Supplementary Tables and Figures

Lessons learned from gastroenteritis outbreaks associated to wild swimming in the German-Dutch Vecht watershed during hot summers. What measures can be taken?

Alfons A.C. Uijtewaal, Margarita R. Amador and Thorsten Kuczius.

Supplementary Tables

Table S1. Wild swimming locations and numbers of wild swimmers in the Vecht river basin during the hot summers of 2018, 2019 and 2020.

No.	Location	Brook, river, channel	Municipal	Category	Coordinates	Season/ Freq.	Min. pers/ year	Max. pers/ year	Remarks
1a	Bornse maten Brook festival	Bornsebeek	Borne	ZDPCB	52°17'47.2"N 6°46'08.0"E	Y	100	200	Water contact is unplanned and weather-dependent.
1b	Borne and beyond	Bornsebeek	Borne	ZPDCB	52°17'47.2"N 6°46'08.0"E	SW	125	125	Only paying canoeists. Others unknown.
2	Almelo City Swim		Almelo	Z	52°21'34.9"N 6°39'13.8"E	SY	50	150	
2a	Almelo beach	Overijssels kanaal/ Twentekanaal/ Kanaal Almelo-Nordhorn	Almelo	ZPCS	52°21'34.9"N 6°39'13.8"E	S	150	200	Conservative estimate. Excl. SUPpers and other renters. Will probably increase soon.
3	Various locations	Overijssels kanaal	various	ZD	52°27'10.0"N 6°34'17.8"E	S	150	400	
4a	Jetty and beach camping Grimberghoeve - camping guests	Midden Regge	(Notter) Wierden	ZPDC	52°19'36.7"N 6°31'41.7"E	S	400	500	There is a beach, jetty and plenty of space for sunbathing. The campsite only has 400–500 visitors.
4b	Jetty and beach camping Grimberghoeve - others	Midden Regge	(Notter) Wierden	ZPDC	52°19'36.7"N 6°31'41.7"E	S	600	1200	The total estimate was 1600 - 2900/yr. That is without camping guests 1200 - 2400. Part comes from Mölke. Numbers have therefore been reduced by 50%.
5	Beach and lawn near camping Mölke and beyond	Midden Regge	(Zuna) Wierden	ZPC	52°19'39.3"N 6°31'19.0"E	S	1400	1400	Swimmers from boat/ canoe: 1400/yr (25% of 5600 boaters). Apart from campers, other visitors swim from their beaches.
5a	Beach and lawn near camping Mölke and beyond	Midden Regge	(Zuna) Wierden	ZPC	52°19'39.3"N 6°31'19.0"E	S	500	750	Campers only
6	Regge Survival	Midden Regge	(Nijverdal) Hellendoorn	ZD	52°19'09.8"N 6°31'48.7"E	SY	2500	3000	In 2020 and 2021 cancelled due to COVID-19.
7	Various bridges	Midden Regge	(Nijverdal) Hellendoorn	ZD	52°20'36.9"N 6°29'17.7"E	S	50	100	Local youth
7a	Nijverdal and beyond	Midden Regge	(Nijverdal) Hellendoorn	Z	52°20'36.9"N 6°29'17.7"E	S	3600	3800	3630 in total. Based on info from 3 boat renters.
8	Bridge Koemaste and other bridges	Midden Regge	Hellendoorn	ZD	52°23'22.0"N 6°27'45.2"E	S	150	300	Local youth. Due to COVID-19 in 2020 large groups.
8a	Bridge De Tatums	Midden Regge	Hellendoorn	ZD		S	20	30	According to skipper of Schuilenburg: 10-20p/ summer
8b	Grefeldijk small beach	Midden Regge	Lemele	Z	52°4523174N 6°4427757E	S	40	50	Typical swimming site for locals.

No.	Location	Brook, river, channel	Municipal	Cate-gory	Coordinates	Sea-son/ Freq.	Min. pers/ year	Max. pers/ year	Remarks
9	Nieuwebrug - beach	Beneden Regge	Ommen	ZPD	52°49’02.5”N 6°42’46.3”E	S	2800	3200	Beach with spacious sunbathing area. 2800-3200p/yr. Partly (20%) locals and partly renters (80%) of boat rental-a and boat rental-b, see 11b.
9a	Laarbrug	Beneden Regge	Ommen	Z	52°50’19.5”N 6°40’83.5”E	S	20	40	No sightings (other than Google Maps); would be frequented by locals according to a boat rental.
9b	Giethmen	Beneden Regge	Ommen	Z	52°50’19.5”N 6°40’83.5”E	SC	20	40	No sightings. Fishing spot Ghietmen + church bridge frequented by locals.
10	Scouting Eerde	Beneden Regge	Ommen	Z	52°48’97.8”N 6°43’66.2”E	S	500	1000	Scouts only. Beaches are formed as a result of the widening of river banks.
11a	Boat renter-a	Beneden Regge	Ommen	ZC	52°49’02.5”N 6°42’46.3”E	S	800	1000	Only customers of boat rental-a. They go via Vecht to Beneden Regge to relax. Was 2000 - 2400. About 60% use the beach and picnic area near Nieuwebrug, see nr. 9. Hence reduced by 60% and rounded off.
11b	Boat renter-b	Beneden Regge	Ommen	ZCS	52°49’02.5”N 6°42’46.3”E	S	200	400	Was 1000 - 2000. Most of them (80%) visit the beach and lawn at Nieuwebrug, no. 9. Hence reduced by 80%.
12	Camping Wolfskuil	Beneden Regge	Ommen	Z	52°50’19.5”N 6°40’83.5”E	S	300	600	Group accommodation and camping for special groups of young people (not scouts).
13	Scout Camping Ada’s Hoeve	Vecht	Ommen	Z	52°30'59.3"N 6°23'39.1"E	S	2500	3000	Only scouts
14	Camping Koeksebelt	Vecht	Ommen	ZD	52°31'04.2"N 6°24'58.5"E	S	1000	1500	Several jetties on the Vecht and a large beach on an open meander of the Vecht.
15	Ommen lawn and beach	Vecht	Ommen	ZP	52°30'59.5"N 6°25'33.0"E	S	300	600	A large well-kept sunbathing area and (too) small beach.
15a	Ommen and beyond	Vecht	Ommen	ZCB	52°30'59.5"N 6°25'33.0"E	S	1100	1200	Paying boaters (approx. 1000) + non-paying swimmers: 100-200
16	Camping Arendshorst	Vecht	Ommen	ZPD	52°31'01.2"N 6°21'52.5"E	S	50	100	Small beach (bare bank) and some jetties.
17	Camping Kemminckhorst	Vecht	Dalfsen	ZP	52°31'15.2"N 6°20'35.5"E	S	50	100	Small beach (bare bank) and large meadow.
18	Dalfsen and beyond	Vecht	Dalfsen	ZPD	52°30'08.6"N 6°15'33.0"E	SW	300	600	Small beach (bare bank) and large well-kept sunbathing area + harbour etc.
19	Zwolle City Swim		Zwolle	Z	52°30'53.2"N 6°05'46.3"E	Y	250	300	City Swim
20	various villages	Zwarte Water	various	ZD	52°38'17.8"N 6°03'51.3"E	S	100	200	Total estimation for Zwartsluis, Genemuiden en Hasselt.

No.	Location	Brook, river, channel	Municipal	Cate-gory	Coordinates	Sea-son/ Freq.	Min. pers/ year	Max. pers/ year	Remarks
21	Camping De Roos	Vecht	(Beerze) Ommen	ZD	52°30'45.9"N 6°30'56.5"E	S	2000	3000	Several jetties along the Vecht and, since 2020, well visited wide bare bank on the opposite side. Excluding many visitors to own not flowing Vecht meander with beach.
22	Hardenberg, Triathlon & City Swim	Vecht	Hardenberg	Z	52°34'26.5"N 6°36'53.8"E	SY	500	700	
22a	Hardenberg and beyond (NL)	Vecht	Hardenberg	ZCB-	52°34'26.5"N 6°36'53.8"E	S	3400	3700	Based on information from boat rentals. It concerns the route Coevorden to Ommen. Missing info from some rentals estimated: 1000. Excl. unpaid: estimated at 100 - 200
23a	Vechtesee, Triathlon	Vechte	Nordhorn	Z	52°25'59.3"N 7°04'46.8"E	Y	100	150	
23b	Vechtesee	Vechte	Nordhorn	ZC	52°25'59.3"N 7°04'46.8"E	S	50	100	Free swimming, also from boats etc. Small beach
24	Nordhorn and beyond	Vechte	Nordhorn	ZC	52°25'59.3"N 7°04'46.8"E	S	2300	2500	Based on 5 German boat rentals + 2 NL boat rentals: 2280. Info from 1 DE boat rental company is missing (has been estimated). Excl. unpaid: estimated 100 - 200
25	Lutterzand	Dinkel	Lutte	P	52°19'46.8"N 7°01'39.7"E	S	400	800	Swimming in shallow water not possible, except for small children. Large bare sand beach and sunbathing area.
25a	Dinkel, other locations	Dinkel	various	Z		S	140	140	Based on information from boat rentals
	subtotal events						**3500**	**4500**	
	subtotal scouts						**3000**	**4000**	
	subtotal campings						**4300**	**6550**	
	subtotal others						**18215**	**22125**	
	End totals						**29015**	**37175**	

Legend to Table S1. Grey marked number = clearly identifiable bathing site(s). Z=Swimming; D=Diving, jumping and swimming; P=Playing and swimming (small children); C=Canoeing, if together with swimming (estimated by boat rental companies). S=Stand up paddling (SUP) where many end up in water, according to boat rental companies. S includes rafting; B=Boating, if together with swimming (estimated by boat lessors). Season: S=Summer; W=Winter (new year's dip). Frequency: Y=Yearly (city swims, triathlons, survivals, etc.).

Table S1a. Estimated maximum number of bathers in natural waters per municipality per warm summer between 2018 and 2020 (data taken from Table S1).

Municipality	Total number of locations	Number of locations with 30-500 swimmers	Number of locations with 500-1000 swimmers	Number of locations with 1000-2000 swimmers	Number of locations with 2000-3000 swimmers	Number of locations with 3000-4000 swimmers	Maximum of of wild swimmers
Ommen	12	4	3	2	2	1	15680
Hellendoorn	5	3			1	1	7230
Hardenberg	2*		1			1*	4400
Wierden	4	1	1	2			3850
Nordhorn	3*	2			1*		2750
Lutte	1		1				800
Dalfsen	2	1	1				700
Almelo	2	2					350
Borne	2	2					325
Zwolle	1	1					300
Lemele	1	1					50
various	3*						740
totals	**38**	**17**	**7**	**4**	**4**	**3**	**37175**

*= Wild swimmers are scattered at various smaller locations

Table S2. Clients from German and Dutch boat rentals in the Vecht watershed between 2018 and 2020

		Customers per water body					(K = 1000; p = persons)
No.	**Company**	**Bornsebeek**	**Regge**	**Vecht**	**Dinkel**	**totals**	**Percentages or numbers of swimmers & Remarks**
1	Clients	500	-	1000	200	**1700**	
	Share of wild swimmers	25	-	50	0	**75**	Vechte/Vechtesee: max. 5%. Not in the Dinkel.
2	Clients	-	-	650	350	**1000**	Vechte: 600-700; Dinkel: 300-400. Speaks about 10Kp yearly that visits the Dinkel.
	Swimmers			260	140	**400**	40% or higher during warm weather
3	Clients	1000	-	-	-	**1000**	
	Swimmers	100				**100**	10%
4	Clients	-	3000	-	-	**3000**	2000-4000 clients.
	Swimmers		1500			**1500**	50%
5	Clients	-	5000	30000	-	**35000**	Motor boats and small boats ("sloepen") = 30Kp/yr and 5Kp with canoe. Only with canoe to the Regge. Excl. 10Kp/yr with excursion boat.
	Swimmers		2000	1000	-	**3000**	Canoe: 30-40% = 1,5Kp-2Kp, set 2Kp per canoe (Regge) + 1K/small boat (Vecht).
6	Clients	-	5600	-	-	**5600**	
	Swimmers		1400			**1400**	25% (also canoeists)
7	Clients	-	-	450	-	**450**	400 - 500 p.
	Swimmers	-	-	45	-	**45**	5-10%**; 20 - 50p. Set at 45p.
8	Clients	-	-	1850	-	**1850**	
	Swimmers			1500	-	**1500**	About 80%**
9	Clients	-	-	225	-	**225**	200 - 250 p.
	Swimmers			25		**25**	5-10%** Set at 25p.
10	Clients	-	-	1000	-	**1000**	Doesn't reply. Set at 1K (average of German companies)
	Swimmers			100		**100**	Set at 10% that has intensive water contact.
11	Clients	-	-	250	-	**250**	
	Swimmers			100		**100**	70%**
12	Clients	-	7000	-	-	**7000**	In 2020 1K more clients despite cancelled groups activities due to COVID-19.
	Swimmers		3000			**3000**	Raft 80%; SUP 100%; Sit-on-top-kayak 80-90%; canoe 10%
13	Clients	-	300	-	-	**300**	Don't want to share numbers. Set at 300 for electric boat and canoe (excl. excursions).
	Swimmers		30			**30**	Gave only number of swimmers.

14	Clients	-	1100	-	-	**1100**	Doesn't keep track of numbers. On basis of boat seats: 1000 - 1200p
	Swimmers		600			**600**	500 - 700p
15	Clients	-	-	3833	-	**3833**	
	Swimmers			2300		**2300**	60% get fully wet; 100% get a bit wet (drops only)
16	Clients			15000		**15000**	
	Swimmers			1500		**1500**	Approx. 10% of their clients.
17	Clients			1500		**1500**	
	Swimmers			400		**400**	Schools 100%; families 0%; individual rentals 50%
a		**2**	**6**	**11**	**2**	**17**	**Total numbers of companies**
b		**1500**	**22000**	**55758**	**550**	**79808**	**Total water recreationists**
c		**125**	**8530**	**7280**	**140**	**16075**	**of which wild swimmers**
d		**8**	**38**	**13**	**25**	**20**	**Share of wild swimmers (%)**
		Bornsebeek	**Regge**	**Vecht(e)**	**Dinkel**		

** There are large differences in the amount of water contact between different boat hire companies. According to the rental company, this has to do with the length of the trips; on short trips people do not swim.

Table S3. Reported GE outbreaks associated with wild swimming in the study area and the rest of the Netherlands.

No	Date	(Event) water body municipality/ province	Age group	Partic ipants	Weather condition	GE cases	Freq. (%)	Activ. group	Symptoms / Infection source / Information source(s)
1	2014.06.14	Pond Noorderplas, Den Bosch / N.Brabant	children	-	no info	5	-	S	"Several" cases of earache and nausea. No blue-green algae. https://www.bd.nl/s-hertogenbosch/kinderen-ziek-na-zwemmen-in-noorderplas-den-bosch~afbb9cb6/?referrer=https://www.google.nl/
2	2015.07.07	Pond in Wester-bouwlanden Nieuwleusen, Dalfsen / Overijssel	children	-	no info	5	-	S	"Several" cases. No blue-green algae. https://w.rtvoost.nl/nieuws/221772/Kinderen-ziek-geworden-na-zwemmen-in-vijver-in-Nieuwleusen
3	2015.07.12	Triathlon Utrecht, Veilinghaven Centre city / Utrecht	adults	900	no info	80	8.88	S	34% of 239 respondents showed symptoms: vomiting, nausea, abdominal pain or diarrhoea. The Health Dep. (GGD) found in 6/6 samples norovirus: https://hellastriathlon.nl/2015/08/05/norovirus-oorzaak-zieke-triatlondeelnemers-uitslag-onderzoek-ggd/ and https://magazines.rivm.nl/2018/03/infectieziekten-bulletin/zwemmen-de-gracht-hoe-groot-zijn-de-infectierisico's
4	2015.09.06	CitySwim Amsterdamse grachten, Amsterdam / N-Holland	adults & children	2550	heavy rainfall	364	14.28	S	2300 adults and 250 children. 31% infected of 1173 respondents, against only 5% of 456 non-swimmer respondents. GGD suspects norovirus (5/7 stool and 3/3 water samples positive): https://www.amsterdamcityswim.nl/info/veiligheid-en-gezondheid
5	2016.09.11	CitySwim Amsterdamse grachten, Amsterdam / N-Holland	adults & children	3000	no info	71	2.37	S	6% of 1196 respondents. 2500 attendants and 300 children with their 300 supervisors (according annual report 2016): https://www.amsterdamcityswim.nl/info/veiligheid-en-gezondheid
6	2016.09.00	Bornsebeek, Borne / Overijssel	adults & youth	22	heavy rainfall	5	22.73	R	This survey. Group size estimated at 20-25.
7	2016.09.10	Lake de Wiel, Schagen / N-Holland	children	-	no info	5	-	S	https://www.noordkopcentraal.nl/nw-28464-7-3630628/nieuws/kinderen_ziek_na_zwemmen_in_de_wiel.html
8	2018.07.05	River Bernisse, Zuidland / Zeeland	children	-	no info	25	-	S	Dozens of cases with nausea, headache, diarrhoea and in some cases fever. https://www.hartvannederland.nl/nieuws/2018/tientallen-kinderen-ziek-na-zwemmen-in-plas-bij-zuidland/
9	2018.06.25	River Eem, Soest (Malebrug) / Utrecht	youth	-	no info	3	-	JS	"Some girls" vomited, had fever, diarrhoea and even nosebleeds. They were miserable for at least 24 hours. They had to recover for days afterwards. https://www.gooieneemlander.nl/cnt/dmf20180926_67188224/twee-jongeren-ziek-na-zwemmen-in-eem?utm_source=google&utm_medium=organic
10	2018.07.09	River Eem, Soest (Malebrug) / Utrecht	youth	8	no info	6	75	JS	"6 out of 8 boys" had a high temperature, vomiting, diarrhoea and nosebleeds. It lasted a few days. https://www.ad.nl/amersfoort/jongens-ziek-na-duiken-en-zwemmen-in-de-eem~a01b7577/
11	2018.08.01	Arembergergracht / Zwarte Water, Zwartsluis (keersluis de Whaa), Overijssel	children	-	no info	5	-	DS	Headaches, gastrointestinal complaints and severe vomiting. Only the diving children that were deep diving and had contact with the bottom became ill. Adults did not fall ill after swimming in the water. https://www.destentor.nl/zwartewaterland/vijf-kinderen-ziek-na-zwemmen-bij-de-whaa-in-zwartsluis~abeb4dc6/
12	2019.04.11	A'dam Rijnkanaal, Houten / Utrecht	students	100	no info	50	50	S	50% of participants. Vomiting and diarrhoea. GGD Utrecht: possibly infected by norovirus, but it could also be roto- or adenovirus. See photo with possible moment of infection. https://www.medischcontact.nl/nieuws/laatste-nieuws/artikel/zwemmers-bij-roeiwedstrijd-varsity-massaal-ziek.htm

No	Date	(Event) water body municipality/ province	Age group	Partic ipants	Weather condition	GE cases	Freq. (%)	Activ. group	Symptoms / Infection source / Information source(s)
13	2019.06.17	Bornsebeek, Borne / Overijssel	children	154	heavy rainfall	25	16.23	JS	https://www.rtlnieuws.nl/editienl/artikel/4749276/25-kinderen-ziek-na-bezoek-aan-festival-borne. Headache, nausea, abdominal pain, vomiting and fever. GGD Twente: based on symptoms possibly norovirus. After a heavy rain. https://www.borneboeit.nl/75085/nieuws/feest-bornsche-maten-kan-een-buitje-aan
14	2019.06.24	A'dam Rijnkanaal, Utrecht (at the Munt) / Utrecht	children	-	no info	5	-	JS	https://www.rtvutrecht.nl/nieuws/1936495/meerdere-kinderen-ziek-na-zwemmen-bij-de-munt-in-utrecht.html
15	2019.06.27	Grou, Grou (at Blikpôle) / Friesland	children & some adults	-	no info	15	-	S	Prolonged and frequent vomiting. No bacteria or blue-green algae found. GGD: suspect is norovirus. https://grousters.nl/2019/06/26/zieke-kinderen-na-zwemmen-in-open-water-bij-strandje-grou/ and https://www.omropfryslan.nl/nieuws/891767-mensen-ziek-na-zwemmen-bij-grou-overgeven-misselijk-en-diarree and https://grousters.nl/2019/07/02/geen-bacterien-of-virussen-gevonden-bij-zwemwater-blikpole-grou/
16	2019.07.25	Regge, Hellendoorn / Overijssel	children	200	1,71cm on July 21	18	9	JS	This survey. Source is a hotel owner and elder of two affected children: “During the heat wave in July”. According to the National weather institute (KNMI): heat wave was between 21-27.07, with on 25.07 the hottest day. KNMI rainfall data used from Hellendoorn (upstream data from Nijverdal and Rijssen not available). Max. group size based on summer 2020 data.
17	2019.08.30	Bornsebeek, Borne / Overijssel	children	150	dry period	26	17.33	R	This survey. Rowing & playing due to hot weather. GGD Twente: based on symptoms possibly norovirus.
18	2019.09.02	Bornsebeek, Borne / Overijssel	children	234	dry period	20	8.55	R	This survey. Rowing & playing due to hot weather.
19	2020.06.26	Regge, Hellendoorn / Overijssel	children	200	dry period	8	4	JS	This survey (source is a teacher of a local school: “Last week (24 - 28 June) 6 children from group 8 and 2 from group 7 were for some days sick” with abdominal complaints, diarrhoea, sore throat, coughing, earache and hay fever complaints for 1 to 3 days. They call it “Regge Illness”. Total group size on location: maximum 200 children based on this field survey and confirmed by a local hotel owner and elder. KNMI rainfall data from Hellendoorn.
20	2020.08.27	Bornsebeek, Borne / Overijssel	children	250	heavy rainfall	5	2	JS	This survey. Vomiting, intestinal problems. “Only those pupils that entered the water during canoeing became ill”.
3	**Sport events**			**6450**		**515**	**12.52**		
9	**Others**			**1318**		**163**	**8.01**		
12	**Subtotals**			**7768**		**678**	**11.46**		
8	**Others (rest)**			**not known**		**68**			
	General observations	Various types of surface waters in 6/12 provinces	Adults, youth & children		3 cases during drought; 3 cases after heavy rainfall			JSR	

Activity classes: S = swimming, J = jumping, D = diving, R = rowing; Total number/cases: "some" is set to 3; "several" and "some" to 5; "many" to 15; "tens" to 25; Dark grey marked numbers = located within study area.

Supplementary figures

Lessons learned from gastroenteritis outbreaks associated to wild swimming in the German-Dutch Vecht watershed during hot summers. What measures can be taken?

Alfons A.C. Uijtewaal, Margarita R. Amador and Thorsten Kuczius.



Figure S1. Wild swimming in the Vechtesee, Municipality of Nordhorn
Although swimming in the Vechte and Vechtesee is prohibited in Germany, local boat hire companies report that canoeists often take a dip in the Vechte, and that the small beach at the Vechtesee is used on warm days.



Figure S2. Sunbathing lawn at the Vecht, Municipality of Dalfsen



Figure S3. City beach near the centre of Almelo (under construction, 2020)
Translation: 'Rules of Conduct: Swimming is not advised and is at your own risk! (…)"

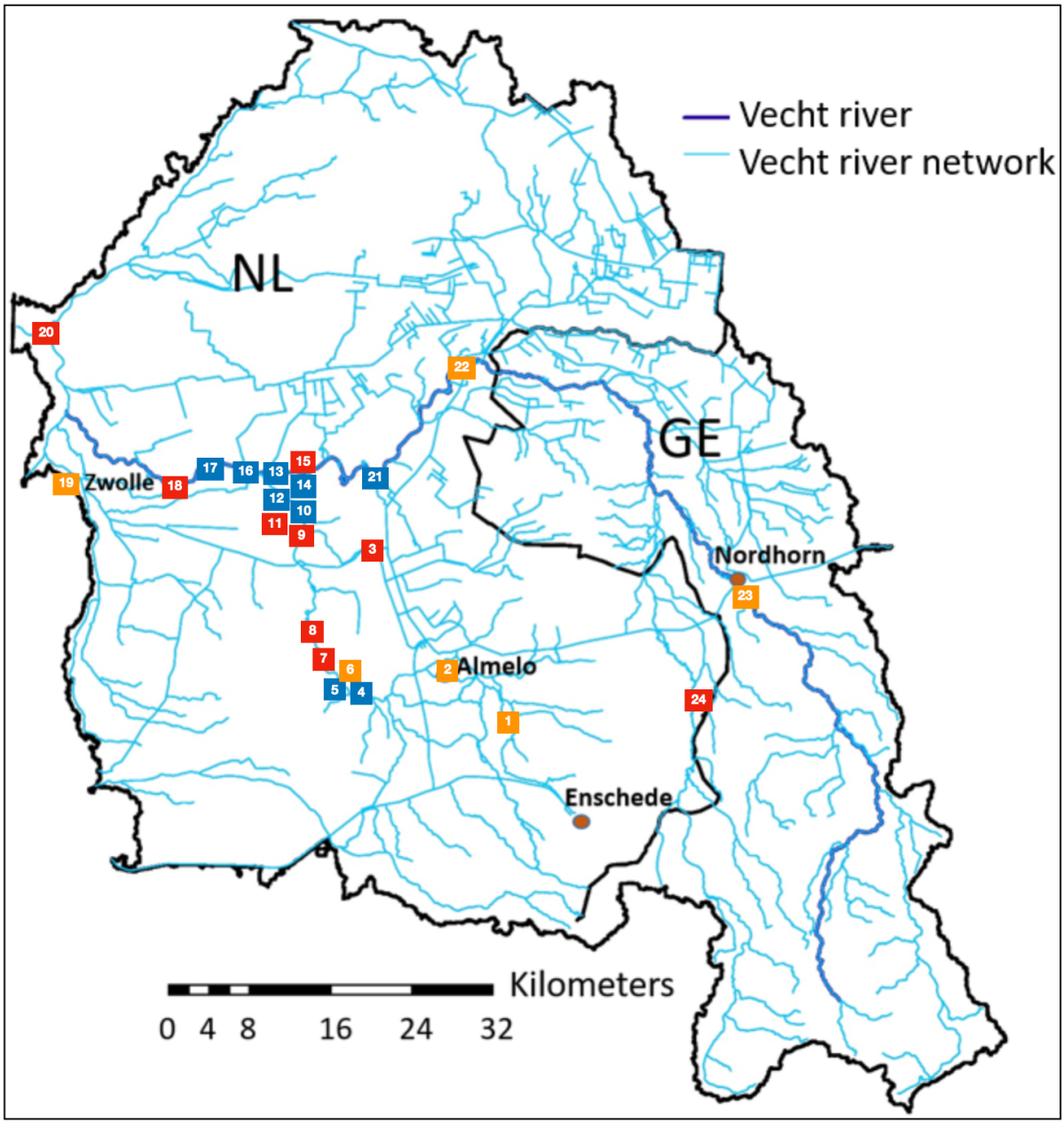


Figure S4. Wild swimming locations in the Vecht water basin
Numbering corresponds to Table S1. Red = Wild swimming only; blue = Campings that stimulate wild swimming; orange = Also sports events that include wild swimming.



Figure S5. Sunbathing lawn and bridge jumping at the Vecht, Municipality of Ommen. The municipalities of Ommen, Dalfsen and Wierden allow the construction of beaches, and maintain sunbathing lawns and jetties along the river.



Figure S6. Bridge jumping in Midden Regge near camping Grimberghoeve, Rijssen



Figure S7. Bridge jumping in the Midden Regge near the Koemaste, Hellendoorn



Figure S8. Organized bridge jumping in the Bornsebeek, Beekparkfestival, Borne. Still image taken from a video with permission by e-mail of 2 February 2024 from photographers Raymond Hofsté and Dirk de Graaf at borne.bloeit.nl



Figure S9. Reported GE outbreaks associated with wild swimming in the Netherlands 2014 - 2020 (numbering corresponds to Table S3)



Figure S10. Water authorities also promote swimming in the Vecht
Translation: Swimming in the Vecht. We are going to investigate the water quality of the river. This will result in recommendations on where it is safe and responsible to swim. This will improve people's experience of the Vecht and encourage them to exercise. This will contribute to the health of people of all ages. Source: ruimtevoordevecht.nl, 2020.



Figure S11. Information panel at the Bornsebeek, Borne
Translation: Your wastewater arrives at our sewage treatment plants via the sewer system. There, it is purified before returning to rivers, streams and ditches. This is how we provide clean water.



Figure S12. Triathlon in the Vecht, Municipality of Hardenberg. Despite the Vecht not being designated as an official bathing area, the water authority has sponsored swimming competitions in the river near Hardenberg. (Photo: Triathlon Hardenberg)



Figure S13. Play facility across the Bornsebeek, Borne. Although the Bornsebeek is not recommended for swimming due to high effluent levels in the summer, the water authority has installed play facilities near the stream. Photo: Waterschap Vechtstromen