

大灣區城市設計大獎網上論壇系列 (2): 回顧與展望 - 棕地和荒廢農地的機遇

GBA Urban Design Award Webinar series (2): Retrospect and prospect - Reinvigorating brownfields site and abandoned agricultural land

AECOM

Dasha River Ecological Corridor

大沙河生态长廊

大沙河生态长廊

DA SHA RIVER ECOLOGICAL CORRIDOR

李立人 AECOM 副总裁/亚洲区规划设计总监

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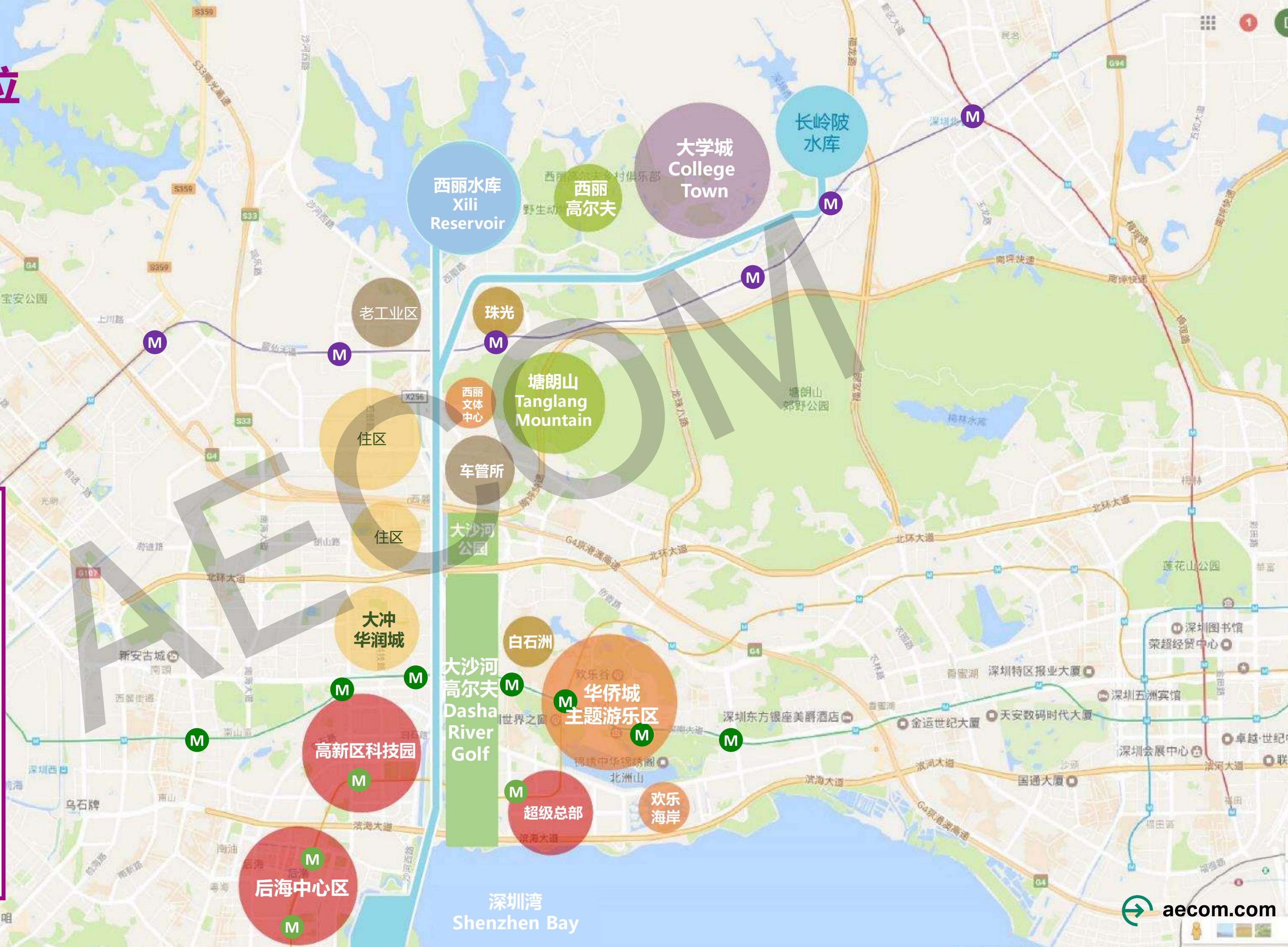
大沙河之于深圳

大沙河为流经深圳市区最重要的都会型河川

Dasha River is the most important urban river running through Shenzhen city.

得天独厚的优势区位

Unique Advantageous Location



南山最重要生态走廊

Important Ecological Corridor



大沙河历史照片 Historical Photos

1987年大沙河鸟瞰 Aerial Photo from 1987

2013年现状照片 Photo from 2013



Ecological Disruption



Deserted Land



Ecological Dmage



Broken Community Links



Sewage Effluent Discharge



Illegally Garbage Dump

三十年前
大沙河，“母亲河”始终传承着南山的记忆其悠久的历史。然而，快速的城市化进程导致了大沙河过度的污染和混乱的景观。

Thirty Years Ago

Da Sha River, the 'Mother River' inherits the memories of Nanshan throughout its long history. However, rapid urbanization has led to excessive pollution in the Da sha River and chaotic landscapes.

生态系统碎片化

Fragmentation of
Ecosystems



水岸可达性太差

Low Accessibility to waterfront



水岸空间难以使用

Open Space
Underutilized



周边土地效益低估

Undervalued Surrounding Area



生态纵横形成公共 开放空间系统

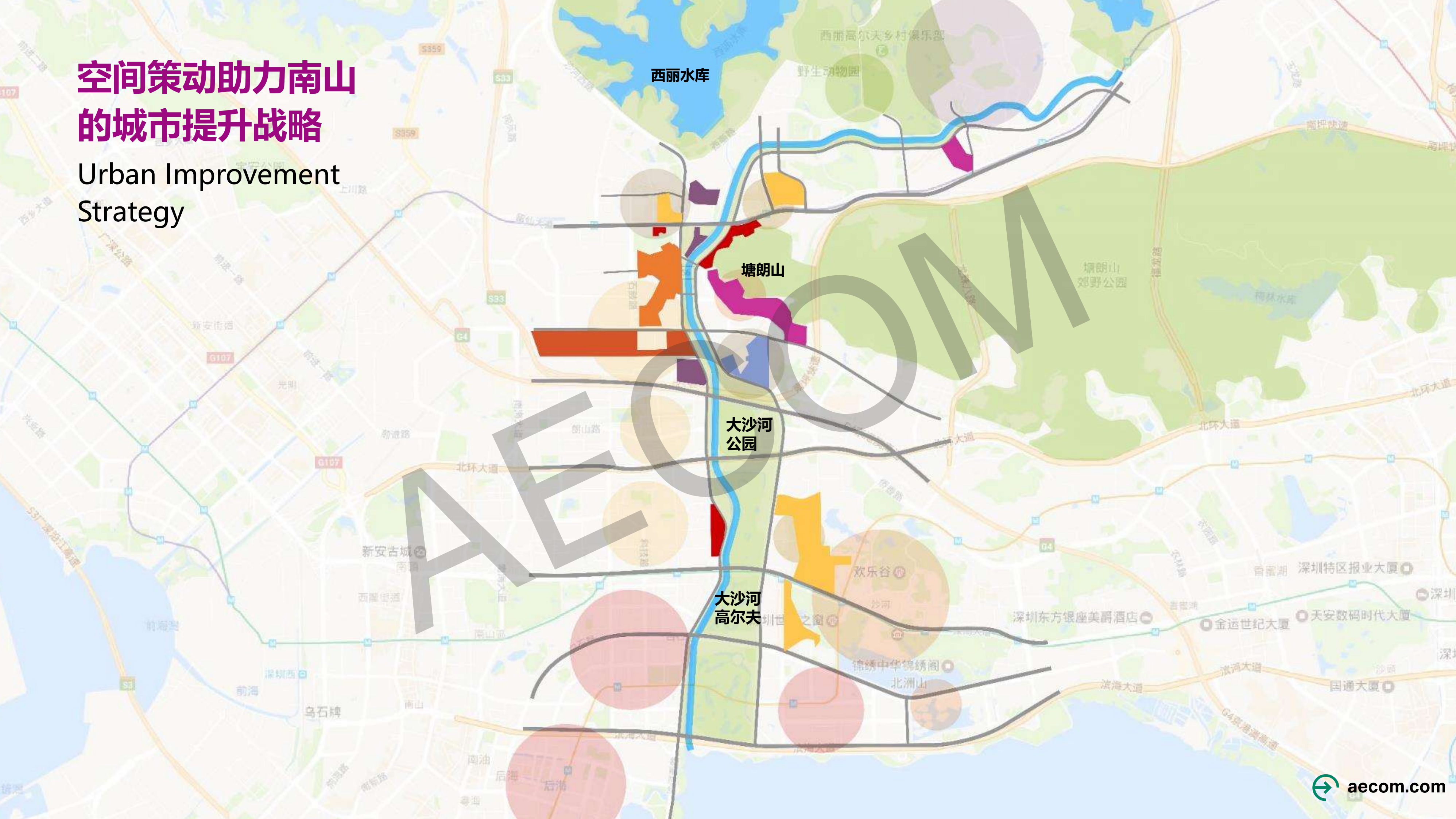
Forming a Public Open
Space System

修复自然生态的湿地系统，重塑河道生态空间，并能“为人所见，为人所感”。
以此为基础，通过景观手段打造生态触手，以河川生态空间为骨干，联系两岸的绿地开放空间，形成完整的生态景观与开放空间体系。



空间策动助力南山 的城市提升战略

Urban Improvement Strategy



设计条件

Design Conditions

现状保留

设计考虑现有植被资源，现有水利设施维持原样，维持堤岸现状基本不变。

安全

设计考虑河道行洪需求，稳定河道，提升基地的交通可达性，为河道沿线创造安全、顺畅的公共环境。

人文

挖掘人文价值，营造多样化的城市河岸景观序列，形成具有城市记忆特色底蕴的城市名片。

EXISTING STATUS TO BE RESERVED

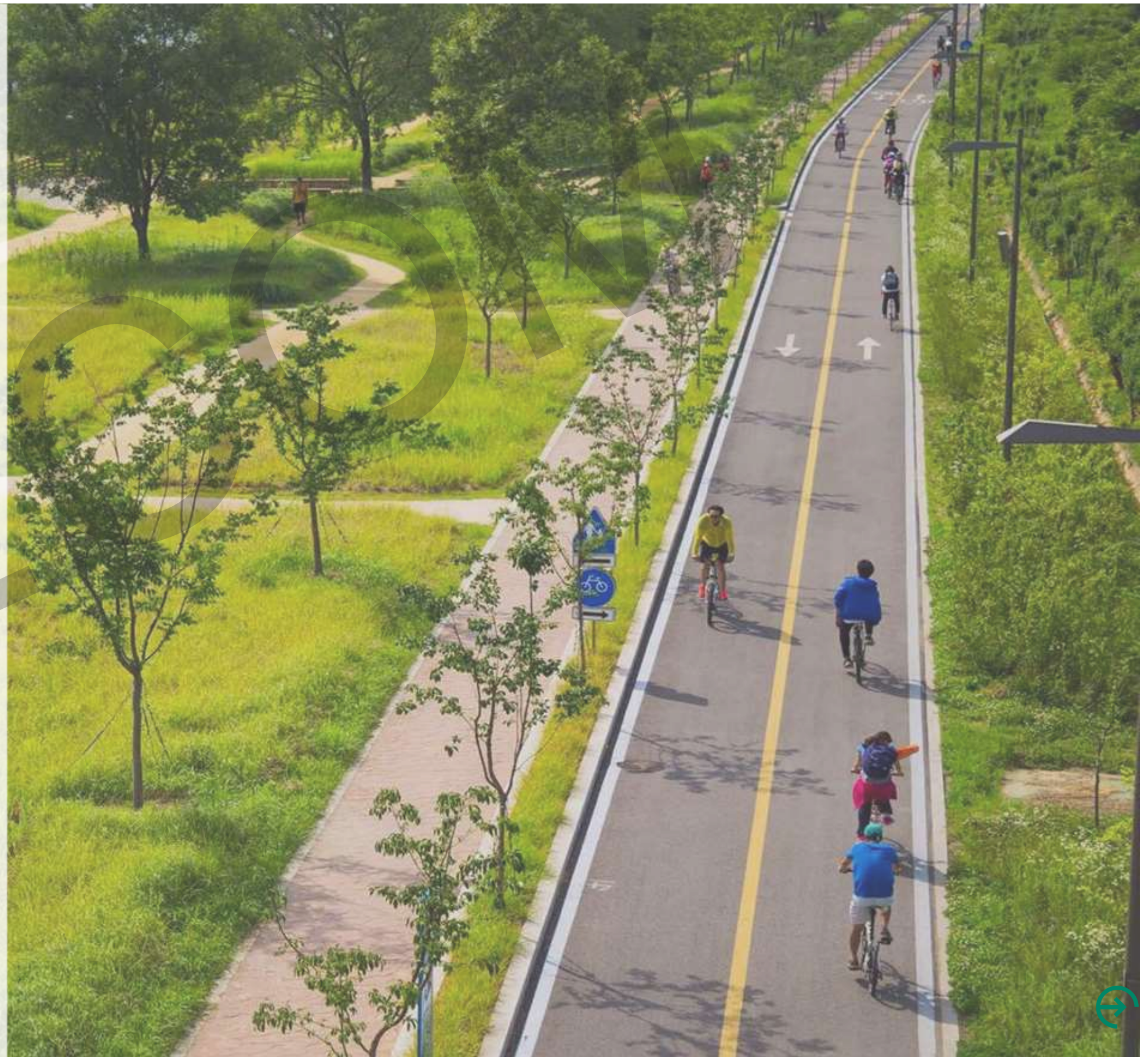
DESIGN CONSIDER EXISTING VEGETATION, EXISTING HYDRAULIC ENGINEERING FACILITIES TO BE MAINTAIN AND RESERVED, AS WELL AS THE EXISTING EMBANKMENT.

SATFY

DEISGN CONSIDER THE FLOOD NEEDS FOR THE RIVER COURSE, TO CREATE A SAFETY AND COMPREHENSIVE PUBLIC ENVIRONMENT.

HUMANITY

FINDING THE PROTENTIAL HUMANITY VALUE OF THE SITE AND CREATE DIVERSE RIVERSIDE LANDSCAPE SPACE, ENHANCE THE CITY INDENTITY.



大沙河河岸现状

Existing Conditions

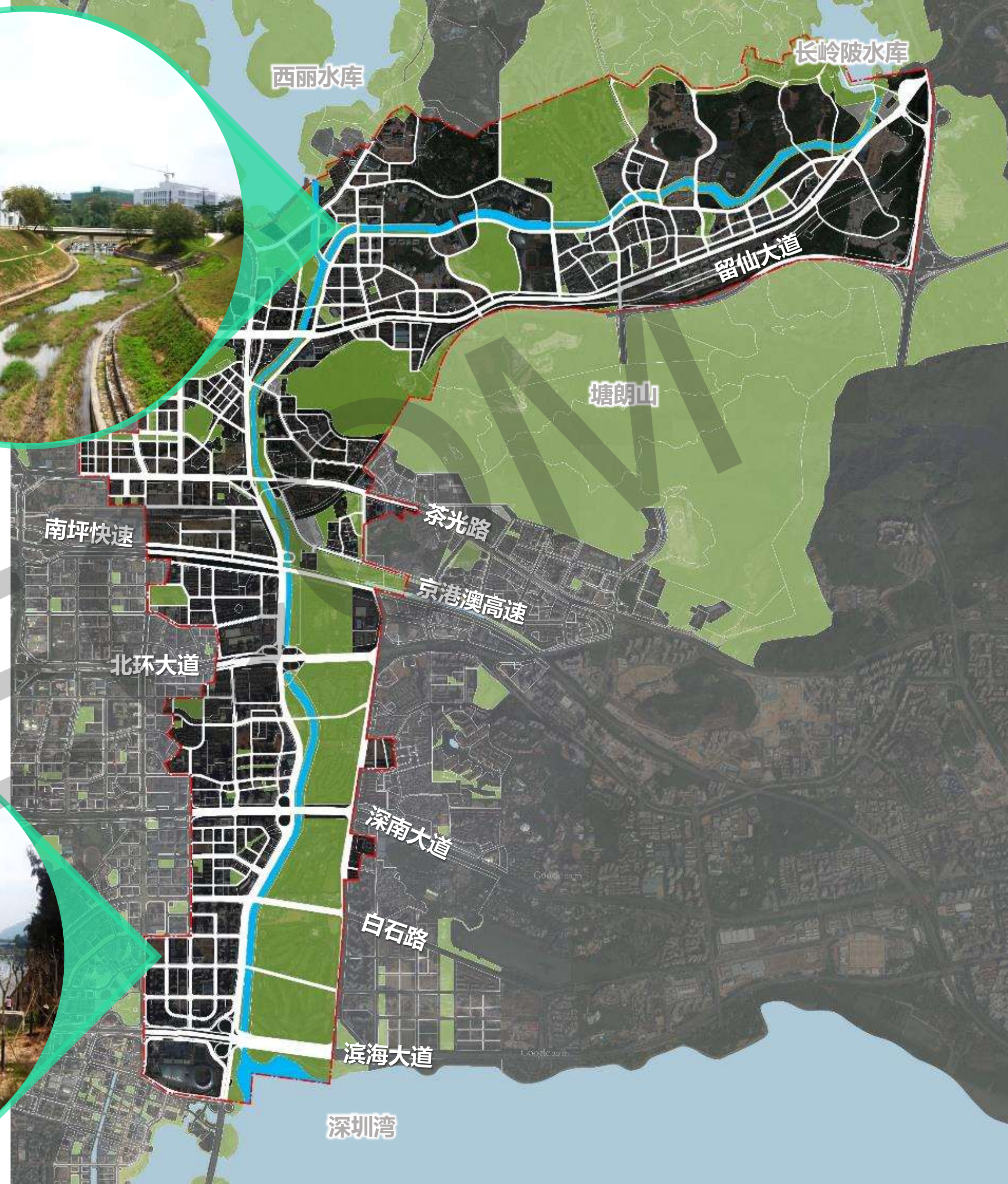
上游·大学城



中游·西丽中心



下游·出海口

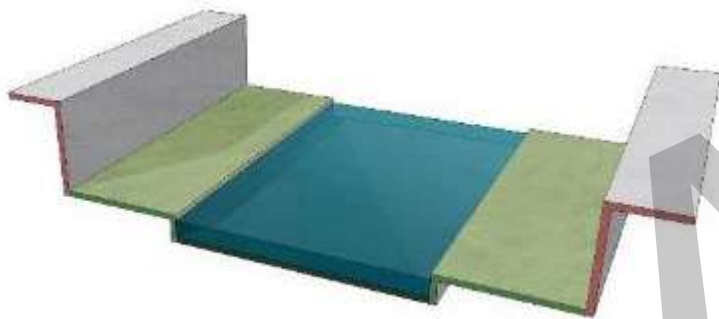


大沙河驳岸现状

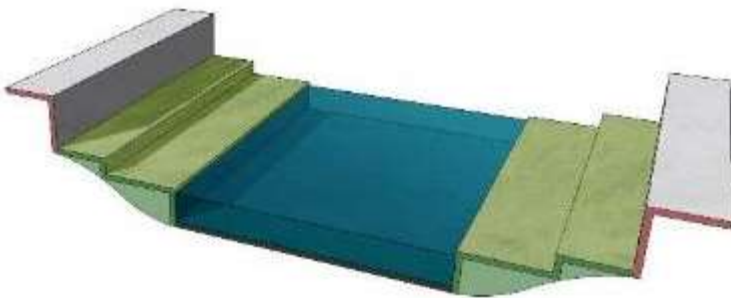
Existing Embankment Conditions



堤防
Embankment



堤与岸
Embankment &
Riverbank



堤, 岸与洪泛区
Embankment,
Riverbank & Flood
Zone



研究设计范围

Site Area



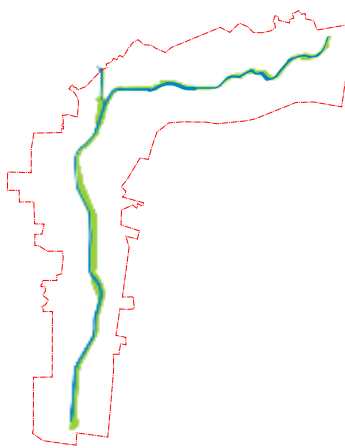
河道整治范围 River Regulation Area

Including:
River ecology
Water quality
Water conservancy



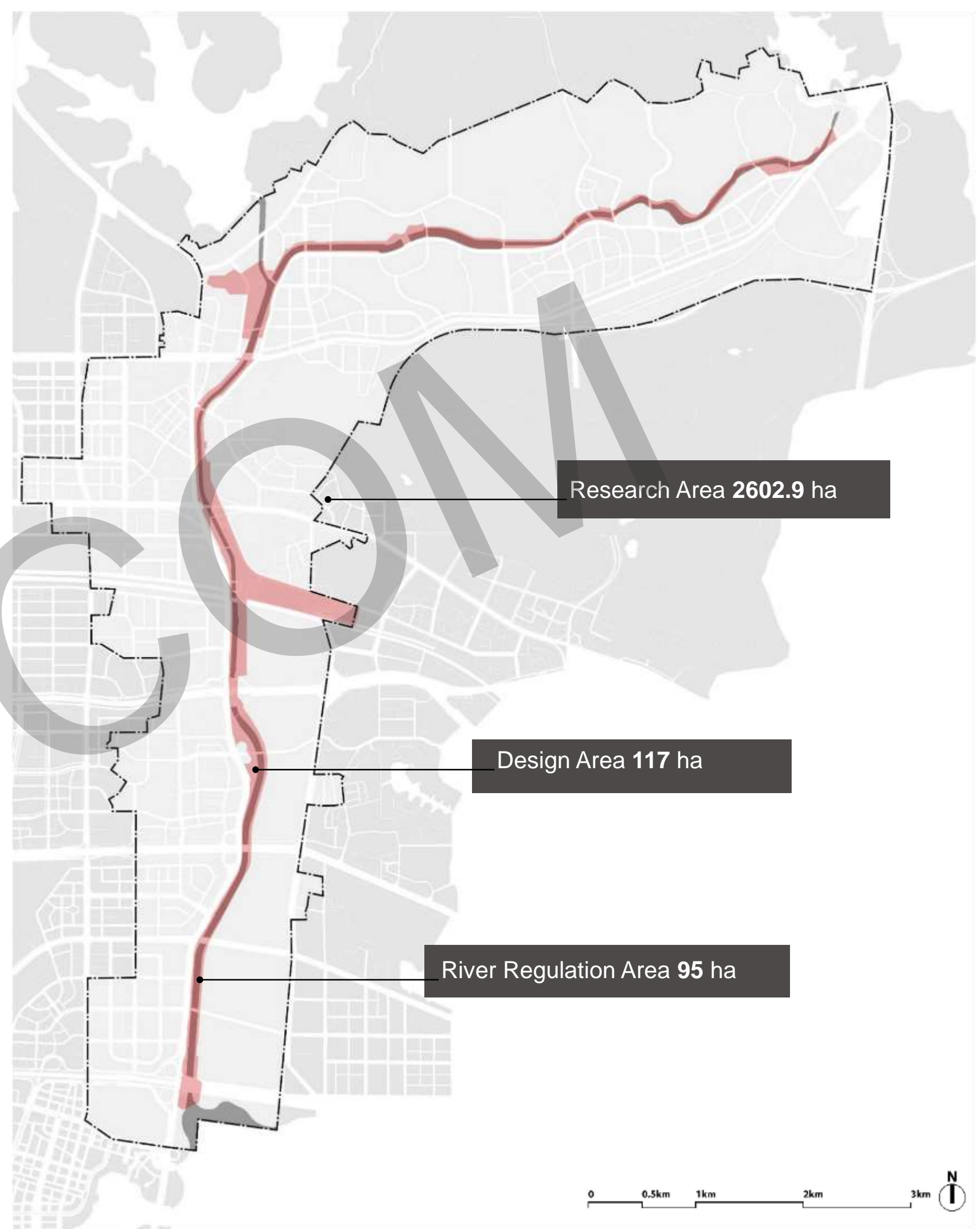
景观设计范围 Landscape Design Area

Including:
Ecological corridor
Waterfront activities
Landscape design



研究范围 Research Area

Including:
Regional environment
Land along the river
Urban space
Improve traffic



水岸类型 (软质)

Space Typology along the River (Soft Edge)

A型: 河岸硬景观人行道带草坡软边

Type A : Grassy Slope Soft Edge With Riparian Hardscape Sidewalk



B型: 硬景观人行道穿过草坡软边

Type B: Grassy Slope Soft Edge With Hardscape Sidewalk Across



C型: 草坡软边带硬景观人行道与道路平行

Type C: Grassy Slope Soft Edge With Hardscape Sidewalk Paralleled to Road



水岸类型 (硬质)

Space Typology along the River (Hard Edge)

D型: 硬质河按带景观人行道的混凝土硬边

Type D : Concrete Hard Edge With Riparian Hardscape Sidewalk



E型: 混凝土硬边带硬景观人行道与道路平行

Type E: Concrete Hard Edge With Hardscape Sidewalk Paralleled to Road



桥梁与桥下空间

Bridge and Space Under the Bridge

A型: 普通桥 (行人可利用桥下空间)

Type A: Normal Bridge (The Space Under The Bridge could be used by pedestrians)



B型: 普通桥 (行人无法使用桥下空间)

Type B: Normal Bridge (The Space Under The Bridge could NOT be used by pedestrians)



C型: 立交桥

Type C: Overpass Bridge



D型: 人行桥

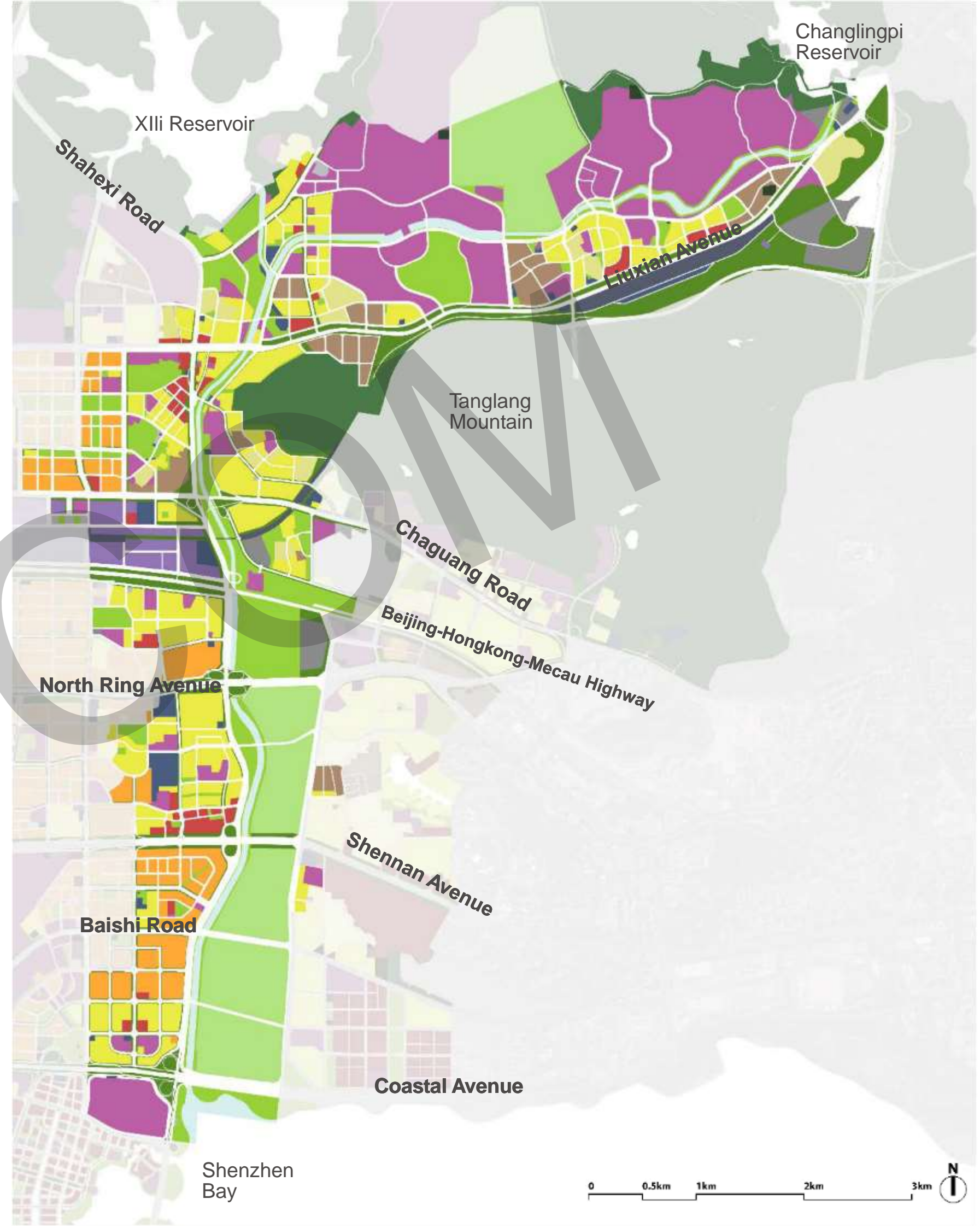
Type D: Bridge For Pedestrian



土地使用

Land Use

- 住宅区 Residential Land
- 商业区 Commercial Land
- 工业区转换 Emerging Industry Land
- 工业区 Industry Land
- 交通用地 Traffic Station Land
- 高等教育用地 High Education Land
- 体育设施 Sports Land
- 高尔夫 Golf Course
- 绿地 Green Space in Parks



生态景观廊道

Ecological Landscape Corridor

大沙河从北向南连接长岭陂水库、西丽水库、塘朗山公园和深圳湾公园。

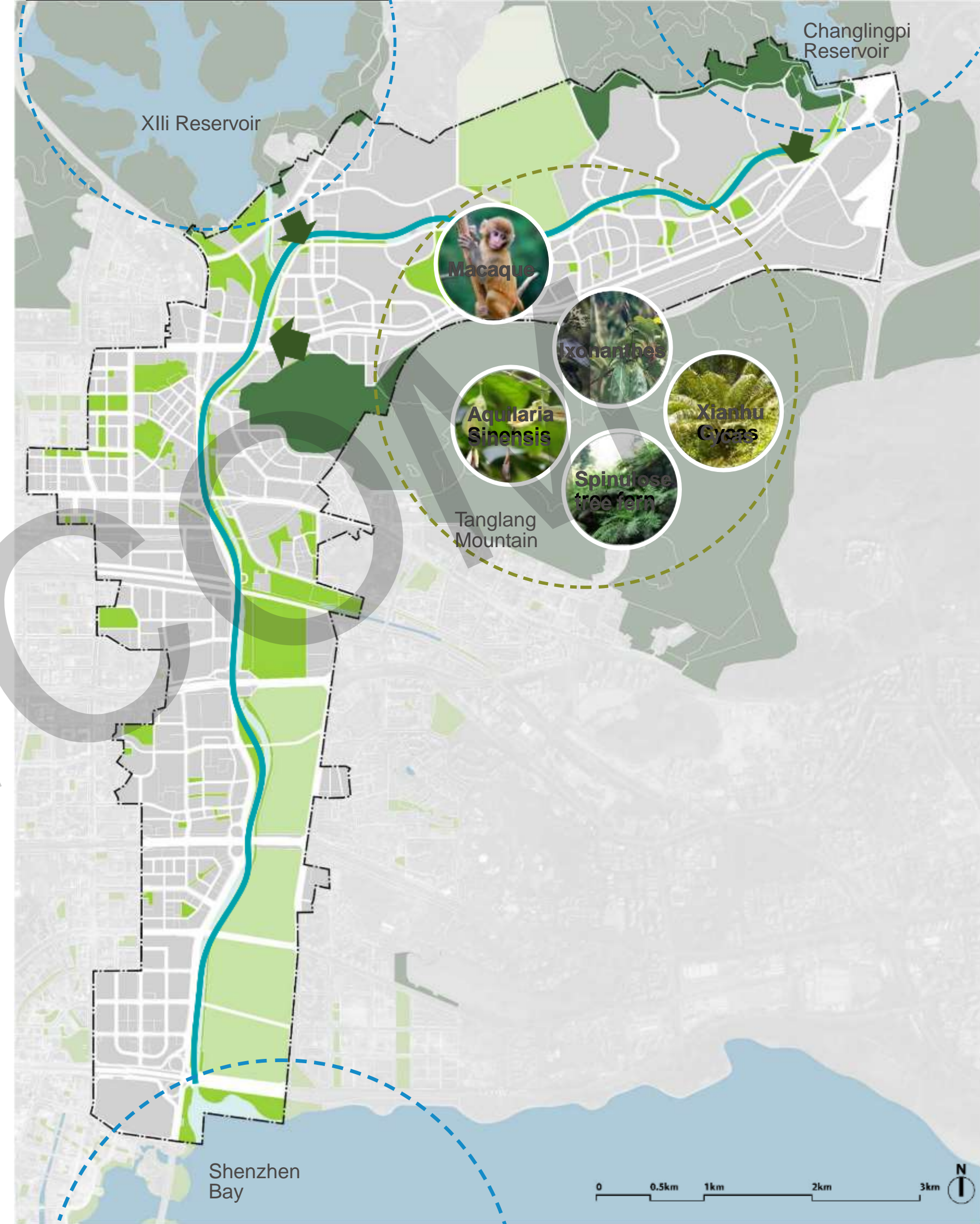
塘朗山拥有丰富的生物资源，包括一些珍贵的国家一级保护植物，如仙湖苏铁、铁杉、沉香和刺蕨。

这里还有猕猴这种珍贵的国家二级保护动物。

Dasha River connects Changlingpi Reservoir, Xili Reservoir, Tanglang Mountain Park and Shenzhen Bay Park.

Tangland Mountain owns abundant biological resource. We already know some precious national level to protect plants like Xianhu Cycas, Ixonanthes, Aquilaria Sinensis and spinulose tree fern.

Also here exists a kind of precious animal Macaca Mulatta.





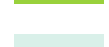


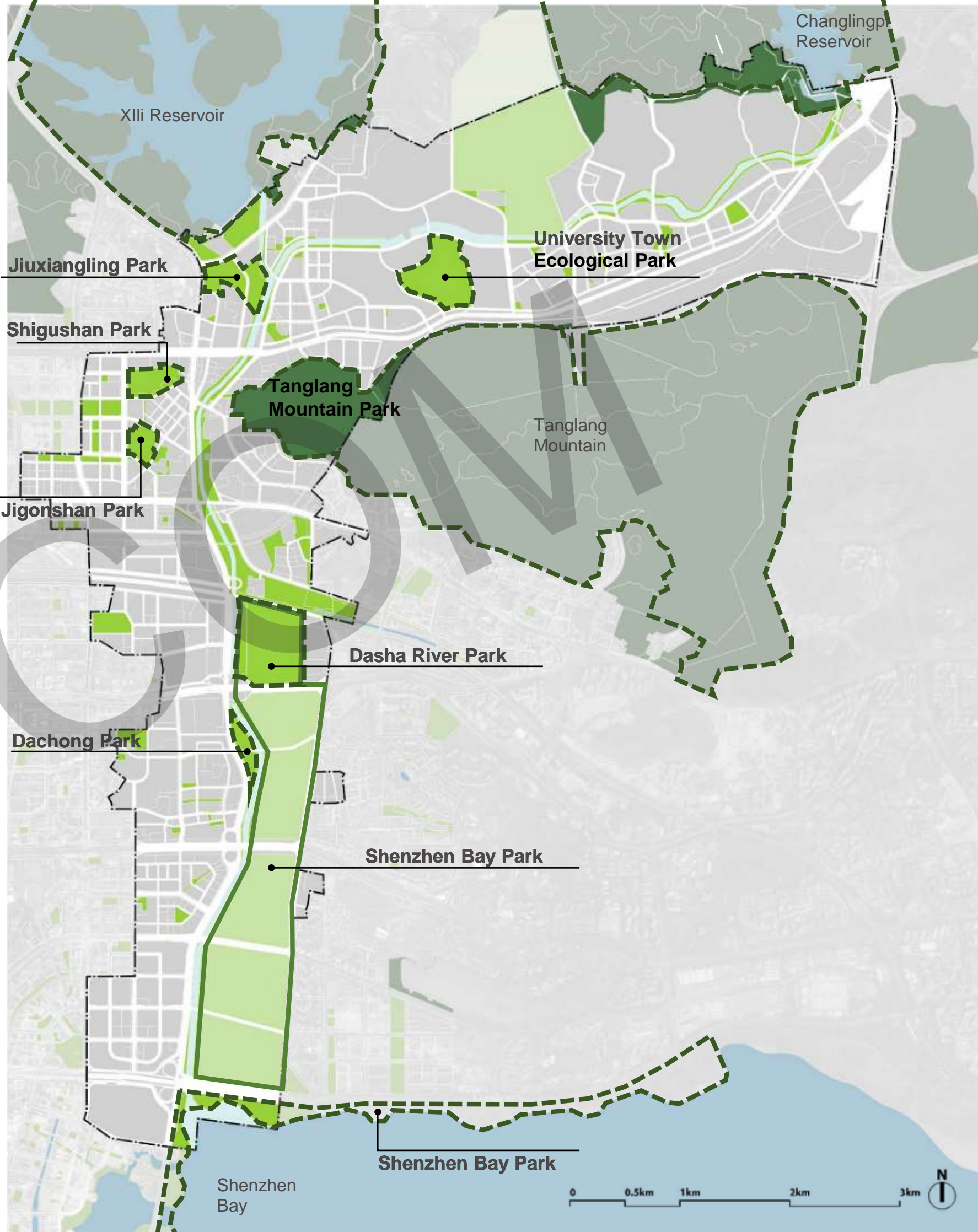
开放空间系统

Open Space System

大沙河下游包括了大沙河公园、高尔夫球场和深圳湾人才公园，构成沿大沙河大型城市绿色生态走廊，是南山区重要的城市开放空间之一。

At the downstream of Dasha River, Dashahe Golf, Mingshang Golf and Dasha River Park constitutes Dasha River Giant Urban Green Corridor, is the most important urban open space in this region.

-  Planning Researching Area
-  Woods/ Farmland
-  Golf Course
-  Parkland
-  Water



轨道交通

Metro Transportation

大沙河生态走廊上的三个地铁站

上游：长岭陂站

中流：查光站

下游：沙河站

大沙河生态走廊附近的三个地铁站

上游：塘朗站

中游：留仙洞站

下游：高新园区站

西丽高铁枢纽站

1.2公里，步行15分钟

Three Metro Stations in Dasha River Ecological Corridor

Upstream: Changlingpi Station

Middlestream: Chaguang Station

Downstream: Shahe Station

Three Metro Stations near Dasha River Ecological Corridor

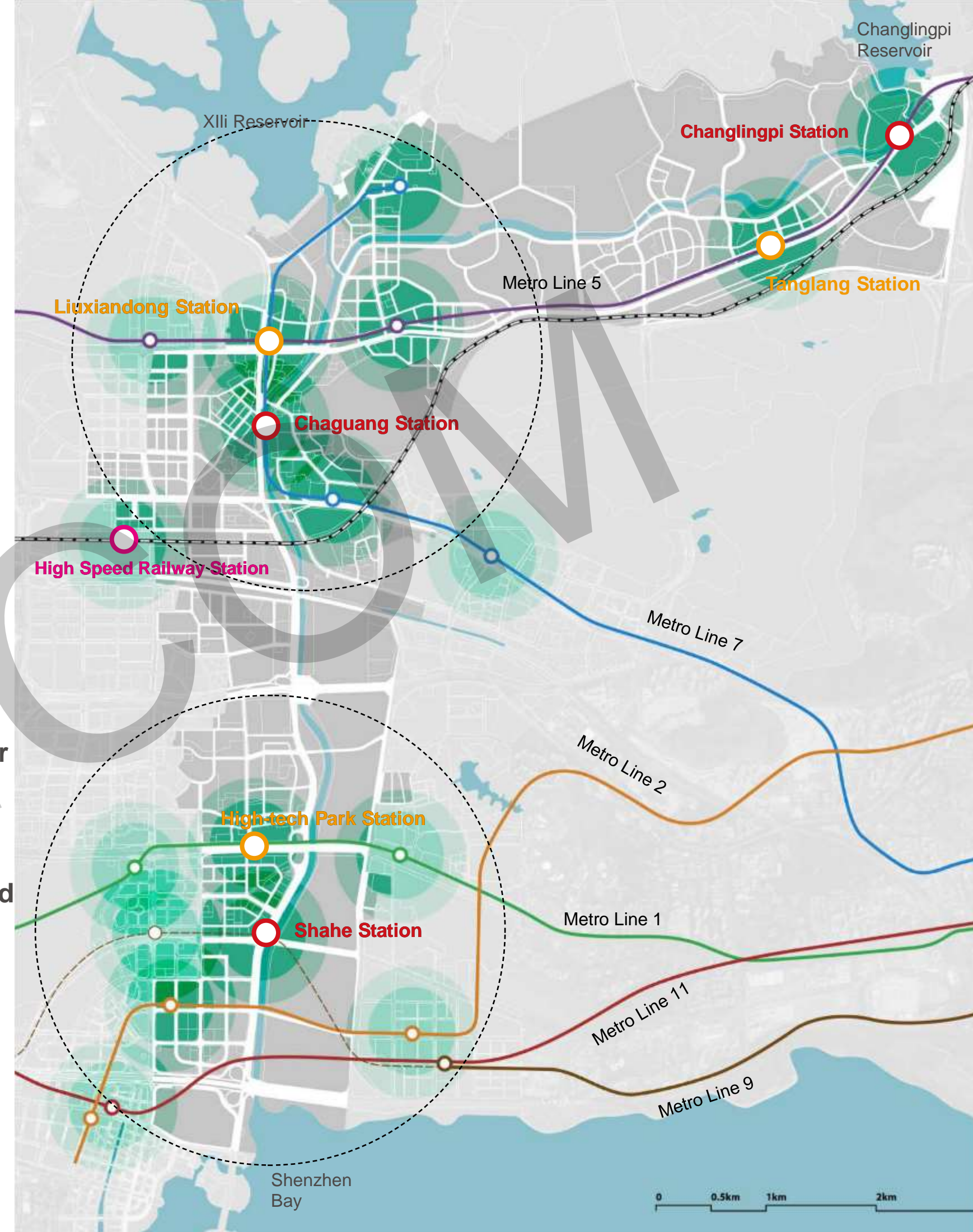
Upstream: Tanglang Station

Middlestream: Liuxiandong Station

Downstream: High-tech Park Station

High Speed Railway Station

1.2 kilometer away, 15 min walk








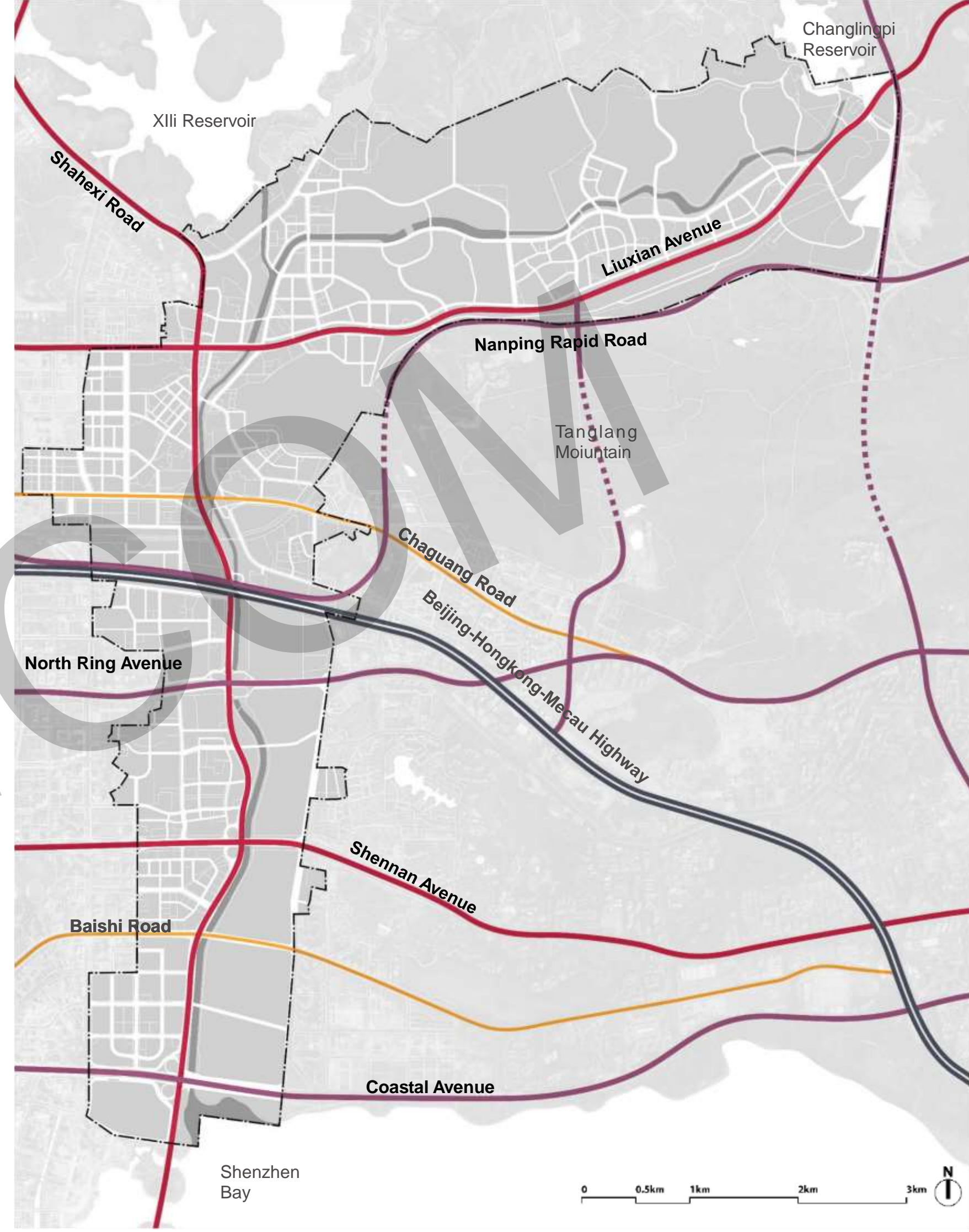
道路系统改善

Road System Improvement

建议沙河西路下穿改成快速过境道路，降低沙河西路地面道路的等级，方便行人穿越。

Shahe West Road will be upgraded to an underground rapid road in the future.

-  Planning Researching Area
-  Highway
-  Rapid Road
-  Main Road
-  Secondary Road



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道路系统改善

Road System Improvement

上游 (长岭陂-西里水库)

17座人行二级桥

中流 (西丽水库-北环大道)

4座人行二级桥

2个立交桥。南坪快速路没有人行道
行人

下游 (北环大道-深圳湾)

未来规划中将建设一座二级桥

3个立交桥

Upstream (Changlingpi-Xili Reservoir)

17 secondary bridges for pedestrian

Middlestream (Xili Reservoir-North Ring Avenue)




4 secondary bridges for pedestrian

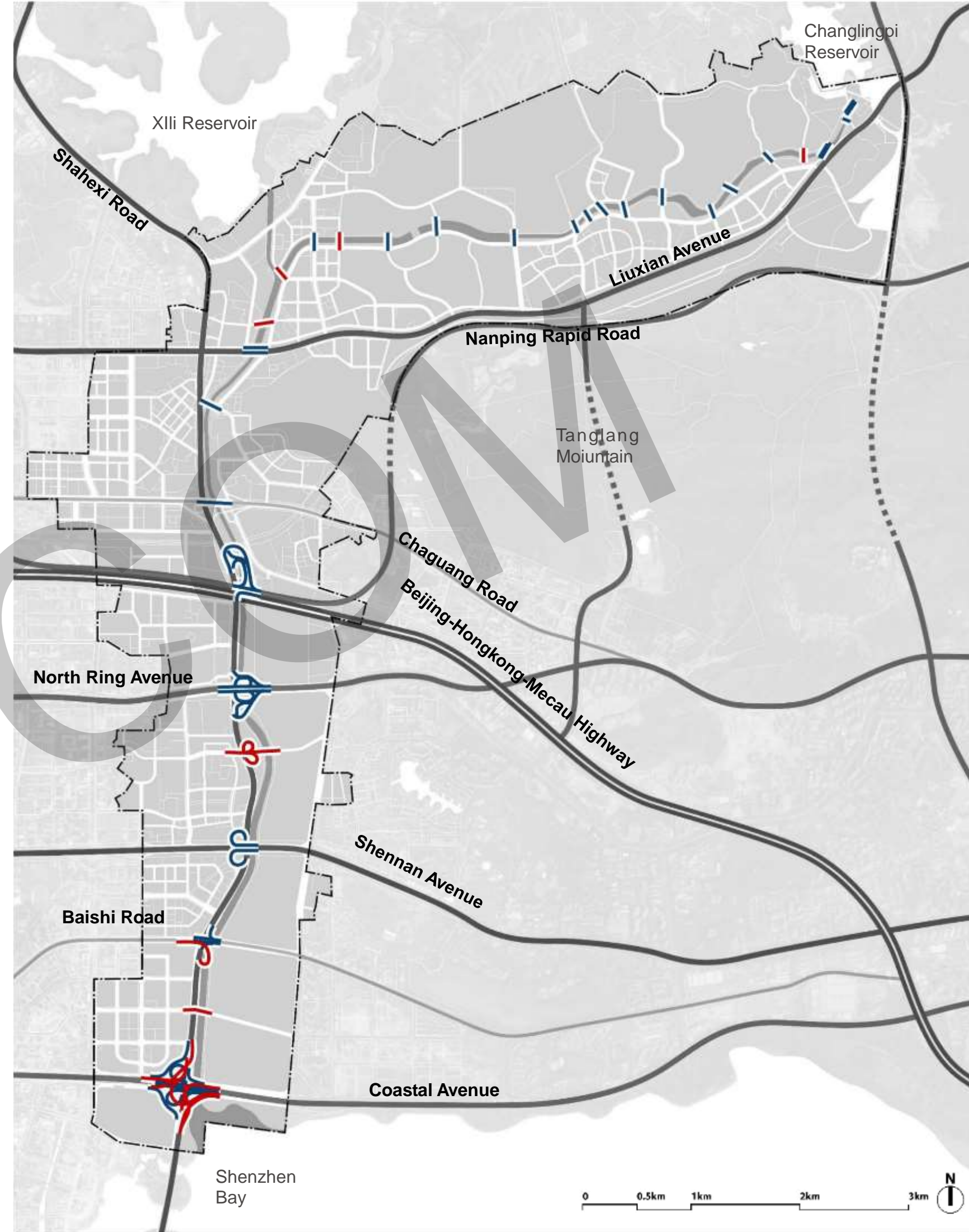
2 overpasses. Nanping Rapid Road doesn't have sidewalk for
Pedestrian

Downstream (North Ring Avenue-Shenzhen Bay)

A secondary bridge will be constructed in the future planning

3 overpasses existing, an overpass will be built in the
future

-  Planning Researching Area
-  Existing Bridge and Ramp for Vehicle
-  New Build Bridge and Ramp for Vehicle



生态框架

Ecological Framework

连接重要生态开放空间西丽水库、长岭陂水库：
限制活动，构建生态连接

塘朗山郊野公园：
连接山河生态景观廊道

大沙河巨型城市绿廊（原高尔夫球场）：
改建高尔夫球场，升级为大沙河中心公园，提供更多公共绿地

深圳湾滨海公园（红树林公园）：
重建入口和恢复红树林生态

构建公共和慢速到达节点，包括：
重要的地铁站和高铁站重要的公共停车位区域绿道系统

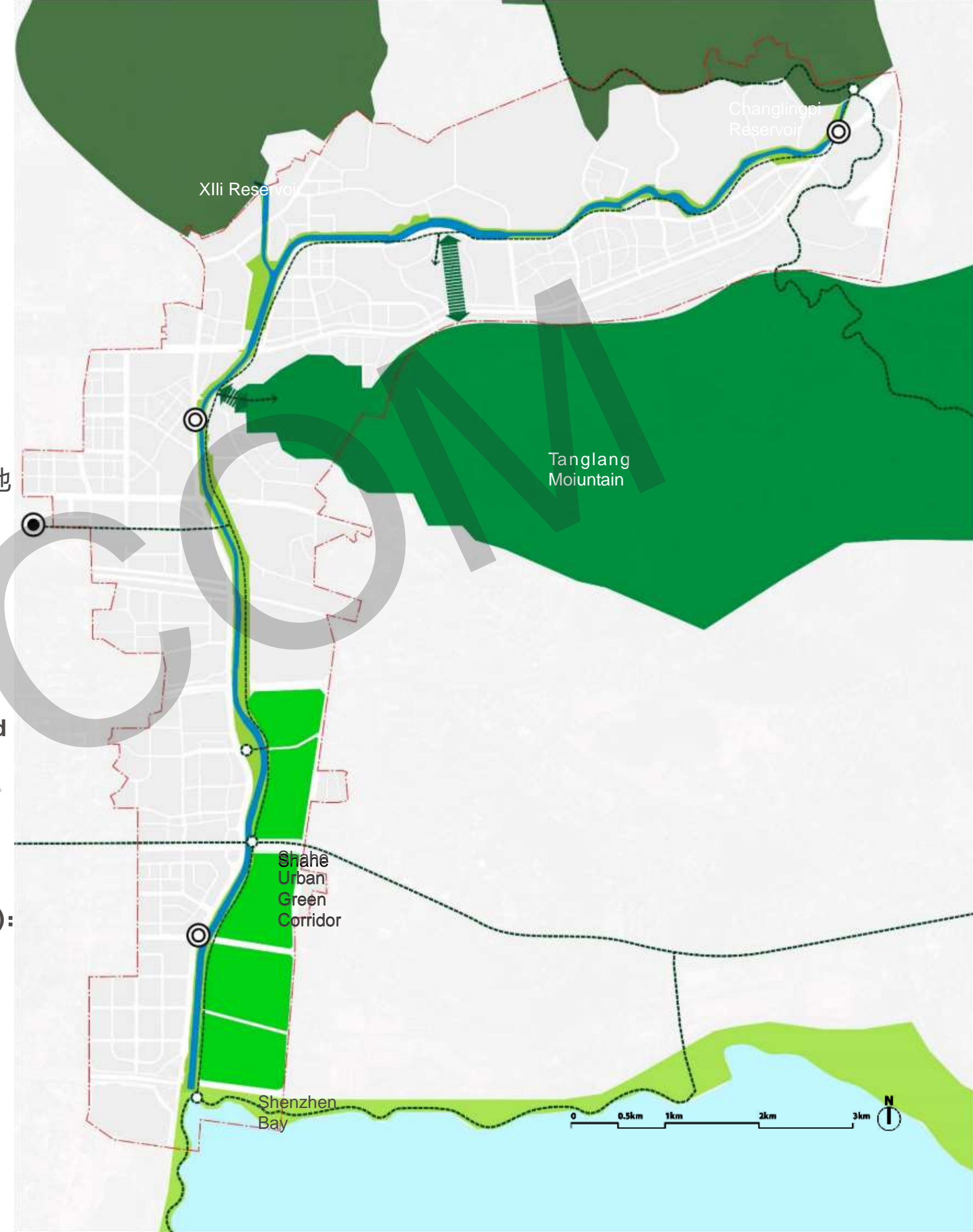
Connecting Important Ecological Open Space Xili Reservoir and Changlingpi Reservoir:
restrained activities, construct ecological connecting

Tanglang Mountain Country Park:
connecting Mountain-River ecological and landscape corridor

Dasha River Giant Urban Green Corridor (original golf course):
reconstructing golf course, upgrading it into Dasha River Center Park, providing more public green space

Shenzhen Bay Coastal Park (Mangrove Forest Park):
reconstructing entrance and restoring mangrove forest Ecology

Building Public and Slow-traffic Arriving Nodes, including:
important metro stations and high speed railway stations important public parking spots regional greenway system



生态框架



Ecological Framework

构建重要的城市空间节点与连接

定义城市未来发展空间

Constructing Important Urban Space Nodes and Connection

Defining Potential Future Developing Space Of The City

-  Potential Future Developing Space
-  Urban Space Node



水治理的新典范

A New Paradigm for River Management

河流全功能再生，恢复河流生命力与河流共繁共荣

Full-function regeneration of the river, restoring the vitality of the river and co-prosperity with the river

结合河相学理论、力学计算及生态需求

- 多种水量考虑(洪水量、低流量、常流量)
- 河道输砂平衡
- 顺应河性设计
- 水质净化处理
- 生态栖地复育



满足 **水安全 + 水纯净 + 水空间** 的大沙河!

防洪, 稳定



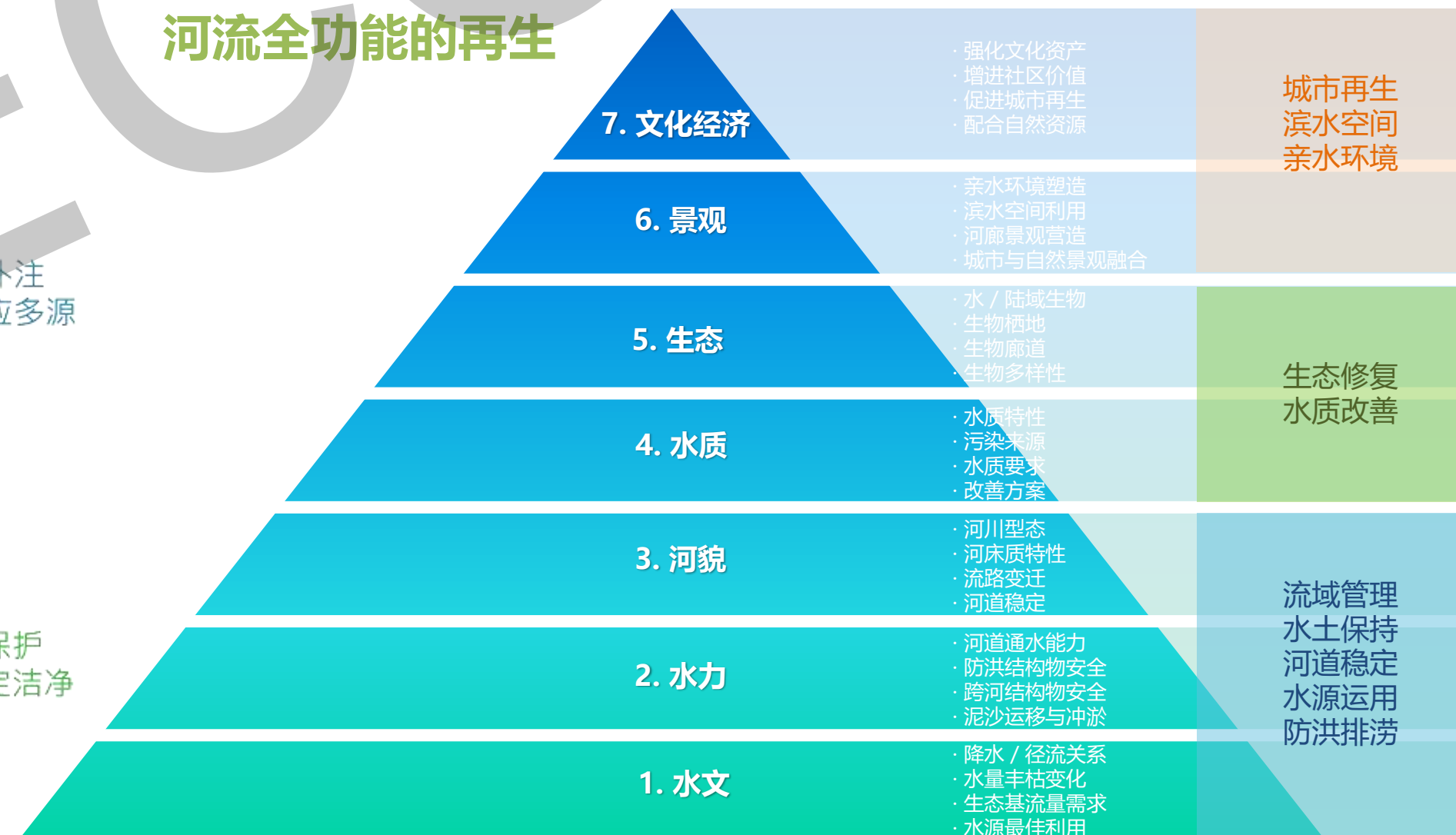
活水, 净化



景观, 生态



河流全功能的再生



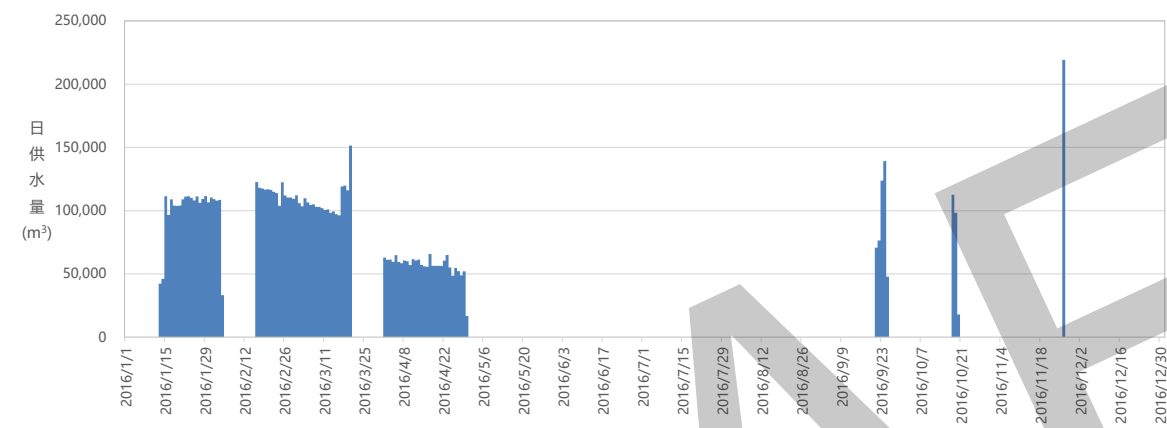
水充沛面临挑战

Challenge: Water Sufficiency

河道内天然水源受上游水库洪水调节及两岸支流截流，生态需水量不足

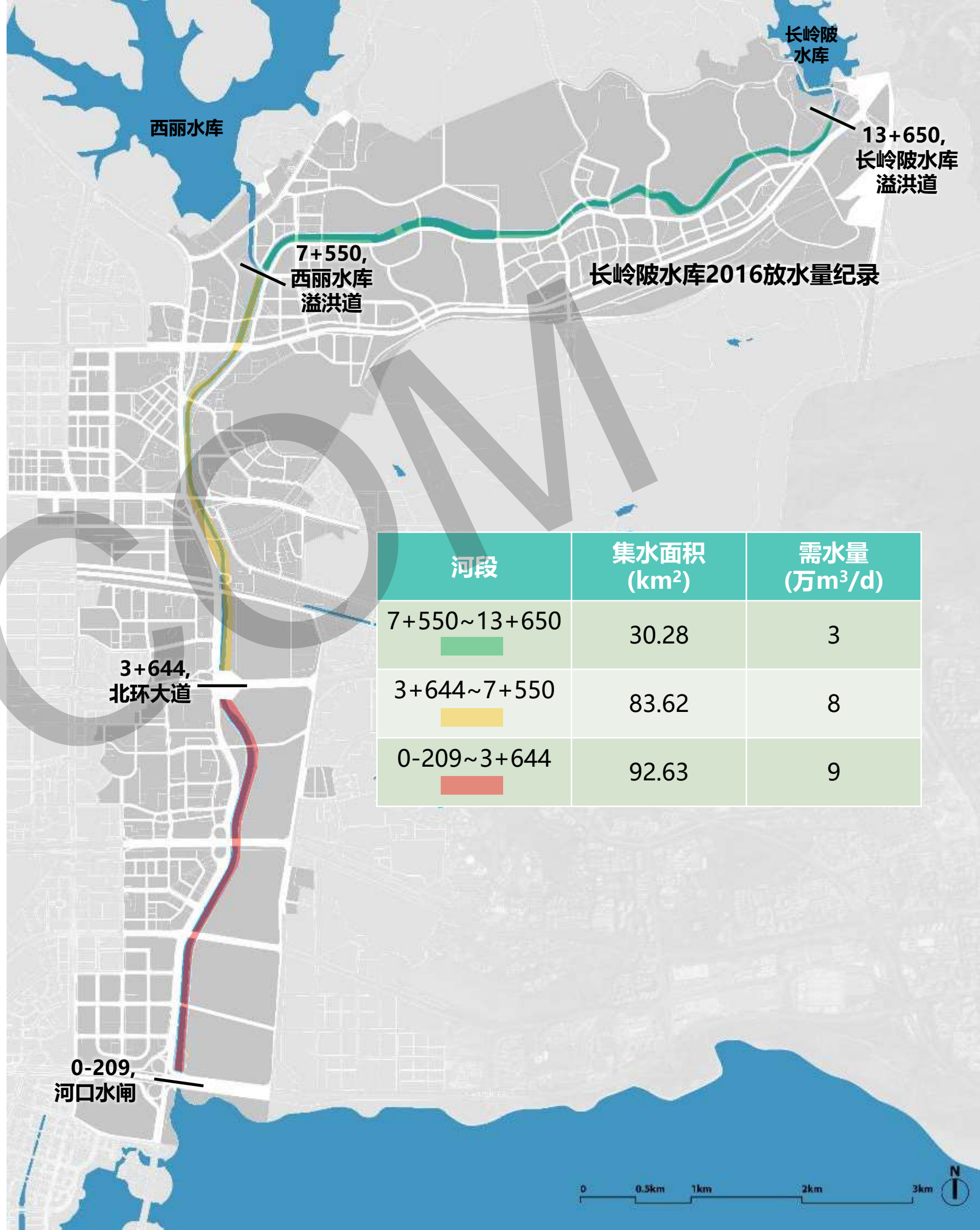
Natural water resource is influenced by the reservoirs at upstream and tributaries. Ecological water demand is insufficient

- 长岭陂水库非固定放水(2016年放水96天, 平均约9万 m³/d)



长岭陂水库2016放水量纪录

- 为符合水域生态环境及景观游憩用水需求，同时避免枯水期水质恶化，河道建议需保留生态基流量约 0.33~1.02m³/s(约3~9万m³/d)



水清净面临挑战

Challenge: Water Limpidity

水质未达到真正无臭的IV类标准目标

据市水务局数据显示，大沙河中下游水质劣于地表水V类标准

三大挑战

- 尾水总氮、氨氮及总磷偏高 不利水质控制
- 处理能力不足 增加污染负荷，河口应急净化站无法处理全部排入河道后污染下游的污水
- 河道水量不足 降低自净能力。在这种情况下，重度污染导致溶解氧低，河流自净能力不足

According to the data from Water Conservancy Bureau, the water quality of downstream is worse than Surface Water Standard Grade V.

Three Challenges

- Pollution like Total Nitrogen, Ammonia Nitrogen and Total Phosphorus in tail water is high, which affects the water Quality
- Emergency Purification Station at the estuary is unable to deal with all the waster water which pollutes the downstream after discharging into the river
- Water volume in the river is not stable to satisfy ecological demand. In this case, heavy pollution causes low Dissolved Oxygen and insufficient river self-clean ability.



水安全整治策略

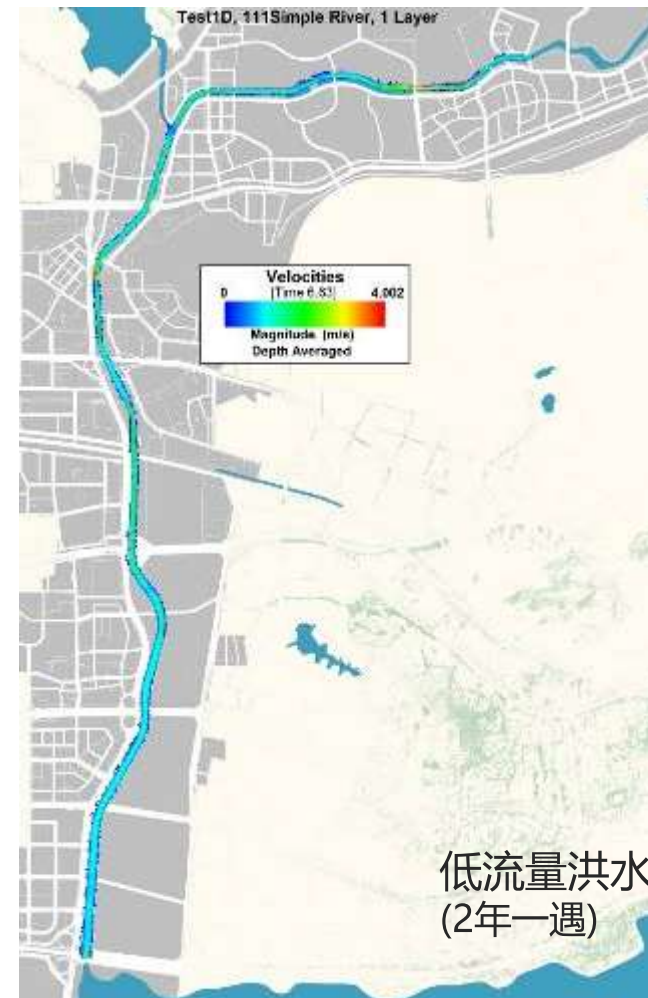
Water Safety Strategy

以安全为基础、生态为导向、构筑生态驳岸

- 现况河道断面足以安全通过200年一遇的洪水量
- 配合景观设计并检验需要改变的断面，必须能安全通过200年一遇的洪水量，并进行各频率年洪水位演算，以供景观及生态团队做设施及植栽之参考
- 依分析结果建议水工保护结构位置及型式
- 构筑亲近生态的护岸构造，以进行河道两侧驳岸的保护

Based on safety and led by ecology, design pays attention to construct ecological embankment

- Present river section is safe enough when facing 200-year flood.
- For safety, after finishing design, those sections must satisfy the standard of resisting 200-year flood.
- Structure and type of water conservancy should base on the analysis.
- Building ecological embankment structure to protect banks.



水充沛整治策略

Water Supplyment Strategy

河道水源不足，需利用雨水、上游水库放水和进行生态补水，营造景观水面，并满足水质稳定及水体流动生态需求

水源

西丽废水尾水、河口净化站截留污水

水质水量

西丽废水尾水3-50,000 m³/d，优于标准V级
河口净化站截污50,000 m³/d，差于标准V级
深圳湾海水10,000 m³/d，优于标准IV级

补水规划

上游的：西丽污水净化尾水 >> 人工湿地 >> 提升泵 >> 南方科技大学排放
中流：净化站截污 >> 新建污水厂 >> 西丽水库溢洪道
下游：净化站截污 >> 新建污水厂 >> 北环大道出水口

Dasha River suffers water shortage and need rain water, discharge water from upstream reservoir or ecological water supplyment to build waterscape and satisfy water quality and ecological demand of water flow

Water Resource

Xili Waste Water Tail Water, Estuary Purification Station Interception Sewage

Water Quality

Xili Waste Water Tail Water 3-50,000 m³/ d, better than Standard Grade V
Estuary Purification Station Interception Sewage 50,000 m³/ d, worse than Standard Grade V
Shenzhen Bay sea water 10,000 m³ / d, better than Standard Grade IV

Water Supplyment

Upstream: Xili sewage purification tail water >> constructed wetland >> lift pump >> Southern University of Science and Technology Discharge
Middlestream: Purification Station Interception Sewage >> New built sewage plant >> Xili Reservoir spillway
Downstream: Purification Station Interception Sewage >> New built sewage plant >> North Ring Avenue Outlet



水清净整治策略

Water Purification Strategy

优化各项水源净化及水质治理工程，并逐渐提升河道水体自净能力，以达到景观标准

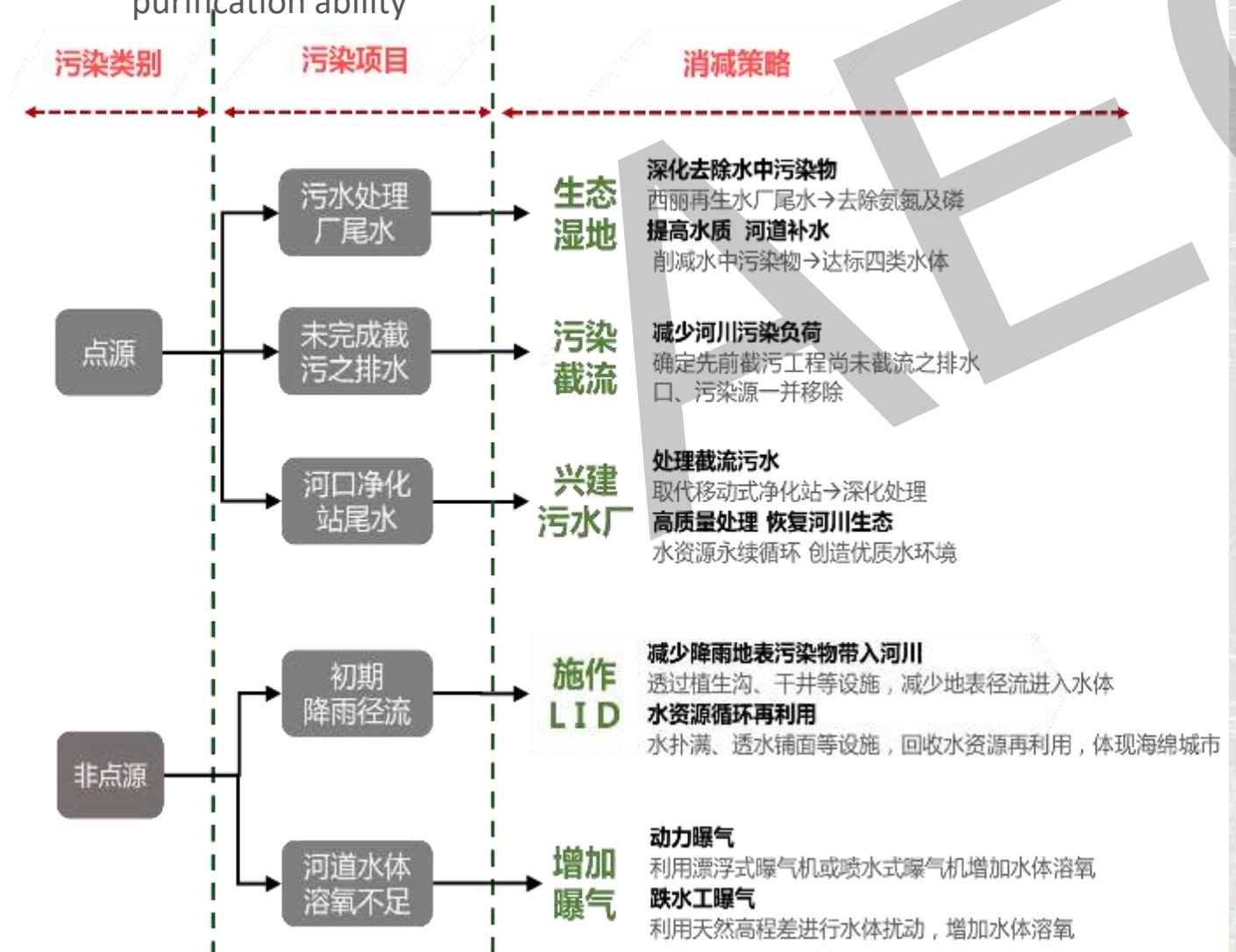
Optimize various water source purification and water quality treatment projects, and gradually improve the self-purification capacity of river water to meet landscape standards

源头控制污染源

Pollution source control

提高水体中溶氧 以提升河川自净能力

Increase dissolved oxygen in water to improve river self-purification ability



深圳大沙河规划设计



生态示范策略

Ecological Demonstration Strategy



生态增进1 Eco-Enhancement 1

提高对野生动物的利用桥下的空间，例如桥下的蝙蝠箱和家燕桥边的巢箱

Improve the utilization of wildlife in the space under the bridge, such as bat box under the bridge and swift nest box on the side of the bridge.



生态增进2 Eco-Enhancement 2

为确保泄洪安全，设置以钢筋混凝土为基础的人工栖息岛，种植水生挺水植物，为水鸟提供休憩环境。

To ensure the safety of flood discharge, the artificial habitat island with reinforced concrete as the base is placed, and aquatic emergent plants are planted to provide a resting environment for waterbirds.



生态增进3 Eco-Enhancement 3

- 为现有具有生态保护价值的森林鸟类提供巢箱。
- 增加鸟类饲养设施。
- 去除外来树种，补充当地植被，为野生动物提供觅食和栖息条件

Nest boxes are provided for existing forest birds with ecological conservation value in Dasha River.
Increase bird feeding facilities.
Remove exotic tree species and supplement local vegetation that provides foraging and habitat conditions for wildlife



生态增进4 Eco-Enhancement 4

- 增加河岸植被
 - 清除绿洲上的外来植被，重新种植当地的水生植物，为水鸟提供觅食和栖息条件
 - 添加鸟桩为水鸟提供休息
- Increase riparian vegetation
Remove the alien vegetation on the oasis and replant the local aquatic plants which provide the water birds with foraging and habitat conditions
Add bird stake to provide rest for waterbirds



服务配套设施

Service Facilities



悠时光环保书吧
Time Environmental Book Cafe



自然生态教室
Ecological Education Center



银茶茶舍
Tea House



游客服务中心
Tourist Service Center

周边使用人群分析

User Analysis



学校学生、老师等



工厂青年打工者



住宅区居民



其它绿地适用人群、游客等



年轻、活力的购物人群



IT类、科技产业从业者



超级总部、商业精英



文艺、体育设施使用者

户外课堂、生态示范试验地、休闲、水上娱乐

业余的休闲、活动场所

自然、生态的、休闲、亲子、散步、跑步、家门口的公园

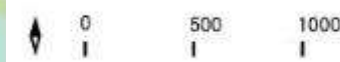
深圳地标景致留念、庆典活动、目的地

庆典、活动、嘉年华、购物等商业体验的延续

聚会、水岸餐饮、工作之余休憩、放松的地方、运动

聚会、洽谈、水岸餐饮、新体验

户外运动场地的需求、户外运动便利设施



景观设计主题

Design Theme

大学城段

YOUTH 青春

浪漫，青春的校园风景线

西丽水库 - 塘朗山段

DISCOVERY 探索

优美、洁净的全民共享水廊
兼具生态基础设施和雨洪管理

西丽次中心段

CELEBRATION 庆典

成为融合现代与传统的新地标门户
中心区的重要的绿色活力廊道

门户段

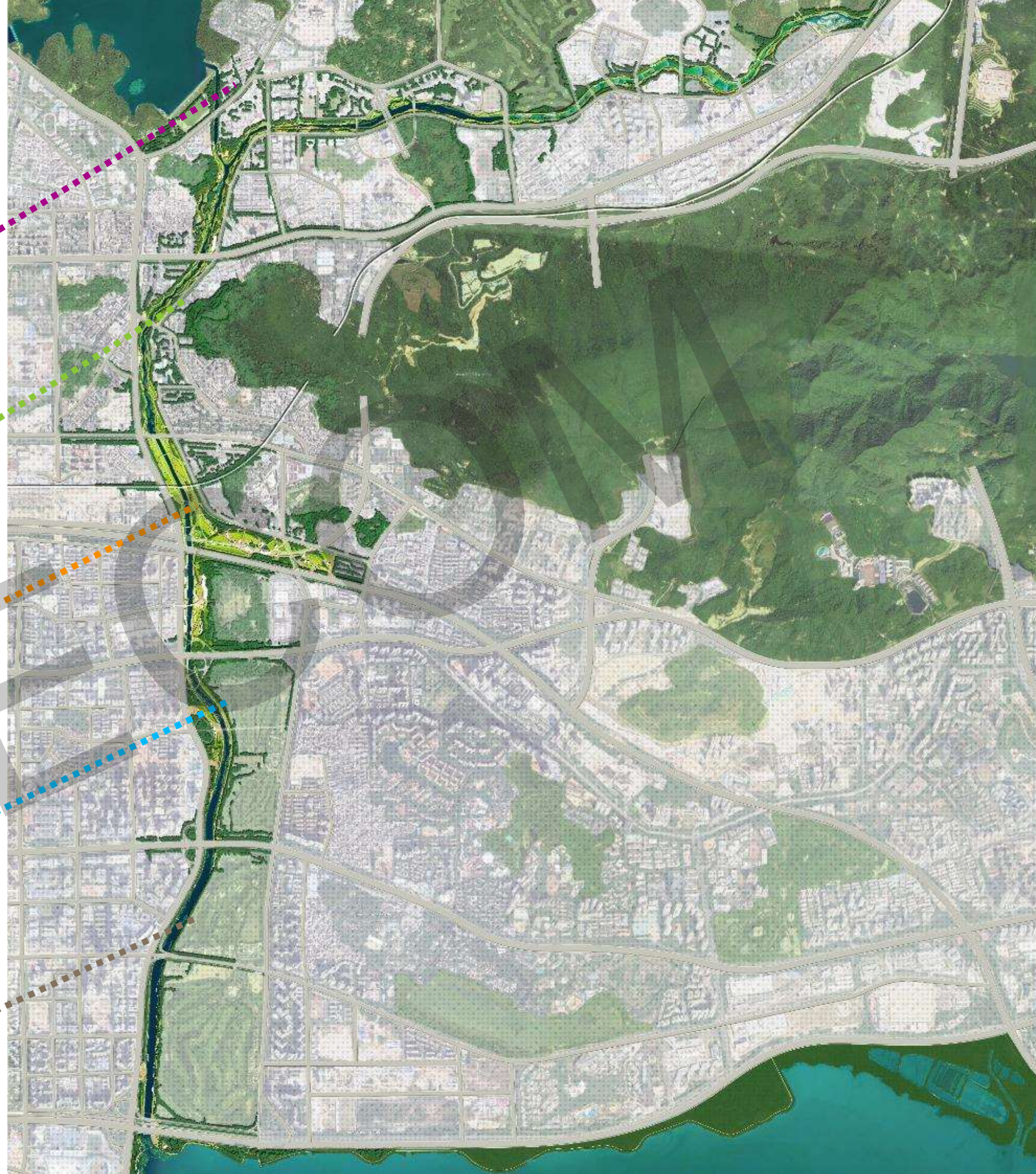
VITALITY 活力

成为融合现代与传统的新地标门户
中心区的重要的绿色活力廊道

河口段

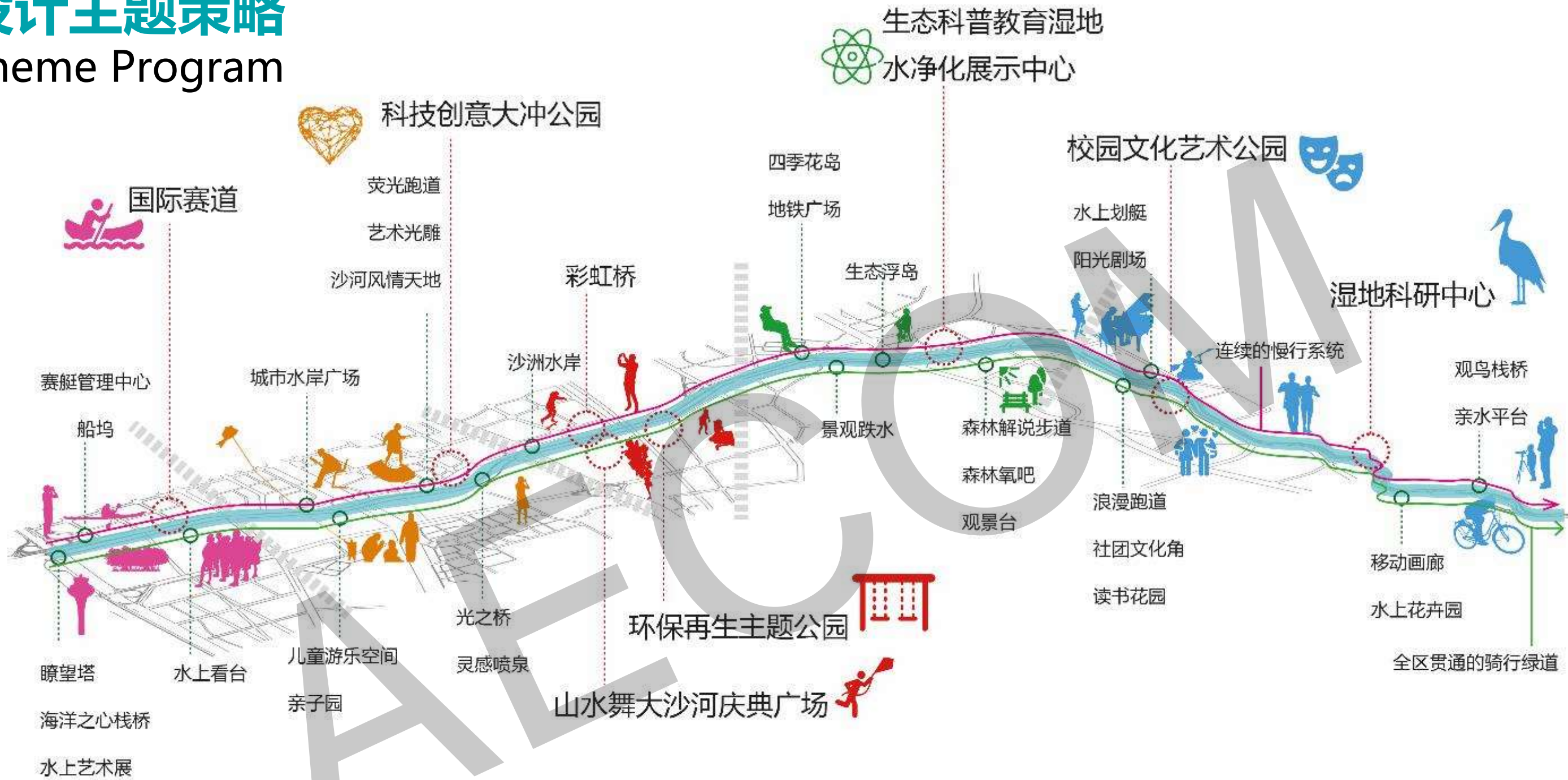
ORIGIN 思源

连接深圳湾与大沙河的绿色纽带
强调人与自然的交融



设计主题策略

Theme Program



景观分区策略 – 青春之河 (深大南科大段)

Landscape District Concept – River of Youth (SUSC Section)



1. 水上花卉园



2. 沿岸活动空间, 为创意集市, 文化祭, 艺术展等活动提供场地。



3. 校区科研湿地中心



4. 沙河生态复育区



5. 健身绿道 (浪漫花廊)



景观分区策略 – 青春之河（深大南科大段）

Landscape District Concept – SUSC Section Existing



景观分区策略 – 青春之河（深大南科大段）

Landscape District Concept – SUSC Section Rendering



香草花园

亲水平台

科研湿地

阳光草坪台阶

休闲平台

景观分区策略 – 青春之河

Landscape District Concept – River of Youth



- 对原有单一的驳岸形式调整，满足不同程度的亲水、远眺需求。
- 完善沿河步道系统，创造沿河活动草坪空间
- 局部区域形成科研湿地，为学生室外实验提供场所。

- The original single revetment form was adjusted to meet the needs of different degrees of hydrophilicity and distant view.
- Improve the trail system along the river and create lawn space for activities along the river
- A educational wetland is formed in a local area, providing a place for students' outdoor experiments.

景观分区策略 – 青春之河（北大清华段）

Landscape District Concept – River of Youth (Beijing University Section)



1. 水上步道



2. 浪漫花岛



3. 校园艺术角



4. 草坪看台（阳光小剧场）



5. 皮划艇水上练习场

引入皮划艇水上练习活动，营造大学特色。完善现有沿河景观，通过植被空间的梳理形成大小不等的草坪空间，满足人们休息交流，体育运动等活动的需要。局部调整驳岸，增加入水平台，拉近人的活动与水之间的关系。



景观分区策略 – 北大清华段现状

Landscape District Concept – Beijing Univ. Existing



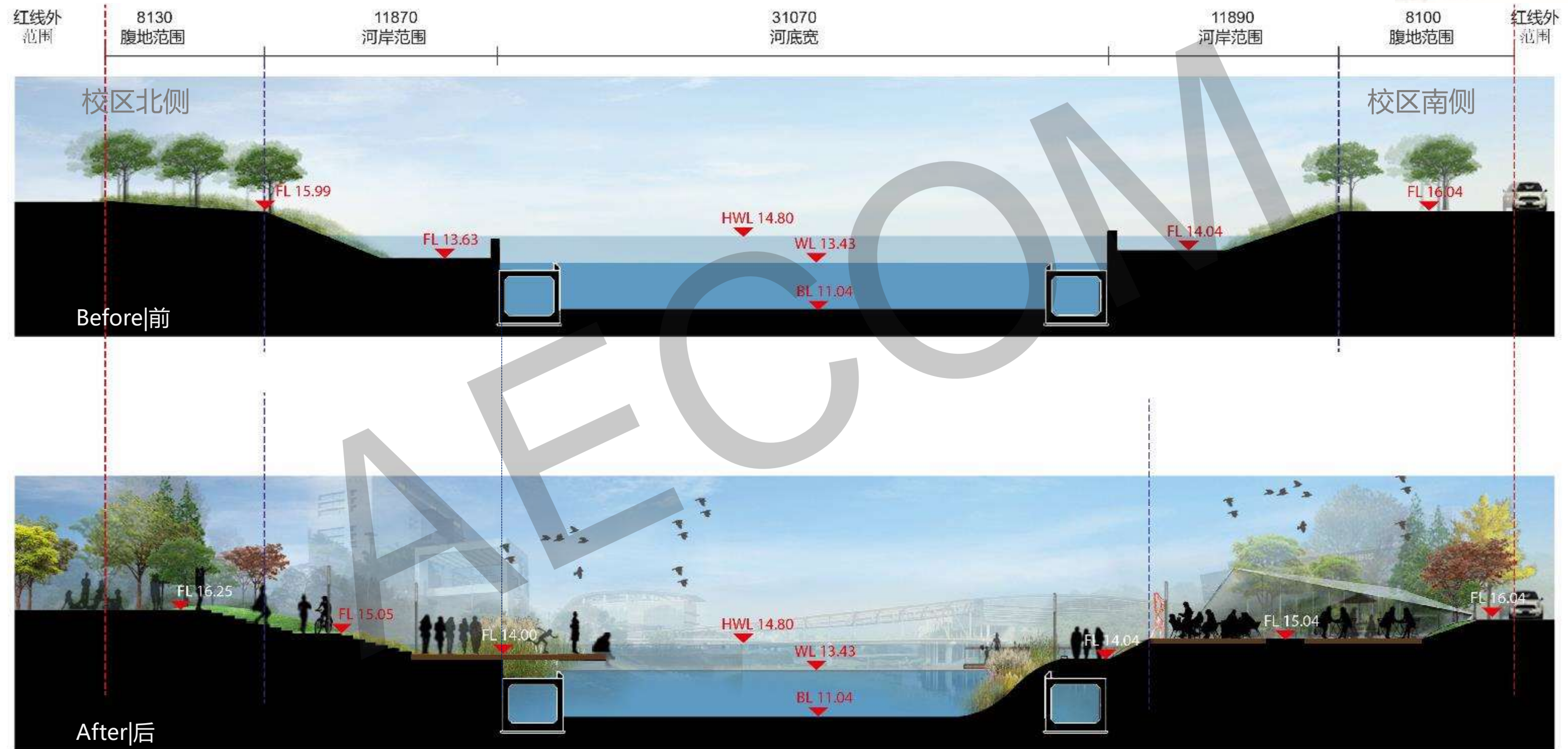
景观分区策略 – 北大清华段效果图

Landscape District Concept – Beijing Univ. Rendering



景观分区策略 – 北大清华段

Landscape District Concept – Beijing University Session



- 增加道路与水岸之间的联系
- 创造沿岸活动草坪空间
- 为校区艺术活动、社团表演、水上练习提供场所

- Increase the link between the road and the waterfront
- Create lawn space for waterfront activities
- Provide a venue for campus art activities, club performances, and water sport practice

景观分区策略 – 探索之河

Landscape District Concept – River of Discovery



1. 水净化展示中心



2. 结合高滩净化湿地，形成生态科普教育湿地园



3. 沿岸休闲活动空间



4. 建立与塘朗山之间的连接，实现山体景观与河道景观的互相渗透，形成生态步道



5. 入口小广场 (视线节点)

6. 游客服务中心



景观分区策略 – 西丽污水厂汇水口现状

Landscape District Concept – Xili Water Treatment Plant Existing



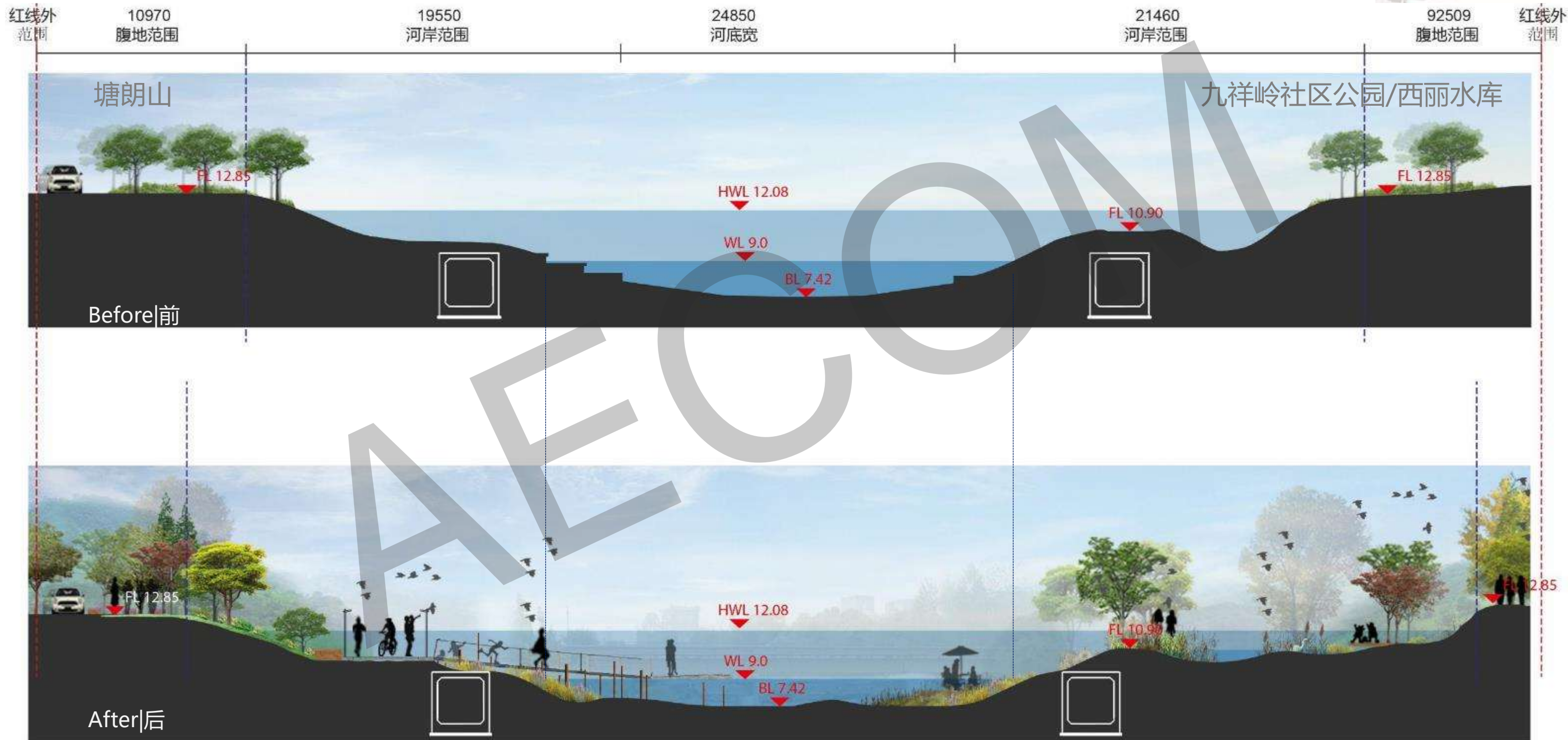
景观分区策略 – 西丽污水厂汇水口效果图

Landscape District Concept – Xili Water Treatment Plant Rendering



景观分区策略 – 西丽污水厂汇水口断面

Landscape District Concept – Xili Water Treatment Plant Section



- 利用社区公园绿地形成高滩湿地，进一步对污水进行处理
- 放大河道水面，形成自然湿地景观
- 增加水上栈道，踏石等丰富沿岸亲水活动

- Use community park green space to form high land wetlands to further treat sewage
- Enlarge the water surface of the river to form a natural wetland landscape
- Increase the waterfront promenade, stepping stones and other waterfront activities

景观分区策略 – 庆典之河

Landscape District Concept – River of Celebration



1. 打造环保主题公园，提供儿童活动场地，休闲草坪，废物利用展览等活动场地，连接河道与周边商业及居住社区



2. 沙河风情天地，设置休闲餐饮配套。



4. 改造原大沙河公园沿河绿带界面，使其成为沿岸重要的亲子亲水公园



6. 特色步行桥



7. 游客服务中心



景观分区策略 - 大沙河公园前现状

Landscape District Concept - Dasha Park Waterfront Existing



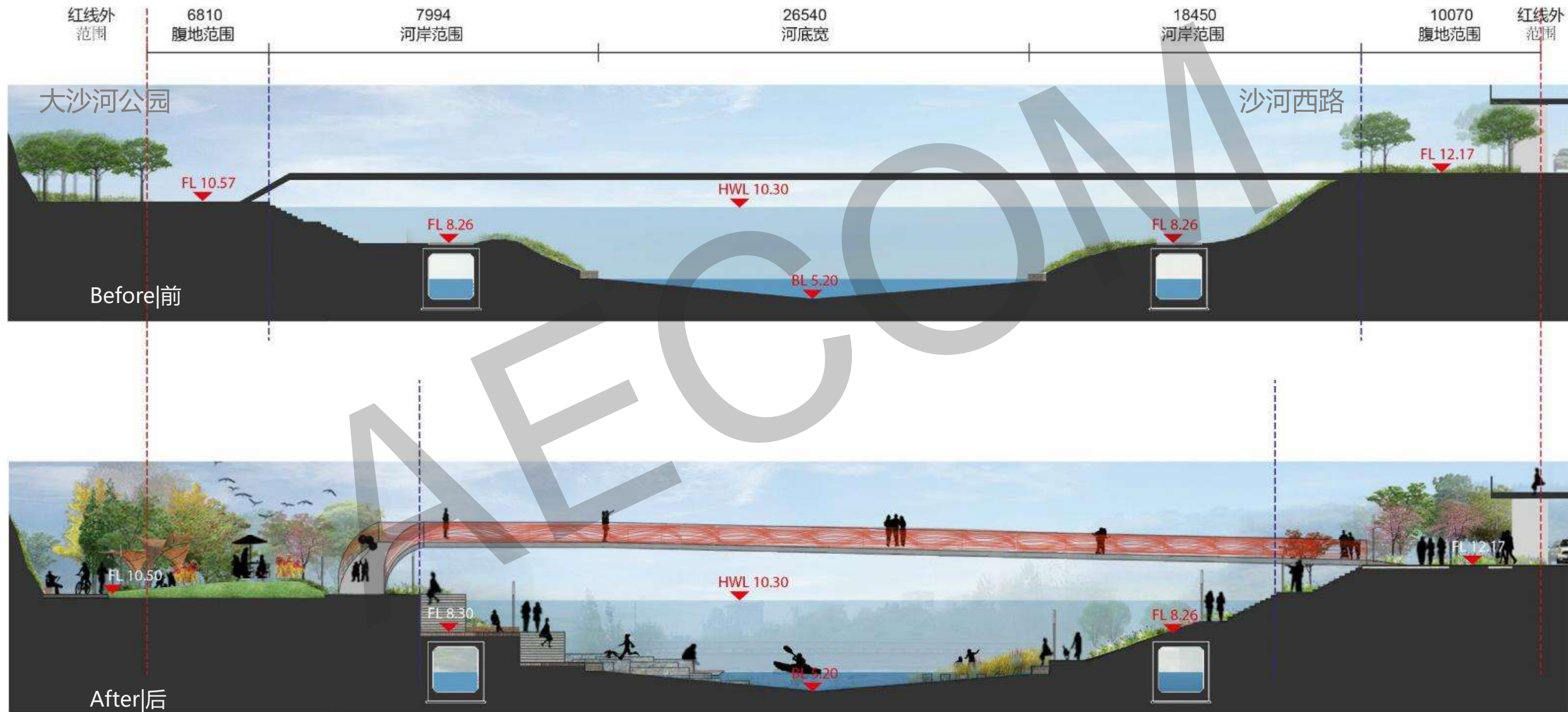
景观分区策略 - 大沙河公园前效果图

Landscape District Concept - Dasha Park Waterfront Rendering



景观分区策略 - 大沙河公园前断面

Landscape District Concept - Dasha Park Waterfront Section



- 增强大沙河公园与河道的联系，形成人群活动的中心场地
- 改造原有跨河步行桥
- 改造二级平台区域，丰富沿岸活动空间

- Enhance the connection between Dashahe Park and the river, and form a central venue for crowd activities
- Renovation of the original pedestrian bridge across the river
- Renovate the secondary platform area to enrich the coastal activity space

景观分区策略 – 活力之河

Landscape District Concept – River of Vitality



1. 艺术广场/露天电影剧场



2. 风情商业/草坪台阶

3. 特色跨河桥



4. 阳光运动草坪

5. 健身休闲广场/创意互动雕塑



6. 滨河健身步道/戏水栈道

7. 艺术光雕/科技主题构筑物



景观分区策略 - 大冲公园改造效果示意

Landscape District Concept - Dachong Park Improvement



景观分区策略 – 大冲公园段

Landscape District Concept – Dachong Park Existing



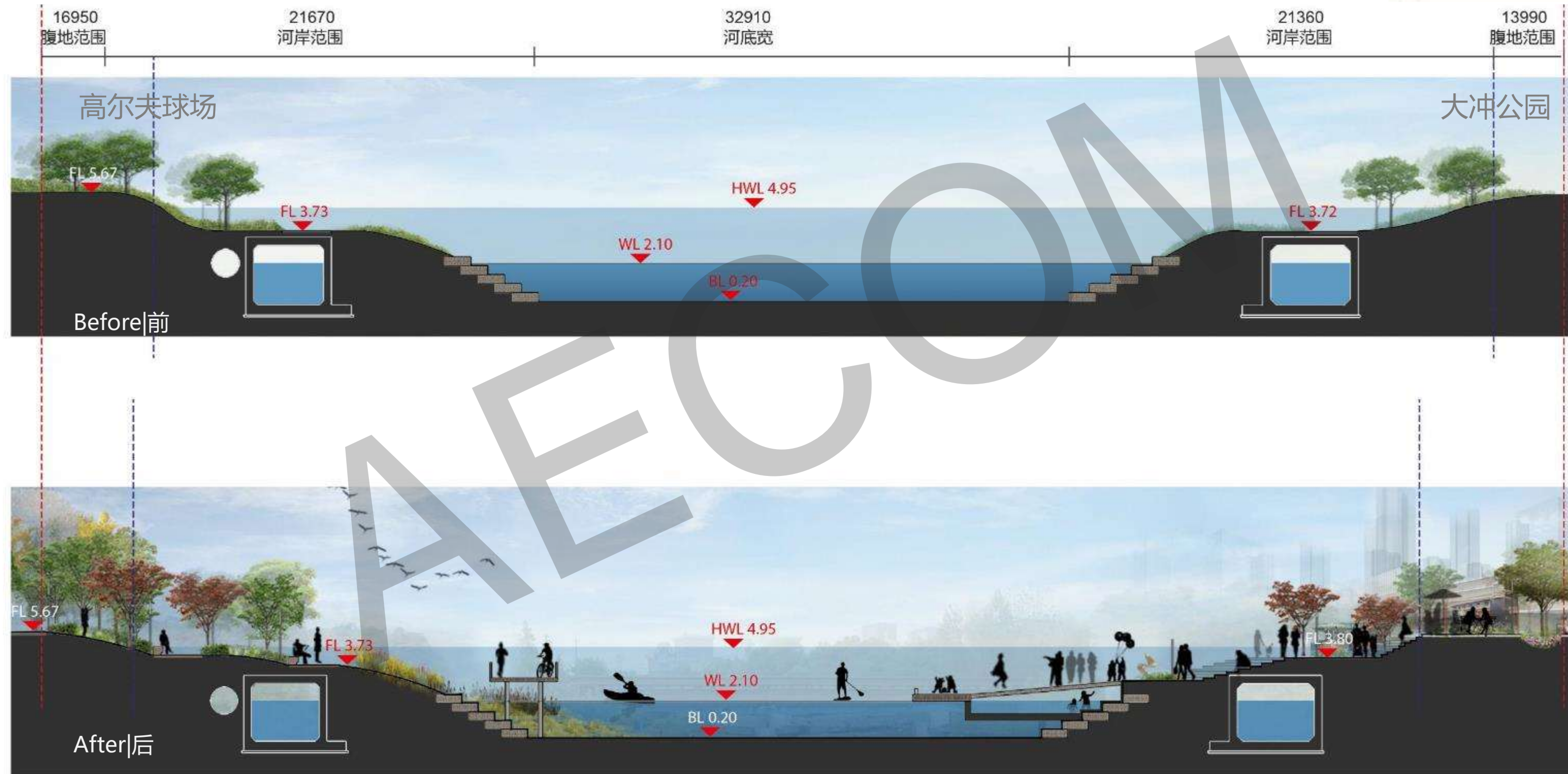
景观分区策略 – 大冲公园段效果图

Landscape District Concept – Dachong Park Rendering



景观分区策略 – 大冲公园段断面

Landscape District Concept – Dachong Park Section



- 丰富沿岸步道系统，形成不同层次不同体验的滨河步道
- 沿岸布置休闲商业配套，满足周边人群的需求
- 营造都市活动空间

- Enrich the coastal trail system to form riverside trails with different levels and experiences
- Leisure and commercial facilities are arranged along the coast to meet the needs of surrounding people
- Create urban activity space

景观分区策略 – 思源之河

Landscape District Concept – River of Origin



1. 与深圳湾红树林景观结合，深圳湾大地艺术祭，海湾之心人行栈桥。



2. 沙河天梯眺望塔。改造原有临时污水厂，形成水体净化科普展示园、观景塔



3. 原体育用地结合赛艇服务功能，形成水上码头、特色餐饮及服务站点。



4. 打造红树林景观步道，还部分高尔夫球场于公众，形成城市绿肺



5. 结合沿岸绿地形成看台、休憩步道等景观



景观分区策略 – 入海口段现状

Landscape District Concept – Estuary Section Existing



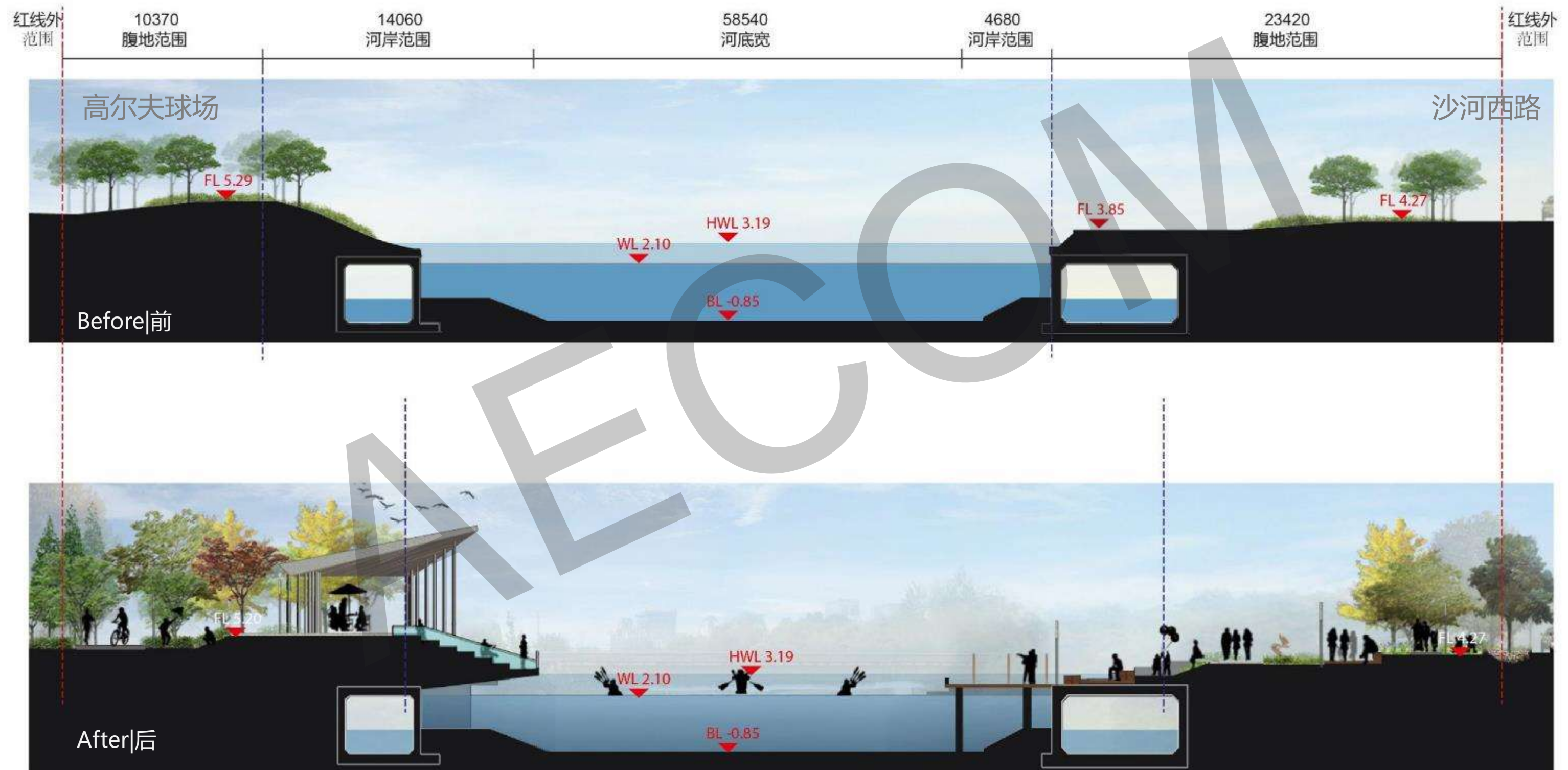
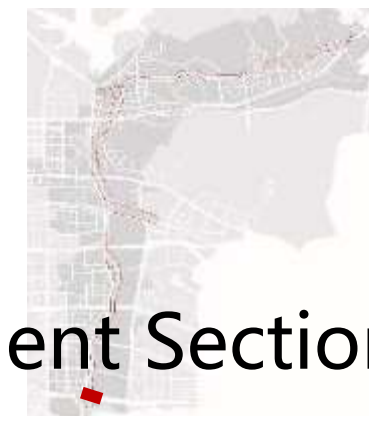
景观分区策略 – 入海口段效果图

Landscape District Concept – Estuary Section Rendering



景观分区策略 – 入海口段断面

Landscape District Concept – Estuary Section Embankment Section



- 引入赛艇活动
- 沿岸设置看台及活动空间
- 完善自行车绿道系统

- Introduce rowing sport
- Set up stands and activity spaces along the river bank
- Improve the bicycle greenway system



历史的重新连接
不仅创造了一个灵活的公共空间，享受景观体验，还改善了城市的生态环境。

Reconnection Of The History

Not only it created a flexible public space for enjoyable landscape experience, but also improved the city's ecological environment.



三类水
水质稳定通过使用生态廊道内的生态草沟
与雨水花园

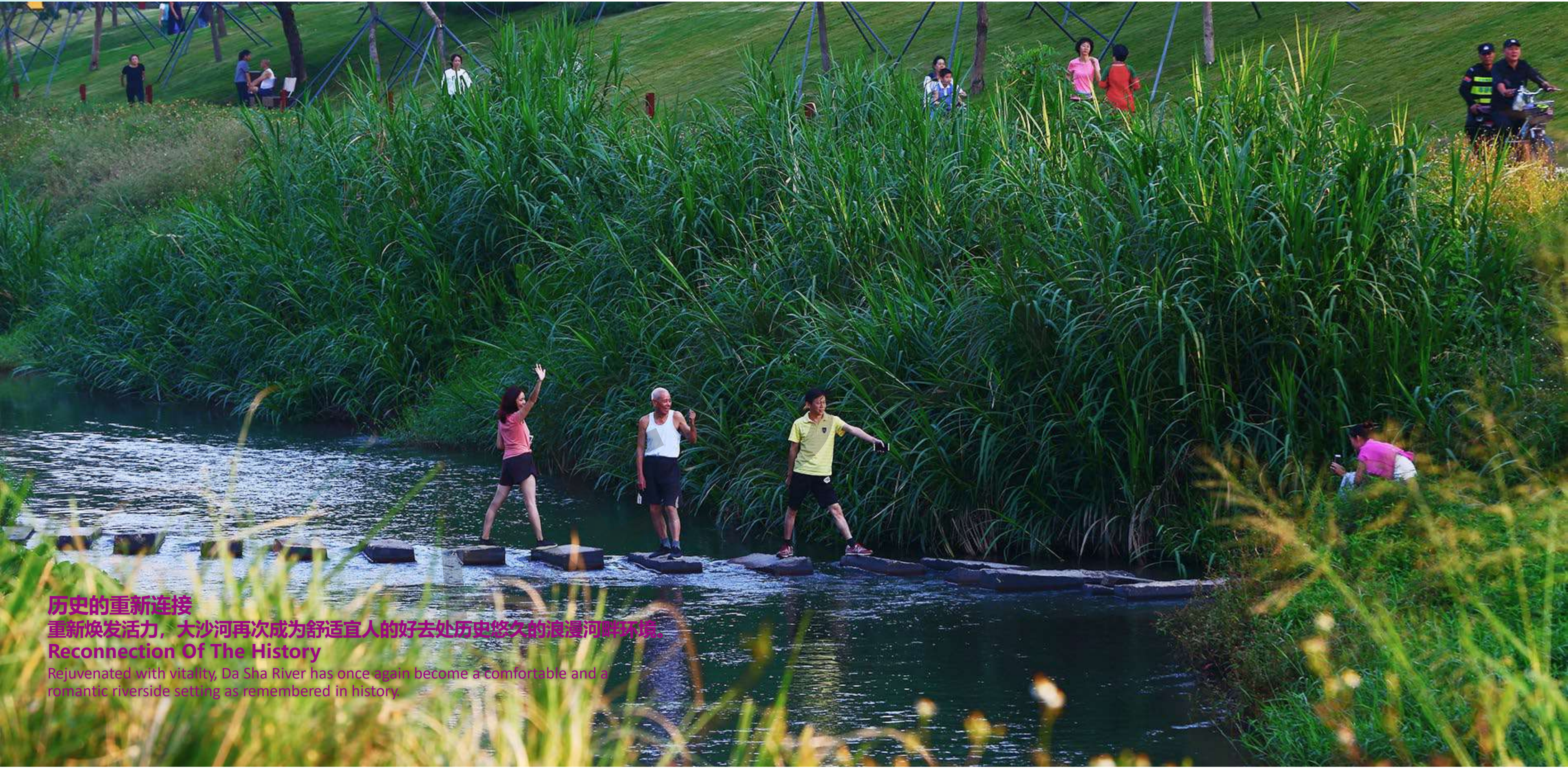
III CLASS

WATER QUALITY IS STABILIZED BY USING
BIOSWALE & RAINGARDEN WITHIN CORRIDOR

大沙河的“重生”
从设计到实施，大沙河从一条污染水道转变为深圳开放空间系统里面一条
重要串联城市公园的绿色生态廊道。

The “Rebirth” of Da Sha River

From design stage up to the implementation of the improvements, Da Sha River
landscape corridor has been transformed from a polluted waterway into an important
Urban Park linking green space systems within the open space framework of Shenzhen.



历史的重新连接

重新焕发活力，大沙河再次成为舒适宜人的好去处历史悠久的浪漫河畔环境。

Reconnection Of The History

Rejuvenated with vitality, Da Sha River has once again become a comfortable and a romantic riverside setting as remembered in history.



生态修复

湿地公园不仅作为净水过滤器，而且作为附近居民的重要开放空间公园，与公园设施相结合，使该地区充满活力。

Ecological Restoration

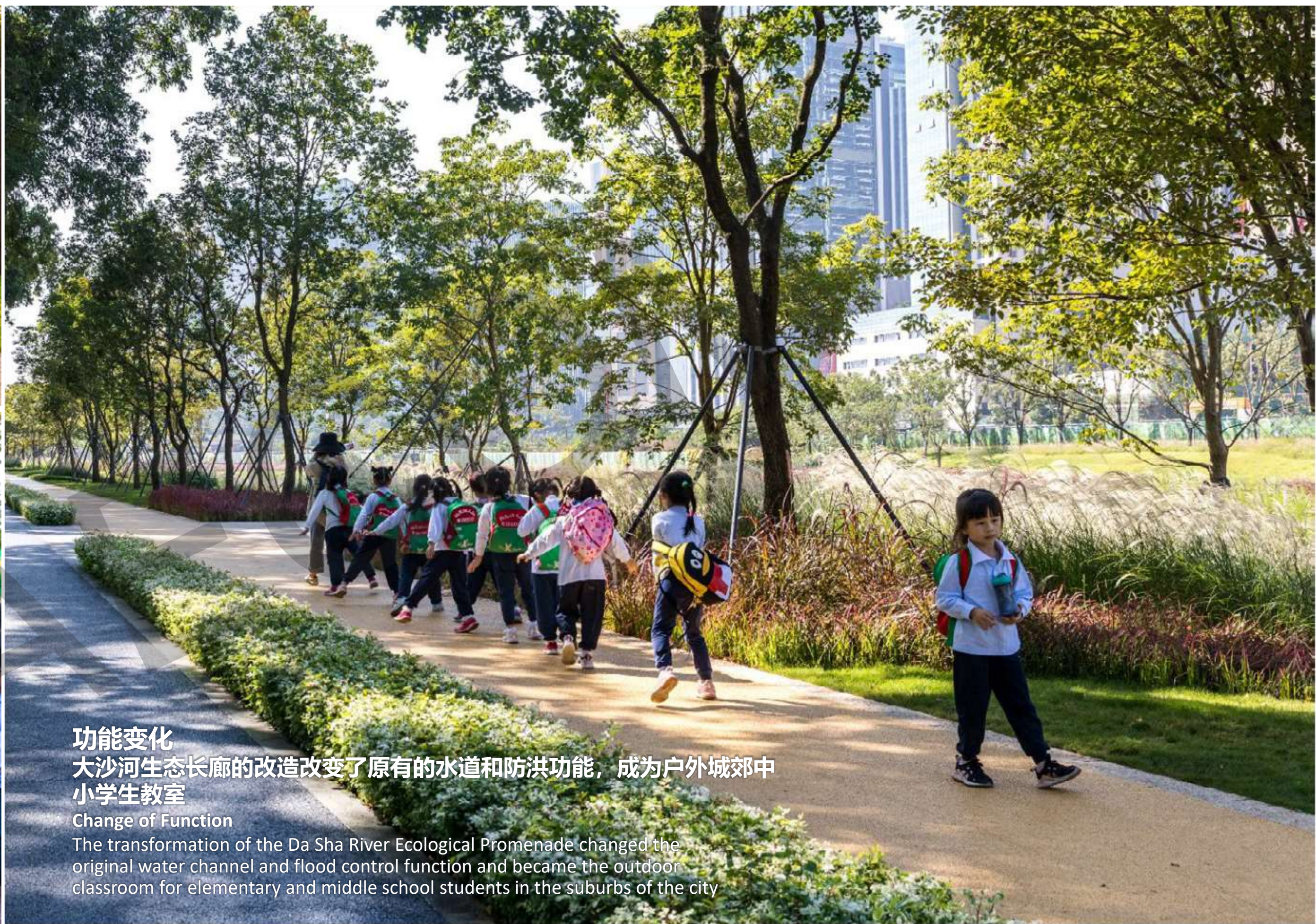
This Wetland Park serves not only as water filter but also as an important open space park for the nearby residents as it was integrated with park amenities making the area lively and vibrant.



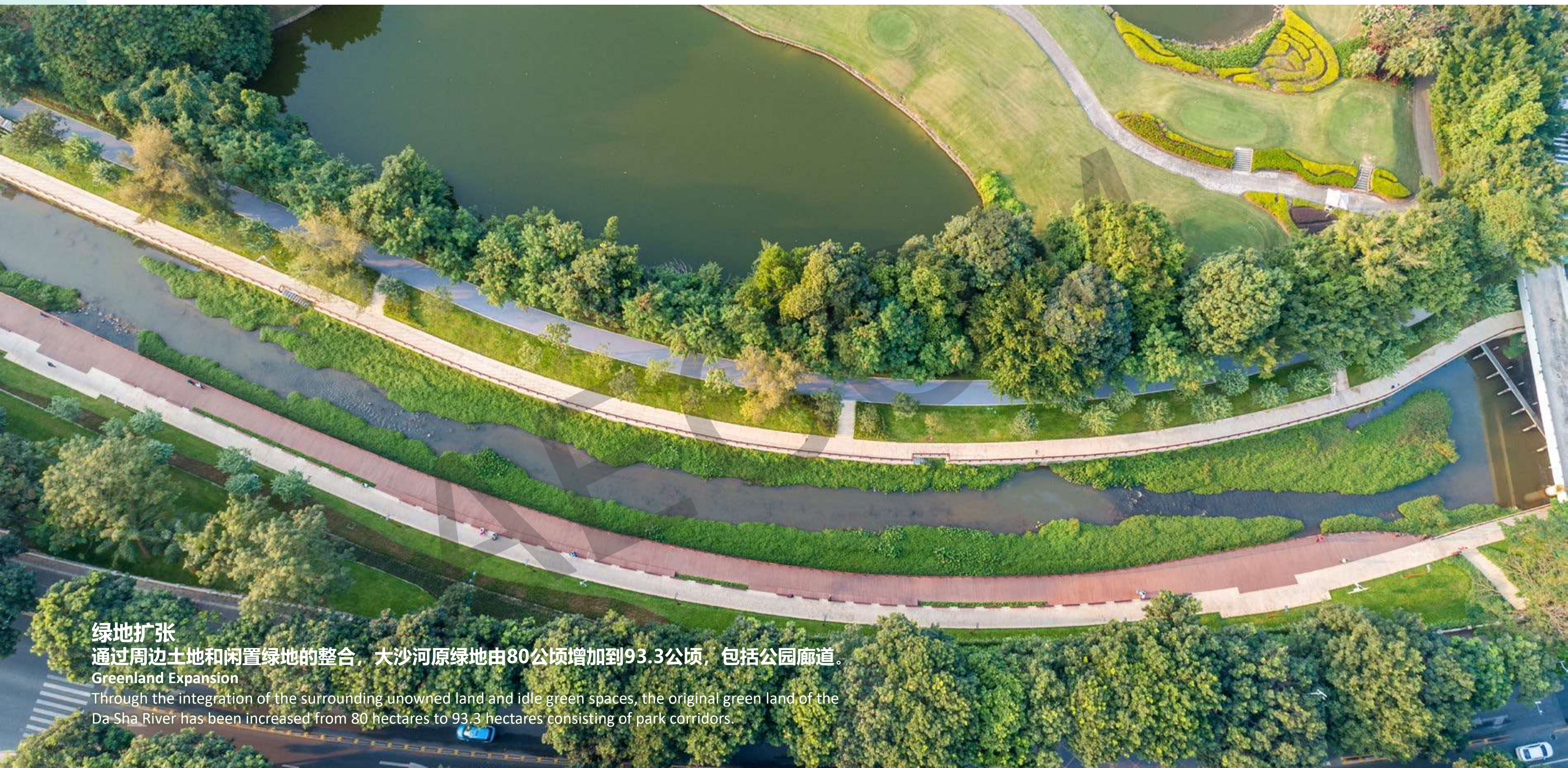
活力景点
整个公园设有独立的自行车道、人行道和健康跑道。服务楼也可以应用于户外课程和公共科学讲座，以改善教育和知识共享。

Vitality Attraction
The entire park is fitted with separate bicycle lanes, pedestrian walkways and health running tracks. Service Building can also be applied to both outdoor classes and public science lectures to improve education and knowledge sharing.





功能变化
大沙河生态长廊的改造改变了原有的水道和防洪功能，成为户外城郊中小
小学生教室
Change of Function
The transformation of the Da Sha River Ecological Promenade changed the
original water channel and flood control function and became the outdoor
classroom for elementary and middle school students in the suburbs of the city



绿地扩张

通过周边土地和闲置绿地的整合，大沙河原绿地由80公顷增加到93.3公顷，包括公园廊道。

Greenland Expansion

Through the integration of the surrounding unowned land and idle green spaces, the original green land of the Da Sha River has been increased from 80 hectares to 93.3 hectares consisting of park corridors.

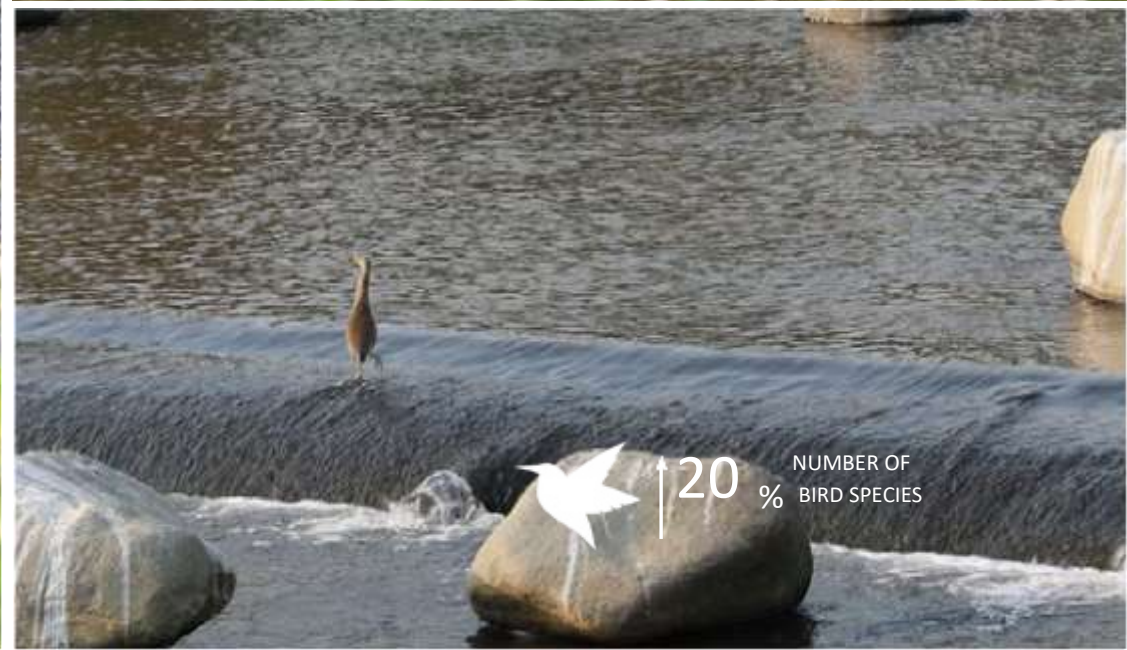


生态修复

通过栖息地的保护和恢复以及人工湿地的建立，现有大沙河的鸟类数量栖息地增加了 20%。

Ecology Restoration

Through the conservation and restoration of habitat zones and establishment of constructed wetlands, the number of bird species in the existing Da Sha river habitat increased by 20%.





生态修复

去除非本地入侵物种，并逐渐用本地物种替代，以提高生态和景观价值。

Ecology Restoration

Non-native invasive species were removed and gradually replaced with native species to improve ecological and landscape value.

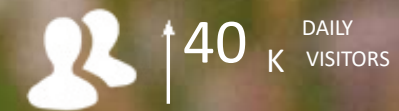


城市效益

大沙河旅游人数大幅增加至每天约4万人，涵盖各个年龄段

Urban Utilization

The population visiting the Da Sha River has greatly increased to about 40,000 person per day covering all age groups.





城市效益

河道可供水上皮划艇水上运动，欢迎市民一起参与水上运动，让市民与水更近。

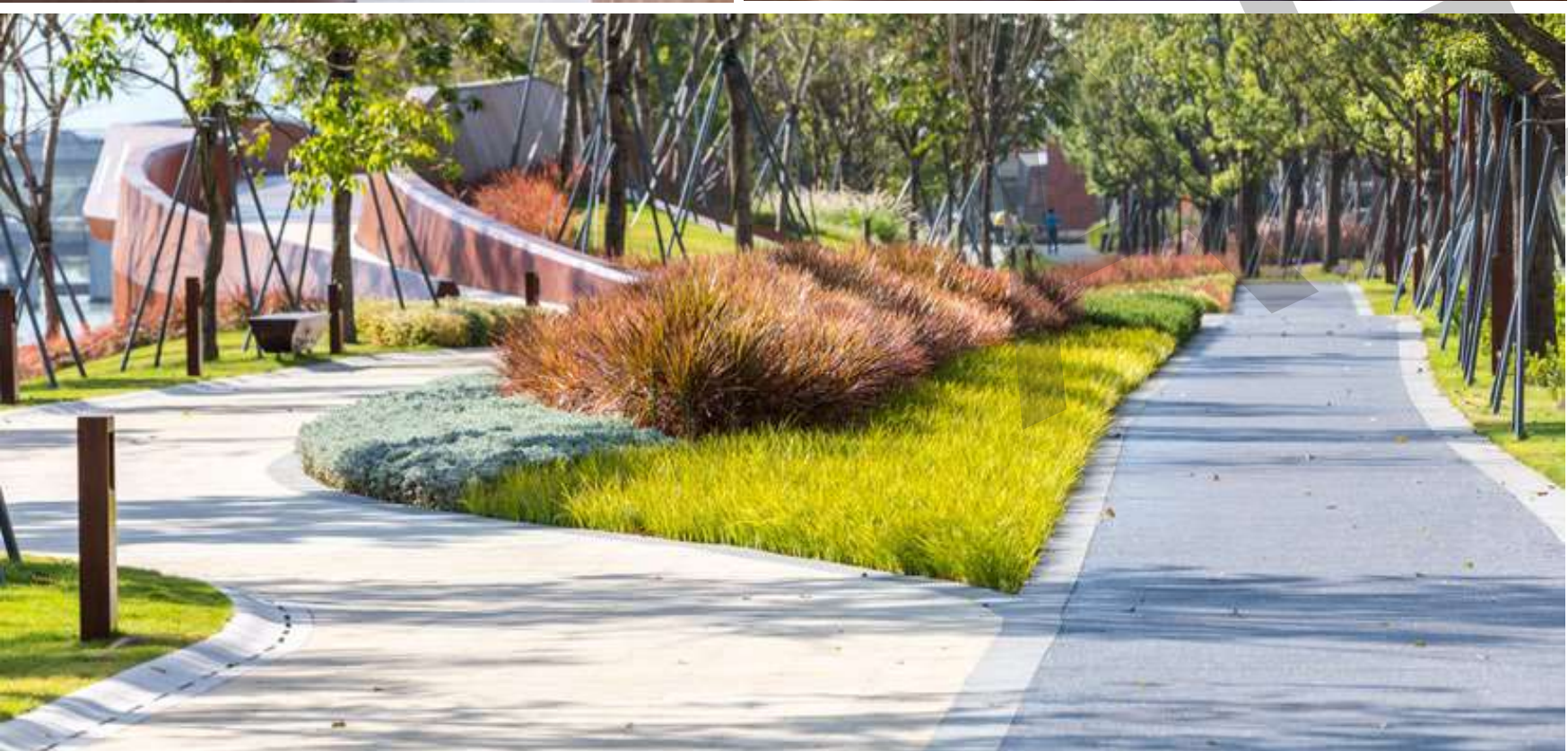
Urban Utilization

Daily water kayaking welcomes citizens to participate in water sports together, bringing the citizens closer to the water.




城市效益
考虑到人口密集的城市环境，有综合性的旅游服务楼为人们提供滨水休息站和信息。

Urban Utilization
Considering the densely populated urban context, there are comprehensive tourist service buildings to offer people waterfront rest stations and information.



赛艇平台
划船平台是沿河岸的构筑物，它不仅有观看划船活动的功能，同时也提供公众免受风雨和娱乐的庇护所。

Rowing Platform
The rowing platform is a structure that grows along the terrain. It not only has the function of watching rowing activities, but also provides shelter for the public from wind and rain and recreation.

- 
- 93.3** HA Total Area
 - 12.2** HA Release of Green Area
 - 0.93** HA Lichi Forest Reserve
 - 1.60** HA Wetland Restoration

大沙河生态廊道的打造，为深圳提供了高品质的公共开放空间，改变了城市的整体形象，进而提升城市的竞争力。

The construction of the Dasha River Ecological Corridor has provided Shenzhen with high-quality public open space, changed the overall image of the city, and enhanced the competitiveness of the city.