WILLKOMMEN.
WELCOME.
BIENVENUE.
BONN.

Desaster Risc Management

Germany | NRW | Bonn

in two parts:

- **Prevention and**
- **Emergency Management**



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Desaster Risk Management through legislation and administration

- Legislation is the foundation for ressources
- Legislation is the basement for responsibility and teamwork
- For one task only one institution should be responsible
- Legislation sets the frame, directives sets the ruels for governance and administration

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Desaster Risk Management

- Desaster Risk Management is split by scenarios to responsible departments
  (heath, water managment, forestry, police…)
- There is allways a responsible department driving the szenario prevention
- There is legislation in DRM for planning, prevention and emergency management

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Fire & Rescue Service and Civil Protection

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Germany, Facts and Figures

- Germany:
  357.050 km²
  82 million inhabitants
  16 federal states
- Fire Services:
  23.000 volunteer fire services
  112 professional fire services
  800 industrial fire services
  1.3 million volunteer firefighters
  60.000 professional firefighters
- Relieve Organisations (i.e. Red Cross, Water Rescue, Technical Relieve):
  750.000 mostly volunteers



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federal level

state level

regional level

county level

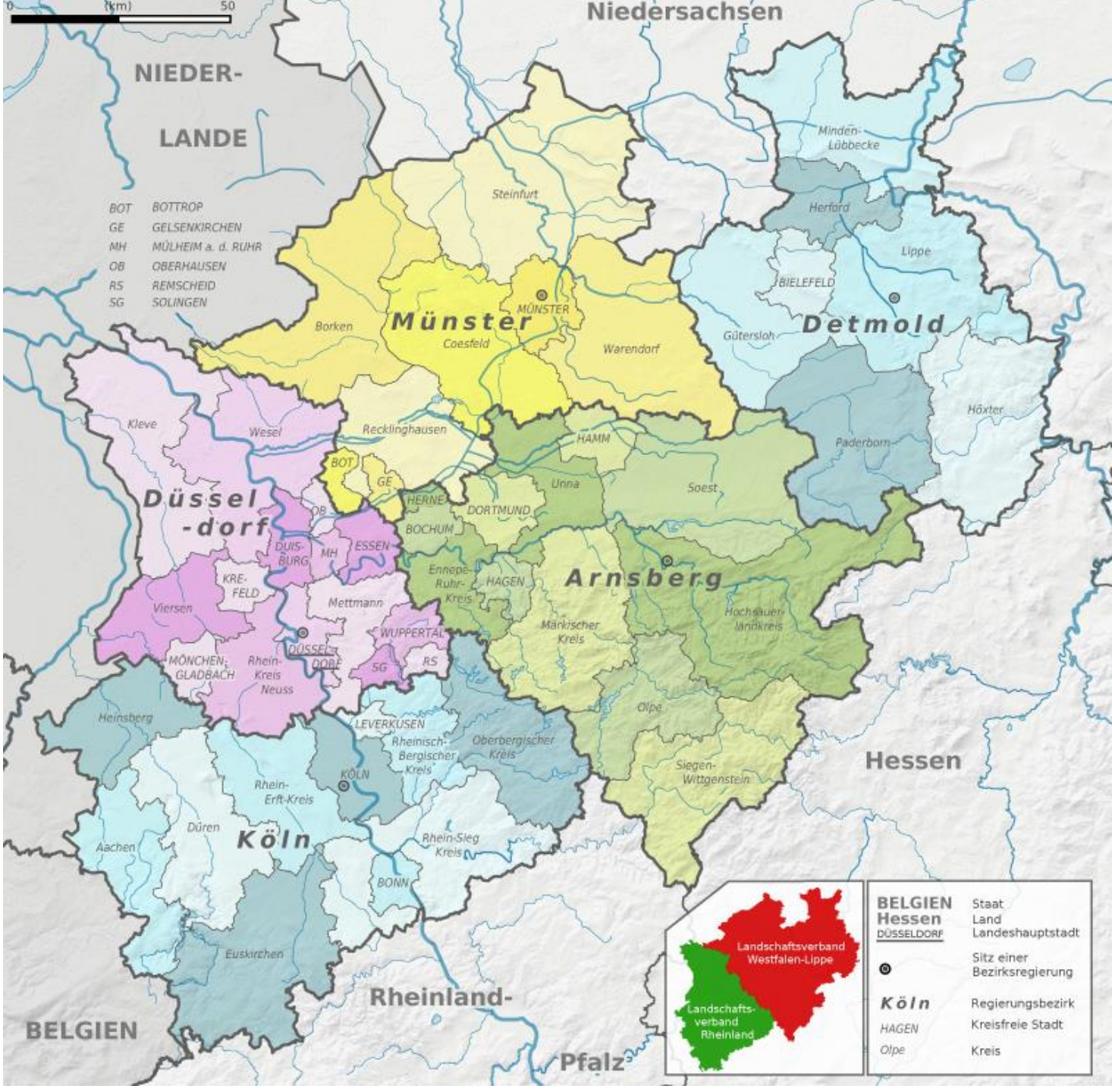
municipality level

Northrhine-Westfalia („NRW“)

- 5 administrative regions

- 54 counties*

* large cities (such as Cologne, Bonn etc.) are equal to a county



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federal level

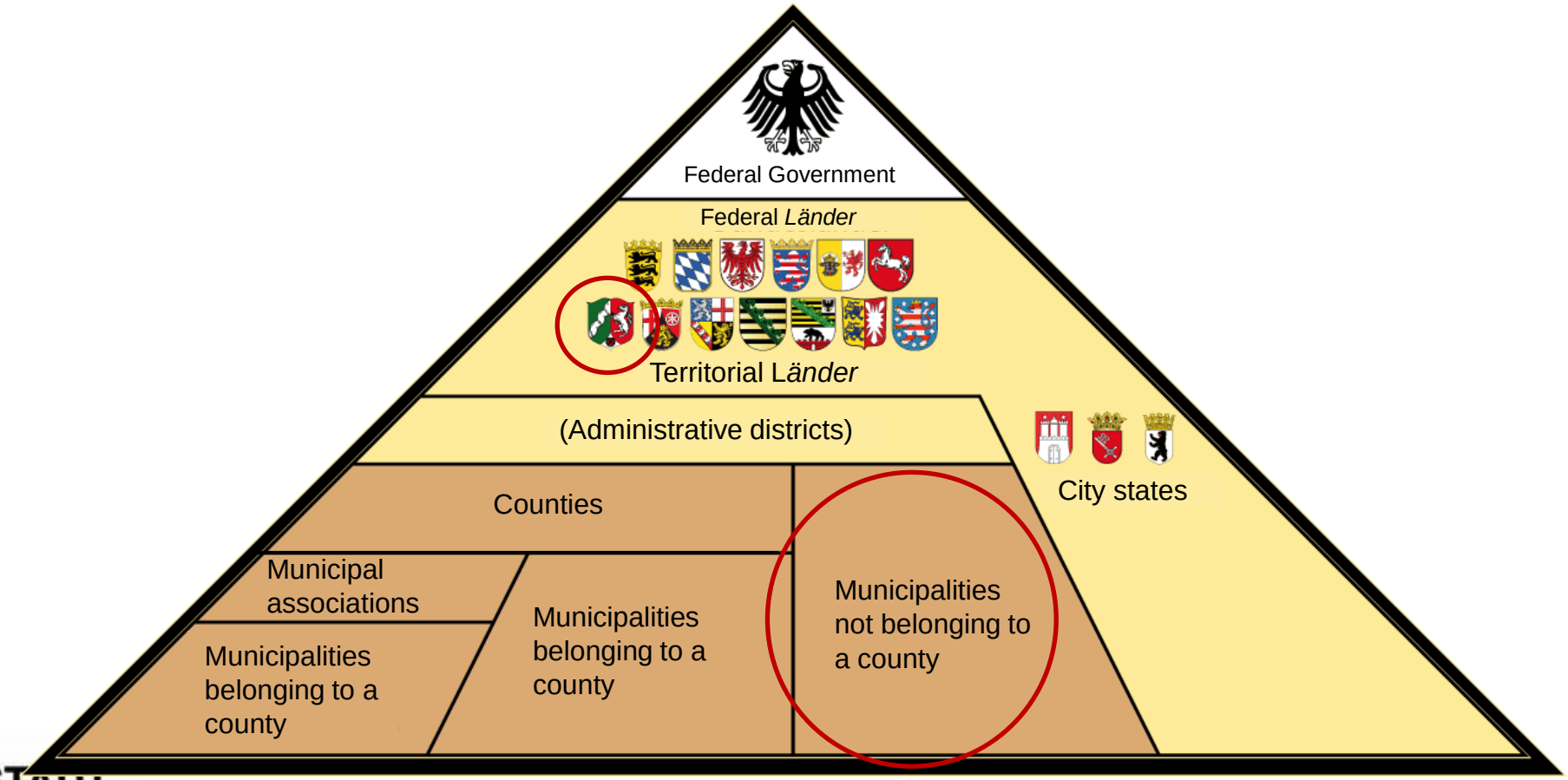
state level

regional level

county level

municipality level

Municipal Level



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Equipment - Vehicles

	Volunteer Fire Service	Professional Fire Service
 Fire Engines < 7,5 to	25.000	90
 Fire Engines > 7,5 to	14.700	1.000
 Aerial Laeders	1.980	380
 Heav Rescue	5.500	780
Others	34.900	3.300
 Ambulances	540	1.350

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federal level

state level

regional level

county level

municipality level

City of Bonn

- City of Administration and University
- Area of 141,2 km²
- Traffic System:
  - 50 km Motorway
  - 150 km Rail track and Tramlines, of which 10 km are underground
  - 18 km River Rhine
- 320.000 Inhabitants



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federal level

state level

regional level

county level

municipality level

Fire Station 1 – Lievelingsweg



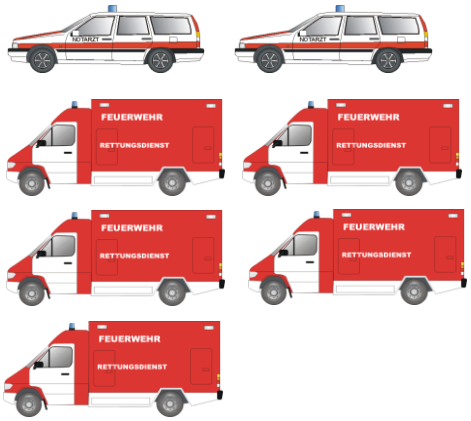
Full time personnel 24/7



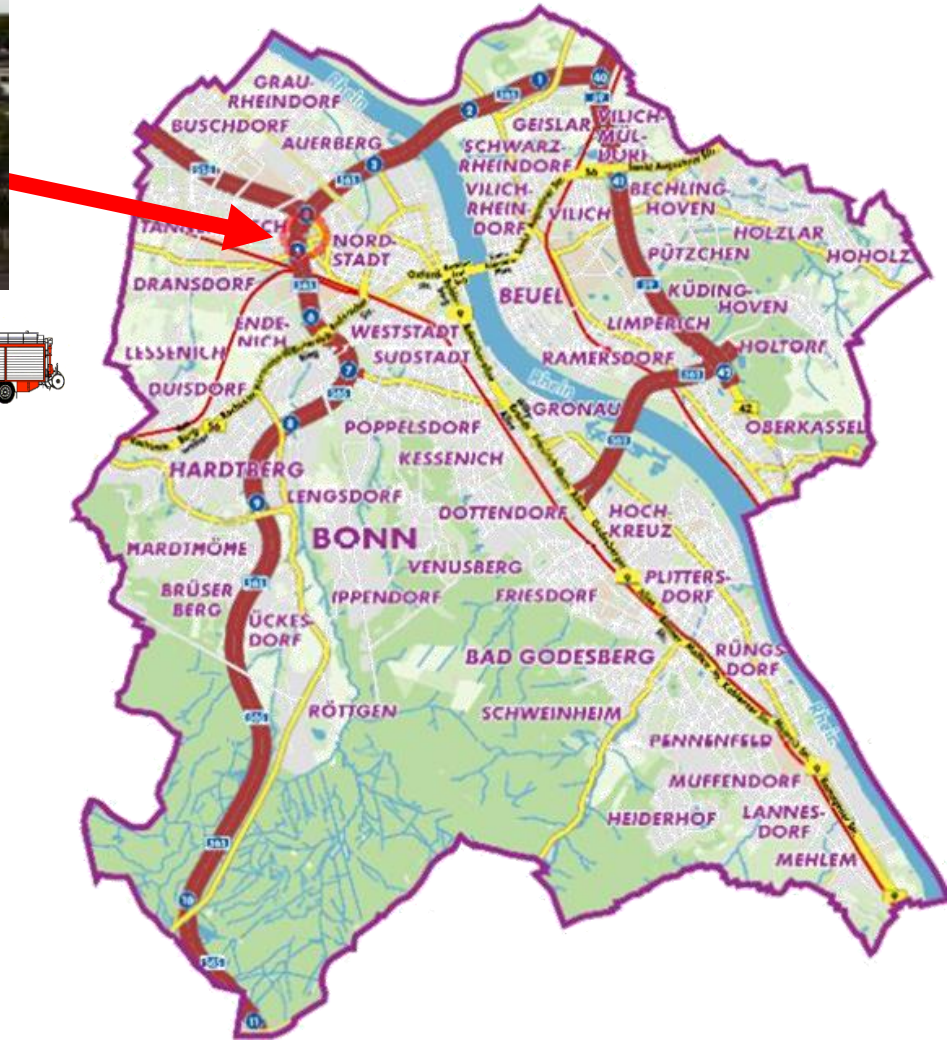
Standard unit



Heavy Rescue unit



2 emergency doctors, 5 em. ambulances



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federal level

state level

regional level

county level

municipality level

Volunteer Fire Service



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VILLE.
BONN.

federal level

state level

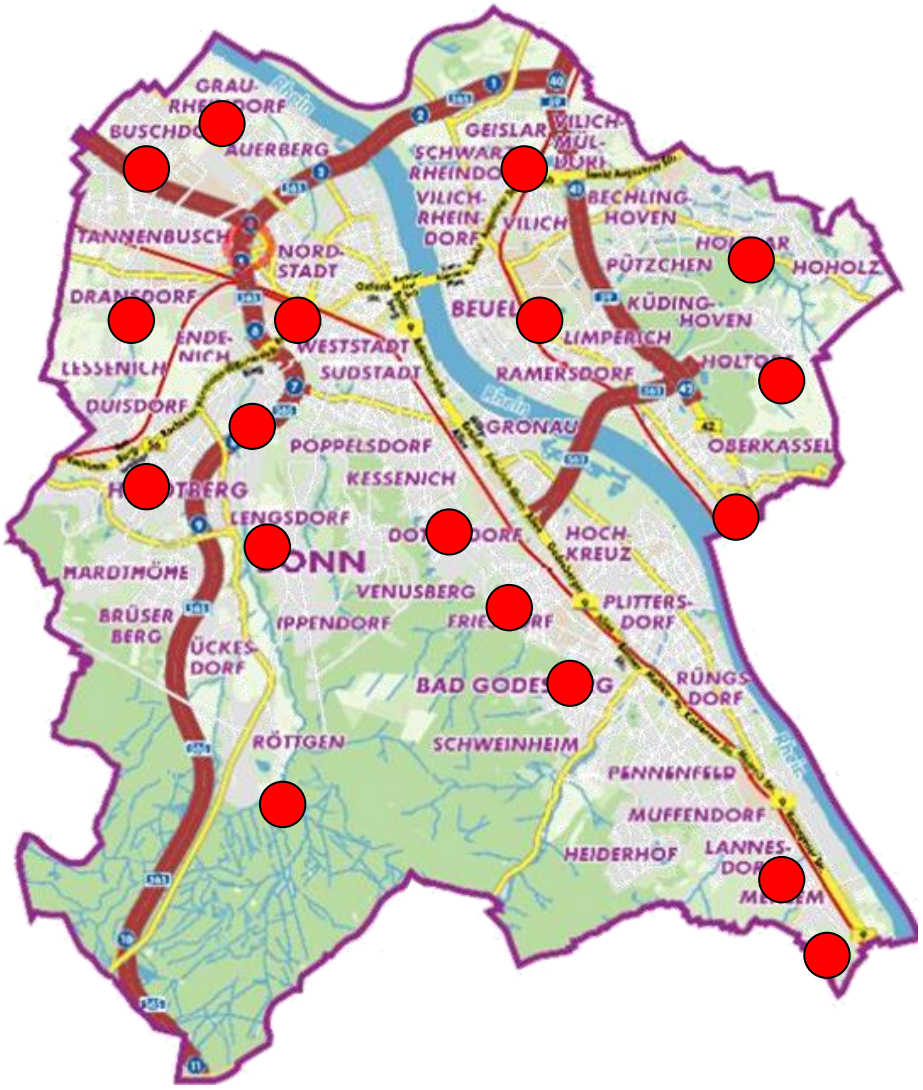
regional level

county level

municipality level

Volunteer Fire Service

- 18 stations
- 550 fire fighters
- fully integrated in the incident und command structure
- special task forces
  - command and control
  - serious medical emergency
  - support
  - CBRN
  - warning



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Emergency Management in Cities and Counties

Town Mair

Crisis Management
(administrative)



Incident Command
(operational)



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ELP 3



















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civil protection - joint units

- Exemple „Transportation Unit“
  - TECH:
    - 4 ambulances type C (EN 1789) + 2 emergeny doctors
    - 4 ambulances type A1/A2 (EN 1789)
  - TASK: Transportation of the injured

1/3/18/20 *(1/3/20/22)*	»Patiententransport-Zug 10 NRW« (PT-Z 10 NRW)		
Führung 1/1/0/2		ELW 1	
		oder	
		KdoW	1 ZF (RS) + 1 GF
Rettungswagen (RTW) 0/0/4/4		RTW	1 RA + 1 RS
		RTW	1 RA + 1 RS
Rettungswagen (RTW) mit Notarzt („Notarztwagen“ – „NAW“) 0/2/6/8		„NAW“	1 NA + 1 RA + 1 RS
		„NAW“	1 NA + 1 RA + 1 RS
oder (optional) Rettungswagen *(RTW)* und Notarzt-Einsatz-fahrzeuge (NEF) *(0/2/8/10)*		RTW	1 RA + 1 RS
		NEF	1 NA + 1 RA
		RTW	1 RA + 1 RS
		NEF	
	»Patiententransport-Zug 10 NRW« (PT-Z 10 NRW)		
Krankentrans-portwagen (KTW) 0/0/8/8		KTW	1 RS + 1 RH
		KTW	1 RS + 1 RH
		KTW	1 RS + 1 RH
		KTW	1 RS + 1 RH



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Room for improvement

- Some issues with special equipment
- Coordination at the local level
- Coordination at the state level
- Coordination at the federal level



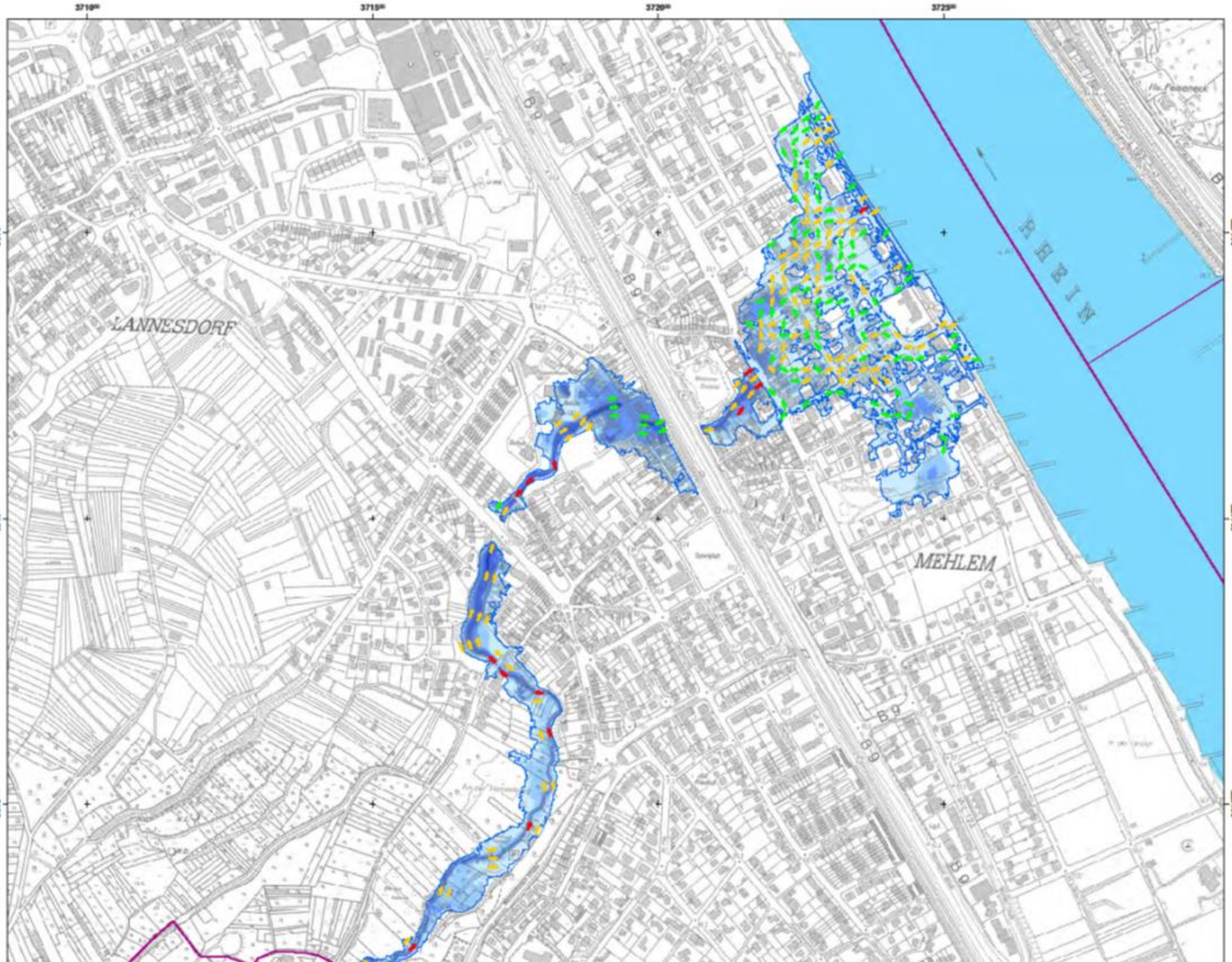


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Example Desaster Risk Management: Flooding

- Smal streems are for a city department to manage and maintain
- Flooded area in once in a 100 year sencario is determined by the state and updated with new statistical data
- Building i.e. new damms or channels means complicated consulting and planning processes
- Emergency Management is responsible for the preparation, training, equipment, management

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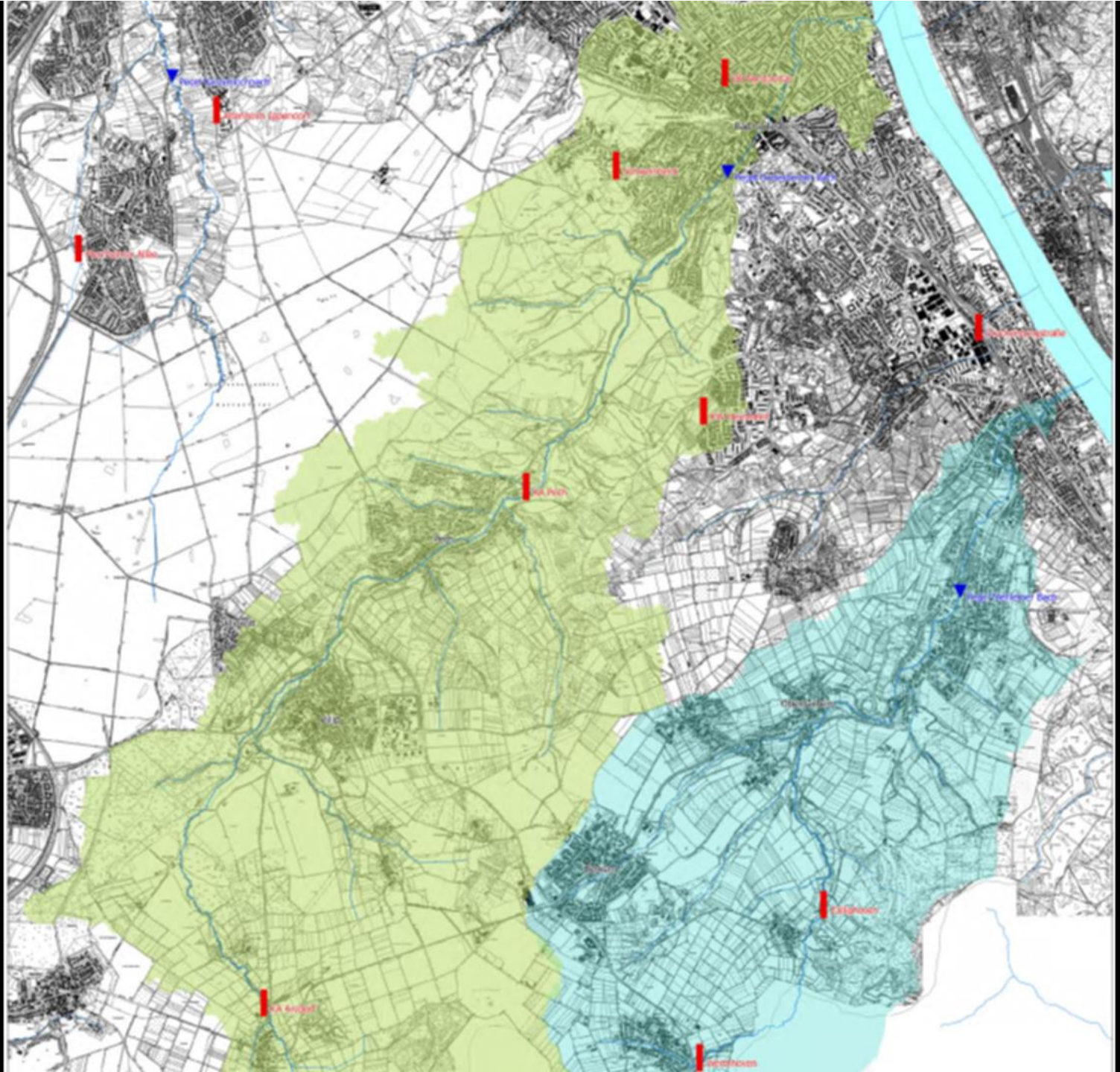

LANNESDORF
MEHLEM
B9
RHEIN

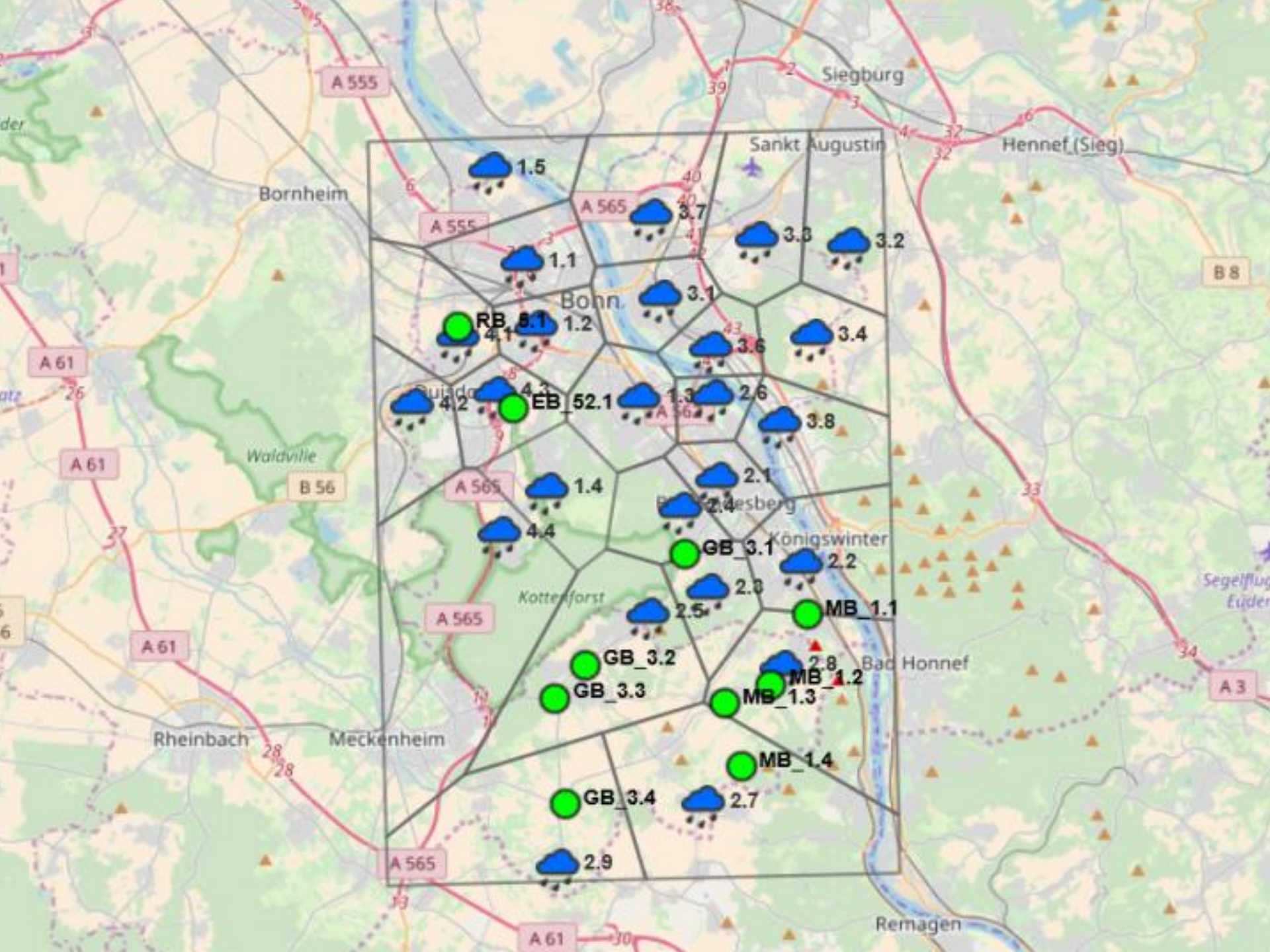

FEUERWEHR
BN 8131
REINIGUNG
Wahnschaffe
Thomas Cook
LOTTO
3.3m
P









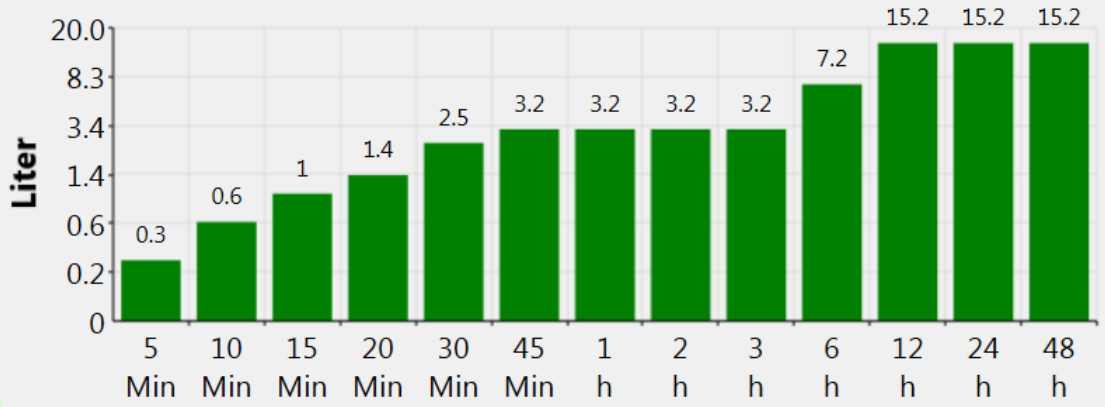

1.5
3.7
3.3
3.2
1.1
3.1
RB_3.1
4.1
1.2
3.4
3.6
4.2
EB_52.1
1.3
2.6
3.8
2.1
1.4
2.4
4.4
GB_3.1
2.2
2.3
2.5
MB_1.1
GB_3.2
2.8
MB_1.2
GB_3.3
MB_1.3
MB_1.4
GB_3.4
2.7
2.9
Bonn
Sankt Augustin
Siegburg
Hennef (Sieg)
Bornheim
Königswinter
Bad Honnef
Rheinbach
Meckenheim
Remagen
Waldville
Kottenforst
A 555
A 565
A 61
B 56
B 8
A 3

http://alarmpegel.bonn.de/regendaten.php
Stadt Bonn Intranet - Beihilfe-...
Regenmesser Bonn
Warnlage
Demonstration mit 7000 Teilne...
Datei Bearbeiten Ansicht Favoriten Extras ?
Lagekartentool Web Bachpegel Niederschlagsmesser Schnellmeldungen Feuer... IG-NRW Informationssyst... ETB Eröffnung ETB einloggen in besthen... ETB Admin Geo-Informationssystem ... Stadt Bonn -

Infoseite alarmpegel.bonn.de

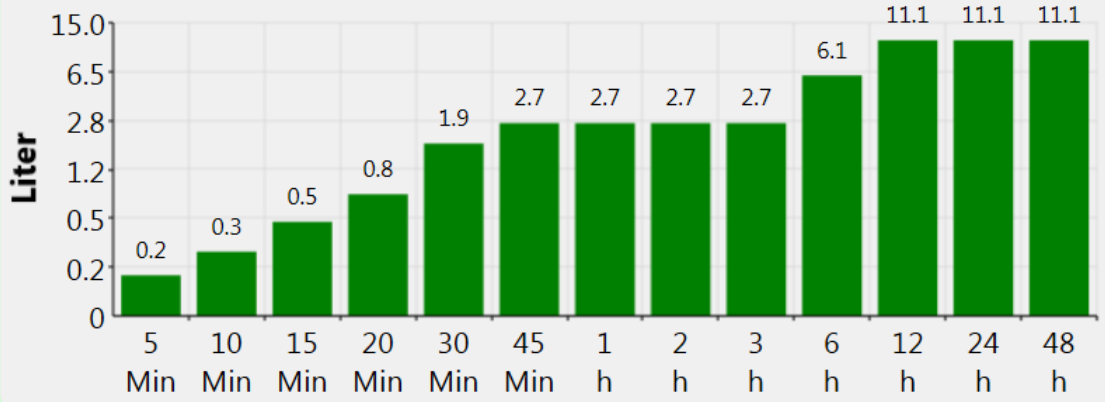
Alarmmeldung an 2 Stationen deaktiviert

1.1 - Zeisigweg (11.4. 8:04)



Zeit	Gelb	Rot
5 Min	10	14
10 Min	13	18
15 Min	15	20
20 Min	17	23
30 Min	20	26
45 Min	23	31
1 h	25	34
2 h	30	40
3 h	33	43
6 h	38	50
12 h	45	59
24 h	56	72
48 h	72	94

1.2 - Endenich, Wiesenweg (Pumpwerk) (11.4. 8:04)



Zeit	Gelb	Rot
5 Min	10	14
10 Min	13	18
15 Min	15	20
20 Min	17	23
30 Min	20	26
45 Min	23	31
1 h	25	34
2 h	30	40
3 h	33	43
6 h	38	50
12 h	45	59
24 h	56	72
48 h	72	94

1.3 - Heizkraftwerk Süd (11.4. 8:04)

Zeit	Gelb	Rot
5 Min	10	14
10 Min	13	18

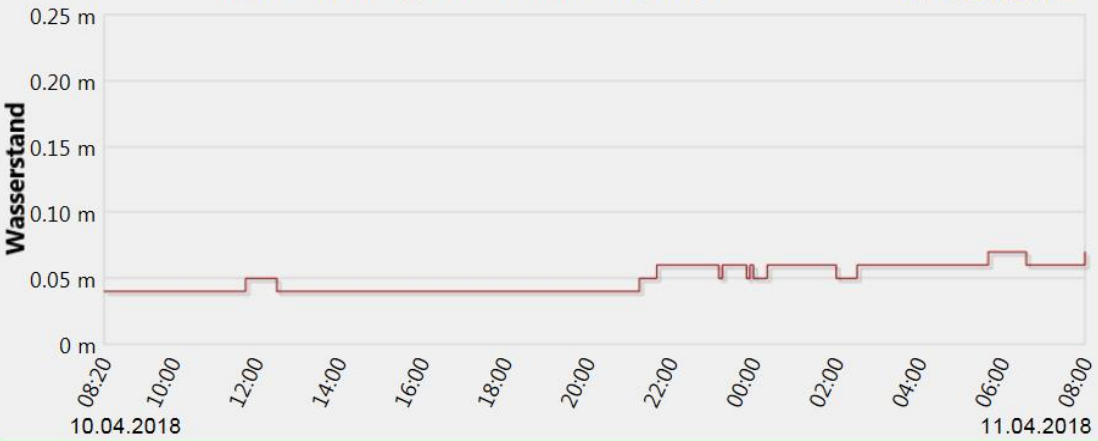
http://alarmpegel.bonn.de/bachpegel.php
Bachpegel
Warnlage
Demonstration mit 7000 Teilne...
Datei Bearbeiten Ansicht Favoriten Extras ?
Lagekartentool Web Bachpegel Niederschlagsmesser Schnellmeldungen Feuer... IG-NRW Informationssyst... ETB Eröffnung ETB einloggen in besthen... ETB Admin Geo-Informationssystem ... Stadt Bonn - Startseite Google Karte - VERKE

Infoseite alarmpegel.bonn.de

Alarmmeldung an 2 Stationen deaktiviert

GB_3.2 - Godesberger Bach / Pecher Str. (L158)

Alarmstufe 2 bei 0.47m
Alarmstufe 1 bei 0.37m





GB_3.1 - Godesberger Bach / Marienforster Steinweg

Alarmstufe 2 bei 1m
Alarmstufe 1 bei 0.66m









DANKE.
THANK YOU.
MERCI.
BONN.



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