TRU-Park Workshop 9a: Specialist studies

see presentations
see attendance register
apologies:

3 November 2016
18h00 – 20h00
at Methodist Church Hall in 1 Union Ave, Pinelands

Agenda:

- Introduction and programme – Michael Krause
- Environmental baseline specialist studies – Tasneem Steenkamp
- NMA TRU-Park Concept and assumption bulk – Nisa Mammon
- Flood modelling – Marieke de Groen
- Watercourse management plan – Marieke de Groen

Repository and webpages available at:

Western Cape Government:
https://www.westerncape.gov.za/general-publication/two-rivers-urban-park-%E2%80%93-towards-sustainable-integrated-urban-development

Introduction and programme by Michael Krause

Michael Krause:

- Introduction presenting the agenda and programme:
- 10 November 2016: Green Corridor Management Plan DRAFT and Specialist Studies Part II
- 18 February 2017: Co-design Workshop: towards a shared and preferred scenario
- A Stakeholder Workshop focusing on the three precincts: Alexandra, Ndabeni and Oude Molen is UNDER CONSIDERATION

NAME	QUESTION/STATEMENT	RESPONSE	COMMENTS/ ACTIONS
Mark Turok	Mark briefly presented an updated plan for scenario C - PRESERVED PARK. This scenario proposes the park to be preserved as an open space with substantial development in the areas around the park. The following changes have been highlighted: 1) Extension of the park towards the sea with rivers forming a harbour just beyond the river club 2) River Club as prime green area with a road running around the north of the site. 3) NMT connections crossing the park, 4) Shifting the river path to make more space for development on the north of the river. 5) Encouraging dense development around the park.	Michael Krause welcomes these ideas, highlighting that these are to be brought to the co-design workshop in February.	

Environmental baseline specialist studies by Tasneem Steenkamp

Tasneem Steenkamp:

- Presenting the biodiversity assessment and the Aquatic and water quality assessment.
- ToR focus on ground-truth the site and making recommendations: opportunities to re-habilitate the site

Biodiversity Assessment conducted by Nick Helmes in July, highlighted that:

- The site is highly fragmented and transformed due to urbanisation, pollution of rivers, trasfomation of river course and alien vegetation
- There are pockets of high and medium biodiversity significance: botanic and faunal sensitivities.
- Fauna and flora sensitivities are including: indigenous vegetation, frogs, birds, small animals, etc. [mobility corridor]
- There are opportunities for rehabilitation, including removal of alien vegetation.

Aquatic and Water Quality Assessment conducted by Antonia Belcher [Blue Science] in September, highlighted that:

- Wetlands are moderately to largely modified, while rivers are largely to seriously modified.
- Water quality variable and seasonal flow. Black River is more degraded than the Liesbeek River.
- River corridors represent key movement corridor for aquatic biota
- Ecological importance and sensitivity is high, except the Black River - low to moderate.
- Potential for re-habilitation, recommendations include: 35m buffer, minimal development in sensitive areas, management of stormwater and alien invasive species, improve connectivity.

NAME	QUESTION/STATEMENT	RESPONSE	COMMENT/ ACTION
Jean Ramsay / TRUP Assoc.	What do you mean with Rehabilitation? Is it a park in european sense?	Tasneem Steenkamp: There is space for park in some places.	
Riad Davids / Pinelands Rate Payers Assoc.	What are the timeline and cost to rehabilitate? What would it be the impact on the water quality? Is it a difficult thing to manage?	Tasneem Steenkamp: The rivers have been greatly impacted, but they should be rehabilitated. Any strategy upstream will have an impact on the water quality.	
Riad Davids / PRPA	Request for a sense of timelines and economic considerations that would restore the river 70% of what it used to be when it was clean?	Tasneem Steenkamp: This will not be a quick process.	
Riad Davids / PRPA	Would micromanagement of the site improve and rehabilitate the area? What are the best ways to mitigate the problems?	Tasneem Steenkamp: The rivers have been greatly impacted. Many of these external issues are upstream, these are difficult to manage and much urbanization has already happened but they should be rehabilitated. Any strategy upstream will have an impact on the water quality.	
Riad Davids / PRPA	Is the CoCT obligated to respect the findings and recommendations of these studies?	Tasneem Steenkamp: These studies inform the TRU-Park process. The city is not obligated to follow any of these findings, these are simply recommendations.	
Kyran Wright / FoL	Is the Black River more sensitive?	Tasneem Steenkamp: The Liesbeek has a higher level of significance and sensitivity while the Black River is more vulnerable to change and degradation. In this sense, the Black River is considered to be sensitive.	

Environmental baseline specialist studies by Tasneem Steenkamp			
Geoff Underwood / River Club, Pinelands Resident	What about the old course of the Liesbeek River? At the moment that side is disconnected. What is the ecological importance of that body of water? What about the Liesbeek Canal? Does it have any ecological significance?	Jody Paterson: The canalised section has a role on feeding the Raapenberg Wetland. Antonia Belcher recommended that the old alignment could be rehabilitated but not as a regular flow of water. Tasneem Steenkamp: It is impossible to try to return the river it its original pristine state, however there are opportunities to soften the river banks/canals and making connections to the vleis. These are better options than getting the flows back to its 'original' state.The concern is to re-establishing the ecology of the old course, rather then re-establishing the original flow of water. There is the potential for the wetland to be ground fed. Kyran Wright: The new arm of the river feeds back into the Black River and is completely canalized. The Black River does not feed into the Raapenberg Wetland. Any fresh water reaching the original Liesbeek course will improve the system. At the moment the water is stagnant, this condition propagates the growth of alien vegetation. It would be ideal to create uncanalized sections of the river to enable the river water to feed back into the water table. It is important to note that canalized rivers are sterile and that it would be very costly to diver the river back into its original channel. FoL wants an un-canalised the river. It is a very expensive task.	
Jean Ramsay / TRUP Assoc.	It is problematic that the green highlighted area inhabited by the toads, is also proposed as a development area. The highlighting suggests the area should not be developed in order to protect the toads. The leopard toads move around a very wide radius.	Tasneem Steenkamp: The recommendation is that fences should be dropped. The key element is to ensure mobility and free movement for the toads within these areas. The leopard toads are also happy on loan.	
?	What type of soil test have been conducted? Did results revealed chemical contamination or just contamination by waste? TS: contamination by waste not chemicals	Tasneem Steenkamp: The area mapped as green was used to be a dumping site. the soil is highly contaminated.It will need to be completely removed before rehabilitation takes place. Contamination by waste not chemicals.	
Geoff Underwood / River Club, Pinelands Resident	Does the study reveal the area is better (of higher natural value) than expected?	Tasneem Steenkamp: The area is compromised. However, the area still holds a lot of potential.	
Kyran Wright / Friends of the Liesbeek	Where did you get the water quality testing? The CoCT samples conducted once a month are not sufficiently accurate.	Tasneem Steenkamp: The data comes from the CoCT.	

NMA TRU-Park concept and associated bulk by Jody Paterson

Jody Paterson:

- Scenarios for TRUP should be considered at a wider than site scale.Cape Town is facing the challenge of becoming an efficient city.Travelling time and distances are critical issues within the metropolitan setting. Location is crucial.
- The CoCT policies are supporting the creation of a more efficient city through the adoption of Transport Orientated Development (TOD) amongst other initiatives. The TRUP site is an ideal site to address and support this approach.
- Emphasising how the TRUP site offers a great opportunity to address unequal spatial legacy and support the creation of an inclusive city. TRUP future development should focus on the following imperatives:
    - Reduce reliance on cars
    - Promote TOD by reinforcing the corridors and stations with more dense and intense forms of development
    - Accommodate affordable housing on the site
    - Enhance the natural systems to improve their economic, infrastructural and social role (in particular as a significant Urban Park)
- Highlights the fact that much of the land is publicly owned, therefore, it is a real opportunity for change
- Presented examples of precedent for TRUP including : the rivers and parks flowing through Curitiba and Brazil; the rehabilitation of rivers at Houtan Park and in Shanghai, major parks for people such as Central Park, NYC; public amenities as catalysts such as in Medellin Columbia. Lessons learnt:
    - High density edges to support a park as a safe destination (passive surveillance)
    - People and Nature not to be separated
    - Conservation Areas not to be fenced off no-go areas
    - High residential population to support the maintenance and management of the park
    - Park space to double as ecological infrastructure
    - Inclusion of urban agriculture in parks is used for educational purposes and community building
    - Job creation through opportunities created with the park including maintenance, eco-tourism and education
    - Catalytic Projects as points of interest are important – museums, centres of learning, libraries etc.

NMA TRU-Park concept and associated bulk by Jody Paterson

- Explained the process of the proposed design as needing to commit something to paper
- This proposal should be seen as a starting point or worst case scenario. It was necessary to have a proposal:
  - to enable engineers to run an engineering service model, as the engineers require bulk estimates
  - to provide guidance to the SKA development,
  - to inform discussions with the heritage consultant and other specialists
- The proposal includes the following critical elements and actions:
  - Bridging the river corridor and M5, connecting east to west: [1] the current bridge at Valkenberg will in future play only a minor role, [2] the Berkley Road extension is essential to unlock the potential of the site and the greater area, [3] the extension of Station Road as pedestrian and public transport only route: this new link will serve NMT and Public Transport movement, connection Mowbray to Ndabeni, and to the T17 Mitchell's Plain route; the bridge, despite being a design challenge, will also play an essential role in connecting isolated communities in the area and can also serve to make the two separate portions of Raapenberg more connected, [4] Liesbeek Parkway is a challenge to NMT crossings due to its scale, it should be down graded.
  - Connecting and extending current transportation service points to support the making of a car deficit area
  - Creating a continuous NMT network throughout the site and along the rivers, connecting all railway stations.
  - Providing more points for contact with the water: highlighting the significance of water as key opportunity
  - Conservation of highly sensitive areas
  - Rehabilitation and reconfiguration of less sensitive areas for passive recreation
  - Location of mixed use development along the edges of the Park – where appropriate
  - Reinforcement of key points through intensification of land uses and creation of network of public surveillance centres
  - Creation of green network of spaces connecting the adjacent communities to the Park
  - Creation of gateway precincts where events bring people from diverse backgrounds together
  - Inclusion of catalytic projects: [1] Cape Health Technology Park located at the East key Gateway, [2] SKA located at Station Road, at the key West gateway.

- Highlights that the implementation of the catalytic projects and phasing still need to be established, and the criteria for the implementation of these projects still need to be worked out – suggesting however that areas closest to the transport hubs should take precedent
- Noted that the infrastructural investments including the Berkley and Station Road bridges, are urgent but very expensive, and should be seen as one of catalytic projects
- Highlighted that the River Club development is running ahead of the TRUP process
- On high-level, the estimated bulk of this scenario is approx. 2 mill square metre floor area, including 63 000m^2 of parking for the short term and 200 000m^2 of floor area for depots
- The Ndabeni Triangle area is seen to hold the potential to accommodate the highest bulk, however the CoCT is still considering what portions of Ndabeni triangle are available;
- Summary:
- Highlighted that studies have found there is not a huge demand for commercial use in this area
- Focus will be on providing for a segment of the residential market; it makes senses for the CoCT to use the site to accommodate affordable housing.
- Valkenberg West should retain its green character, but Ndabeni triangle could be going up 3 – 6 storey.
- High density edges could frame the natural open spaces. Conservation areas management and rehabilitation is costly, residential development could pay for it.

NAME	QUESTION/STATEMENT	RESPONSE	COMMENTS/ACTIONS

NMA TRU-Park concept and associated bulk by Jody Paterson			
Marc Turok / TRUP Assoc. and Observatory Civic Assoc.	While is good to see ideas on paper, the biggest contention is the decision to have one major public transport route through the park, as opposed to around the park. The rationale for needing public transport connections is not understood, but the NMT connections through the park are strongly supported. There should be consideration of alternative connection and routes before a final decision is made upon the main connections.	Jody Paterson: There have been intense discussions with Transport for Cape Town (TCT), City of Cape Town. TCT suggested linking existing services rather than building new bridges for now. It might be that the bridge cannot be more than a pedestrian bridge. Michael Krause: The focus of this meeting is to hear about the results of the specialist studies, not to engage in details of the design as this will all take place at the co-design workshop next year in February. However notes of concerns raised will be taken to be discussed at the co-design workshop in February.	
Dan Neser / Oude Molen Eco-Village	Concern that the Health Park sponsored by vaccine/pharmaceutical company is not a legitimate public institution to be located at such a significant site. Is the decision on the Health Park still under discussion? Have alternative locations - such as Ndabeni - been being investigated? Controversial to create a major link from biovak to SKA? What is the rational for a vaccine factory next to a park?	Jody Paterson: agrees that the facility has to have a greater public role otherwise its location cannot be justified, suggesting that it could inspire people to get excited about science.	
Kyran Wright / Friends of the Liesbeek	Concerns about the lessons learned from Shanghai and Brazil, particularly whether the suggestion of a high density edge is preferable. It is important to not that this could create a buffer. Suggesting a softer edge would be more an appropriate response to engage with the ecological corridor as this is not a line, but something more fluid and expanding, contemplating more context specific interventions.	Jody Paterson: Going verticality is required to prevent privatising the edges to the corridor. Please notes that the building heights at Oude Molen are 3-4 storeys in height.	
Husdon Mc Comb / Oude Molen Eco-Village and TRUP Assoc.	Concerned about copying and pasting from oversees and suggests that Oude Molen creates a softer transition and is an appropriate example. Instead of copy-paste, suggesting how to strengthening the uniqueness of the site.	Jody Paterson:	
John Holmes / Oude Molen Eco-Village	Suggestion that the CoCT relocate all their depots from Ndabeni to the airport, to enable a really substantial development to take place there. Allowing Ndabeni to be developed into a significant technical hub, and leaving the other precincts of TRUP to accommodate a much lighted development footprint, and a more sensitive, people oriented design. Tourism-wise, why would people visit the site? Commenting there have been no mention of supporting tourism within the park, suggesting something similar to Kirstenbosch. Could a walk between the two mills be included? Suggesting the park should have the potential to draw people from all over the world that this place should be made into a really special destination.		

NMA TRU-Park concept and associated bulk by Jody Paterson			
Liz Wheeler / Friends of the Liesbeek	There used to be a pedestrian bridge connecting from Maitland Garden Village westwards to Observatory. This was a very important connection. It is a disgrace that is was removed. However by creating a new vehicular connection instead, the park will be cut in half. There was a pedestrian bridge in Maitland Garden Village, a walking route. Why would you like to cut the park in two?	Nisa Mamon: There are the two key reasons for the road: 1) the east and west side integration is very important as it brings the two communities together and 2) this serves to connect significant public transport routes of Maitland, Ndabeni and Mowbray with routes from Khayelitisha and Mitchell's Plain. The route is focused on serving NMT and public transport vehicles not private vehicular movement.	
Jean Ramsay / TRUP Assoc.	Proposed extension of Station Road creates a split in the park which is considered abhorrent. Questions if the Berkley Road extension running around the rivers cannot be investigated.	Jody Paterson: The engineer informed that the Berkeley road alignment around the rivers will not work. Michael Krause: This can be raised next week with the transport engineer.	
Geoff Underwood / River Club, Pinelands Resident	Comments from a Pinelands resident and user of the urban park, but who is also the town planner representing the River Club. Stressing the importance for showing tolerance in this process. Observing that there have been lots of chats but he is glad that we are getting somewhere now. How much bulk is assigned to the River Club in the proposal? How much of the 2mil square metre.	Jody Paterson: The proposal allocates 120 000 square metre of floor space area for the River Club development, utilising the footprint efficiently. Mark Turok: The River Club is an open space.	
Hazel Bouvet / Friends of the Liesbeek	Concerned that the design team is ignoring the comments raised by stakeholders within the consolation of the process. What has been put on paper from the city is most likely to remain Now engineers and specialist studies are dictating the process. It is actually appalling! After all we when through, the scenarios… We have been extremely tolerant for long time. This has been a long process. After having consulted engineers, experts, now they are thinking that this is feasible and therefore unlikely to change. Concerned about what the CoCT has already put on paper and decided upon. Really concerned that the CoCT has already decided on a clear future plan already. Supportive of the idea of an open police but very concerned about some of the ways that aspects of the design were presented. Very unhappy with aspect of the road as the way it was presented as it sounded like this was final and already decided upon, and passed off as an engineering issue.	Jody Paterson: The dialogue will continue, it is just at the beginning. Pete van Heerden / Spatial Planning CoCT: Noted. The City has no preconceived ideas. The process is a joint venture with Province and stakeholders. The River Club have a proposal and they are running ahead of us. We are supporting their proposal. Technical specialist studies are reality check for the City, and we are taking these studies very seriously. There will be an implementation framework. Mark Turok: Ignoring the process we have been involved with, all the stakeholders ideas, the status quo of the Two Rivers Urban Park, the TRUP Association, the uses and the comments, and the process. Nisa Mammon: In order to run an open process, it is important for us to share with you the work done so far by NMA. Re-emphasizing the necessity for a proposal to run numbers and test the ground. It would not be possible for the engineers to test the capacity without any bulk and land use proposals. What has come out of the stakeholder workshops process has been taken into account.	

NMA TRU-Park concept and associated bulk by Jody Paterson			
Husdon Mc Comb / Oude Molen Eco-Village and TRUP Assoc.	It would be more reassuring if the design team would have included some of the scenarios that have been presented. Live-work-play scenario comes from the OM, about 10 years ago. It would be better if the other scenarios could be presented as well rather than the team just presenting or choosing what is going to happen. Engineers should not get stuck, rather explore more ideas and scenarios. We have been way too tolerant.	Jody Paterson: Agreeing and suggesting the various scenarios could form a toolbox of ideas.	
Carol	Why did PRASA sell the land if they knew about the future design proposals? Can we please clarafy the River Club ownership?	Jody Paterson: River Club is privately owned. It used to be PRASA land, and the CoCT owns a portion of it. It is zoned as Open Space.	
John Holmes / Oude Molen Eco-Village	In previous discussions with Guy Briggs on the NMT system through the centre of the par, it was proposed that small golf cart type battery-operated vehicles could run between the seven stations, thus omitting the need for big busses through the Park, or large-scale infrastructure to accommodate them. Moving from one wind mill and another.		
Alastair Buchanan / Jubilee Church ?	Some members of the Jubilee church are very concerned residents who are worried about the possible future negative effects that gentrification could have on the area. Raises the example of the adorable housing in Westlake.	Jody Paterson: Gentrification is what we want to avoid.	
?	Quoting the story of how "to recreate a rainforest. Don't cut it down in the first place!" Isn't it incumbent for this process to leave anything that is open without concrete and open. It seems crazy to build anything where there is green. Why buildings and more concrete are required on these green spaces? It seems ludicrous to see concrete over free open zone? Why would River Club need a big footprint of concrete?		
Joy Robinson / Observatory Civic Assoc.	These 10 points that we worked out together, the manifesto. None of the point appear in your proposal. How do you explain that? reading form the manifsto: "…an integrative space that respond to culture, heritage and memory of the site". How do you respond to that? Natural quality of the site, the special physical, … How do you work?	Jody Paterson: We work with passion. We love what we do. Things have changed.	
Riad Davids / Pinelands Rate Payers Assoc.	At what point you look at the impact of what you are proposing? This is the most important thing	Nisa Mammon: We put ideas on the table, and they get then tested.	

NMA TRU-Park concept and associated bulk by Jody Paterson			
Michael Krause	This session is focusing on the specialist studies. At the same time it is important to summarise the issues that the stakeholders raised in response to this presentation: • How serious are we about the process? • How is the manifesto reflected in the process? • Why do we increase the footprint? Why are we eating the green space? • What about scenarios? • Scenario/Model from OMEV • When/how do we assess impact of ideas? • River Club: 120 000 square metre • Central bridge • High density edges • Cape Health Technology Park location • private space / park space • Tourism ? • Moving CoCT depots out of Ndabeni Please send us other concerns if you feel that anything have been missing.		

Flood modelling by Marieke de Groen

Marieke de Groen:

- Approach: using PCSWMM software to predict flood extents for design condition
- 1:100 year modelling of flood mitigation
- River Club flooding is regular
- PCSWMM modelling design flood: 1:100 years flood, from modelling the whole catchment
- Flood mitigation meaures:
    - Flood protection berms, infill and construction;
    - Reducing catchment inflows
    - Channel modification (enlargement);
    - Flood water storage; and
    - Outflow improvement (possible improvement of Zoarvlei outflow not modelled)
- Level difference are minimum - mm -
- Reduce catchment inflow: retains, store, drain
- River Club is flood storage area
- Marieke de Groen is pushing to run the 1:10 year flood model
- Conclusions:
    - Local flooding due to capacity of the bulk storm- water network being exceeded by the 1:10 year flood: [1] Northern parts of Maitland Garden Village, [2] in the area around Eastman Road and [3] between Berkley Road and Frere Road and [4] at the hockey stadium.
    - Most of the sports fields to the West of Liesbeek Parkway are not predicted to be flooded; significant difference from 1D model. They are protected by the raised parkway.
    - Proposed development has very little effect on flood levels & extents.
    - Flood storage within TRUP can improve local stormwater flooding, but has little effect on river flood extents for 1:100 year floods.
    - Channel enlargement has the potential to significantly reduce flooding, particularly in the Black River towards the upstream end of TRUP site. Flooding at the PRASA depot from the Liesbeek is also reduced.
    - A moderate reduction in catchment inflows has no discernible effect on flood extents within TRUP, but would reduce flood extents of 1:100 year floods immediately upstream of the N2.

Watercourse management by Marieke de Groen

Marieke de Groen:

- Possible options:
  - Separate Channel
  - Effluent transport by pipe from Athlone WWTW into TRUP
  - Litter trap at upstream end of site [UWEM/BARAMY]
  - Special aeration method to improve oxygen levels: RADOR, combined with enzyme treatment
  - Treatment wetlands
  - 'urban canal restorer'
  - Changing the course and profile of the Black River
  - Meandering: not easy to manage with the 1:2 year flood [somerset west example is not working]
- Docking feature: only 500 mt, short even for practice
- Recommendations by Specialist Study:
  - Investigate treatment of Vygieskraal dry weather flow and effluent of the WWTW of Athlone with enzyme treatment in the maturation ponds, as a pilot;
  - Introduce nature friendly banks and develop maintenance plans;
  - Design an 'urban canal restorer' along board walks planned in the wetland in front of Oude Molen;
  - Introduce maintenance team rather than a litter trap
  - Do NOT introduce meanders.
  - Docking/waterfront feature at the end of Berkley Road with pavilions with future space reserved for a docking station for paddlers and recreational rowers.

NAME	QUESTION/STATEMENT	RESPONSE	COMMENTS/ACTIONS
?	According to the River Club, the level of the railway bridges further down is causing the flooding. Is that so? Is it mostly the topography that defines the flooding?	Marieke de Groen: The bottleneck effect of the railway bridges definitely contribute. If you can increase the capacity out, it will decrease flooding. It is not only the length but also the width of the railway bridge. The CoCT has used a simpler model as they did not have the detailed studies.	
Jean Ramsay / TRUP Assoc.	The observatory fields are flooding very often, why does that not feature on the model?	Marieke de Groen: Those fields flood because of stormwater, the model focuses on the rivers.	
Marc Turok / TRUP Assoc. and Observatory Civic Assoc.	1 : 100 years is not enough. if you have a big volume and regularly you have more flood, that will impact the environment.	MdG: The flood takes 12-18 hours, not days. Climate change is looking 2060 scenarios 1: 100 year is not so relevant for the TRU-P area	
John Holmes / Oude Molen Eco-Village	There is already a big littler trap on the Black River which gets clean every week.		

Kyran Wright / Friends of the Liesbeek	I am not against dev Commenting on the flood line, do you trust your model? Do you know what it is? According to the top model academics, are saying modelling is not reliable. We had no 1:50 year flood in over 100 year, // River C paradigm shift of river club, do you trust the model? What about the River Club, does it work as a sink? What about the impact of future development the River Club, how would the Raapenberg sanctuary be affected?	Marieke de Groen: 1:100 flood model is hypothetical, for any site in the world. It is good to test. It is good to test 1:20 years to get a feeling on how things work. The model is a simplification of the tool. It is a theoretical thing to test a few scenarios. The model gives cells and still need to get flood lines, the 1:50 and 1:100 are not so different, so in this sense, we are still on the safe side. It is there to test intervention. It is looking at how sensitive is the system for an intervention. The mathematics of it should function. The River Club could be used as a sink, but it is not the current situation. The River Club development does not affect the flood extent, the water level. The flood extent won't change for the 1:100, it will affect the 1:10 flood. 1:10 year flood makes more sense in terms of ecology. That is where all the ecologies start to reach, when the frequencies are higher.	
John Holmes / Oude Molen Eco-Village	River club has been a researveour area historically. It is traditionally a reservoir. Nothing should be built in that area. Any other buildings that get added in that area reduce the water capacity. All the other areas should be kept safe. Nobody should build in that area because that was a water researcher traditionally.	Marieke de Groen: The hydraulics in 1:100 year doesn't change too much, frequency is another story.	
Liz Wheeler / Friends of the Liesbeek	Pardon eiland was used to be wetland. What about the densification policy? The liesbeek in particular, has been affected by the amount of hard surfaces, I presume that should be taken into account in the model.	Marieke de Groen: This is not in the flood model. If you densify, you have to compensate. Michael Krause: Can we model if there is more water coming in? [name?]: Each project have their responsibility to mitigate the flooding impact, each project ha its contributions. This is the new policy. Marieke de Groen: Technically it is possible to measure it, but the question is whether the CoCT requires it.	
Marc Turok / TRUP Assoc. and Observatory Civic Assoc.	Scenario C has a additional canal going out to the West. ,Can you excavate deeper along the river, going under the bridge, so that the river can have more volume capacity?	Marieke de Groen: Making it deeper doesn't increase the capacity. It doesn't help. A free surface has to take into account the sea side.	

Lynette Munro / TRUP Assoc.	Being part of the TRUP Association for the last ten years, I am amazed at how little have been added to process. Things like water is a key, have been there for so long. TRUP Association have appealed to the city to do what people have been dreaming. Tasneem stated that this place is perceived as highly valuable, this because 20 years ago it did. Now after 15 year, it is considered valuable but degraded. My point is that if we don't work together and make it happen, it will be another 15 years, and then it would be totally degraded and good bye park! might just build your houses though it!.		

We would like to reconvene for the next session, on Thursday the 10th of November 2016, between 6.00pm and 8.00pm. (tbc.)