

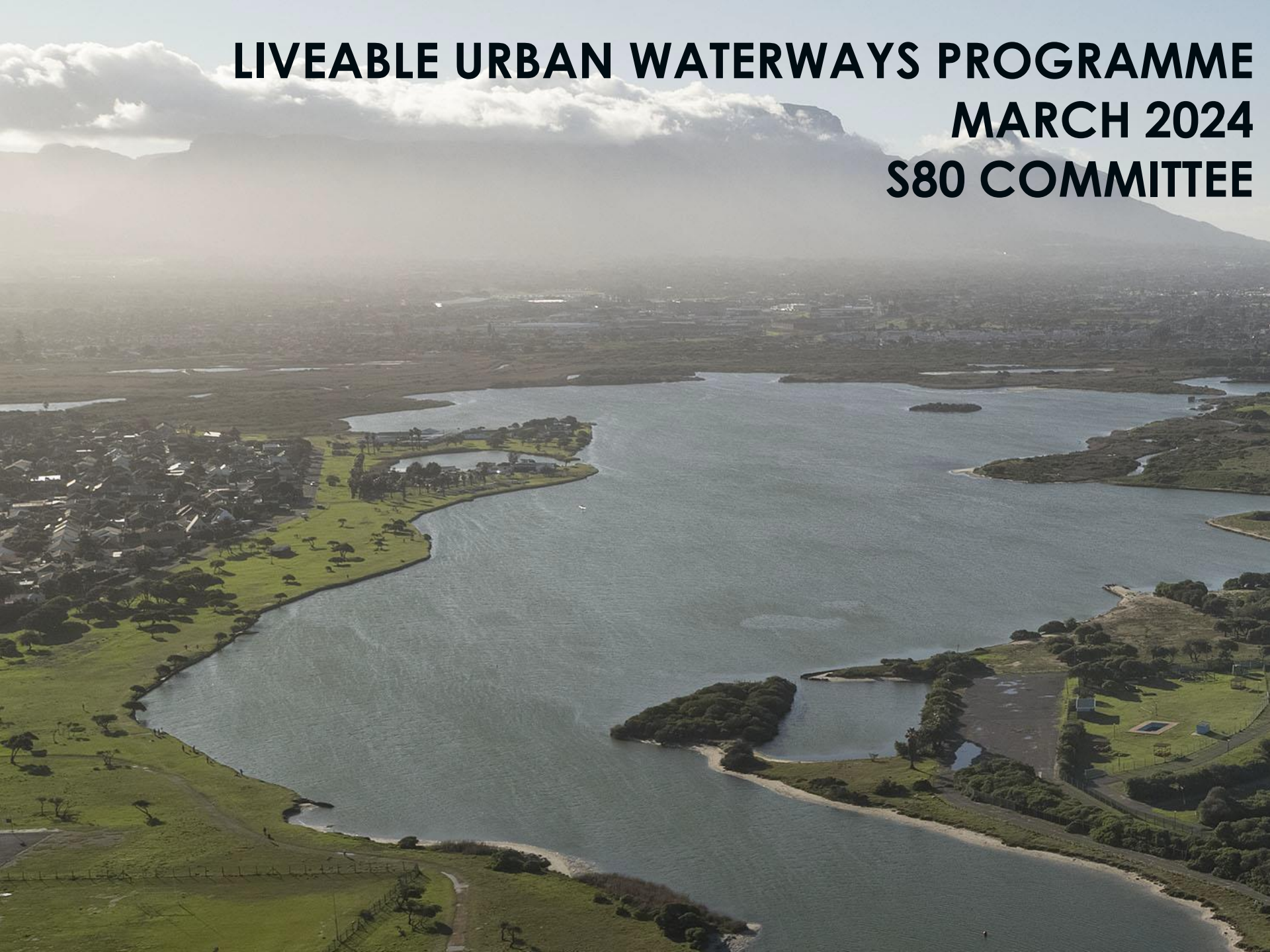
Terms of reference (ToRs) for the
procurement of services below the
EU threshold

Annex Two: City of Cape Town Section 80 Report on the Liveable Urban Waterways Programme (March 2024)

LIVEABLE URBAN WATERWAYS PROGRAMME

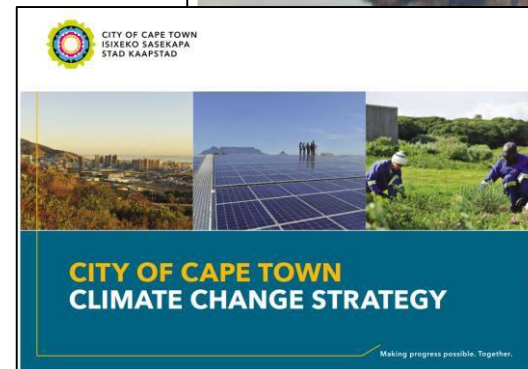
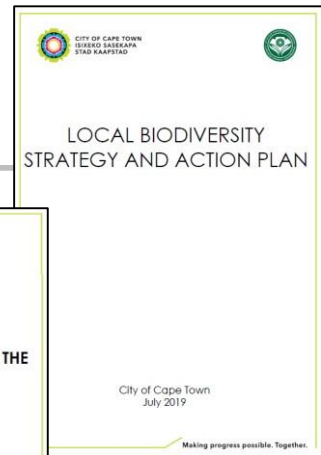
MARCH 2024

S80 COMMITTEE



WHAT IS THE LUW PROGRAMME

“A strategic and transversal programme that systematically, proactively and collaboratively rehabilitates waterways across Cape Town, using water sensitive design, nature based and green infrastructure approaches”



Commitment 5: A water sensitive city
Demonstrable action 2.2.4: Create liveable urban waterways
Section 6.5: Ecosystems approach
Cross-cutting Work Area 5: Promote, protect, and enhance human and ecosystem health;
Strategic Focus Area: Water sensitivity, flood-readiness and storm management
Objective 10.1: Healthy urban waterways programme

DEFINITION AND PRINCIPLES

The Liveable Urban Waterway Programme Implementation Framework identifies the following definitions of a liveable waterway:

1. Has acceptable water quality.
2. Makes space for the water.
3. Has a functioning ecology.
4. Connects the waterway to the water table and the floodplain.
5. Connects communities; and used and enjoyed by communities.
6. Provides a range of ecosystem services, economic and social benefits.

And the following principles that must guide the overall programme and the individual projects:

1. Collaboration and partnering.
2. A waterway as a connector and a catalyst.
3. Design with nature.
4. Design for many uses.
5. Build in resilience.
6. Design for attractive and usable public places.
7. Post project care and maintenance.
8. Catchment scale, systems thinking.

STRATEGIC KPIS

Four strategic Key Performance Indicators (KPI) are used to track overall programme progress over the medium to long term (5 to 10 years).

KPI	Baseline	Target	2021 /22	2022 /23	2023 /24	2024 /25	2025 /26	Status	Notes
Waterways or reaches of waterways made liveable (according to the monitoring framework definitions)	-	3 every 5 years	0	0	1	-	-	Behind target	Capital budget cuts have put a hold on the delivery of implementation ready projects, and until such time as budget is prioritised for projects under the LUW programme then this KPI will not be met.
Percentage of residents surveyed that have used a waterway in the last year	6% (2018 customer perception survey)	2% improvement between surveys (30% by 2030)	6%	6%	-	-	-	Behind target	This indicator reflects progress of more than the LUW programme.
Percentage of residents surveyed that are either very satisfied (excellent) or satisfied (very good) with the state of their nearest waterway	30% (2018 customer perception survey)	2% improvement between surveys (50% by 2030)	30%	19%	-	-	-	Behind target	This indicator reflects progress of more than the LUW programme.
Catchments with project pipeline developed and budget needs identified	Zero (2021)	4 by Dec 2024	0	1	1	-	-	On target	Western sub-catchments of the Sand catchment have a developed project pipeline. Sector planning and study underway (C40 CFF) to develop city wide pipeline.

AGGREGATE PROJECT OUTPUTS

Eight defined project outputs are tracked for each project¹, and the aggregate of these is used to show total programme output (or impact).

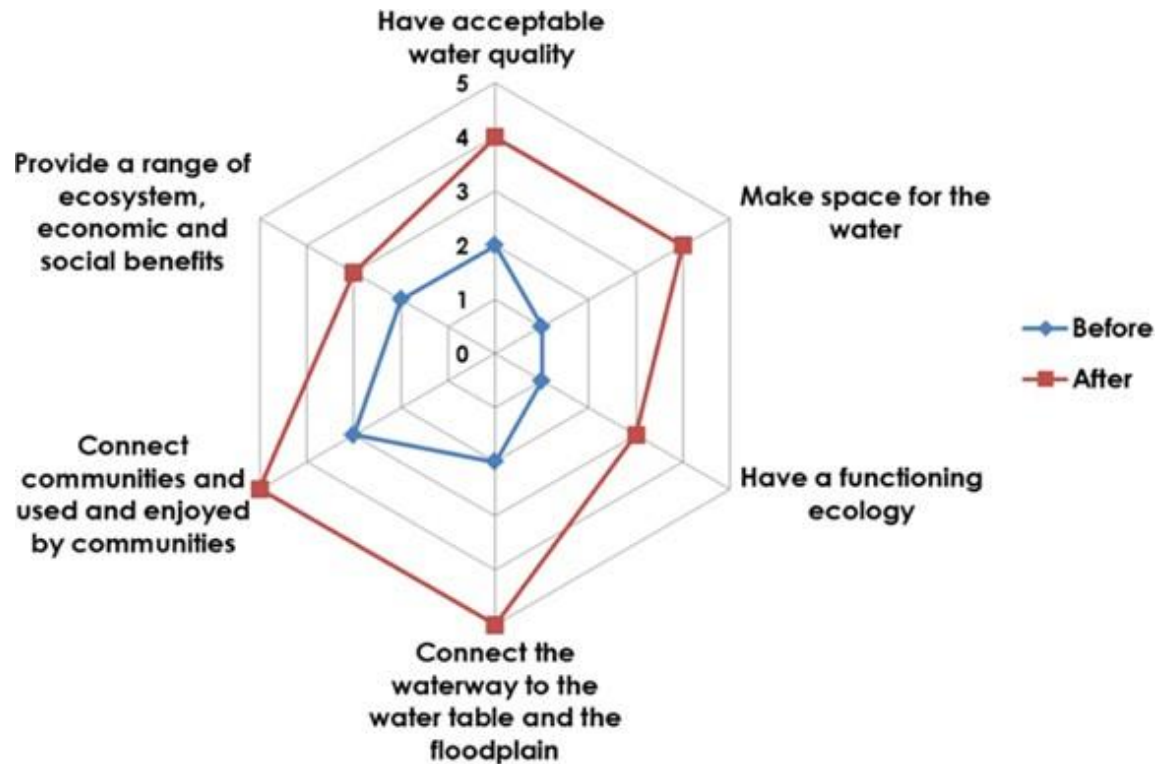
Output	Measure	Aggregate quantity	2021/22	2022/23	2023/24	Notes
Linear rehabilitation length	metres	0	0	0	0	
Area of new or rehabilitated wetland or riparian zone	ha	3.1	0	0	3.1	Asanda Wetland Park
Length of pathways installed or improved	metres	330	0	0	330	Asanda Wetland Park
Length of canal removed or culvert daylighted	metres	0	0	0	0	
Number of trees planted	no.	33	0	0	33	Asanda Wetland Park
Number of co-design workshops	no.	4	3	1	0	2021/22 = Westlake, Spaanschemat/Grootboschkloof/Prinskasteel, Sand Langevlei/Keyser 2022/23 = Vygekraal
Number of community members/organisations reached through stakeholder engagement and workshops (includes those who attended and who were informed but did not attend)	no.	716	337	294	85	2021/22 = Westlake, Spaanschemat/Grootboschkloof/Prinskasteel, Sand Langevlei/Keyser 2022/23 = Vygekraal 2023/24 = Diep Sand, Zeekoe
No. of construction jobs created (direct through contractors)	no.	19	0	0	19	Asanda Wetland Park

Note –

1. These outputs are draft and still need to be agreed with various stakeholder departments

PROJECT OUTPUTS

In addition to the aforementioned outputs, each project is also tracked according to the 6 LUW defining elements. Each element has a measurable KPI that is measured before a project commences, and will be measured once the project is completed. The results are shown in a chart similar to the one below. The definitions of the ratings 1 to 5 is shown in the table on the next page.



PROJECT OUTPUTS

Elements of Liveability	Ratings				
	1	2	3	4	5
Make space for the water	The waterway can contain less than the 1:10 year flood	The waterway can contain the 1:10 year flood	The waterway can contain the 1:20 year flood	The waterway can contain the 1:50 year flood	The waterway can contain the 1:100 year flood
Have acceptable water quality	Water quality trend showing E.coli quantities greater than 10 000 cfu/100ml most of the time	Water quality trend showing E.coli quantities between 4 001 and 10 000 cfu/100ml most of the time	Water quality trend showing E.coli quantities between 2 001 and 4 000 cfu/100ml most of the time	Water quality trend showing E.coli quantities between 1 001 and 2 500 cfu/100ml most of the time	Water quality trend showing E.coli quantities of less than 1 000 cfu/100ml most of the time
Have a functioning ecology	PES of E or F – very poor condition Habitat – Irreversibly modified	PES of D – poor condition Habitat – heavily modified	PES of C – fair condition Habitat – degraded/fair	PES of B – good condition Habitat – near natural/good	PES of A – natural condition Habitat – natural
Connect to the water table and the floodplain	Less than 10% permeable area or connectivity to floodplain	10% to 20% permeable area or connectivity to floodplain	20% to 50% permeable area or connectivity to floodplain	50% to 80% permeable area or connectivity to floodplain	80% to 100% permeable area or connectivity to floodplain
Connect communities and used and enjoyed by communities	Completely disused space or a space used for only criminal or unsocial activities	Very occasionally used space used infrequently by a community for typically a single type of activity	Occasionally used space used a few weeks of the year by a community for typically a single type of activity	Fairly well used space used most weeks of the year by a diverse community for more than 1 type of activity	Very well used space used every week of the year by a diverse community for more than 1 type of activity
Provide a range ecosystem services, economic and social benefits	^{WN} _{PA} Has a negative impact	Provides no impact	Provides a single benefit	Provides two benefits	Provides more than two benefits

WORKSTREAMS

The LUW Programme is implemented through eight work streams. These are summarised below:

Implementation Framework

- Developing an Implementation Framework and supporting documentation
- Obtaining endorsement from the programme sponsors and key stakeholders
- Embed programme into City processes

Communication and Engagement

- Developing a stakeholder map and communication plan
- Implementing the plan through a series of engagements and communications

Case Study Compendium

- Researching and developing a Compendium of Case Studies that showcase liveable waterways

Monitoring Framework

- Developing a programme level monitoring framework
- Supporting the implementation of the monitoring

Demonstration Projects

- Planning and implementing the demonstration projects
- Reflective learning for scale up

Project Pipeline

- Developing a pipeline of possible projects
- Benefits case
- Identifying funding
- Planning and implementing the projects

Learning Lab

- Embedding a culture of continuous improvement and reflective learning

Governance

- Developing governance structures
- Using the structures to oversee programme implementation



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FINANCIAL SITUATION

The capex budgets for four of the six projects have been pushed out to 2033/34 (extract from SAP PPM 25/01/24):

WBS Element	Project	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33	33/34	34/35	35/36	36/37
CPX.0017546-F1	Keysers River	0	0	0	0	0	0	0	0	0	1 650 000	600 000	20 000 000	9 000 000
CPX.0017475-F1	Grootboschkloof River	0	0	0	0	0	0	0	0	0	1 100 000	600 000	25 200 000	200 000
CPX.0017549-F1	Westlake River	0	0	0	0	0	0	0	0	0	1 885 000	600 000	36 100 000	200 000
CPX.0017548-F1	Spaanschemat River	0	0	0	0	0	0	0	0	0	1 542 000	600 000	33 000 000	200 000
CPX.0020148-F1	Sand/Langvlei Canal	2 983 507	6 433 885	0	0	0	0	0	0	0	0	0	0	0
CPX.0016671-F1	Vygekraal River	2 000 000	6 497 494	7 977 954	916 659	0	0	0	0	0	0	0	0	0

All six projects have already spent budget on project preparation and design activities (extract from SAP PPM 01/03/24):

Project	2022/23	2023/24
Keysers River	1 984 469	716 783
Grootboschkloof River	1 713 053	585 756
Westlake River	1 685 945	480 722
Spaanschemat River	2 098 972	553 116
Sand/Langvlei Canal	1 186 109	415 761
Upgrade Vygekraal River banks - Phase II	1 570 763	318 614

FINANCIAL SITUATION

The capex budgets required to deliver the full river corridor plans for each of the locations is as follows (values from the respective detailed design reports, direct costs inclusive of 10% contingency, excluding VAT, excluding contract supervision fee):

Project	Construction Estimate	
Keysers River	43 000 000	
Grootboschkloof River	22 000 000	
Westlake River	40 000 000	
Spaanschemat River	38 000 000	
Sand/Langvlei Canal	31 000 000	
Vygekraal River	50 000 000	Estimate only as project still in concept design phase

PROJECT SUMMARY – SALT CATCHMENT

Vygekraal River

Outline scope of work

Rehabilitation of the river corridor between Jakes Gerwel Drive and the Athlone WWTW: creation of new wetland and instream habitat, naturalisation of channel embankments, repairing erosion, removing sediments and invasive plants, planting indigenous vegetation and trees, installing new footpaths, seating, lighting and informational signage, replacing footbridges, integrating the river corridor into the surrounding urban form, particularly at nodal points by roads and crossings and through Nantes Park.



Status

Concept design

Anticipated bio-physical benefits

Implementing department

Water and Sanitation

Capex budget (SAP PPM)

2024/25	2025/26	2026/27	2027/28
R2 000 000	R6 497 494	R7 977 954	R916 659

Required capex budget

R50 000 000

Mayor's Priority Programme

No

Regulatory target

No

Construction jobs created

To be determined

Maintenance jobs created (Over 20 years)

To be determined

Net present value of all costs (Over 20 years)

To be determined

Total socio-economic benefit

To be determined

To be determined

PROJECT IMPACTS – SAND CATCHMENT

Sand Langevlei Canal

Outline scope of work

Removal of concrete canal base and walls (the first of this scale ever in Cape Town), creation of a stilling basin and upper treatment wetland, diverting flows into the wetland, installing new litter traps, creation of a lower polishing wetland, naturalisation of channel embankments, planting indigenous vegetation and trees, establishing a biodiversity restoration area, installing new footpaths, seating, lighting and informational signage, integrating the river corridor into the surrounding urban form, particularly at the proposed school, nature reserve entrance, roads and proposed market interfaces.

This is a must do project as you cannot fix Zandvlei without first fixing the wetlands and rivers in the catchment. This project will set the precedent for further critical rehabilitation work upstream in the Diep/Sand catchment.



Status

Detailed design

Implementing department

Water and Sanitation

Capex budget (SAP PPM)

2024/25

2025/26

R2 983 507

R6 433 885

Required capex budget

R31 181 000

Mayor's Priority Programme

Yes

Regulatory target

Not for this space but yes for Zandvlei

Construction jobs created

76

Maintenance jobs created (Over 20 years)

400

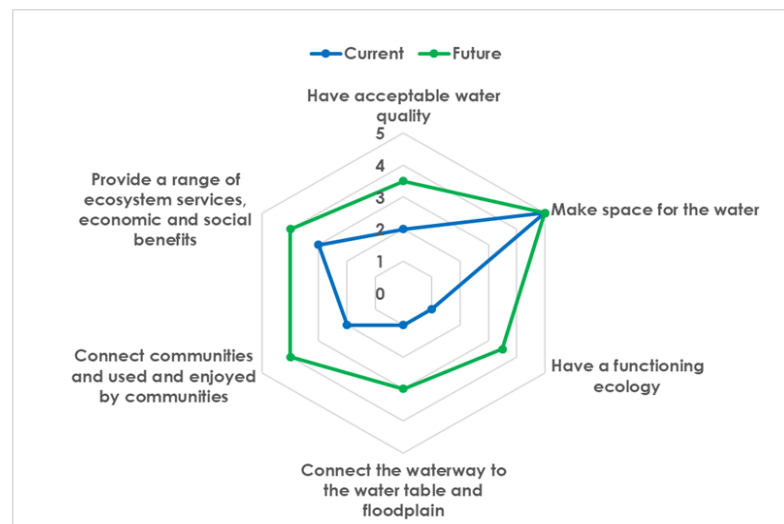
Net present value of all costs (Over 20 years)

(R69 564 000)

Total net socio-economic benefit

R1 446 000

Anticipated bio-physical benefits



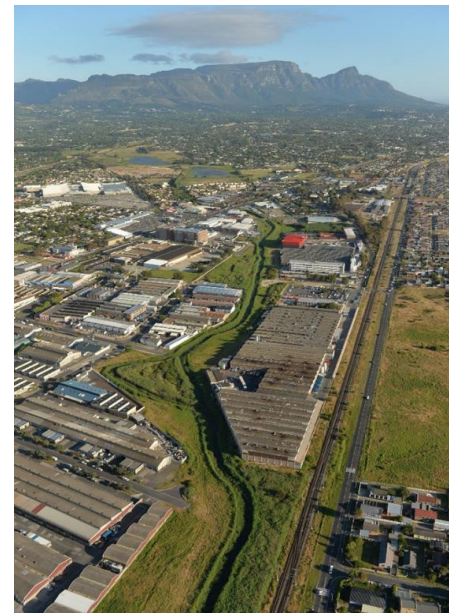
PROJECT IMPACTS – SAND CATCHMENT

Keyser River

Outline scope of work

Two river corridor reaches will be rehabilitated 1) Tokai Main Rd to downstream of Military Rd and 2) the sloop above Blue Route mall: creation of new wetland and instream habitat, naturalisation of channel embankments, repairing erosion, removing sediments and invasive plants, planting indigenous vegetation and trees, installing new footpaths, seating, lighting and informational signage, constructing a new foot bridge, creating pocket parks for local business and the Melomed hospital to use, integrating the river corridor into the surrounding urban form, particularly at nodal points by roads and crossings.

This is a must do project as there is a regulatory resource quality objective target for this river. You cannot fix Zandvlei without first fixing the wetlands and rivers in the catchment. This project will build on the upstream rehabilitation work and must be undertaken as a package of projects.



Status

Detailed design

Implementing department

Water and Sanitation

Capex budget (SAP PPM)

2033/34	2034/35	2035/36	2036/37
R1 650 000	R600 000	R20 000 000	R9 000 000

Required capex budget

R42 968 000

Mayor's Priority Programme

No

Regulatory target

Yes

Construction jobs created

113

Maintenance jobs created (Over 20 years)

400

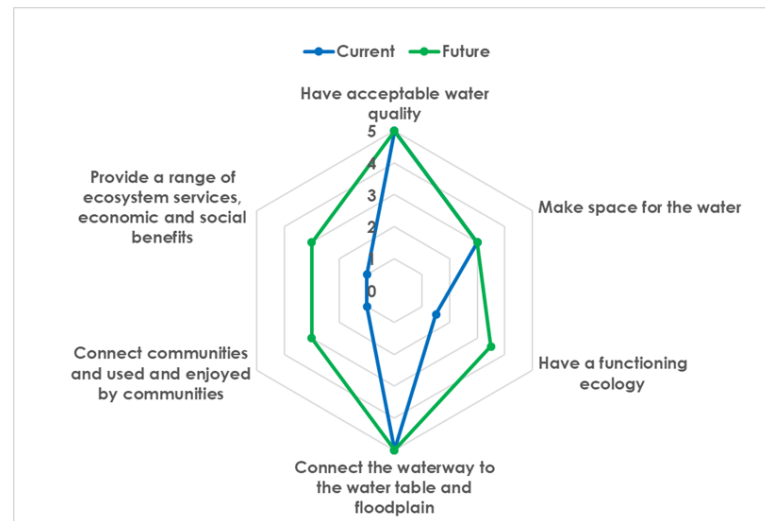
Net present value of all costs (Over 20 years)

(R51 670 000)

Total net socio-economic benefit

R5 964 000

Anticipated bio-physical benefits



PROJECT IMPACTS – SAND CATCHMENT

Westlake River

Outline scope of work

Two river corridor reaches will be rehabilitated 1) Upper river flowing through Westlake Village and 2) Lower river flowing through Kirstenhof: creation of new wetland and instream habitat, reconnecting the river to the wetland, naturalisation of channel embankments, repairing erosion, removing sediments and invasive plants, planting indigenous vegetation and trees, installing new footpaths, seating, lighting and informational signage, constructing improved access to Steenberg Village, creating an outdoor classroom, integrating the river corridor into the surrounding urban form, particularly at nodal points by roads and crossings, and at the proposed football pitch.

This is a must do project. The community has lacked any meaningful social investment for decades and this project could catalyse economic improvement for the community. You cannot fix Zandvlei without first fixing the wetlands and rivers in the catchment. This project will build on the downstream rehabilitation work and must be undertaken as a package of projects.



Status

Detailed design

Implementing department

Water and Sanitation

Capex budget (SAP PPM)

2033/34	2034/35	2035/36	2036/37
R1 885 000	R600 000	R36 100 000	R 200 000

Mayor's Priority Programme

No

Regulatory target

Not for this space but yes for Zandvlei

Construction jobs created

145

Maintenance jobs created (Over 20 years)

400

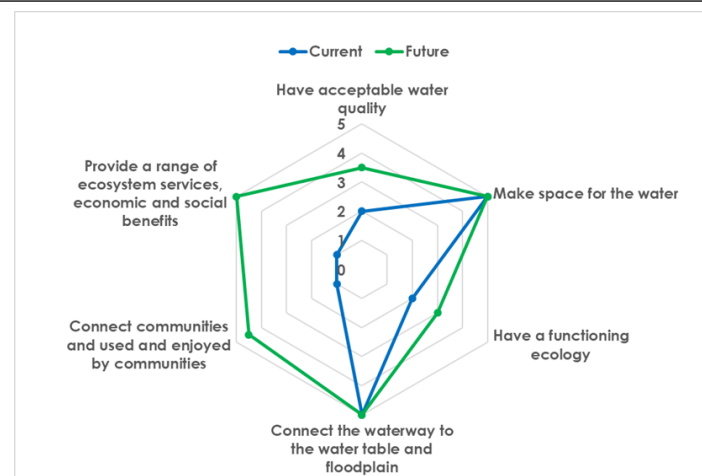
Net present value of all costs (Over 20 years)

(R48 270 000)

Total net socio-economic benefit

R20 750 000

Anticipated bio-physical benefits

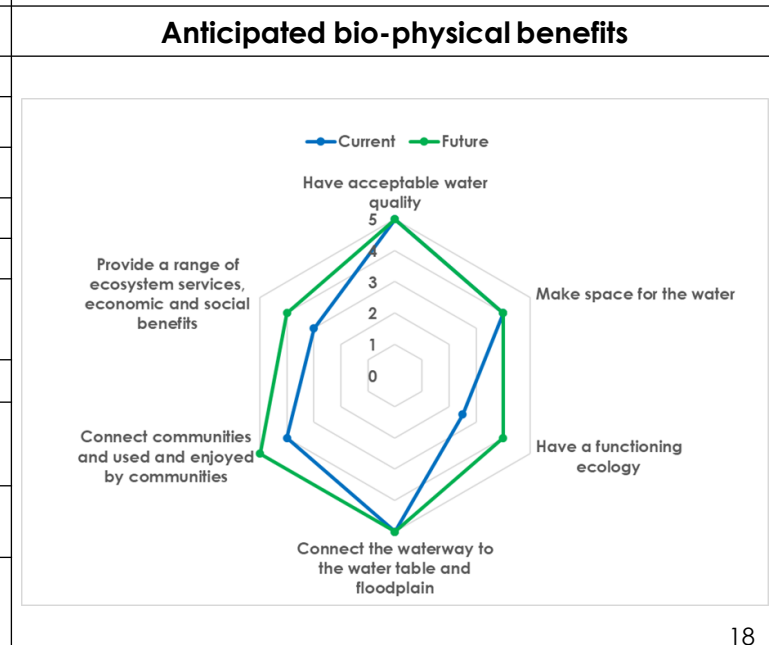


PROJECT IMPACTS – SAND CATCHMENT

Spaanschemat River	
Outline scope of work	
<p>Three river corridor reaches will be rehabilitated 1) Constantia Main Rd section 2) Confluence with Grootboschkloof and 3) Confluence with Prinskasteel: creation of new wetland and instream habitat, naturalisation of channel embankments, repairing erosion, removing sediments and invasive plants, planting indigenous vegetation and trees, formalising parking, installing new footpaths, seating, lighting and informational signage, constructing new low level crossings, integrating the river corridor into the surrounding urban form, particularly at nodal points by roads and crossings.</p> <p>This is a must do project. You cannot fix Zandvlei without first fixing the wetlands and rivers in the catchment. This project will build on the downstream rehabilitation work and must be undertaken as a package of projects.</p>	



Status	Detailed design			
Implementing department	Water and Sanitation			
Capex budget (SAP PPM)	2033/34	2034/35	2035/36	2036/37
	R1 542 000	R600 000	R33 000 000	R200 000
Required capex budget	R38 360 000			
Mayor's Priority Programme	No			
Regulatory target	Not for this space but yes for Keyser and Zandvlei			
Construction jobs created	121			
Maintenance jobs created (Over 20 years)	400			
Net present value of all costs (Over 20 years)	(R37 535 000)			
Total socio-economic benefit	R9 090 000			



PROJECT IMPACTS – SAND CATCHMENT

Grootboschkloof River

Outline scope of work

Two river corridor reaches will be rehabilitated 1) Nova Constantia Rd section 2) reach down to confluence with Spaanschemat River: creation of new wetland and instream habitat, naturalisation of channel embankments, repairing erosion, removing sediments and invasive plants, planting indigenous vegetation and trees, installing new footpaths, seating, lighting and informational signage, constructing a new low level crossing, integrating the river corridor into the surrounding urban form, particularly at nodal points by roads and crossings.

This is a must do project. You cannot fix Zandvlei without first fixing the wetlands and rivers in the catchment. This project will build on the downstream rehabilitation work and must be undertaken as a package of projects.



Status

Detailed design

Implementing department

Water and Sanitation

Capex budget (SAP PPM)

2033/34	2034/35	2035/36	2036/37
R1 100 000	R600 000	R25 200 000	R200 000

Mayor's Priority Programme

No

Regulatory target

Not for this space but yes for Keyser and Zandvlei

Construction jobs created

98

Maintenance jobs created (Over 20 years)

200

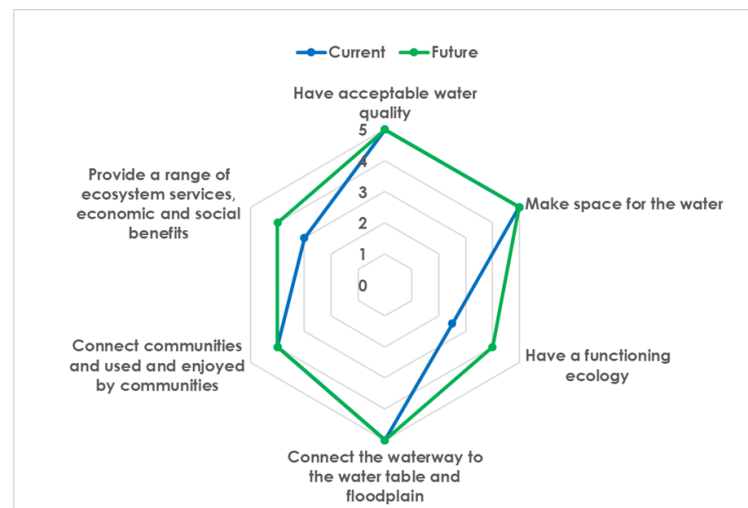
Net present value of costs (Over 20 years)

(R37 090 000)

Total socio-economic benefit

R19 902 000

Anticipated bio-physical benefits



PROJECT IMPACTS – SAND CATCHMENT

The socio-economic analysis undertaken shows a net benefit for each of the five projects in the Sand Catchment:

- A cumulative net benefit of **R57 154 000** over the 20 year period. This excludes the benefits of the bio-physical improvements.
- Over **500 construction jobs** and **1800 green jobs** could be created.
- **R5 000 000 per annum** of repair and maintenance opex could be saved at the Keyser and Westlake projects, this could then be reallocated to the **additional R1 500 000 per annum** opex required at the Sand Langevlei project.
- Overall there will still be a **net opex saving of about R3 500 000 per annum** if all the projects proceed.
- Co-benefits associated with **improved access to quality green space** (health and wellbeing).
- **Property value increases** are expected in some areas (see studies by van Zyl, 2002, 2004).

All five projects will provide a range of bio-physical improvements to the waterways and the spaces around them, including:

- **Water quality improvements**, particularly at the Sand Langevlei project.
- **Ecological health improvements**, including expansion and improvements to the endangered Western Leopard Toad habitat.
- **Improvements in ecosystem services** such as slowing down flows and trapping sediments.
- Removal of invasive plants, **fixing damaged infrastructure** and repairing erosion.
- All projects **reduce flood levels**, in some locations as much as 500mm.
- **Connectivity to the aquifer and adjacent wetlands**, particularly at the Sand Langevlei project.
- Improvements in the use of the waterway by communities, including much needed **improvements to social infrastructure in the disadvantaged communities** of Westlake Village and Coniston Park.
- **Improvements in non-motorised transport routes** adjacent the waterways.

PROJECT IMPACTS – SAND CATCHMENT

- Zandvlei, at the bottom of the catchment, is a regionally significant, and ecologically important recreational waterbody that has over the years been impacted by upstream land use and pollution.
- The vlei has a statutory resource quality objective. In order to meet this one must improve the catchment health, and especially that of the waterways and wetlands. The vlei is a function of its catchment.
- Significant expenditure is planned in the coming years for Zandvlei, including for sediment dredging. This will be ineffective if the upstream catchment and waterways are not fixed at the same time.
- The Keyser River also has a statutory quality objective that can only be achieved if the upper reaches (Spaanschemat, Grootboschkloof and Prinskasteel Rivers) are also addressed.
- Project/catchment scale impacts of deferring the capex are as follows:
 - Benefits deferred until 2033/34.
 - Ecosystem services will continue to deteriorate causing real impacts for the City and communities.
 - Specialist studies and designs will have to be redone at an additional cost and all the community engagement repeated.
 - Statutory resource quality targets will not be met.

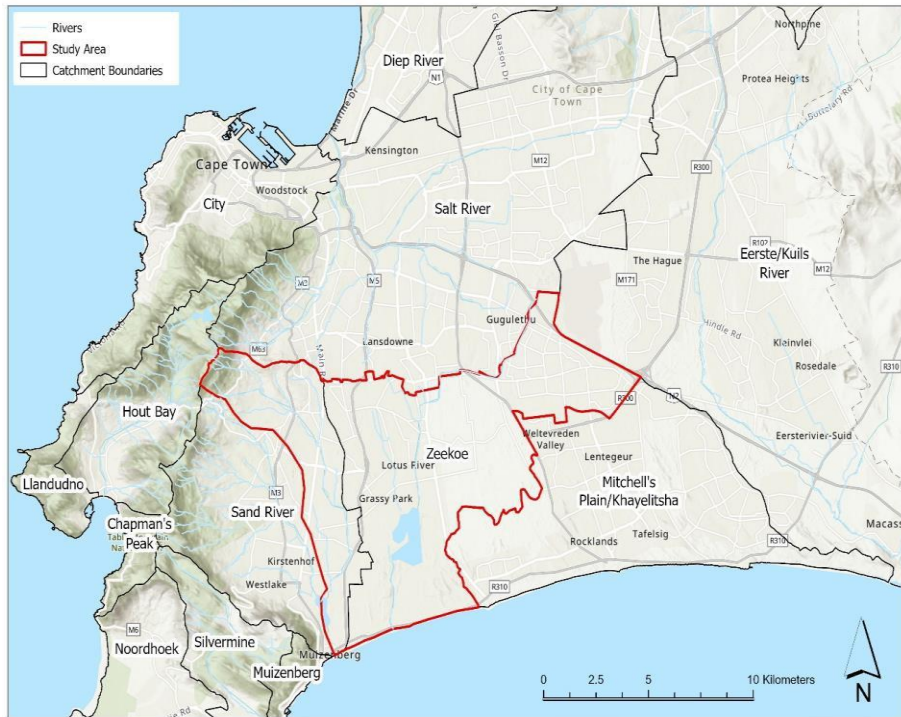
STRATEGIC IMPACTS

The impacts reach beyond just the projects, the entire LUW programme is in jeopardy:

- The first batch of pilot projects are critical to build the momentum required to scale the LUW programme to all City catchments. We have identified over 50 potential project locations in 11 catchments, but cannot tackle this massive task without first building confidence and expertise and testing approaches through this first batch of projects.
- Feedback from City departments and from various engagements with catchment stakeholders so far has been overwhelmingly positive and there is a feeling that this work is well over due. Many City officials have invested a lot of time and effort in this work and real collaborations across line departments are emerging.
- The LUW Programme is generating some interest, goodwill and social cohesion. Communities have invested significantly in terms of time and knowledge. There is a real risk that this momentum and trust will be lost if the projects under the programme do not proceed.
- Exciting collaborations are emerging with some stakeholders, including research with UCT and data sharing with WWF. There is a real risk that this momentum and trust will be lost if the projects under the programme do not proceed.

PROGRAMME SCALE OUT – C40 CFF PROJECT

With technical support (R10 000 000 value) from the C40 CFF, the LUW Programme is being scaled out to two new catchments – Diep(South)/Sand and Zeekoe.



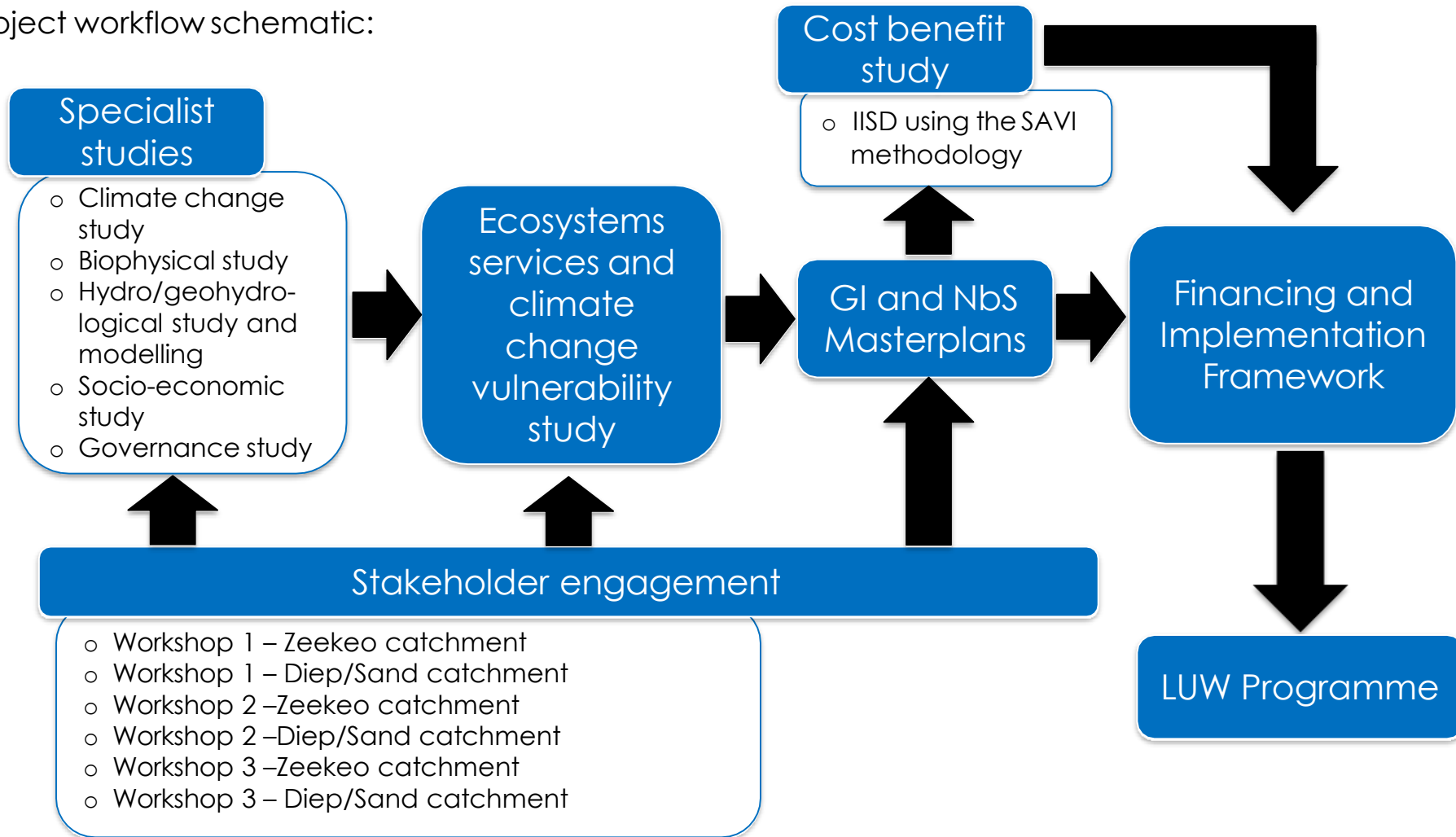
The project is developing a green infrastructure, waterway rehabilitation and nature-based solutions masterplan, supported by a benefits case and a city wide implementation and financing framework. Essentially the project will identify various potential future LUW project spaces to scoping and early pre-feasibility stage, for potential future implementation.

Jointly managed by Water and Sanitation and Environmental Management Departments.

Time	Activity
Apr – Dec 2022	Approvals, establish project team, kick off meetings
Apr 2023 – Mar 2024	Political launch, specialist studies, masterplans
Apr – May 2024	Benefits case
Jun – Oct 2024	Funding options, implementation and financing framework

PROGRAMME SCALE OUT – C40 CFF PROJECT

Project workflow schematic:



PROGRAMME SCALE OUT – C40 CFF PROJECT

To date four stakeholder engagement workshops have been completed with a wide range of stakeholders in attendance. In the Zeekoe catchment in particular, these workshops have been vital to start building positive relationships with key stakeholders who previously had little engagement with the City. The final two workshops will be undertaken later in 2024 once the draft masterplan is ready for sharing.



C40 CFF PROJECT: LEARNING AND TRAINING

Training and capacity development is a big part of the C40 CFF technical assistance. A learning and training plan has been developed, and to date the following has been implemented:

Intervention	Participating Directorates	No. of Officials
City Academy on Finance and Equity Part 1: 4 Day Webinar Series	Water and Sanitation, Spatial Planning and Environment, Future Planning and Resilience	15
City Academy on Finance and Equity Part 2: 8 Day Webinar Series	Water and Sanitation, Spatial Planning and Environment, Future Planning and Resilience, Finance, Urban Mobility, Urban Waste, Community Services and Health, Economic Growth, Human Settlements	70

The following is planned for 2024:

Intervention	Target Directorates / Audience	No. of Officials
City Academy on Finance and Equity Part 3: 4 Day In Person Workshop	Water and Sanitation, Spatial Planning and Environment, Future Planning and Resilience	4
Nature based Solutions for Climate Resilience – Types, Benefits, Planning and Implementation, Cost Benefit Analysis	Water and Sanitation, Spatial Planning and Environment, Future Planning and Resilience, Finance, Urban Mobility, Urban Waste, Community Services and Health, Economic Growth, Human Settlements	30
Integrated Catchment Management	Water and Sanitation, Spatial Planning and Environment	30
Workshop on Institutional Mechanisms/options for Effective Management of Nature Based Solutions	Water and Sanitation, Spatial Planning and Environment, Future Planning and Resilience, Community Services and Health	50
Support for the establishment of the Zeekoe Catchment Management Forum, and developing guidelines	Water and Sanitation, Catchment Management Forums	NA

C40 CFF PROJECT: CATCHMENT MANAGEMENT FORUM SUPPORT

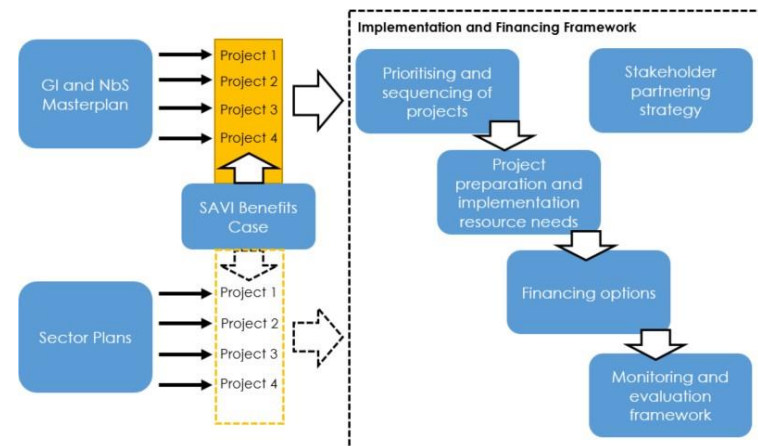
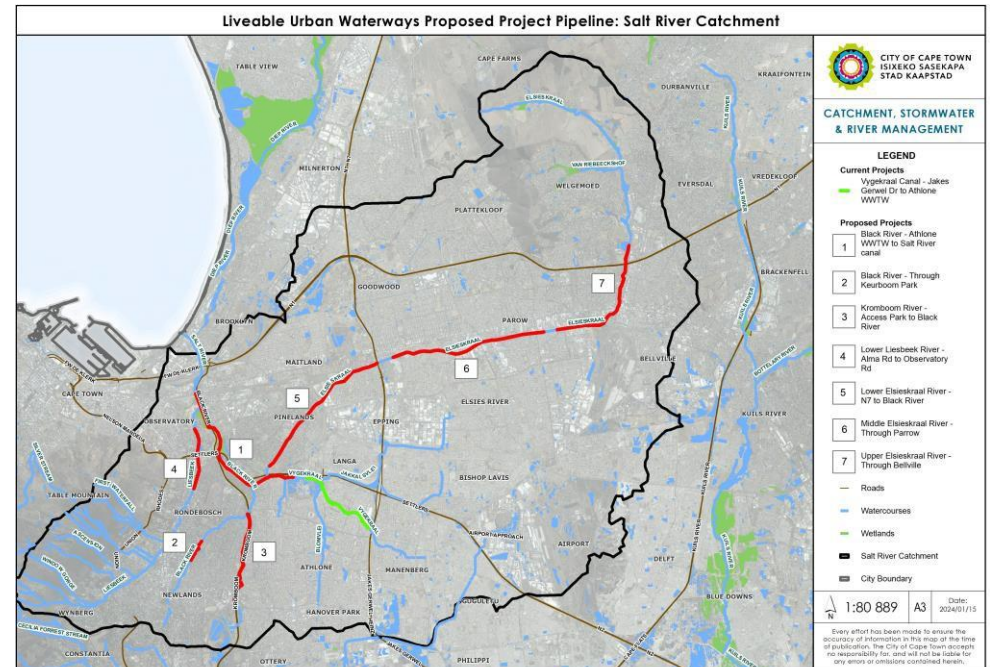
One of the training and capacity development initiatives underway is support for the establishment of the Zeekoe catchment management forum (CMF). The Western Cape Economic Development Partnership (EDP) has been contracted to undertake this work. The project will:

1. Providing support to the CSRSM branch's catchment management team in their approach to establishing and implementing an effective CMF for the Zeekoe catchment.
2. Undertake a review of the current status, and historical experience, of CMF development and implementation in the City and the lessons learnt from that experience.
3. Using the lessons learnt and based on any existing guidelines, develop a new guideline for the City and its stakeholders to establish and implement CMFs into the future.
4. Ensure the project is implemented in a participatory manner. This to support the Zeekoe CMF specifically, and other CMFs in the city generally, in the development of partnerships that will underpin the effective functioning of these forums.
5. Organize and facilitate exchange and feedback sessions with the City and other stakeholders at key points in the development of the guidelines.

This is a fundamental piece of work for the City generally, and the LUW Programme more specifically. It will support the City in its endeavours to establish CMFs in all catchments in Cape Town. Such forums provide the foundations for more transparent, collaborative and partner based management of catchments, which is critical if the City wants to make any improvements to its catchments and waterways.

LONG TERM PROJECT PIPELINE

- A longer term LUW project pipeline is being developed.
- The work underway with C40 CFF has identified about 15 potentially feasible LUW project locations in the Diep/Sand and Zeekoe catchments.
- In addition, 40 LUW project locations across 11 catchments have been identified in the Water and Sanitation and Environmental sector plans.
- A LUW Project Implementation and Financing Framework will be developed, which will set the road map for how the abovementioned LUW projects can be packaged, prioritised, resourced, financed and implemented.



LW PROGRAMME RISKS

Risk	Consequence	Likelihood	Controls/Mitigation in Place
Capex allocation for some of the current projects is insufficient	CRITICAL – the entire programme comes to a halt if the first 6 pilot projects do not proceed into construction as per the full detailed design	ALMOST CERTAIN – capex cuts have already occurred, uncertain if budget will be allocated to the projects in upcoming budget cycle	None – may be opportunity to explore external financing with C40 CFF but will take time to materialise if at all
The City still manages waterways based on road district boundaries and not catchment boundaries	SERIOUS – this management model results in a lack of systems thinking and the inability to implement real integrated water resource management at a catchment scale	ALMOST CERTAIN – currently operate with this management model	None – officials have to work within this constraint
Poor water quality of many of the city's waterways	SERIOUS – poor water quality may preclude a waterway being rehabilitated, or puts a newly rehabilitated waterway at risk	ALMOST CERTAIN – pollution of many waterways continues, it will take time for the MPP to yield results	MPP sewer and pump station upgrades, PASAPs being developed
Misaligned budget and project priorities of departments	SERIOUS – interdepartmental project integration is limited, this creates friction during design development and challenges related to ownership and maintenance	LIKELY – there are some examples of good practice but generally departments plan projects and allocate budgets independently from each other	Extensive engagement with management teams of various departments, early engagement for project planning, co-development of PIDs that must be signed off by management
Post project care and maintenance – various issues related to roles, specialist maintenance needs and integrated planning	SERIOUS – failure to properly care for the spaces after construction will erode all the benefits achieved	POSSIBLE – there are some examples of good practice but generally departments plan and implement maintenance independently from each other, and the specialist maintenance needs of NbS (especially wetlands) is not understood	Various training interventions planned through C40 CFF project, exploration of alternative management models (for example cooperatives)
Limited forums with catchment role-players (the public, friends groups, NGOs) and the City.	MODERATE – Trust deficient in many catchments between communities and City, many waterway activities underway by community groups with little alignment between themselves and the City	POSSIBLE – there are some examples of good practice but generally a lack of forums and partnerships is widespread	Initiatives underway to establish catchment forums, a community of practice (River Protection Partnership) also needs to be established

CONCLUSION AND KEY MESSAGES

- It is widely recognised that urban waterways play a significant role in the liveability of a city.
- When managed well they can provide a range of ecosystem services as well as many co-benefits, many of which are difficult to quantify in financial terms, yet services we all depend on every day.
- When waterways are poorly managed, it can have disastrous impacts – socially, economically and ecologically.
- With urbanisation and a changing climate, these impacts will only get worse.
- Urban waterways are green infrastructure and need to be rehabilitated just as a pipe, pump station, road or electricity sub-station does. The City has failed to do this for decades, the backlog is significant and the impacts are now being seen.
- The LUW Programme is a much needed and long overdue initiative that has the potential to turn around the state of many of Cape Town's waterways, and catalyse wider economic and social improvements.

The following is required from top management:

- The full support for the implementation of the LUW Programme.
- Recognition that this is a long term process and it needs sustained support.
- Recognition that this is a transversal process, and cannot be delivered by one department only.
- Look for opportunities to co-fund projects, and/or to align priorities so that the full river corridor plan can be implemented for the benefit of the community.
- Recognition that sewage pollution of waterways is a major risk to the success of the LUW Programme and the specific projects.
- Allocation of suitable capital budget to fully fund the LUW projects summarised in this document, as well as future projects that are in the scoping or planning phases.
- Allocation of suitable operational budget to fully fund the ongoing care and maintenance of the rehabilitated waterways and the spaces around them, and support to explore and where necessary implement alternative management models to ensure the long term sustainability of these spaces.

