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Submission 2 – Design Calculations (Task 3, Section 9)

As part of this submission, you will need to produce a set of detailed **design calculations**. Please do **not** produce a detailed design report for this phase.

It should be **noted that**:

(i) The calculations should be able to be followed easily and should provide detailed explanations (e.g. what methods were used and why, from where numbers and equations were sourced, the rationale for the design process used and options considered etc.)
(ii) All pages should be numbered sequentially (including pages in appendices, if applicable)
(iii) All calculation pages should be dated (always include year eg. 21/9/01) and initialled by the person who performed the calculations
(iv) Any assumptions you have made should be stated clearly
(v) Any source material must be referenced
(vi) Tables should have a number and title placed at the top of the table
(vii) Figures should have a number and title placed beneath the figure
(viii) All Tables and Figures should be numbered, have a title and be referred to in the text
(ix) Any landscape pages should be oriented so that the bottom of the page is on the outside
(x) A summary of the final design (including diagrams of final layout and sizes) needs to be included

Please note that exemplars of calculations, general submission guidelines and information on referencing are provided in the Resources section of the Environmental Engineering & Sustainability II MyUni site.

The **assessment criteria** for this submission are as follows:

Goals/Grade	F < 50	P 50-64	C 65-74	D 75-84	HD >85
Design of Rock Chute(s)	Consideration of single design criterion and/or alternative and/or major problems with analysis	Consideration of limited design criteria and alternatives, minor problems with analysis	Adequate consideration of multiple design criteria (e.g. erosion control, fish passage) and alternatives, final design meets all constraints, correct analysis, assumptions stated clearly	Comprehensive consideration of multiple design criteria and alternatives, final design meets all constraints, detailed discussion as to choice of final alternative, correct analysis, in-depth discussion of assumptions and limitations of calculations	Comprehensive consideration of multiple design criteria and alternatives, final design meets all constraints, detailed discussion as to choice of final alternative, correct analysis, in-depth discussion of assumptions and limitations of calculations, extensive sensitivity analysis to test robustness of final design to assumptions
Calculations (please refer to criteria above)	Inadequate	O.K.	Good		

Submission

Please submit one hardcopy of the design calculations in the submission box for Env. Eng. & Sust. II outside of the School Office (N136).

Submission 2 – Design Report (Task 5, Section 9)

As part of this submission, you will need to produce a **Design Report**, including all calculations and a set of clear diagrams summarising your design. **The maximum length of the body of the report is 10 pages**. All calculations should be included as appendices.

The **report** should contain:

(i) A front cover or title page with title, names, etc.
(ii) An executive summary (including introductory / background information and diagrams summarising the final design (layout and sizes))
(iii) A table of contents (including appendices, list of tables and list of figures, as well as their page numbers)
(iv) An introduction (starting on page 1 and including a site map)
(v) A body (e.g. design methodology and approach, results etc.)
(vi) A summary of the final design (including diagrams of final layout and sizes)
(vii) Appendices, including all detailed calculations (all appendices should have titles which should be included in the table of contents)

It should be **noted** that:

(xi) All sections should be numbered (including the appendices)
(xii) All pages should be numbered sequentially (including pages in the appendices)
(xiii) All calculation pages should be dated (always include year eg. 21/9/01), initialled by the person who performed the calculations and initialled by the checker
(xiv) Any assumptions you have made should be stated clearly
(xv) Any source material must be referenced
(xvi) Tables should have a number and title placed at the top of the table
(xvii) Figures should have a number and title placed beneath the figure
(xviii) All Tables and Figures should be numbered, have a title and be referred to in the text
(xix) Any landscape pages should be oriented so that the bottom of the page is on the outside

Please note that design report exemplars, general submission guidelines and information on referencing are provided in the Resources section of the Environmental Engineering & Sustainability II MyUni site.

Assessment Criteria

The assessment criteria for the submission are as follows:

Goals/Grade	F < 50	P 50-64	C 65-74	D 75-84	HD >85
Development of DO model	Major errors or omissions in model development	Model developed with minor errors and/or omissions, limited explanation of calculations	Model well developed with no errors or omissions, calculations explained clearly	Model well developed with no errors or omissions, calculations explained clearly, in-depth discussion of assumptions and limitations of model	Model well developed with no errors or omissions, calculations explained clearly, in-depth discussion of assumptions and limitations of model, detailed sensitivity analysis / testing of model and critical discussion of results obtained
Siting of WTP	Use of limited criteria and/or no scenario analysis and/or no explanation of decision	Correct use of basic economic and environmental criteria, limited scenario analysis, limited explanation of decision	Correct use of basic economic and environmental criteria, adequate scenario analysis, comprehensive explanation of decision	Correct use of advanced economic (e.g. Net Present Value) and environmental criteria, extensive scenario analysis, little critical discussion of results, comprehensive explanation of decision	Innovative use of advanced economic (e.g. Net Present Value) and environmental criteria, extensive scenario analysis, comprehensive explanation of decision, in-depth, critical discussion of results
Diagrams ▪ Appropriate number of drawings ▪ Appropriate views ▪ Neatness ▪ Completeness of information	Inadequate	O.K.	Good		
Report ▪ Spelling and grammar ▪ Structure and organisation ▪ Completeness ▪ Clarity and readability ▪ Length	Inadequate	O.K.	Good		

Submission

Please submit one hardcopy of the final report per group in the submission box for Env. Eng. & Sust. II outside of the School Office (N136).

1. TASK 9: MEKONG E-SIM PUBLIC INQUIRY TECHNICAL PAPER (OR EQUIVALENT)

Objectives

As part of this assessment task, you will develop a deeper understanding of some specific issues relevant to your persona. This understanding, as well as the more general understandings you have developed from your role profile, will allow you to effectively participate through the various communication channels in the e-Sim (e.g. email, news, public inquiry). Each persona has a different topic and format relevant to them. The specific topics will be released into the group area for your persona on the e-Sim MyUni site at the beginning of the Interaction stage. The types of submissions required are different for the media, non-media and decision-making groups, as outlined below. Details of which course learning objectives and graduate attributes are addressed by the Online Quizzes are given in Sections 16 and 17, respectively.

A. Non-Media Groups

The submission consists of two parts:

Part 1: A 1000 word technical paper on the topic provided for each group. The report is expected to be well researched and referenced appropriately for the type of information presented.

Part 2: A 400 word summary of the 1000 word technical paper, providing the group's position with regard to the terms of reference of the relevant public inquiry. This summary will form your group's submission to the public inquiry and must be posted by the group to the public inquiry discussion board. While this submission should still be based on the well-researched facts presented in your 1000-word submission, the style in which it is written is should be different, as it is an argument you present to persuade the public inquiry decision-makers. Also, be sure to relate your 400-word submission to the terms of reference of the public inquiry.

An example topic for a technical paper on aquaculture might be:
"*Evaluate the opportunities for the further development of the exotic aquaculture industry in the TonLe Sap region. What are the potential issues and what technologies/strategies may be used to mitigate any adverse impacts? How much certainty is associated with predicting these impacts?*"

B. Media Groups

A **minimum** of five articles of around 250-300 words each are required. Articles should be spaced fairly evenly. The submission deadlines given in Section 10 are indicative only. However, articles must be posted during weeks 9, 10 and 110. Please note that additional submissions are requested compared with the non-media groups because the media groups will not be submitting to the public inquiries. They may choose to comment on issues raised in the public inquiries and may also publish press releases. The style and format for these media releases would be that used for features in public inquiries or investigative journalism. There is no upper limit on the number of articles and press releases (it should be noted that press releases do not count as articles, which means that at least 5 articles are required in addition to any press releases). The majority of the material reported by the media should be sourced from this year's e-Sim participants and events.

C. Decision-Maker Groups

Decision-makers have to write a report to justify the decision they have made, which should be posted to the appropriate public inquiry forum after the conclusion of the Public Inquiry phase. The report should be no longer than 1000 words. It is recognised that the time frame you have to prepare this document is short, and this will be taken into account as part of the assessment.

Assessment Criteria

A. Non-Media Groups

The assessment criteria for the submission are as follows:

Goals/Grade	F < 50	P 50-64	C 65-74	D 75-84	HD >85
Amount and accuracy of factual information presented	Insufficient and/or inaccurate factual information	Presentation of limited, but factually correct, information	Adequate and accurate factual information to back up argument	Extensive and accurate factual information to back up argument	Extensive and accurate factual information to back up argument, evidence of breadth of background reading, resulting in the presentation of multiple lines of argument
Degree and quality of referencing to factual information	Inadequate referencing	Limited referencing and/or incorrect referencing style	Adequate referencing, information from limited sources, correct referencing style	Adequate referencing, information from multiple sources, correct referencing style	Extensive referencing, information from a variety of sources, correct referencing style
Articulation of argument	Limited evidence of ability to construct coherent argument	Sound argument based on evidence	Well-reasoned argument based on broad evidence	Evidence of imagination, flair, originality and independent thought.	Demonstration of imagination, flair, originality and independent thought.
Relevance of information presented to topic	Inadequate	O.K.	Good		
Report ▪ Spelling and grammar ▪ Structure and organisation ▪ Completeness ▪ Clarity and readability	Inadequate	O.K.	Good		

B. Media Groups
The assessment criteria for the submission are as follows:

Goals/Grade	F < 50	P 50-64	C 65-74	D 75-84	HD >85
Sourcing of Information	Information sourced from outside the e-Sim	Information sourced primarily from outside the e-Sim	Information sourced from one or two sources from within the e-Sim	Information sourced from multiple sources from within the e-Sim	Information obtained from multiple source from within the e-Sim and placed within the context of factual information
Interest of article to e-Sim participants and impact on e-Sim events	Article of no interest to e-Sim participants	Article of limited interest to e-Sim participants, limited reporting of e-Sim events	Article of some interest to e-Sim participants, some reporting of e-Sim events, limited impact on e-Sim events	Article of interest to e-Sim participants, reporting of e-Sim single events, some impact on e-Sim events	Article of strong interest to e-Sim participants, innovative reporting of interrelated e-Sim events, significant impact on e-Sim events
Articulation of argument	Limited evidence of ability to construct coherent argument	Sound argument based on evidence	Well-reasoned argument based on broad evidence	Evidence of imagination, flair, originality and independent thought.	Demonstration of imagination, flair, originality and independent thought.
Article ▪ Spelling and grammar ▪ Structure and organisation ▪ Completeness ▪ Clarity and readability	Inadequate	O.K.	Good		

C. Decision-Maker Groups
The assessment criteria for the submission are as follows:

Goals/Grade	F < 50	P 50-64	C 65-74	D 75-84	HD >85
Amount and accuracy of factual information presented	Insufficient and/or inaccurate factual information	Presentation of limited, but factually correct, information	Adequate and accurate factual information to back up argument	Extensive and accurate factual information to back up argument	Extensive and accurate factual information to back up argument, evidence of breadth of background reading
Degree and quality of referencing to e-Sim events	Inadequate reference to e-Sim events	Limited reference to e-Sim events	Adequate reference to e-Sim events, information sourced from limited e-Sim events	Adequate reference to e-Sim events, information sourced from multiple e-Sim events	Extensive reference to e-Sim events, information sourced from multiple e-Sim events
Articulation of argument	Limited evidence of ability to construct coherent argument	Sound argument based on evidence	Well-reasoned argument based on broad evidence	Evidence of imagination, flair, originality and independent thought.	Demonstration of imagination, flair, originality and independent thought.
Relevance of argument presented to terms of reference of public inquiry	Inadequate	O.K.	Good		
Report ▪ Spelling and grammar ▪ Structure and organisation ▪ Completeness ▪ Clarity and readability	Inadequate	O.K.	Good		

2. TASK 10: MEKONG E-SIM DEBRIEFING REPORT

Objectives

The debriefing report is used to illustrate your understanding of the complexity of environmental decision-making and your professional skills. You should draw on your own experience within the e-Sim, and any face-to-face debriefing. Details of which course learning objectives and graduate attributes are addressed by the Online Quizzes are given in Sections 16 and 17, respectively.

Please write a reflective report addressing the following question. **The word limit is 1,500**.

Based on **your experience of participating in the Mekong e-Sim**, what are the main factors affecting the decision-making processes surrounding development projects?

Please note that this assessment task is worth 25% of the course mark and that it is extremely difficult to convey the information requested in 1,500 words. Consequently, writing of this document should be commenced as early as possible, as many revisions will be required to produce a high quality product.

Assessment Criteria

The assessment criteria for the submission are as follows:

Goals/Grade	F < 50	P 50-64	C 65-74	D 75-84	HD >85
Factors affecting decision-making processes	Limited discussion of factors	Discussion of factors in isolation	Discussion of multiple factors, limited discussion of interactions / dependencies between factors	Discussion of multiple factors, detailed discussion of interactions / dependencies between factors	Discussion of multiple factors, detailed discussion of interactions / dependencies between factors, illustration with / extrapolation to examples outside the e-Sim
Quantity and quality of evidence to back up arguments	Inadequate reference to e-Sim events	Limited reference to e-Sim events	Adequate reference to e-Sim events, information sourced from limited e-Sim events	Adequate reference to e-Sim events, information sourced from multiple e-Sim events	Extensive reference to e-Sim events, information sourced from multiple e-Sim events
Articulation of argument	Limited evidence of ability to construct coherent argument	Sound argument based on evidence	Well-reasoned argument based on broad evidence	Evidence of imagination, flair, originality and independent thought.	Demonstration of imagination, flair, originality and independent thought.
Report ▪ Spelling and grammar ▪ Structure and organisation ▪ Completeness ▪ Clarity and readability	Inadequate	O.K.	Good		