiderzeeland, the Netherlands. In Dutch.
- R. Bijkerk & R. Torenbeek, 2011. Ecological survey of urban waters in the city Assen, the Netherlands. Municipality Assen. Koeman en Bijkerk bv. and Torenbeek Consultant. In Dutch.
- R. Torenbeek, 2011. Quick Scan urban waters 2010: Dalfsen, Lemelerveld and Nieuwleusen. Waterboard Groot Salland, Municipality Dalfsen. In Dutch.
- J. Wanink, R. Torenbeek, H. Wanningen & R. van Veen, 2010. Surface water in province Drenthe is heating. H2O 18 (2010): 45-48. In Dutch
- H. Wanningen, R. Torenbeek & J. Wanink (2010). Are surface waters in the province Drenthe heating? Research to the effect of climate change on surface water quality in province Drenthe in the period 1974-2009. Wanningen Waterconsult, Torenbeek Consultant, Koeman & Bijkerk b.v. Rapport nr. 2010-31.
- E. van Slobbe, H. Aalderink, B. de Vlieger, R. Torenbeek & P. Penninkhof, 2010. Buffer strips in the Netherlands; practice, experience, research and changes. STOWA-rapport 2010-39. In Dutch.
- R. Bijkerk (red), 2010. Manual on hydrobiological monitoring. Chapter 4 (R. Torenbeek & R. Nieuwenhuis): General introduction on hydrobiological sampling. STOWA. In Dutch.
- R. Torenbeek, 2010. Quick Scan Urban surface waters in municipalities Zwolle and Dalfsen (the Netherlands). Waterboard Groot Salland. In Dutch.
- R. Bijkerk, G.H. Bonhof, G. Mulderij, R. Torenbeek & G. Wolters, 2009. Blue-green algae control in recreation area Borgerswold, Veendam (the Netherlands). Koeman & Bijkerk; Waterboard Hunze en Aa's. In Dutch.
- R. Torenbeek, 2009. Annual report water quality 2008. Presentation and interpretation of water quality monitoring results and an extrapolation of trends from 2000 to 2015. Waterboard Hunze & Aa's. In Dutch.
- R. Torenbeek, 2009. Check of purified urban waste water discharge on the surface water quality; model study. Waterboard Hunze & Aa's. In Dutch.
- N. van der Fluit, A. van Leerdam and R. Torenbeek (2009). Screening of water management plans of provinces and waterboards on goals and measures for 51 protected nature areas in the Netherlands. Staatsbosbeheer and Natuurmonumenten. In Dutch.
- R. Torenbeek (2009). Test of the WFD stand still principle. Waterboard Hunze en Aa's. In Dutch.

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- R. Torenbeek (2008). Dispersion of phosphorus loads in lake area Wieden & Weerribben and proposal for local measures. Waterboard Reest & Wieden. In Dutch
- R. Torenbeek (2008). Clean water in clean water? The effect of purified urban waste water discharge on the quality of surface waters. Waterboard Hunze & Aa's. In Dutch.
- R. Torenbeek (2008). Ecological analysis of lake Harderbroek (the Netherlands). Waterboard Zuiderzeeland. In Dutch.
- R. Torenbeek, 2007. Guideline assessment Operational and Surveillance monitoring for the WFD. Working group MIR. ARCADIS / RIZA and RIKZ. In Dutch.
- R. Torenbeek, 2007. Guideline on sampling macro-invertebrates. TACIS. Technical Assistance for the Lower Dnister River Basin Management Planning.
- R. Torenbeek, 2007. Results ecological survey of the Lower Dnistr. TACIS.
- J.P.G.N. Klooster, R. Torenbeek, C.J. de Vries & M.H.A. Wind, 2007. Water Emission Trading. An exploration of a new instrument in integrated water management. CE, ARCADIS, Eco-constult. Min. of Transport, Public Works and Water Management, DGW.
- R. Maasdam & R. Torenbeek (2007). Assessment of monitoring data for the Water Framework Directive. H2O 14/15, 2007: 39-41. In Dutch.
- R. Torenbeek & H. Wanningen (2007). Chapter on Brooklets in: P. Heutz, L. van Liere, B. van der Wal & B. & Weeren (2007). "What's there when there is water". STOWA-rapport 2007-10. In Dutch.
- M. Hokken, R. Huisman & R. Torenbeek, 2006. WFD in polders in province of Flevoland (the Netherlands): ecology in an artificial environment. H2O 11, 2006: 40-43. In Dutch.
- Torenbeek, 2007. Guideline on sampling macro-invertebrates. Tacis-project Technical Assistance Lower Dnister River Basin Management Plan.
- Slobbe, E. van, E.D. Morris, N. Rölling, R. Torenbeek, K. Broker & H. Heering (2006). Social Learning in Wetland Development. In: R. Robbink, B. Beltman, J.T.A. Verhoeven & D.F. Whigham (eds), 2006: Wetlands: Functioning, Biodiversity Conservation and Restauration. Ecological Studies, Vol. 191: 269-283.
- Torenbeek, R., H. Wissink, C. Bezuijen, 2003. Measurement plan for farm chemicals in surface waters. H2O 14/15: 29-31. In Dutch.
- ARCADIS, 2002. Quick-Scan municipal waters. Waterboard Velt & Vecht. In Dutch.
- Project group GGOS and Classification, 1999. Desired ground- and surface water status for woods and nature areas. Waterboard Reest & Wieden. In Dutch.
- Torenbeek, R., 1999. Nitrogen and phosphorus concentration reduction in surface waters by settling down. Preliminary results of a pilot study to the surface water purification capacity by marshes mend for nature development. Waterboard Drenthe. In Dutch.
- Torenbeek, R., 1998. Municipal water management. The vision and proposed measures of the Water board Zuiveringschap Drenthe of 6 subjects of municipal water management. Waterboard Drenthe. In Dutch.
- Duursema, G. & R. Torenbeek, 1993. Research of natural management of the river Schoonebeekerdiep. Results of macro-invertebrates 1991 – 1993. Waterboard Drenthe. In German.
- Waterboard Drenthe en Waterboard West-Overijssel / Groot-Salland, 1992 en 1998. Aquatic-ecological research of the Reest river basin. In Dutch.
- Torenbeek, R. & M.E.A. van Gijsen, 1989. Water supply in the province of Drenthe, consequences for river macro-invertebrates. In: J.G.M. Roelofs (eds.). Water supply: quantitative analysis and consequences for aquatic ecosystems (in Dutch). Proceedings symposium December 21sd, 1988. KUN, the Netherlands. In Dutch.
- Torenbeek, R., 1988. Hydrobiology and Water management. RIN. In Dutch.

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16. Projects since January 1st 2008.

1. Waterboard Zuiderzeeland, 2012 (in prep). Ecological support for the WFD-process.
2. Municipality Lelystad ,2012. Advise about the prevention of blue-green algae nuisance in lake Bovenwater. Consortium with ARCADIS.
3. Ministry of Infrastructure and Environment, Water department. Exploration of aquatic soils as hinder for WFD-goals. Consortium with RPS.
4. Waterboard Zuiderzeeland, 2011. Statistical analysis of the effectiveness of WFD-measures: natural banks and mowing methods.
5. Waterboard Hollandse Delta. Statistical analysis of macro-invertebrate samples, 2011. Consortium with ARCADIS.
6. Waterboard Hoogheemraadschap Hollands Noorderkwartier, 2011. Biological and chemical monitoring results, urban surface waters municipality Den Helder. Consortium with ARCADIS.
7. Waterboard Groot Salland, 2011. Quick scan urban surface waters, Zwolle-south.
8. Waterboard Zuiderzeeland, 2011. Quick scan urban surface waters, Tollebeek.
9. Waterboard Hunze en Aa's, 2011. Framework contract ecological research. Consortium with Koeman & Bijkerk b.v.
10. Waterborad Hunze en Aa's, 2011. Ecoscans Assen. Consortium with Koeman & Bijkerk b.v.
11. Waterschap Hunze en Aa's, 2011. Annual report surface water quality 2010.
12. Waterboard Noorderzijlvest, 2010. Assessment of ecological monitoring results.
13. Waterboard Hunze & Aa's, 2010. Water quality studies.
14. Waterboard Groot Salland, 2010. Quick Scan of urban surface waters in the municipality of Dalfts.
15. Provincie of Overijssel, 2010. Interim aquatic ecological staff member.
16. Zoo Emmen, 2010. Water quality study.
17. Waterboard Hunze en Aa's, 2010. Annual report 2009 on water quality and ecology with trends from 2000-2009 and extrapolation to 2015.
18. Province Drenthe, 2009. Climate change and water quality.
19. Oldenkamp Adviesgroep, 2009. WFD innovation tenders assessment.
20. Mott MacDonald, 2009. Monitoring for the EU Nitrate Directive in Serbia.
21. Mott MacDonald, 2009. Water Governance in Belarus, Moldova, Ukraine, Armenia, Azerbaijan, Georgia.
22. ARCADIS, 2009. Buffer strips in the Netherlands: practice, experience and research.
23. DHV, 2009. Biological monitoring of the Yellow River, China.
24. Waterboard Groot Salland, the Netherlands, 2009. Quick Scan of urban surface waters in the municipalities Zwolle and Dalfts.
25. Waterboard Hunze & Aa's, the Netherlands, 2009. Annual report 2008 on water quality and ecology with trends from 2000-2008 and extrapolation to 2015.
26. Waterboard Hunze & Aa's, the Netherlands, 2009. Test on the stand still principle in water quality.
27. Waterboard Hunze & Aa's, the Netherlands, 2008. The effect of purified urban waste water discharges on the surface water quality. Model study.
28. Waterboard Hunze & Aa's, the Netherlands, 2008. Causes and control of blue-green algae blooming in water recreation area Borgerswold, Veendam (the Netherlands). Partner: Koeman & Bijkerk, Ecological consulting.
29. Staatsbosbeheer and Natuurmonumenten, the Netherlands, 2009. Screening of water management plans of provinces and waterboards on goals and measures for 51 protected nature areas in the Netherlands. Partners: buro Natuur + Water, Allards Wateradvies.
30. Waterboard Zuiderzeeland, 2008. Water quality study Oostvaarderswold.
31. Provincie of Drenthe, the Netherlands, 2008. Quality and trends of aquatic nature based on macro-invertebrates in the province of Drenthe. Partner: Wanningen Waterconsult.
32. Provincie of Overijssel, the Netherlands, 2008. Implementation of the Water Framework Directive in the Water plan of Provincie Overijssel.
33. Waterboard Hunze & Aa's, the Netherlands, 2008. The effect of purified urban waste water dis-

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- charges on the surface water quality. Interpretation of monitoring results.
34. Waterboard Reest & Wieden, 2008. Assistance ecological water quality studies.
 35. EVD, 2008. Presentation during a study tour of specialists from Morocco.
 36. Waterboard Zuiderzeeland, the Netherlands, 2008. Ecological analysis of wetland Harderbroek.
 37. Waterboard Zuiderzeeland, the Netherlands, 2008. Definition of ecological goals for the Water Framework Directive.
 38. Waterboard Hunze & Aa's, the Netherlands, 2008. Annual report 2007 on water quality and ecology.
 39. ARCADIS, 2008. Ecological assessment for the WFD-River Basin Management Plan Maas (the Netherlands).
 40. ARCADIS, 2008. Urban surface waters: goals, pressures and measures. Municipality Rheden (the Netherlands).
 41. ARCADIS, 2008. Monitoring results Lake Bovenwater.
 42. Waterboard Reest & Wieden, the Netherlands, 2008. Analysis of phosphorus loads on water quality in wetland Wieden & Weerribben.
 43. STOWA, the Netherlands, 2008. Co writer of a chapter in the Manual on hydrobiological sampling. Partner: Aqua Integra.

Date: 4 April 2012.

Place: Hoenderloo, the Netherlands