

# AWCMC Detail programme

Away from Låsby Kro  
 Examination  
 Common programme

Date	Module		Time	Main presenter	Where	Topic	Responsible							
11	<b>Common part</b>													
	Sunday	Afternoon/ Evening		Michael, Pia, Tom, Thomas	Låsby		AVK, AU m.fl.							
12	Monday	Morning	Track A	08:00-08:10	Tom Martlev Pallesen	Låsby	Introduction to the program of today  Menti: Your knowledge of groundwater and geology  Groundwater mapping in Denmark - A historic perspective Menti: To be announced Groundwater and drinking water in an international perspective Menti: Geological settings where you live? Geology in Denmark and the impact on the groundwater system The water cycle - From raindrops on the landsurface to aquifers to consumers Aquifers, aquitards, waterlevels and pressure gradients Summing up Lunch	I-GIS						
				08:10-08:15	Tom Martlev Pallesen	Låsby								
				08:15-09:00	Jesper Hannibalsen	Låsby								
				09:00-09:10	Tom Martlev Pallesen	Låsby								
				09:10-09:45	Flemming Fogh Pedersen	Låsby								
				09:45-09:55	---	Låsby								
				09:55-10:05	Tom Martlev Pallesen	Låsby								
				10:05-10:45	Ole Rønø Clausen	Låsby								
				10:45-11:20	Anders Vest	Låsby								
				11:20-11:50	Anders Vest	Låsby								
				11:50-12:00	Tom Martlev Pallesen	Låsby								
				12:00-13:00	Låsby Kro	Låsby								
12	Monday	Afternoon	Track A	13:00-13:05	Tom Martlev Pallesen	Låsby	Introduction to the afternoon program Menti: Subsurface data Surface- and subsurface data Introduction to geologic models. Concepts, output examples etc. Break Excercise - geologic interpretation. Print outs; cross sections  Wells - introduction to drilling methods and soil samples Summing up	I-GIS						
				13:05-13:15	Tom Martlev Pallesen	Låsby								
				13:15-14:15	Tom Martlev Pallesen	Låsby								
				14:15-14:45	???	Låsby								
				14:45-15:00	---	Låsby								
				15:00-16:00	Simon Rasmussen, Tom Pallesen	Låsby								
				16:00-17:30	Jette Sørensen	Låsby								
				17:30-17:45	Tom Martlev Pallesen	Låsby								
				18:00-19:00	Låsby Kro	Låsby								
				19:00-21:00	Simon Fodor Haarbo	Låsby og surroundings								
				13	Tuesday	Morning			Track A	08:15-08:25	Tom Martlev Pallesen	Låsby	Introduction to the program of today  Menti: Pollutants in your groundwater  Groundwater contamination Groundwater models - an introduction	I-GIS
										08:25-08:35	Tom Martlev Pallesen/ Tina Erenskjold Moeslund	Låsby		
08:35-09:25	Tina Erenskjold Moeslund	Låsby												
09:25-10:10	Thomas Wernberg	Låsby												

				10:10-10:30	---	Låsby	Break		
				10:30-11:15	<b>Tom Martlev Pallesen</b>	<b>Låsby</b>	<b>Examination</b>		
				11:15-11:30	Tom Martlev Pallesen	Låsby	Introduction to company visit at SkyTEM		
				11.30 - 12:15	Låsby Kro	Låsby	Lunch		
	Afternoon	Track A		12.15-13:00	Daniel	Låsby	Bus to SkyTEM	I-GIS	
				13:00 - 16:00	Per Gisselø / Tom Martlev Pallesen	SkyTEM	SkyTEM tour		
				16:00 - 16.45	Daniel	Låsby	Bus to Låsby		
	Evening	Track A		17:00 - 19:00	Låsby Kro	Låsby	Dinner		
	Evening	0		19.00-21.00	Jette & Mette	Låsby	Modul 0 SDG Capture	NIRAS	
14	Wednesday	Morning	1A	8.00-8.10	Kurt Brinkmann (chief engineer)	Låsby	Modul 1A Welcome to water distribution	Aarhus Vand	
			1B	8.10-9.45	Kurt Brinkmann (chief engineer)	Låsby	Modul 1B Overview	Aarhus vand	
			2	9.50 - 10.30	Jonas Kirstein, Niras (Consultant, NRW)	Låsby	Modul 2 Introduction to NRW Management - IWA Water Balance - Water Auditing - Benchmarking - Prioritizing	NIRAS	
			4 (nr. 3 er udgået)	10.45 - 11.35	Jonas Kirstein, Niras (Consultant, NRW)	Låsby	Modul 4 The Four Pillars of leakage Management - Pressure Management - Active Leakage Control - Pipeline Management & Rehabilitation - Seepd & Quality of Repairs	NIRAS	
		Afternoon		11.35 - 12.20				Lunch	
			5	12.20 - 13.05	Sally Nyberg Kornholt (operational engineer)	Låsby	Modul 5 Leakage Management (intro)	Aarhus Vand	
			6	13.15 - 14.15	Karl Aage Isaksen (NRW specialist)  Sally Nyberg Kornholt (operational engineer)	Låsby	Modul 6 Leakage Management (praktik/opgave)	Aarhus Vand	
				14.15 - 15.00				Buskørsel to Beder waterplant	AU
			15.00 - 16.30	Bo Vægter (Senior geologist) (alternativt Rasmus Bærentzen)  Pia Jacobsen (Chief engineer)	Beder	Tour of Bederværket	Aarhus Vand		
	Evening		16.30 - 17.00				Buskørsel to NIRAS	AU	
			17.30 - 19	Mette & Lis	Niras	Welcome to Company evening and Dinner	NIRAS		
			19 - 21	Mette /Thomas		Company evening/networking	Alle		

15	Thursday	Morning	7	8.00 - 9.15	Kurt Brinkmann (chief engineer)	Låsby	<i>Modul 7</i> Sectioning & Zoning - Pressure Zones - District Metered Areas - Instrumentation	Aarhus Vand	
			8	9.30 - 10.30	Yang, Weixiao (Chief consultant, Ph.D.)	Låsby	<i>Modul 8</i> System Integration - Strategy, Goal, Benchmarking - Advanced Analysis	NIRAS	
			Exam	11.00 - 11.50		Låsby		Alle	
		Afternoon		11.50-12.30		Låsby	Lunch	AU	
				12.30 - 13.00			Bus to Kamstrup	AU	
			9	13.00 - 15.30	Steen Pilgaard, Application Product Manager, Jonas Skafto Madsen, Product Specialist, Lena Warming, Head of Commercial Services	Kamstrup	<i>Modul 9</i> Intro to watermetering	Kamstrup	
				15.30 - 16.00	Jonas Kirstein, Niras (Consultant, NRW)		Bus to AVK	AU	
		Evening	10	16.00 - 17.30	Michael Ramlau-Hansen (Public affairs)  Martin Børsting (Product manager control valves)	AVK	<i>Modul 10</i> Valves for dummies	AVK	
				17.30			Dinner at AVK	AVK	
			10B	18.30 - 20.00	WATEC/AARHUS VAND Michael Ramlau	AVK	Modul 10B Water Reuse (WW)	Flere	
				20.00 - 20.30			Bus to Låsby	AU	
		16	Friday	Morgen		7.30 - 8.15?		Bus to Grundfos	AU
				Morning	11	8.30 - 10.00	Bruno Killerich	Grundfos	<i>Modul 11</i> Water: Intro to pumps, energy optimization of pumps/ Tour of Grundfos
Track C	10.10 - 11.25				Leendert Vergeynst, Dept. Bio- and Chemical Engineering, AU	Grundfos	Basic biological processes in wastewater treatment	AU	
Track C	11.30 – 12.00				Sandeep Rellegadla, Dept. Bio- and Chemical Engineering, Aarhus University	Grundfos	: Enhanced biological phosphorus removal	AU	
Afternoon				12.00 - 12.45 12.45 - 13.45	Lunch at Grundfos Daniel	Grundfos	Lunch Transport to Egå wastewater treatment plant		
	Track C	13.45 - 15.30 15.30 - 16.15	Maiken Bjørn Madsen / Ditte Marie Hansen Daniel	Egå Låsby	Egå wastewater treat plant guided tour Transport to Låsby	AAV AU			

			Track C	16.15 - 17.00	Kristian Vestergaard, Dept. Civil and Architectural Engineering - Design and Construction	Låsby	Introduction to Sewers	AU	
			Track C	17.00 - 18.00	Morten Just Kjølbj, DHI	Låsby	Modelling of collection system	AU	
		Evening		18.30-19.30	Låsby Kro	Låsby	Dinner		
17	Saturday	Morning	Track C	8.00 - 9.00	Ditte Marie Hansen, Aarhus Vand	Låsby	Design and overall functioning of a modern wastewater treatment plant	AU	
			Track C	9.10 - 10.00	Cristiane Romio, Dept. Bio- and Chemical Engineering, Aarhus University	Låsby	Anaerobic digestion of wastewater sludge		
			Track C	10.15 - 11.10	Shubiao Wu, Dept Agroecology, Aarhus University	Låsby	P recovery from wastewater via struvite formation		
			Track C	11.15 - 12.00	Zongsu Wei, Dept. Bio- and Chemical Engineering, Aarhus University	Låsby	Occurrence, impacts, and treatment of PFAS in aquatic systems		
					12.00 - 12.30	Låsby kro	Låsby	Lunch	
					12.30 - 13.15	Zongsu Wei, Dept. Bio- and Chemical Engineering, Aarhus University	Låsby	Micropollutants including pharmaceuticals in WWTPs	AU
			Exam Track C	13.30 - 14.10		Låsby	Multiple choice		
				14.30		Låsby	Group formation	AU	
18	Sunday	Afternoon /Evening		15.00 - 22.00	AU		Social day - Roundtrip to harbour area: MARS, Geothermi, DOKK1, Aarhus Ø. Eftermiddagen fri i Aarhus og hjemtransport.	CLEAN og AU	
<b>SPECIALIST, Track A</b>									
19	Monday	Morning		8:00 - 08.15	Tom Martlev Pallesen	Låsby	Introduction to the program of today	I-GIS	
				08:15-09:15	???	Låsby	Well fields and waterworks		
				09:15-10:15	???	Låsby	Excercise: Well fields		
				10:15-10:30	---	Låsby	Break		
				10:30-11:00	Simon Boetker-Rasmussen	Låsby	Introduction to GeoScene3D geo-modeling software		
				11:00-11:45	Simon Boetker-Rasmussen	Låsby	Installation of GeoScene3D on students computers		
			12:00 - 13:00	Låsby Kro	Låsby	Lunch			
		Afternoon		13:00-13:10	Tom Martlev Pallesen	Låsby	Introduction to the afternoon program	I-GIS	
				13:10-13:20	Tom Martlev Pallesen	Låsby	Menti: Approaches to geological modeling. Manual contra automatic.		
				13:20-13:45	Simon Boetker-Rasmussen	Låsby	Examples of manual contra semiautomatic modeling		
				13:45-14:00	---	Låsby	Break		
				14:00-14:45	Tom Martlev Pallesen	Låsby	Hydrogeologic modeling pt. I: Principles and techniques		
				14:45-15:40	Tom Martlev Pallesen	Låsby	Hydrogeologic modeling pt. II: Principles and techniques		
				15:40-16:00	---	Låsby	Break		
				16:00-17:00	13:10-14:00	Troels Norvin Vilhelmsen	Låsby		
		Evening		17:00 - 19:00			Dinner		

				19.00 - 21.30	Pia Jacobsen (Chief engineer) Michael Ramlau-Hansen (Public affairs)	Låsby	Modul 16 Future Water	AVK, WVDK	
20	Tuesday	Morning		08:00-08.10	Tom Martlev Pallesen	Låsby	Introduction to the program of today Geophysical methods - introduction and basic knowledge Break Geophysical methods - exercise Summing up Lunch	I-GIS	
				08:10-10:00	Anders Vest	Låsby			
		Afternoon		10:10-10:20	---	Låsby			
				10:20-11:45	Anders Vest	Låsby			
				11:45-12:00	Anders Vest	Låsby			
				12:00 - 13:00	Låsby Kro	Låsby			
				13:00-13:10	Tom Martlev Pallesen	Låsby	Introduction to the program of today Recharge of surface water - methods and examples Break Afventer	I-GIS	
				13:10-14:40	Peter Thomsen	Låsby			
				14:40-14:50	---	Låsby			
				14:50-15:35	???	Låsby			
				15:35-16:05	Simon Boetker-Rasmussen	Låsby	Geologic modeling in GeoScene3D - introduction to software, workflow and data types		
				16:05-17:50	Simon Boetker-Rasmussen	Låsby	Geological modeling in GeoScene3D		
				17:50-18:00	Tom Martlev Pallesen/Simon Boetker-	Låsby	Summing up		
		Evening		17:00 - 19:00	Låsby Kro		Dinner		
					19:00 - 21:00	Tom Martlev Pallesen		Case assignment	AVK, WVDK
SPECIALIST, Track B									
19	Monday	Morning	12	8.00 - 12.00	Jonas Kirstein, Niras (Consultant, NRW)	Låsby	Modul 12 Ledningsnetmodellering	NIRAS	
				12.00 - 12.45				Lunch	AU
		Afternoon	15a (tidspunkt flyttet)	12.45 - 14.00	Sune Dupont (Product developer)  Ole Hejn Pjengaard (Commercial product manager)	Låsby	Modul 15A Intelligent water meter network	Kamstrup	
				15b (NY)	14.05 - 15.15	Skanderborg Forsyning NN	Låsby	Modul 15B Brug af smartmålere	Skanderborg Forsyning
		Evening	13	15.30 - 16.45	Martin Børsting (product manager control valves)  Gerner Knudsen (business development manager, smart water)	Låsby	Modul 13 (afvikles i denne omvendte rækkefølge)	AVK	
				16.45 - 17.30				Free time	AU
				17.30 - 19.00				Dinner	AU
				16	19.00 - 21.30	Pia Jacobsen (Head of Global Innovation)  Michael Ramlau-Hansen (Public affairs)	Låsby	Modul 16 Future Water	Water Valley, AVK
20	Tuesday	Morning	17	8.00 - 9.45	Kurt Brinkmann (chief engineer)	Låsby	Modul 17.A Renoveringsplanlægning	Aarhus Vand	

				10.00 - 12.00	Yang, Weixiao (Chief consultant, Ph.D.)	Låsby	Modul 17.B Renoveringsplanlægning	Niras
				12.00 - 12.45			Lunch	AU
	Afternoon	14 (tidspunkt flyttet)		12.45 - 14.00	Ulrik Højbjerg (Head of Digital Development)	Låsby	Modul 14 (er flyttet fra Monday)	Grundfos
		18		14.05 - 15.15	Jonas Kirstein (Consultant, NRW)	Låsby	Modul 18 Smart Water Systems - System integration (lidt) - Wateraudit - Strategy, Goal, Benchmarking -( Advanced, analysis/integration, Digital Twins)	Niras
		19		15.25 - 16.30	Kurt Brinkmann (chief engineer)	Låsby	Modul 20	Aarhus Vand
	Evening			16.45 - 17.30			Free time	AU
				17.30 - 19.00			Dinner	AU
		20		19.00 - 21.00	Michael Ramlau-Hansen/Pia Jacobsen (Public affairs)	Låsby	Modul 21 Case Assignment	AVK, WVDK
<b>SPECIALIST, Track C</b>								
19	Monday	Morning		8.00 - 8.50	Zongsu Wei, Dept. Bio- and Chemical Engineering, Aarhus University	Låsby	Basic processes in wastewater	AU
				9.00 - 9.50	Mikkel Holmen Andersen, Unisense	Låsby	Nitrous oxide emission and carbon footprint from WWTPs	
				10.00 - 10:15	Break	Låsby	Group work on greenhouse gas emissions and climate associated with WWTP	
				10:15 - 11:05	Mikkel Holmen Andersen, Unisense	Låsby	Sensor based control of WWTPs	
				11.15 - 12.00	Ditte Marie Hansen Aarhus Vand, and Mikkel Holmen Andersen, Unisense	Låsby		
				12.00 - 13.00		Låsby	Lunch	AU
				13.00 - 14.45	Vollertsen, Dept. Built Environment, Aalborg University	Låsby	H2S in sewers	
				15.00 - 16.00	Bruno Kilerich, Grundfos	Låsby	Group work on H <sub>2</sub> S in sewers	
				16.10 - 17.00	Yansi Mary Jesuloganathan, Aarhus Vand	Låsby	Overall planning with focus on using digital twin and Integrated Real-time Control of combined sewer system	
				18.00 - 19.00		Låsby	Dinner	
				19.00 - 21.30	Pia Jacobsen (Chief engineer)  Michael Ramlau-Hansen (Public affairs)	Låsby	Modul 16 Future Water	AVK, WVDK
20	Tuesday	Morning		8.00 - 8.50	Erling Brodersen, Aarhus Vand	Låsby	Polymers, cyclones and settling	AU
				9.00 - 9.50	Barth F. Smets, Dept. Bio- and Chemical Engineering, Aarhus University	Låsby	Novel wastewater processes/Microbial biopolymers	
				10.00 - 10.15		Låsby	Break	
				10.15 - 11.05	Sille Bendix Larsen, Novonosis AS	Låsby	Show-cases on technologies for industrial	
				11.15 - 12.00	Thomas W. Seviour, Dept. Bio- and	Låsby	General discussion on future challenges in WWTP	
				12.00 - 13.00		Låsby	Lunch	AU
				13.00 - 13.50	Morten Dueholm, Dept. Chemistry and Bioscience, Aalborg University	Låsby	Molecular analysis and microbial community in WWTPs	

				14.00 - 14.45	Barth F. Smets, Dept. Bio- and Chemical Engineering, Aarhus University	Låsby	Anammox	
				15.00-15.50	Leendert Vergeynst, Dept. Bio- and Chemical Engineering, Aarhus University	Låsby	Biological removal of micropollutants and production of high-value chemicals from wastewater	
				16.00 - 16.50	Williane Vieira Macedo, Dept. Bio- and Chemical Engineering, Aarhus University	Låsby	Biofuel production from sludge by hydrothermal liquefaction	
				17.00-18.00		Låsby	Break	
				18.00-19.00		Låsby	Dinner	
				19:00 - 21:00	Thomas W. Seviour, Dept. Bio- and		Case assignment	AVK, WVDK
21	Wednesday	All day		8.00 - 21.00	Michael (fysisk)		Projektarbejde, spørgetider	AVK
22	Thursday	All day		8.00 - 21.00	Kurt (fysisk), Yang/Jonas (online)		Projektarbejde, spørgetider	Aarhus Vand
23	Friday	Morning/ Afternoon		8.00 - 12.00			Projektarbejde, spørgetider (efter behov).	
				12.00 - 13.00	Lunch			
			13.00 - 14.00	Evaluering		Daniel		
		Exam	14.00 - 18.00	Pia, Mette, Michael (Yang)				
		Evening	18.30 - ??	Alle		Graduation Dinner		
24	Saturday	Morning	Checkout and goodbye	10.00 - 11.00	Pia, Mette, Michael, Daniel			