

Corpo docente

JH = Jouke Heringa, project leader HZ University of Applied Sciences

CP = Carla Pesch, HZ University of Applied Sciences

BV = Bram Verkruijsse, HZ University of Applied Sciences

HM = Henk Massink, HZ University of Applied Sciences

MM = Michiel Michels, HZ University of Applied Sciences

JB = Javier Benavente, Cadiz University

JM = Juan Miquel Mancera, Cadiz University

JG = Javier Gracia, Cadiz University

PC = Paolo Ciavola, Ferrara University

PB = Paolo Billi, Ferrara University

ET = Esa Toukoniitty, Helsinki Metropolia University of Applied Sciences

KL = Kaj Lindedahl, Helsinki Metropolia University of Applied Sciences

Working program (foreseen starting date Saturday 14/9/2013). Free weekend 21-22/9 not included as working days.

Day 1

The goal of this day is to introduce the program and to get to know each other.

Time	Activities	Responsible
9.00 – 17.00	Arrival in accommodation El Sabio (Jerez)	
18.00 – 20.00	Dinner	
20.00 – 21.30	Introduction on program (goals and set-up): Phase 1 (system analyses) and Phase 2 (vision building and management plan)	JH, JB
21.30 – 23.00	Social event to get to know each other	

Day 2

The goal of this day is to explore the study area, the natural context and gain knowledge about relevant theory and concepts of river basin management.

Time	Activities	Responsible
9.00 – 10.00	Lecture 1: Geomorphology and Hydrology Delta Guadelete	JG
10.00 – 17.30	Exploration of the study area, the river basin Guadalette, bus trip along the river course and reading literature and consulting maps	JB, JG Working groups and staff members
18.00 – 19.30	Dinner	
20.00 – 21.00	Lecture 2: River continuum and river pulsing concept, general ecological concepts. Temporal and spatial variability.	JH
21.00 – 22.00	Formation of working groups (5 students per group, in total 10 groups): - <i>upper course Guadelete</i> (1: geomorphology, 2: hydrology, 3: chemistry, 4: biology, 5: socio economic context)	JH and working groups

	- lower course Guadelete (6: geomorphology, 7: hydrology, 8: chemistry, 9: biology, 10: socio economic context)	
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Day 3

The goal of this day is to find out the complexity of the relation of water uses and its impacts and the dependence of stakeholders on the river basin.

Time	Activities	Responsible
9.00 – 9.45	Lecture 3: Stakeholder analysis	CP
9.45 – 10.30	Lecture 4: Water Quality and Ecology Delta Guadalette	JB, JM
10.30 – 17.30	Stakeholder visits and consultations, representatives from: Environmental Agency (Junta Andalusia/ Water Authority, National Park) Agriculture Environmental authorities NGO's Aquaculture Waste water treatment Coastal Authority Enterprises	Working groups and staff members
18.30 – 20.00	Dinner	
21.00 – 22.00	Lecture 5: System analysis: approach, field survey plan	JH

Day 4

The goal of this day is to set up a first draft system analysis including field survey plans.

Time	Activities	Responsible
9.00 – 12.00	working in groups on field survey plan	Working groups
12.30 – 13.30	Lunch	
13.30 – 14.30	Lecture 6: DPSIR method for system analyses	CP
13.30 – 14.30	Feedback on draft field survey plan by supervisors	Working groups and staff members
14.30 – 16.00	Adapting field survey plan and preparation presentation	Working groups
16.00 – 18.00	Plenary Session: <u>presentation</u> field survey plan and discussion on objectives, hypothesis and methods for phase 1 (system analysis)	Working groups and staff members
18.30 – 19.30	Dinner	
20.00 – 22.00	Preparation Fieldwork, collecting and testing field equipment Setting up the field lab	Working groups

Day 5

The goal of this day is to collect relevant data (geomorphology, hydrology, chemistry and biology in lower and upper course Guadalette and interviewing relevant stakeholder in the River Basins) based on the measuring plan.

Time	Activities	Responsible
9.00 – 17.00	Field measurements and stakeholder consultations	Working groups
18.00 – 19.30	Dinner	
19.30 – 20.30	Group leaders meeting with supervisors	Working group leaders + staff

19.30 – 23.00	Field lab work: chemical analysis, species identifications, processing hydrological, geomorphological data, stakeholder analysis	Working groups
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Day 6

The goal of this day is to collect relevant data (geomorphology, hydrology, chemistry and biology in lower and upper course Guadalette and interviewing relevant stakeholder in the River Basins) based on the measuring plan.

Time	Activities	Responsible
9.00 – 17.00	Field measurements and stakeholder consultations	Working groups
18.00 – 19.30	Dinner	
19.30 – 20.30	Group leaders meeting with supervisors	Working group leaders + staff
19.30 – 23.00	Field lab work: chemical analysis, species identifications, processing hydrological, geomorphological data, stakeholder analysis	Working groups

Day 7

The goal of this day is to collect relevant data (geomorphology, hydrology, chemistry and biology in lower and upper course Guadalette and interviewing relevant stakeholder in the River Basins) based on the measuring plan.

Time	Activities	Responsible
9.00 – 10.00	Plenary session by students of draft results	Working groups and staff members
10.00 – 14.30	Field measurements and stakeholder consultations	Working groups
14.45 – 17.00	Cadiz University workshops and practical Aquaculture	JM
18.00 – 19.30	Dinner	
19.30 – 20.30	Group leaders meeting with supervisors	Working group leaders + staff
19.30 – 23.00	Field lab work: chemical analysis, species identifications, processing hydrological, geomorphological data, stakeholder analysis	Working groups

Day 8

The goal of this day is to collect final relevant data (geomorphology, hydrology, chemistry and biology in lower and upper course Guadalette and interviewing relevant stakeholders in the River Basins) based on the field survey plan. Assessing data, integration different results from different disciplines, drawing conclusions, prepare and present the system analyses.

Time	Activities	Responsible
9.00 – 15.00	Field measurements	Working groups
13.00 – 17.00	Processing and analysing field data. WIKI processing	Working groups
18.00 – 19.30	Dinner	
19.30 – 21.00	Integration, interpretation collected field data and preparation presentation. WIKI processing	Working groups
21.00 – 22.30	System and Problem Analysis. Presentation by students and plenary discussion on results and interpretation	Working groups and staff members

Day 9

The goal for this day is to finish the analysis phase and the first part of the joint report (Introduction and phase 1: System Analysis (Description of the Study area: natural behaviour, human impacts and vulnerability)).

Time	Activities	Responsible
9.00 – 12.00	Finishing part A report and WIKI processing	Working groups
13.00 – 14.00	Lunch	
14.30 – 15.30	Lecture 7: Goal setting phase 2	Staff
16.30 – 18.00	Mixing of groups. Description of the range of possible futures, Formulation of a shared vision on the future state and functioning of the river basin Guadelete, integrating the physical environment, socio-economic and institutional systems and integrating the different sectors. Translating vision into specific goals	JH, Working groups and staff members
18.30 – 19.30	Diner	
20.00	Cultural night	JB

Day 10

The goal of this day is to formulate management tracks and strategies, and vision building

Time	Activities	Responsible
9.00 – 12.30	Working on possible future and shared vision	Working groups
13.00 – 14.00	Lunch	
14.30 – 15.30	Lecture 8: European Water Framework Directive, role of river basin management plan	JH
15.30 – 18.00	The working-groups will make a start with formulation of management tracks and their consequences. Back-casting is used as a tool, starting with long term goals and divide them into [middle and/or short term] sub-goals, as a next step designing management tracks to meet them. In this back-casting process the critical uncertainties will turn up and might be redefined. Important question: which means [=management tracks] do we need to meet goals and sub-goals? Formulation of the management strategies, taking into account the principles of the European Water Framework Directive. Vision building is to be followed by action. Strategies to achieve the shared vision can be designed now that goals for river basin management are agreed upon.	Working groups
18.30 – 19.30	Diner	

19.30 – 20.30	Group leader's meeting with supervisors	Working group leaders + staff
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Day 11

The goal of this day is to build a vision plan including ecotechnological solutions to improve the functioning of the river basin on which the stakeholders depend on.

Time	Activities	Responsible
9.00– 12.30	Defining action plan and working out 2 specific actions per group	Working groups
12.30 – 14.00	Lunch	
14.00 – 17.30	Working on the actions	Working groups
18.30 – 19.30	Dinner	
20.00 – 21.00	Group leader's meeting with supervisors	Working group leaders + staff
20.00 – 22.00	Working on report/ visualization of Phase 2 and preparation of the presentations	Working groups

Day 12

This day the presentation of the findings and the evaluation of the project takes place.

Time	Activities	Responsible
9.00– 12.30	Working on presentation phase 2 and processing WIKI	Working groups
12.30 – 14.00	Lunch	
14.00 – 16.30	Presentation of the joint report to the commissioning organisation	Working groups and staff members
16.30 – 18.30	Evaluation of the project and each other (peer-evaluation) and closure	Helsinki and Working groups and staff members
20.30 – 22.30	Final Diner	

Day 13

Time	Activities	Responsible
9.00– 12.30	Wrap up	