



NEW ZEALAND
Society on Large Dams

Workshop on Consequence Assessment and Potential Impact Classification

Online Webinar

2nd to 3rd November 2020

Group Work Session 1 - Initial and Intermediate PIC of an Irrigation Embankment Dam

James L Smith (Damwatch) with help from the Young Professional Group

Introduction

- Now is the time to put what you've learned into practice
- Focus on a small irrigation embankment dam
- You will be split into groups
- One Young Professional facilitator per group to help steer
- Facilitators can guide but your group must decide

Introduction

- Introduction - 5 mins
- Initial Sunny Day - 10 mins
- Polls and Feedback - 5 mins
- Intermediate Sunny Day - 20 mins
- Polls and Feedback - 5 mins
- Intermediate Rainy Day (quick glance) - 5 mins
- Discussion - 10 mins

Presenter

Webcams

Start My Webcam

Action notes

Please enable your webcam and microphone at the top of your screen. There should be 2 icons, click those until they are green to enable.
 If you find the wrong camera or mic is selected, please click the drop down on each icon and select the correct output.
 If you do not have a webcam or mic, or they won't work, don't panic. You have access for typing you comments here for all to see.
 Please do not click on any other buttons until your facilitator tells you to do so. If you change something, it affects everyone. Thanks

Notes section

Files 2

Name	Size
2015_NZSOLD_Dam_Safety_Guid	350 KB
Session_1_-_Intermediate_PIC_As	270 KB
PAR_Road_Spreadsheet(1).xls	18 KB
Session_1_-_Intermediate_PIC_As	238 KB
BESD - Initial PIC Assessment	999 KB
Appendix_A_-_Key_Tables_and_C	244 KB
Session_1_-_Initial_PIC_Assessment	237 KB

Upload File... Download File(s)

Group download pack (if you haven't downloaded it yet)

Other attendees (1)

- Active Speakers
- Hosts (1)
 - Dewri Knappstein
- Presenters (0)
- Participants (0)

Participants

Session 1 maps



Maps which everyone can draw on

Sync

Introduction

- Don't be shy! Webcams if possible
- Please avoid group think i.e. don't be afraid to challenge people, it's healthy!
- You will be able to draw on the main shared map screen
- The facilitator will navigate between the different maps
- 10 minutes for initial assessment

Initial Assessment

Sunny Day

Initial Sunny Day

- An earth embankment dam has been proposed as a water storage for irrigation.
- The owner of the dam has been advised they will require a Potential Impact Classification (PIC) as part of New Zealand Dam Safety Guidelines (NZDSG).
- You have been engaged by the prospective dam owner to undertake an initial level PIC assessment.

Initial Assessment Conclusions

- PAR estimate
- Damage levels:
 - Residential properties
 - Critical/Major infrastructure
 - Environment
 - Community
- Critical time of day/year
- PIC
- Is there enough information to Adequately Define PIC?

Intermediate Assessment

Sunny Day

Intermediate Sunny Day

- Advised client the PIC cannot be adequately defined from initial assessment - recommend intermediate assessment
- You then undertake a dam break flood hazard assessment using a 2D hydraulic modelling approach (maps given)
- You also analyse traffic data and aerial photography
- Now that you have all the information to hand, carry out the intermediate level PIC assessment

Intermediate Assessment Conclusions

- PAR estimate
- Damage levels:
 - Residential properties
 - Critical/Major infrastructure
 - Environment
 - Community
- Critical time of day/year
- PIC
- Adequately defined?

Intermediate Assessment

Rainy Day

Intermediate Rainy Day

- As part of an intermediate assessment you must assess both a Sunny and Rainy Day case
- There is a precedent flood on the Ngaruroro tributaries and river and you must assess the incremental damages caused by a dam break once the catchment is already inundated
- The critical downstream flood varies from case to case
- Its unlikely there will be farm workers in the area if its already flooded

Intermediate Assessment Conclusions

- PAR estimate
- Damage levels:
 - Residential properties
 - Critical/Major infrastructure
 - Environment
 - Community
- Critical time of day/year
- PIC
- Adequately defined?

Discussion



NEW ZEALAND

Society on Large Dams