深圳市深汕特别合作区赤石河一河两岸

规划设计国际咨询

International Consultation on the Planning and Design of Chishi Riverside, Shenshan Special Cooperation Zone of Shenzhen Municipality

任务书

Design Brief

（公告版）

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1.项目概况 Project Overview

1.1 项目背景 Project Background

河流与城市的共生关系，带来了活力、文化和风景。很多著名的城市都因河流而独具特色，如巴黎、上海、阿姆斯特丹等等。深圳市深汕特别合作区（以下简称深汕合作区）的赤石河，同样提供了难得的水资源条件。

The symbiotic relationship between the river and city may bring out vitality, culture and landscape. Many well-known cities are impressive for their unique riversides, of which Paris, Shanghai and Amsterdam are good examples. Likewise, Shenshan Special Cooperation Zone of Shenzhen Municipality (hereinafter referred to as 'Shenshan Cooperation Zone') is bestowed with unusual condition of water resource by Chishi River flowing through it.

深汕合作区距离深圳约60km，是深圳市自主创新拓展区，更是粤港澳大湾区向粤东城市群进行发展辐射的战略支点，总面积约468.3平方公里。

Shenshan Cooperation Zone is about 60km away from Shenzhen. It is not just an innovation and development zone of Shenzhen, but also an important strategic node, through which the Guangdong-Hong Kong-Macau Greater Bay Area radiates to town clusters of east Guangdong Province. And it covers an area of about 468.3m^2.

赤石河是深汕合作区的第一大河，发源于北部山区，向南贯通城区全境，经小漠镇注入红海湾，全长约36.8公里，流域总面积382平方公里。

As the largest river in Shenshan Cooperation Zone, Chishi River originates in the northern mountain area, and runs southward through the whole urban area and into the Red Bay by Xiaomo Town, with a total length of about 36.8km and a total drainage area of 382km^2.

在新时代生态文明理念指导下，赤石河沿线不仅需要实现减灾避灾，而且要围绕城市与河流的共生发展，助力深汕合作区实现现代化国际性滨海智慧新城的

总体目标，其空间价值体现在：

Guided by the concept of ecological civilization in the new era, the area along Chishi River shall not only achieve disaster risk reduction and prevention, but also focus on symbiotic development between the city and river, so as to help Shenshan Cooperation Zone to achieve its overall goal of becoming a new modern, international coastal smart city. And its spatial values reside in:

（1）境内重要的水安全保障：汇聚中心城区多条河流，通过整体防洪工程的构建，提供抵御洪水的重要缓冲空间。

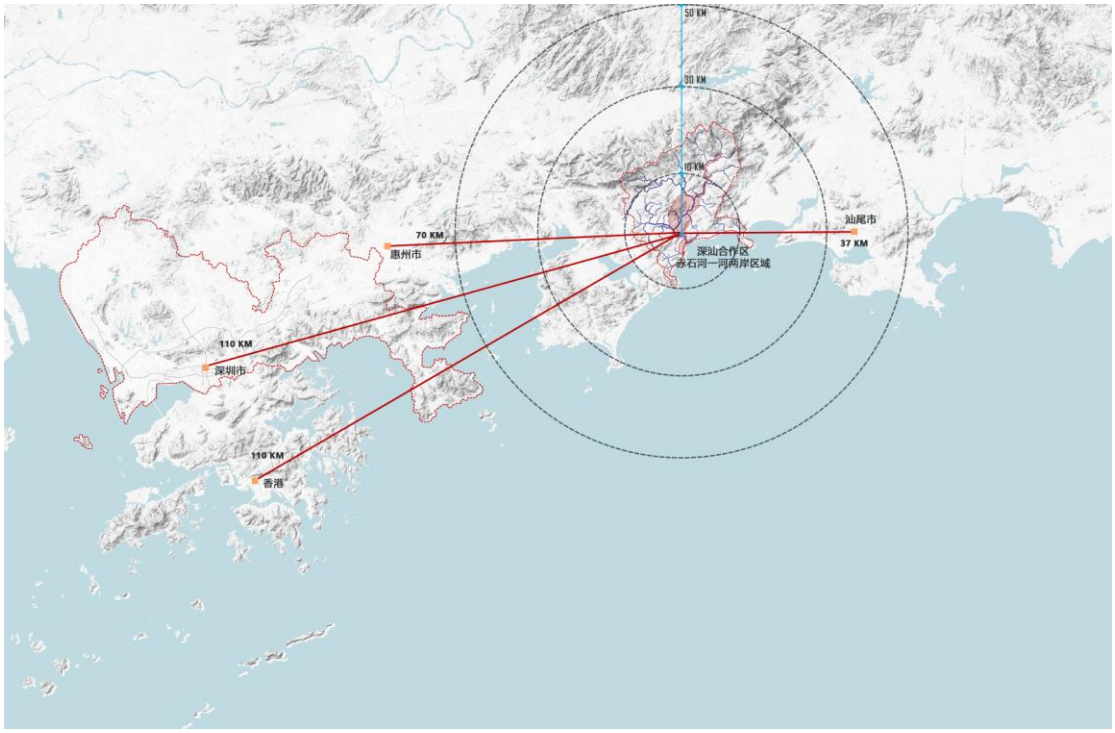
An important safeguard of water safety: with multiple rivers gathering in the central urban area, it provides important buffer space to resist the floods through constructing integrated flood control works.

（2）区域核心的生态景观长廊：集中了山体、原生林地、鸟类栖息地、滨海湿地、沙滩等多种生态要素，构成系统化的线性自然景观。

A core ecological landscape corridor in the region: there are multiple ecological elements such as mountains, native woodland, habitats for birds, coastal wetland, and beach, etc., gathering here to construct a systematic linear natural landscape.

（3）城乡一体化的特色展示带：连接现有的乡村和新生的城市空间，体验适山水而生、举城乡一脉的“深汕味道”。

A special exhibition belt of urban-rural integration: it connects existing rural area with newborn urban area, and brings an experience of 'Shenshan Taste" that was born with mountains and waters and integrates urban and rural areas.



深汕合作区赤石河区位示意图

Location of Chishi River in Shenshan Special Cooperation Zone of Shenzhen Municipality

赤石河沿线现状照片

Current Situation of Chishi Riverside

基于以上背景，深圳市深汕特别合作区管理委员会联合深圳市规划和自然资源局组织开展赤石河一河两岸规划设计国际咨询工作，希望以国际视野和创新理

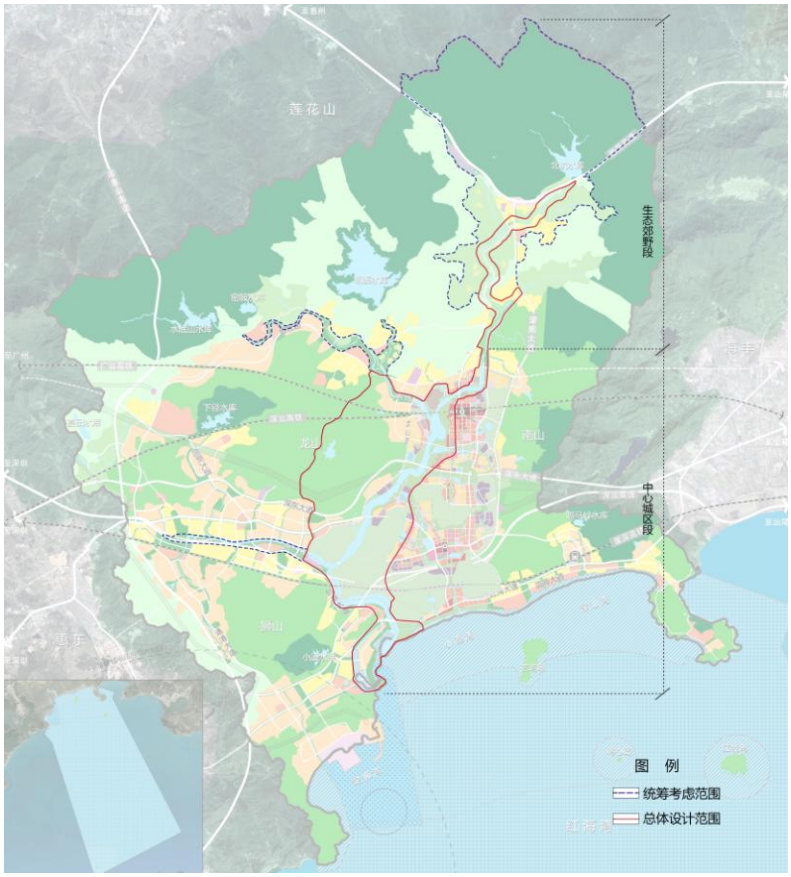
念积极谋划赤石河沿岸的发展蓝图，在保证水安全、水生态、水环境的基础上，营造滨水生活，提升滨水景观。

In this context, Shenshan Special Cooperation Zone Management Commission of Shenzhen Municipality and the Planning and Natural Resources Bureau of Shenzhen Municipality are jointly organizing the International Consultation on the Planning and Design of Chishi Riverside, and hopes to establish a development framework with international vision and innovative concept, so as to establish a waterfront lifestyle and improve waterfront landscape on the basis of ensuring water safety, water ecology and water environment.

1.2 工作范围 Project Scope

本次咨询包括两个层次：总体设计和详细设计。

There are mainly two levels included in this International Consultation: overall design and detailed design.



总体设计范围图

Overall Design Scope

总体设计范围：总面积约47.7平方公里，根据城市化特点，划分为南北两段。

Overall design scope: with a total area of 47.7km^2. According to the characteristics of urbanization, it is divided into the northern and southern sections.

北部生态郊野段在保护物种多样性和自然生态本底的基础上，选取沿河两岸堤脚线向外扩展约200米的范围。

The northern ecological suburban section shall extend about 200m outwards from the toe line of the dikes in both sides of the river in combination on the basis of protecting its biodiversity as well as its original natural and ecological environment.

南部中心城区段在中心区城市设计方案确定的路网基础上，将滨河两侧各向外扩展一个城市街区，局部结合重要山体、支流、地标等景观要素进行调整。统筹考虑范围是重要的支流地区，可一并纳入总体设计范围进行考虑。

The southern central urban section shall extend an urban block outwards from the riverfront area in both sides of the river based on the road network determined in the central area's urban design scheme, and combine with the extension of key landscape elements such as important mountains, tributaries and landmarks, etc. for parts of its area.The scope of comprehensive consideration is the main tributary area, which can be taken into account in the overall design.

详细设计范围：在总体设计范围中，选取 2-3 个重要节点进行详细设计。

Detailed design scope: select 2-3 key nodes to carry out detailed design within the overall design scope.

2.咨询目的 Consultation Objectives

本次咨询希望通过前瞻性的城市与景观设计，引导赤石河沿岸的综合发展达成以下目标：

With prospective urban and landscape design, the International Consultation aims to guide comprehensive development of Chishi Riverside, in order to achieve the following objectives:

（1）构建从山林源头、城市中心到潮汐通道的全周期水生态示范区：从赤石河的源头、支流、中部到入海口，科学治理和统筹蓝绿网络，实现全生命周期的水生态系统样板工程。

Building a full-cycle water ecological demonstration zone from the headstream of mountain forests, urban center to tidal channel: carry out scientific control and overall planning on water and green networks from the headstream, tributaries and middle reach to the estuary of Chishi River, to construct a water ecosystem sample project in a full life cycle;

（2）形成全流域韧性城市的发展格局：针对赤石河各段落的自然地理特征与城市建设需求，采取差异化、动态化的韧性发展策略，形成兼具安全和景观效应的全流域韧性城市格局。

Forming a development pattern of resilient city in the whole drainage area: according to the natural geological features and urban construction needs in each section along Chishi River, adopt differential and dynamic resilient development strategy, to form a whole-basin resilient city pattern integrated with safety and landscape effects;

（3）塑造多要素、多功能、多节奏的深汕山水景观轴：整体考虑山体、林地、码头、庙宇、地标、村落、城市、湿地、海滨等丰富综合的滨水场所，塑造城居山水间、乡入自然境的景观风貌，展现深汕山水画卷的独特韵味。

Shaping a Shenshan landscape axis of mountains and waters with multiple elements, functions and rhythms: overall consideration shall be given to those abundant and comprehensive riverside places such as mountains, forests, wharfs, temples, landmarks, villages, city, wetland and seashore etc., to shape a picturesque landscape of the city amid mountains and waters as well as the suburbs integrated into natural environment, and show the unique appeal of Shenshan as in a scroll of landscapes.

3 工作原则 Principles

3.1 创造性原则：世界、湾区、深圳的理想映射 Creativity: Mapping of Ideals of the World, the Greater Bay Area and Shenzhen

深汕与深圳的关系、与粤港澳大湾区的关系，以及深汕未来的城市定位、赤石河对深汕合作区的价值，都决定了本次咨询需要对标国际滨水地区保护和发展的经验及愿景，进行生态文明理念的创造性探索。

Shenshan's relations with Shenzhen and the Guangdong-Hong Kong-Macau Greater Bay Area, as well as Shenshan's future positioning and the value of Chishi River to Shenshan, are decisive to this International Consultation that it shall benchmark against the experience and vision of conservation and development in international waterfront areas, and creatively explore the concept of ecological civilization.

3.2 自然性原则：安全舒适的河流和依山傍水的城市 Naturalness: a River with Safety and Comfort and a City beside Mountains and Waters

随着新城区建设的全面展开，赤石河的水安全、水环境、水生态将面临很大

挑战。以保持和最低扰动河流的自然属性为宗旨，前瞻性地统筹项目开发、防洪要求、竖向改造和山水系统的关系，让城、乡、山、河包容共生。

Along with the construction of new urban area, the water security, water environment and water ecology of Chishi River will confront with great challenges. For the purpose of maintaining and minimizing the disturbance to the natural attribute of the river, we shall prospectively coordinate the relations among project development, requirements of flood control, vertical reconstruction and landscape system, so as to realize an inclusive and symbiotic relationship among the city, suburbs, mountains and rivers.

3.3 综合性原则：可赏、可游、可城、可野的滨水体验 Comprehensiveness: a Place full of Riverside Experiences that People can Enjoy and Tour, and Embracing both the Characteristics of the City and Nature

以城市滨水生活为中心，可持续地提升赤石河沿岸的生态景观和活动品质。利用山水尺度、中心区位、碧道建设与城市大型公共建筑，形成点链联动、城野相接、人文亲厚的多元化、多功能的滨水城市名片。

Centering on urban waterfront lifestyle, sustainably improve the ecological landscape and quality of activities along Chishi Riverside; make full use of landscape scale, location of the urban center, greenway construction and large-scale public buildings in the city, to build a diversified and multifunctional name card for this coastal city featured by interaction between points and chains, connection between the city and nature, as well as intimate relation with the culture.

4 咨询内容 Consultation Contents

本次咨询内容分两个层次：

The consultation contents are divided into two levels:

4.1 总体设计层面 Overall Design Level

依据现状情况、空间特征、与城市的整体关系，结合对标案例，对一河两岸进行目标愿景及功能定位进行判定，兼顾城市空间、生态景观、绿道建设等，构建设计框架、策略体系，提出兼具创造性与可操作性的综合解决方案。着重考虑河流安全系统规划、山河生态格局构建、滨河地区城市设计、一河两岸景观设计、滨河旅游休闲系统、滨河文化传承体验六个方面，及必要的规模、交通等空间支持系统。

According to current situations, spatial features, and overall relations with the city, as well as taking into account reference cases, study and determine the goal, vision and functional positioning of the riverside, construct the design framework and strategy system by taking full consideration of urban space, ecological landscape and greenway construction etc., and propose comprehensive solutions that are both innovative and implementable. Emphasis shall be put on planning of the river safety system, construction of the ecological pattern of mountains and rivers, urban design of the riverside area, landscape design of Chishi Riverside, riverside tourism & recreational system, and inheritance and experience of the riverside culture, together with necessary space supporting systems such as scale and transportation, etc.

4.1.1 河流安全系统规划 Planning of the River Safety System

从河流的水情特征出发，在对滨水空间及河流行洪现状、堤岸现状、洪涝淹没现状分析的基础上，从专业的角度对全流域的防洪工程体系建设、内涝缓解、堤岸打造等韧性发展方面提出系统策略；结合支流水系防洪排涝需求，明确赤石

河沿线场地竖向处理方式，深化立体防灾，通过增加海绵、蓄滞性水体，形成滞、蓄、排相统筹，增加河流安全性，优化与周边场地的关系，校核和优化既有河道控制线。

Given the characteristics of river regime, and based on analysis of current situations of waterfront space, river floodwater discharge, river banks and flood inundations, work out systematic strategy on resilient development regarding construction of the whole-basin flood prevention works, mitigation of waterlogging and riverbank building, etc., from professional perspectives; taking into account the requirements on flood control and floodwater discharge of the tributary water system, specify vertical treatment means along Chishi River, promote three-dimensional hazard prevention, comprehensively manage flood detention, storage and discharge by adding sponge and water bodies for flood storage and detention, strengthen the river safety, optimize relations with surrounding areas, and check and optimize the control lines of existing river channels.

4.1.2 山河生态格局构建 Construction of the Ecological Pattern of Mountains and Rivers

对赤石河流域山水环境现状、生态资源布局状况等进行评价，结合“一脉通海、两水蜿蜒、群山夹谷、万亩碧田”的生态本底，做好与周边湖库、山脉、支流等山水生态格局的构建、梳理工作；结合现状水质情况及水体功能目标，提出水生态环境修复、水质保障规划方案；确定沿河和向两岸纵深两个维度的绿地空间结构，进一步提升滨河生态绿地、湿地，构建“蓝绿空间”；制定生态岸线做法与策略、护坡生态改造策略及生境营造策略。

Evaluate the current environment of mountains and waters as well as current layout of ecological resources, etc., along Chishi River Basin, combine with its ecological environment of 'one main stream connecting the sea with two winding rivers, numerous mountains and valleys, as well as a large number of green croplands', properly build and sort out the landscape patterns with surrounding

reservoirs, mountains and tributaries etc.; according to current water quality and functional objectives of water bodies, bring forward the plan for restoration of water ecological environment and protection of water quality; define the spatial structure of green space in two dimensions, namely, vertically along the river and horizontally extending outwards from the banks, further improve the riverside ecological green space and wetland, to build 'green and blue space'; develop the construction means and strategy of ecological riverside, ecological improvement strategy of revetments and habitat creation strategy.

生态本底示意图
Ecological Environment

4.1.3 滨河地区城市设计 Urban Design of the Riverside Area

充分考虑一河两岸地区与深汕中心区、北部功能组团、西部功能组团等之间的功能衔接，构建滨河地区城市设计方案，形成疏密有致、彰显地域特色的空间布局。可对中心区已有的城市设计方案酌情优化，强化城市功能和自然环境紧密交融的风情水岸意象，塑造层次丰富、体验多元的城市公共空间，注重城市天际线与山水环境的有机融合。

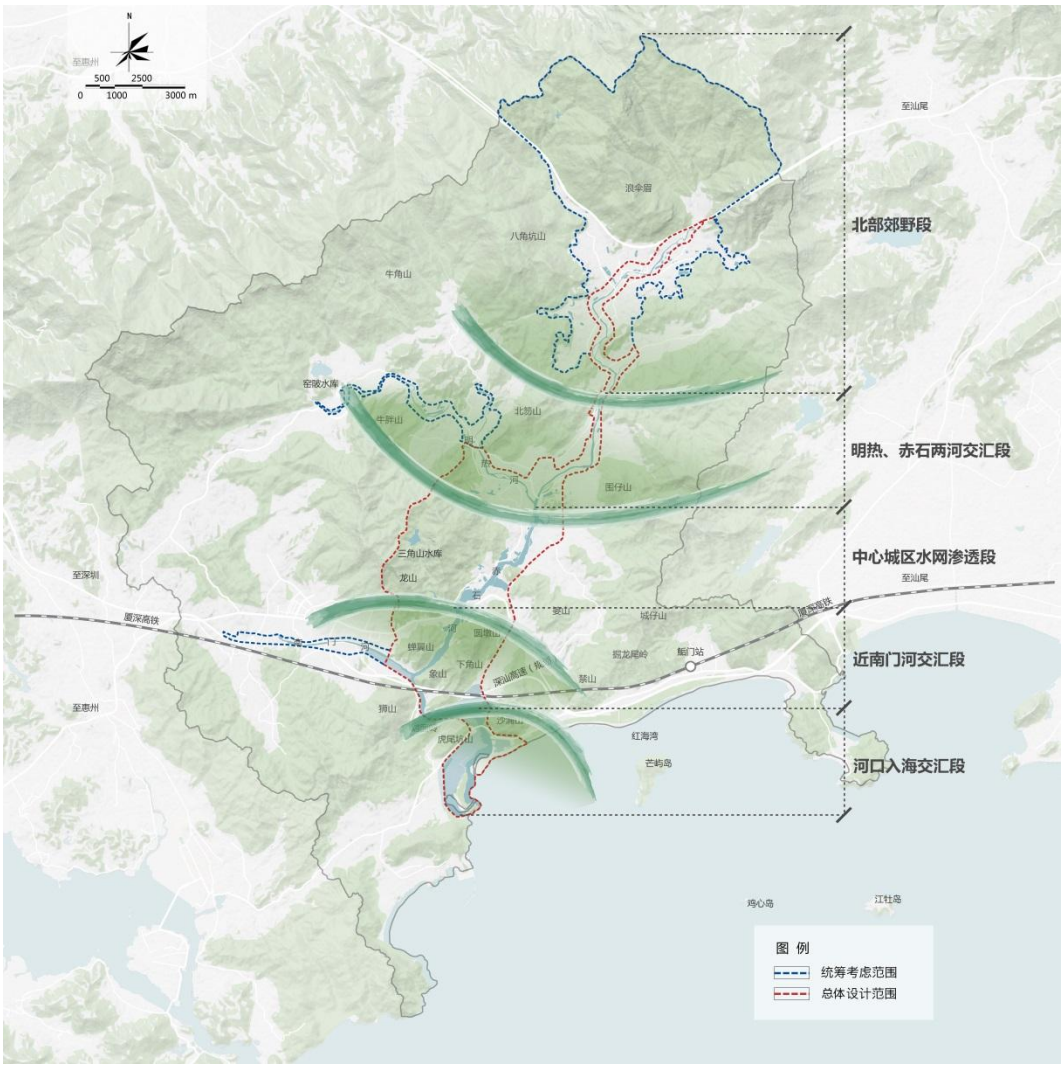
Full consideration shall be given to the functional connection between the riverside area and Shenshan Central Area, the northern functional cluster, the western functional cluster, etc., and draw up an urban design plan for the riverside area to form a spatial layout with balanced density and highlighting local characteristics. Appropriately optimize the existing urban design of the Central Area, strengthen its riverside image that it is charming and closely integrated with urban functions and natural environment, shape urban public space with rich layers and diverse experiences, and focus on organic integration between the city's skyline and landscape environment.

4.1.4 一河两岸景观设计 Landscape Design of Chishi Riverside

考虑将沿线划分为五个不同区段，挖掘并塑造贯穿河流全域、区段特色鲜明、尊重乡土地域的景观体验。构建全域连续的景观体验路径与节点串联，提供山—河—城相互映衬、体验良好的空间系统；各个区段结合资源环境、周边功能、现状建设等塑造具有代表性的景观场景；注重结合乡土植物，形成彰显各段特征的植物景观配置。

It's considered to divide Chishi Riverside into five different sections, to explore and shape the landscape experience running through the whole drainage area, with distinctive sectional characteristics and respecting for the local areas. Construct a whole-basin continuous landscape experiencing route that connects each node, and develop a spatial system that the mountains, river and city bring out the best of each other for good experience; all sections will be shaped into representative landscape

scenes in combination with the resources, environment, surrounding functions and current construction, etc.; the landscape design shall be focused on indigenous plants, to form plants landscaping arrangement highlighting the features of each section.



景观设计重点区段位置示意图

Location of Important Sections for landscape Design

注：1. 北部郊野段注重秀美田园风光营造与美丽乡村风貌延续；2. 赤石、明热两河交汇段注重河道两侧景观设计以及与城市空间的融合发展；3. 中心城区水网渗透段注重城市界面的整体打造以及赤石河与多条渗入中心城区内部水系交汇处景观塑造；4. 近南门河交汇段注重打造富有特色的山水田园环境；5. 河口入海段包含湿地公园、入海口等片区，尊重已有规划基础。同时关注与各支流的生态关系，注重各支流的特色生态景观打造。

Notes: 1. The northern suburban section shall focus on creating elegant idyllic sceneries and lasting the beautiful countryside landscape; 2. The intersection of Chishi River and Mingre River shall focus on riverside landscape design and integrated development with urban space; 3. The water network permeating section in the Central Area shall focus on overall construction of urban interfaces and landscape shaping of the intersections between Chishi River and multiple water systems that permeate into the Central Area; 4. The section near the intersection with Nanmen River shall focus on shaping characterized idyllic landscape environment; 5. The estuary section includes the wetland park and the estuary, etc., where existing urban plans shall be followed. In addition, attention should be paid to ecological relationship with various tributaries, and shaping of featured ecological landscapes for each tributary shall be focused on.

4.1.5 滨河旅游休闲系统 Riverside Tourism & Recreational System

结合绿道体系、山野步径、城市功能布局、休闲设施等，构建连续的滨河旅游，以提升空间连续性、丰富度、特色性为原则，结合市民游憩需求、河流总体定位以及不同区段特色，落实碧道建设，对旅游路线、游船路线、慢行系统、休闲项目等进行规划与策划。注重与周边自然资源要素互动，统筹与山体、农田、海滨、特色村落等旅游资源的串联；结合总规内容，做好与周边城市功能组团内的休闲游憩设施和河道休闲空间的衔接。

Build continuous riverside tourism attractions by planning of greenway system, mountain trails, urban functional layout and recreational facilities etc.,; under the principles of improving spatial continuity, richness and characteristics, and taking into account the citizens' recreational requirements, overall positioning of the riverside and features of each section, implement greenway construction, plan and design tourist routes, cruise routes, pedestrian walkway systems and recreational projects etc.; focus on interacting with surrounding natural resource elements, make overall planning on connection with tourism resources such as mountains, croplands, coastlines, featured villages etc.; base on the masterplan, properly connect with

leisure and entertainment facilities and riverside recreational space in surrounding urban functional clusters.

4.1.6 滨河文化传承体验 Inheritance and Experience of the Riverside Culture

在对一河两岸乃至重要支流的历史、文化风貌、现状建设及乡村、遗址等进行判读的基础上，结合区段划分凸显文化风貌，彰显深汕合作区的地域魅力；沿线丰富沿河文化设施与文化业态，落实会展博览中心/国际会议中心等设施的布局要求（详见6.2.1）,塑造文化地标；探讨总规纲要确定的保留村庄的处理方式，注重延续原住居民社群根基与文脉，彰显文化传承与活力。

Based on interpretation of the history, cultural heritages, current construction, villages and relics etc., of the riverside and even along its main tributaries, combine with cultural landscapes in terms of division of sections, to highlight regional charm of Shenshan Cooperation Zone; enrich cultural facilities and cultural formats along the river, and carry out requirements on layout for facilities such as the expo center/international convention center etc., (See Article 6.2.1 for details), so as to build cultural landmarks; discuss about the treatment measures of preserved villages defined by the Overall Planning Outline, focus on continuing the foundation and cultural context of local communities, and highlight cultural heritage and vitality.

4.1.7 必要的规模、交通等空间支持系统 Necessary Space Supporting Systems such as Scale and Transportation, etc.

在总规纲要确定的框架体系下，围绕整体水环境打造，从城市规模、交通系统（建议以中心区城市设计的主干路网骨架为基础进行设计）、公共设施以及其他方面提供必要的支撑分析，助力赤石河形成可赏、可游、可城、可野的滨水体验。

Under the framework system defined by the Overall Planning Outline, focus on the overall water environment, and make necessary supporting analysis on urban scale, traffic system (it's suggested to carry out the design on the basis of the skeleton of main road network in the Urban Design of the Central Area), public facilities and other aspects, so as to facilitate Chishi River to bring riverside

experiences that people can enjoy and tour, and embracing both the characteristics of the city and nature.

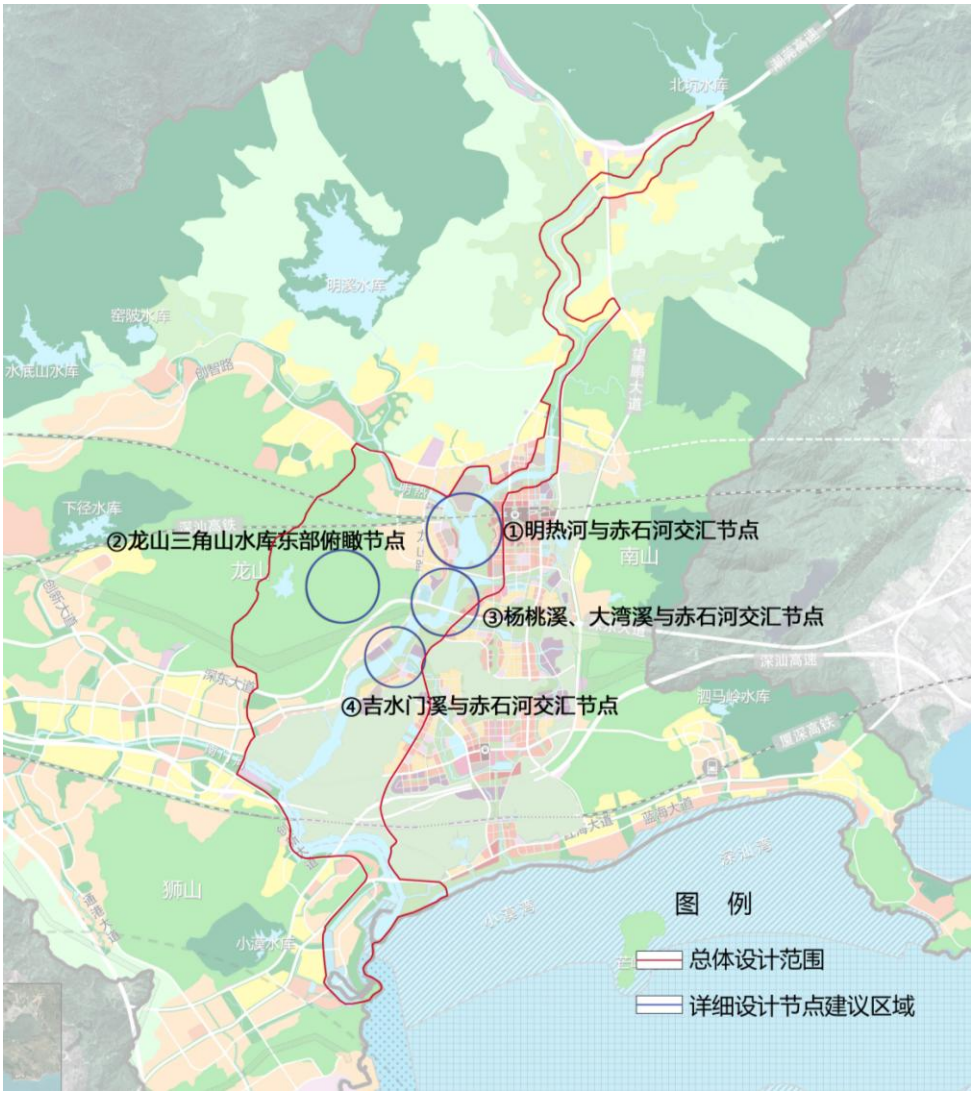
4.2 详细设计层面（正式任务书阶段给定详细设计要求） Detailed Design Level (Detailed design requirements will be provided later in the official version of design brief)

在总体设计范围内选取2-3个重要节点进行详细设计，其中必选节点为明热河与赤石河交汇节点，自选节点为1-2个其他建议节点。

Select 2-3 important nodes within the overall design scope to carry out detailed design, of which, the intersection of Mingre River and Chishi River is a must and optional nodes is/are 1-2 other node(s) recommended.

在总体设计框架下，重点节点应进一步细化塑造景观特色，落实国际一流设计标准与规划理念，提出面向开发建设管控的思路和手段。

Under the framework of overall design, key node shall be further refined to shape landscape features, implement international first-rate design standards and planning concepts, and propose thoughts and means oriented to development and construction control.



详细设计节点建议区域图
Recommended Detailed Design Nodes

5 成果要求 Submission Requirements

本次国际咨询成果应能够完整、清晰地表达设计思路，符合成果审查要求，便于指导建设实施，包括但不限于以下内容：

The deliverables shall elaborate the design ideas completely and clearly, comply with the review requirements, and readily guide the construction and implementation. Its contents shall include but not limited to:

5.1 规划设计文本 Planning and Design Brochure

提出赤石河一河两岸完整的设计成果，具体详实地回应本任务书第4点咨询内容中涵盖的内容。无篇幅限制要求，采用双面软胶装的规格进行打印装订。

Put forward the urban design concepts for Chishi Riverside, and the contents included in Chapter 4: Consultation Contents of this design brief shall be specifically responded in details. No limits are set on length, and the brochure shall be double-sized printed with soft binding.

文本数量20套，规格为A3（297mm×420mm）,软皮胶装，内页纸张厚度不宜超过200g。

20 sets of brochures in A3 size (297mm×420mm), soft binding, and the pages inside the brochure not thicker than 200g.

5.2 图件（包括且不限于）Drawings (Including but not limited to)

（1）总体设计 Overall Design

- 现状分析图纸（若干）

  Analysis on current situations (drawings, several)

- 表达设计概念和方案构思的相关图纸

  Drawings expressing the design concepts and ideas

- 总体设计总平面图

  General layout plan of overall design

- 空间结构及功能板块示意图

  Spatial structure and functions

- 土地利用规划图（含相应的土地指标）

  Land use planning (including corresponding land indices)

- 综合交通规划图及相关分析图（公共交通、旅游交通、慢行交通等）

  Comprehensive transport planning map and relevant analysis map (public traffic, tourism traffic, slow traffic, etc.)

- 景观系统规划设计图

  Planning and design of landscape system

- 旅游系统规划引导图

  Guide for tourism system planning

- 公共开放空间分析图

  Analysis on public open space planning

- 建筑高度控制引导图

  Guide for building height control

- 开发强度控制引导图

  Guide for development density control

- 整体风貌规划结构图

  Planning structure of overall style

- 公共设施规划图

  Planning of public facilities

- 城市安全及防灾系统规划图

  Planning of urban safety and disaster prevention system

- 总体鸟瞰图（若干）

  Overall bird's-eye view (several)

- 分期开发示意图

  Development phasing

- 相关经济技术指标

  Related economic and technical indices

（2）详细设计 Detailed Design

- 重点节点设计总平面图（比例1：1000）

  General layout plan of key node detailed design (in a scale of 1:1000)

- 重点节点设计鸟瞰图及透规图

  Bird’s eye views and perspectives of key node design

- 重点节点景观设计及相关分析图

  Landscape design of key nodes and relevant analysis drawings

- 重点节点交通组织分析图

  Analysis on traffic organization in key nodes

- 重点节点公共空间及相关分析图

  Public spaces in key nodes and relevant analysis drawings

- 相关经济技术指标

  Related economic and technical indices

- 设计方认为需要的其他设计分析图

  Other design analysis drawings needed for the design

5.3 展板 Display Boards

规格为横版A0（1189mm×841mm），8张，图版附有序号。

8 numbered horizontal display boards in A0 size (1189mm×841mm).

5.4 多媒体演示文件 Multimedia Demonstration File

MP4、AVI、WMV格式，按照1980×1080的高清分辨率制作，时间控制在10分钟以内，包含不少于2分钟的三维立体动画（可分段植入或整体连续植入）。

In MP4, AVI or WMV format, high resolution of 1980×1080 with duration in 10minutes, including at least 2-minute 3D animation (embedded by sections or continuously as a whole).

解说需中英文对照（如中文解说配英文字幕，或英文解说配中文字幕），字幕字体大小应在50英寸投影在10米的距离，以及15英寸的显示器上足以辨识。由于文字字号和画面构图的原因，不建议简单使用方案册的电子文件版本作为汇报演示文件。

The commentaries shall be prepared in Chinese and English (in case of Chinese dubbing, English subtitles are required or for English dubbing, Chinese subtitles shall be displayed), and in fonts identifiable from a distance of 10 meters on a 50' projection area, and a 15' display. For the sakes of text fonts and pictures, electronic versions of simple program books are not suggested as summative demo files.

5.5 实体模型 Physical Model

选择两处节点进行表达，比例统一为1：1000，模型底座大小控制在2.5米×2.5米以内。

Select 2 nodes to present the design, and the model shall be in a scale of 1:1000, and in a size of 2.5m x 2.5m.

5.6 三维数字化模型文件 Documents of 3D Digitalized Model

Sketchup或3DMax文件格式。

In Sketchup or 3DMax format.

5.7 现场汇报演示文件 On-scene Presentation File

PPT或PDF格式，汇报时间控制在35分钟内（含翻译及多媒体演示时间），

答疑10分钟。

In PPT or PDF format, with duration in 35minutes (including translation and multimedia demon). 10minutes shall be reserved for questions.

5.8 电子文件 Electronic Files

U盘及光盘各提交一份。包含设计成果（PPT、DOC文件或可编辑的PDF文件）、CAD图纸（包含总平面图、土地利用规划图、空间控制图则等图纸的DWG格式）、展板（A0，不低于300dpi的JPG或PDF文件）、多媒体演示文件（MP4、AVI、WMV格式）、三维数字化模型文件（Sketchup或3DMax文件格式）、现场汇报演示文件等（PPT或可编辑的PDF格式）。

2 copies respectively in CDs and USB flash disks, and shall include the design (in PPT, DOC or edible PDF format), CAD drawings (including overall layout plan, land use planning, and spatial control drawings, etc. in DWG format), display boards (A0, JPG or PDF documents no lower than 300dpi), multimedia demon file (in MP4, AVI and WMW format), 3D digitalized model (in Sketchup or 3DMax format) and on-scene presentation file (in PPT or edible PDF format).

5.9 注意事项 Notes

成果中文本、图件、展板、现场汇报文件必须采用中文（简体字）和英文两种文字，不得单独使用中文、英文或其他外文。

All texts in the deliverables, such as the brochure, drawings, display boards and on-scene presentation file, shall be bilingual in Chinese (simplified) and English. Texts only in Chinese, English or other foreign languages will be rejected.

多媒体演示文件应能够在windows7系统下自动播放，推荐中文配音+英文字幕或中英文对照字幕，使用英文配音的必须+中文（简体）字幕或中英文对照字

幕。

The demo system shall be automatically played in windows7. It's suggested to be dubbed in Mandarin and subtitled in English or in both Chinese and English, or dubbed in English and subtitled in Chinese (simplified) or in both Chinese and English.

所有规划方案成果的计量单位均应采用国际标准计量单位。距离长度单位以米（m）为单位，建筑面积以万平方米（万m^2）为单位，用地面积以公顷（Ha）为单位。

All deliverables shall adopt international standard measures of quantity, such as meter (m) for distance, 10,000 square meters (10,000m^2) for building area, and hectares (Ha) for land area.

6 咨询条件 Consultation Conditions

6.1 现状条件 Current Conditions

6.1.1 深汕合作区整体自然气候条件 Natural Climate Conditions of Shenshan Cooperation Zone

据海城气象站实测资料，年最大降雨量为3727.8毫米(1997 年)，最小降雨量为1425.3毫米(1963 年)，多年年均降雨量为2425.4毫米。每年4～9月为汛期，汛期雨量集中，降雨量约占全年的85%以上，其中4～6月为前汛期，以锋面低槽雨为主，7～9月为后汛期，常出现台风，并伴随暴雨，造成洪水泛滥。

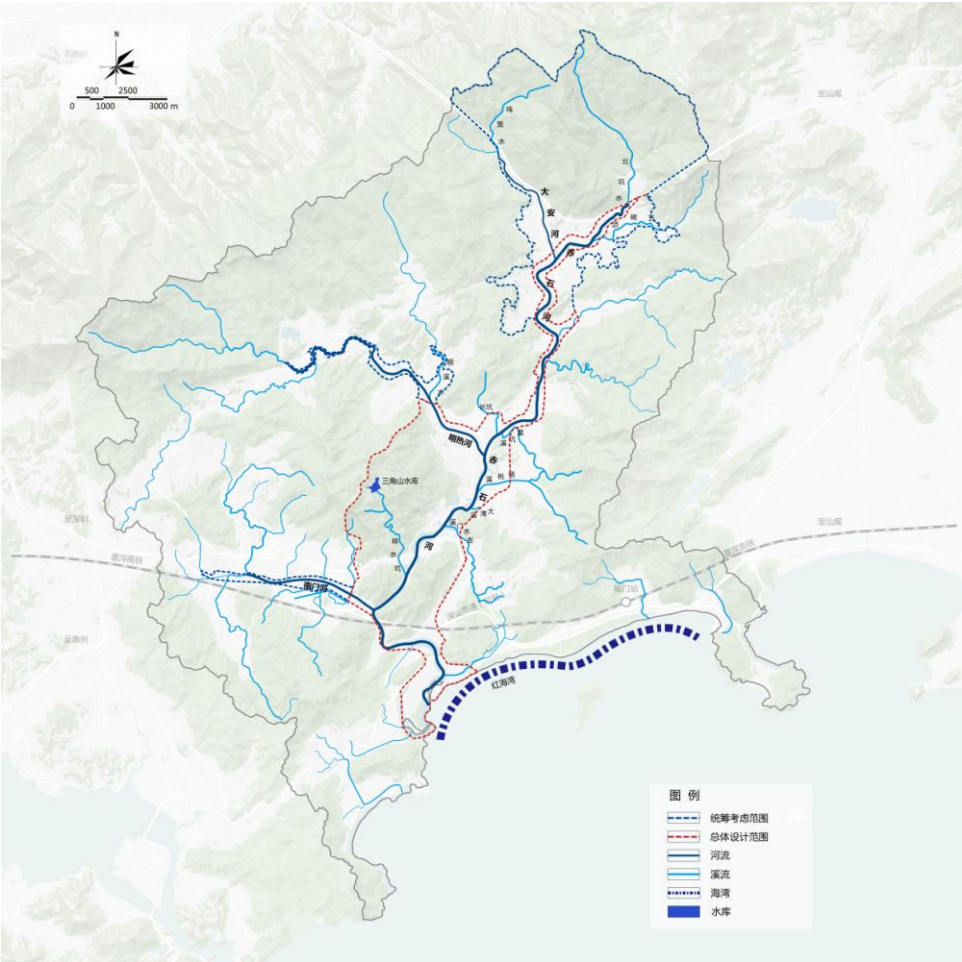
According to the observed data of Haicheng Meteorological Station, the annual maximum and minimum rainfalls are 3,727.8 mm (1997) and 1425.3 mm (1963) respectively, and the multi-year annual average rainfall is 2425.4 mm. The flood season extends from April to September each year, during which, the rainfall is concentrated and accounts for more than 85% of the whole year. April, May and June consist the pre-flood season dominated by front low trough rain, while the post-flood season covers the months of July, August and September, during which, typhoons often occur, accompanied by heavy rains which cause flooding.

6.1.2 生态环境 Ecological Conditions

（1）水系 Water Systems

赤石河汇集多条溪流，由北向南流入红海湾。除明热河、南门河、大安河外，十条主要溪流分别由东西两侧往赤石河汇集：里坑溪、杨桃溪、大湾溪、吉水门溪、鸡笼水、北坑水、五碗沥、明溪水、长坑、响水坑。规划范围内主要分布有一个水库，三角山水库。

Chishi River, with numerous rivers gathering here,flows into the Red Bay from north to south. Except Mingre River, Nanmen River and Da’an River, ten main streams flow into Chishi River from its east and west sides respectively: Likeng Stream, Yangtao Stream, Dawan Stream, Jishuimen Stream, Jilong Stream, Beikeng Stream, Wuwan Stream, Mingxi Stream, Chang Stream and Xiangshui Stream. There is 1 reservoir, Sanjiao Mountain Reservoir, within the planning scope.



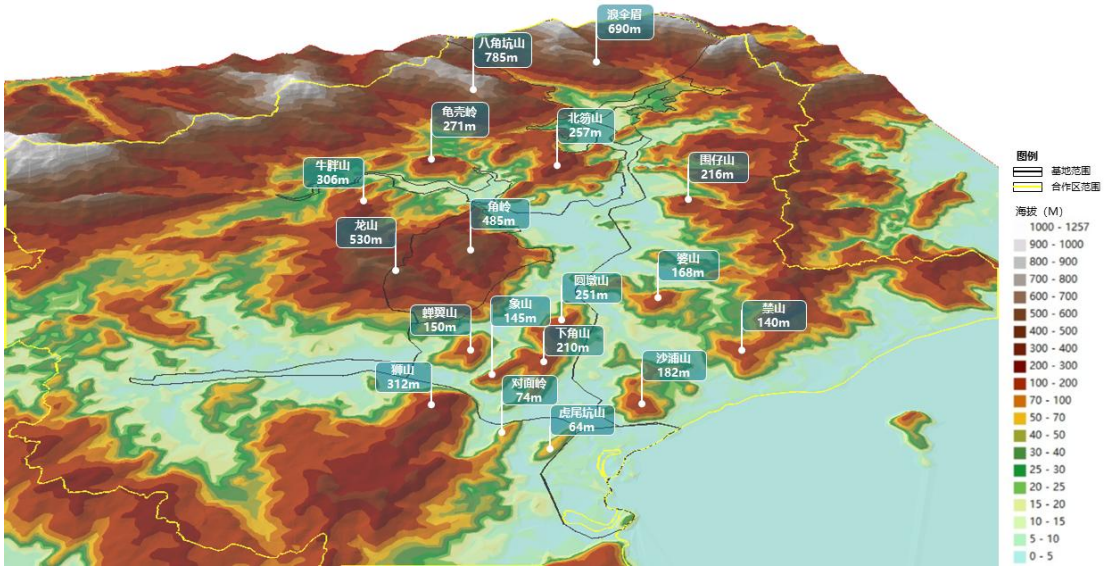
规划范围水系分布示意图

Distribution of Water Systems in the Planning Scope

（2）山体 Mountains

密布的水系四面环山，绕行起伏地形，途径多座山体，包括浪伞眉、八角坑山、北笏山、龟壳岭、牛胖山、围仔山、婆山、龙山、圆墩山、蝉翼山、下角山、象山、狮山、对面岭、虎尾坑山、沙浦山等。规划范围内最高山体为北部的浪伞眉，高约690米。

The densely distributed water systems are surrounded by mountains and meanders along the rugged terrain via many mountains, including Langsanmei Mountain, Bajiaokeng Mountain, Beihu Mountain, Guiqiao Ridge, Niupang Mountain, Weizai Mountain, Po Mountain, Long Mountain, Yuandun Mountain, Chanyi Mountain, Xiajiao Mountain, Xiang Mountain, Shi Mountain, Duimian Ridge, Huweikeng Mountain, and Shapu Mountain, etc.; the highest mountain within the planning scope is Langsanmei Mountain in the north, about 690m high.



山体分布示意图
Distribution of Mountains

（3）岸线 Coastline

《深汕特别合作区海绵城市专项规划》将深汕合作区内的河岸分为4种类型：原始生态岸线、初级生态岸线、高级生态岸线和硬化岸线。规划范围主要分布有原始生态岸线与高级生态岸线两个类型。

According to the *Special Plan of Sponge City in Shenshan Special Cooperation Zone,* the coastline within Shenshan Cooperation Zone is divided into four types: original ecological coastline, primary ecological coastline, higher ecological coastline and hardened coastline. Original ecological coastline and higher ecological coastline are mainly distributed within the planning scope.

规划范围现状河道岸线分布示意图

Distribution of Existing Rivers & Coastline in the Planning Scope

（4）植被 Vegetation

深汕合作区植被属南亚热带季风常绿林植被。北部的山地丘陵地区植被类型较多，且覆盖率高。海拔250米以上的自然植物为马尾松、杉木、红花荷、荷木、黄杞、青岗、毛栎、石柯、竹叶栎、大头茶、香港楠、钝叶樟等组成的常绿阔叶林、针叶林、混交林；人工植被有杉木、麻栎、竹、油茶、棕榈等经济林。海拔250米以下的丘陵地带人工植被以杉木、湿地松、茶树、柑桔、桃、李、梨、梅、海棠、芒果及农业作物等为主；自然植被有马尾松、岗松、鹧鸪草等组成的灌木丛。沿海港湾滩涂生长有红树林植被、草本植被等。水生植物以昆布、马尾藻、羊栖菜、海带、海萝、水浮莲等为主。

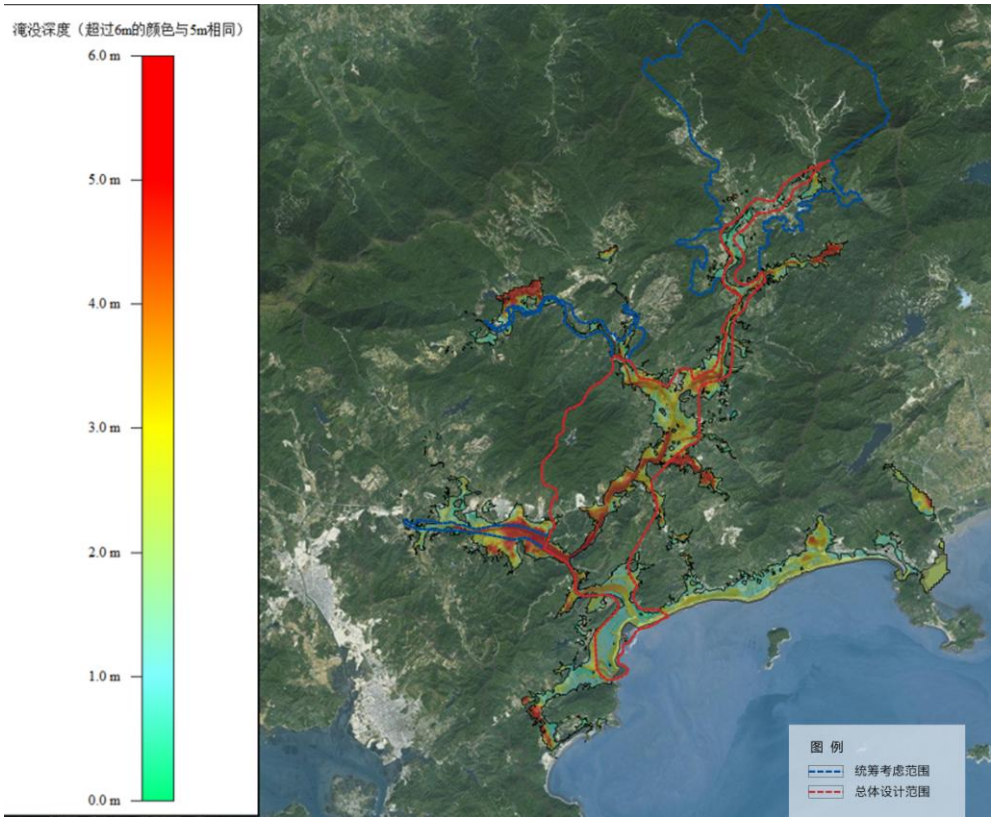
Shenshan Cooperation Zone is covered by evergreen forest vegetation of South Subtropical monsoon. The hilly and mountainous region in the north has many types of vegetation and the coverage is high. Natural plants in areas higher than 250m above sea level are evergreen broad-leaf forest, coniferous forest and mingled forest comprising of Masson pine, Chinese firs, Rhodoleia championii Hook. f., Schima superba Gardn. et Champ., Engelhardia roxburghiana Wall., Quercus glauca Thunb., post oak, L. pasania, bamboo-leaved oak, Polyspora axillaris, HK Phoebe zhennan, and Cinnamomum bejolghota (Buch. -Ham.) Sweet etc.; artificial vegetation mainly consists of economic forestssuch as Chinese firs, sawtooth oak, bamboo, tea trees and palms etc. Artificial vegetation in hilly areas below 250m above sea level mainly consists of Chinese firs, slash pines, tea trees, mandarin oranges, peaches, plums, pears, prunus mumes, crabapples, mangos and agricultural crops; natural vegetation includes shrubs such as Chinese red pines, baeckeafrutescens L. and eriachne pallescens.There are mangrove vegetation and herbaceous vegetation growing on the coastal harbor beach.The main aquatic plants are sea-tangles, sea grapes, sargassum fusiformes, kelps, gloiopeltis and water lettuces.

6.1.3 洪涝灾害 Flood Disaster

（1）洪涝灾害及成因 Flood Disaster and Its Causes

规划范围所在赤石河流域主要灾害为洪涝灾害，其主要成因为台风风暴潮带来的强降雨和潮水顶托，以及内部不完善的防洪排涝体系。1949至2008年深汕合作区所在汕尾市先后发生较大风暴潮29次，平均每2年发生一次，其中十二级以上台风共7次，平均每8年发生一次。

The main natural disasters in Chishi River Basin where the planning scope is located are flood disasters, which are mainly caused by the heavy rainfall incurred by typhoon storm surge, tidal backwater, and incomplete flood control and drainage system. From 1949 to 2008, 29 heavy storm surges occurred in Shanwei City, where Shenshan Special Cooperation Zone is located, once every 2 years on average. Among them, there were 7 typhoons of Grade 12 or above, occurring at the rate of once every 8 years on average.



赤石河流域 50 年一遇淹没范围

Submergence Occurring Once Every 50 years in Chishi River Basin

（2）现状防洪排涝体系 Existing Flood Control and Drainage System

规划范围所在赤石河流域现状整体为村镇地区，建设用地较少，山地、农田较多。初步建立了以自然排水为主的，“上蓄、中防、外挡”的较低标准防洪排涝体系。

Generally speaking, Chishi River Basin, where the planning scope is located, is the rural area with less land for construction, and more mountainous region and farmland. In this area, a low-class flood control and drainage system of 'impounding in upstream, preventing in midstream and shielding in outer edge' has been established, which mainly rely on natural drainage.

上蓄：赤石河流域缺乏大型水利调蓄设施，上游及各支流现状建设有19座小型水库，其中小（1）型4座，小（2）型15座，控制集雨面积38.22平方公里，总库容为2042万立方米。

Impounding in upstream: Chishi River Basin lacks large-scale water storage facilities, and there are only 19 small-sized reservoirs in the upper reach and tributaries, including 4 small-sized reservoirs of type (1) and 15 small-sized reservoirs of type (2). The total rainwater harvesting area is 38.22km^2 and the total storage capacity is 20.42 million m^3.

中防：村镇临河建设区域，结合自然山体屏障，建设有堤防工程及闸门等水利设施，初判其标准为5~20年一遇，主要分布于明热溪与赤石河交汇处赤石镇、福田村、新城村段，以及南门河鹅埠镇段。同时，随着近年开发建设的加速，鹅埠片区南门河北岸的4条支流（边溪、新屋、鹅仔下、田寮）已按20年一遇防洪标准进行整治。

Preventing in midstream: in the riverside construction areas of villages and towns, the water conservancy facilities such as embankments and gates have been established in combination with natural mountain barriers. According to preliminary assessment, these facilities are able to prevent the floods occurring once every 5 to 20 years. These facilities are mainly distributed along the confluence of Mingre River and Chishi River in Chishi Town, Futian Village and Xincheng Village, and the section of Nanmen River in Ebu Town. Meanwhile, with the acceleration of development and construction in recent years, the four tributaries (Bianxi River, Xinwu River, Ezaixia River, and Tianliao River) on the north bank of Nanmen River in the Ebu Area have been renovated in accordance with the criteria for prevention of flood occurring once every 20 years.

外挡：沿红海湾建设有海堤系统，标准为5~20年一遇，堤防高程2.8~4.0米。

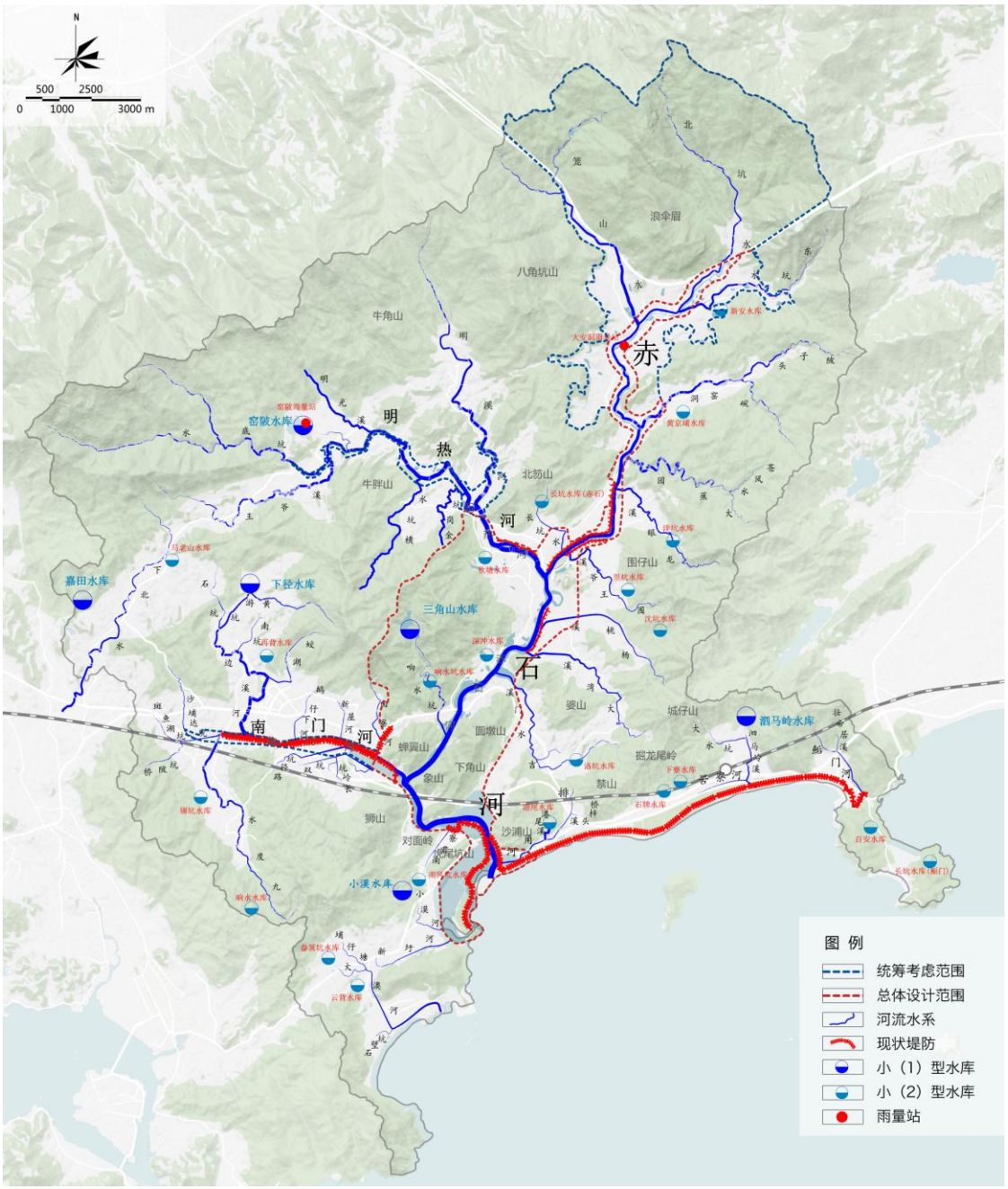
Shielding in outer edge: the sea wall system has been established along the Red Bay in accordance with criteria for prevention of flood occurring once every 5 to 20 years, of which the height is 2.8-4.0m.

赤石河流域现状水库

水库名称	所在地	集雨面积（平方公里）	总库容（万立方米）	正常库容（万立方米）	死库容（万立方米）	兴利库容（万立方米）
下径水库	鹅埠镇	3.65	506	406	31	375
小漠水库	小漠镇	2.1	222	200	4.1	198.9
窑陂水库	赤石镇	6.24	547	410.3	4.3	406
三角山水库	圆墩林场	3.62	291	236	14	222
洛坑水库	赤石镇	2.5	35	——	——	——
沈坑水库	赤石镇	2.35	55	——	——	——
里坑水库	赤石镇	1.1	72	——	——	——
洋坑水库	赤石镇	2.35	51	——	——	——
新安水库	赤石镇	1.3	50	——	——	——
深涌水库	赤石镇	4	12	——	——	——
秋塘水库	赤石镇	1.5	25	——	——	——
长坑水库	赤石镇	0.3	17	——	——	——
王京埔水库	赤石镇	1.5	12	——	——	——
锡坑水库	鹅埠镇	1.5	35	——	——	——
响水水库	鹅埠镇	0.8	21	——	——	——
南风坑水库	小漠镇	0.31	13	——	——	——
港尾水库	鲈门镇	0.94	57	——	——	——
响水坑水库	圆墩林场	2.16	21	——	——	——
合计		38.22	2042			

Existing Reservoirs in Chishi River Basin

Name of the reservoir	Location	Rainwater harvesting area (km^2)	Total storage capacity (ten thousand m^3)	Normal storage capacity (ten thousand m^3)	Dead storage capacity (ten thousand m^3)	Utilizable storage capacity (ten thousand m^3)
Xiajing Reservoir	Ebu Town	3.65	506	406	31	375
Xiaomo Reservoir	Xiaomo Town	2.1	222	200	4.1	198.9
Yaopo Reservoir	Chishi Town	6.24	547	410.3	4.3	406
Sanjiaoshan Reservoir	Yuandun Forest Farm	3.62	291	236	14	222
Luokeng Reservoir	Chishi Town	2.5	35	——	——	——
Shenkeng Reservoir	Chishi Town	2.35	55	——	——	——
Likeng Reservoir	Chishi Town	1.1	72	——	——	——
Yangkeng Reservoir	Chishi Town	2.35	51	——	——	——
Xin'an Reservoir	Chishi Town	1.3	50	——	——	——
Shenyong Reservoir	Chishi Town	4	12	——	——	——
Qiutang Reservoir	Chishi Town	1.5	25	——	——	——
Changkeng Reservoir	Chishi Town	0.3	17	——	——	——
Wangjingbu Reservoir	Chishi Town	1.5	12	——	——	——
Xikeng Reservoir	Ebu Town	1.5	35	——	——	——
Xiangshui Reservoir	Ebu Town	0.8	21	——	——	——
Nanfengkeng Reservoir	Xiaomo Town	0.31	13	——	——	——
Gangwei Reservoir	Houmen Town	0.94	57	——	——	——
Xiangshuikeng Reservoir	Yuandun Forest Farm	2.16	21	——	——	——
Total		38.22	2042			



深汕合作区现状水利工程建设图

Existing Water Conservancy Projects in Shenshan Cooperation Zone

6.1.4 河道水质及水位 River Water Quality and Level

赤石河流域整体水质条件较好，自福田村拦水坝以下段为感潮河段，为咸淡水，水位变化受潮位变化影响；拦河坝以上段为淡水河道，旱季水位较低。

The overall water quality of Chishi River Basin is good. The reach down the barrage in Futian Village is the tidal reach with brackish water, of which the water level changes along with the change of tide level. The reach up the barrage is a reach with fresh water, of which water level is low in the dry season.

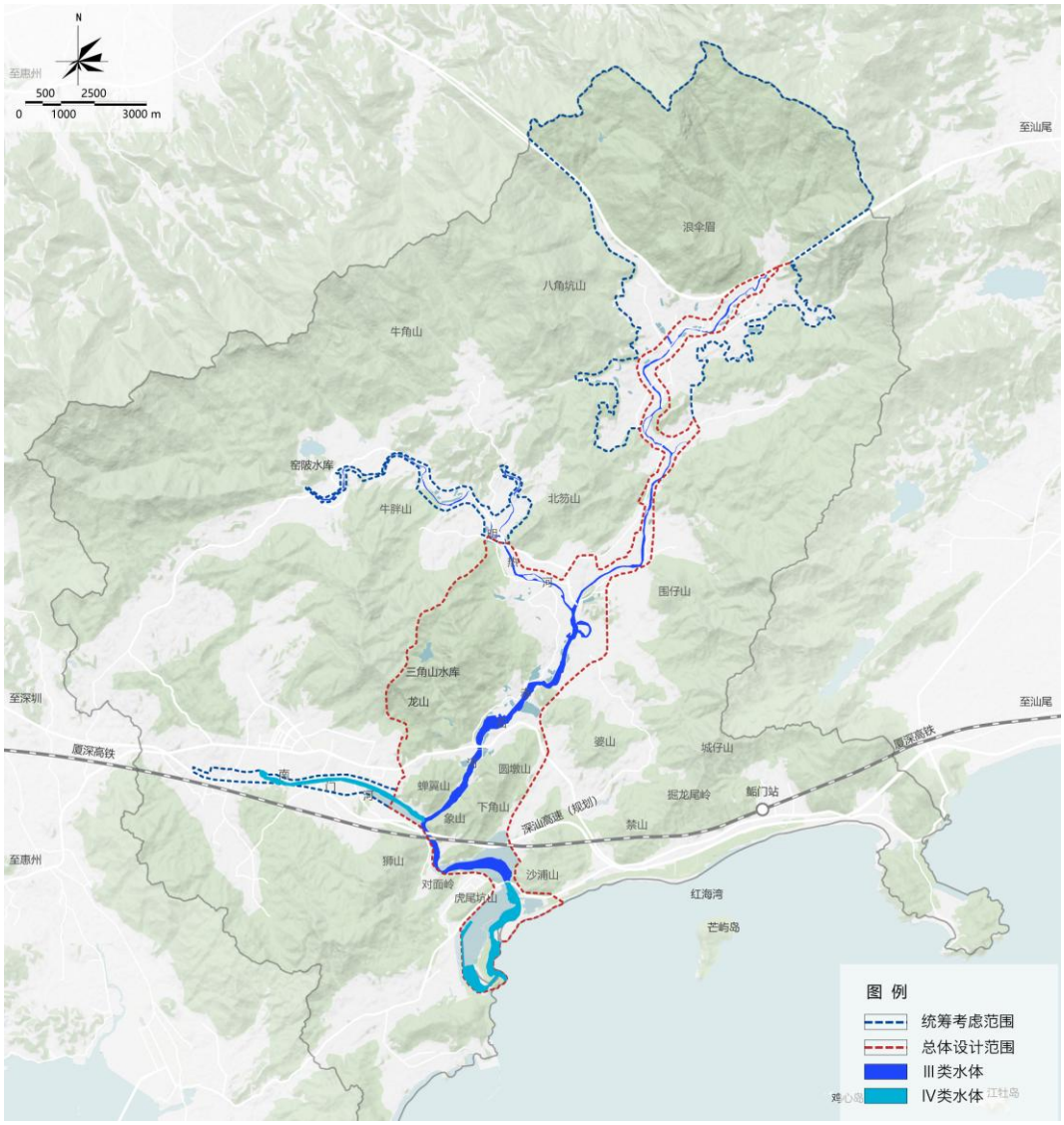
（1）水质条件 Water Quality

规划区内现状水系水质条件整体良好，赤石河干流及明热河基本满足《地表水环境质量标准》（GB3838-2002）Ⅲ类标准，边溪河和南门河为工业纳污河流，目前基本满足Ⅳ类水体标准。在赤石河的中游和下游，以及南门河的下游出现部分水质因子超标的现象，如PH值、溶解氧、CODcr、BOD_5、高锰酸盐指数和TN，主要污染源来自于鹅埠镇工业区。

The water quality within the planning scope is good on the whole, where the main stream of Chishi River and Mingre River meet the Class III criteria in the *Environmental Quality Standards for Surface Water* (GB3838-2002); Bianxi River and Nanmen River, the industrial waste water receiving rivers, currently meet the Class IV water body criteria. In the middle and lower reaches of Chishi River and the lower reach of Nanmen River, some water quality factors such as the levels of pH value, dissolved oxygen, CODcr, BOD5, permanganate index and TN are above the criteria. The main source of pollution comes from the industrial zone of Ebu Town.

近岸海域水质基本达到海水Ⅱ类标准，铜离子浓度有所超标。

The water in the offshore area basically meets the Class II criteria of seawater, except that the concentration level of copper ion is above the criteria.



河道水质情况
River Water Quality

（2）水位情况 Water Level

赤石河自福田村拦水坝以下段为感潮河段，其水位受潮汐变化影响，多年平均水位约0.5米，多年平均高水位约0.9米，多年平均低水位约0.1米。赤石河自福田村拦水坝以上段，多年平均水位为1.1~42.1米。

The reach of Chishi River down the barrage in Futian Village is the tidal reach, of which the water level changes as the change of tide level. The mean annual water level is about 0.5m, the mean annual highest water level is about 0.9m, and mean

annual lowest water level is about 0.1m. The mean annual water level of the reach of Chishi River up the barrage in Futian Village is 1.1 to 42.1m.

赤石河多年平均水位

Mean Annual Water Level of Chishi River

6.1.5 建设情况 Construction

（1）现状用地情况 Current Land Use

规划范围内（含统筹考虑范围）已建设用地面积为2.2平方公里。土地利用现状主要包括村庄建设用地、行政办公用地、商业用地、商务用地、工业用地、宗教活动场所用地，其中村庄占比67%，城市化程度较低。

Within the planning scope (including the comprehensive consideration scope), the area of land under construction is 2.2km^2, which mainly involves lands for rural construction, administrative use, commercial use, business use, industrial use, and religious activities. Among them, the land for rural construction accounts for 67% and the degree of urbanization is low.

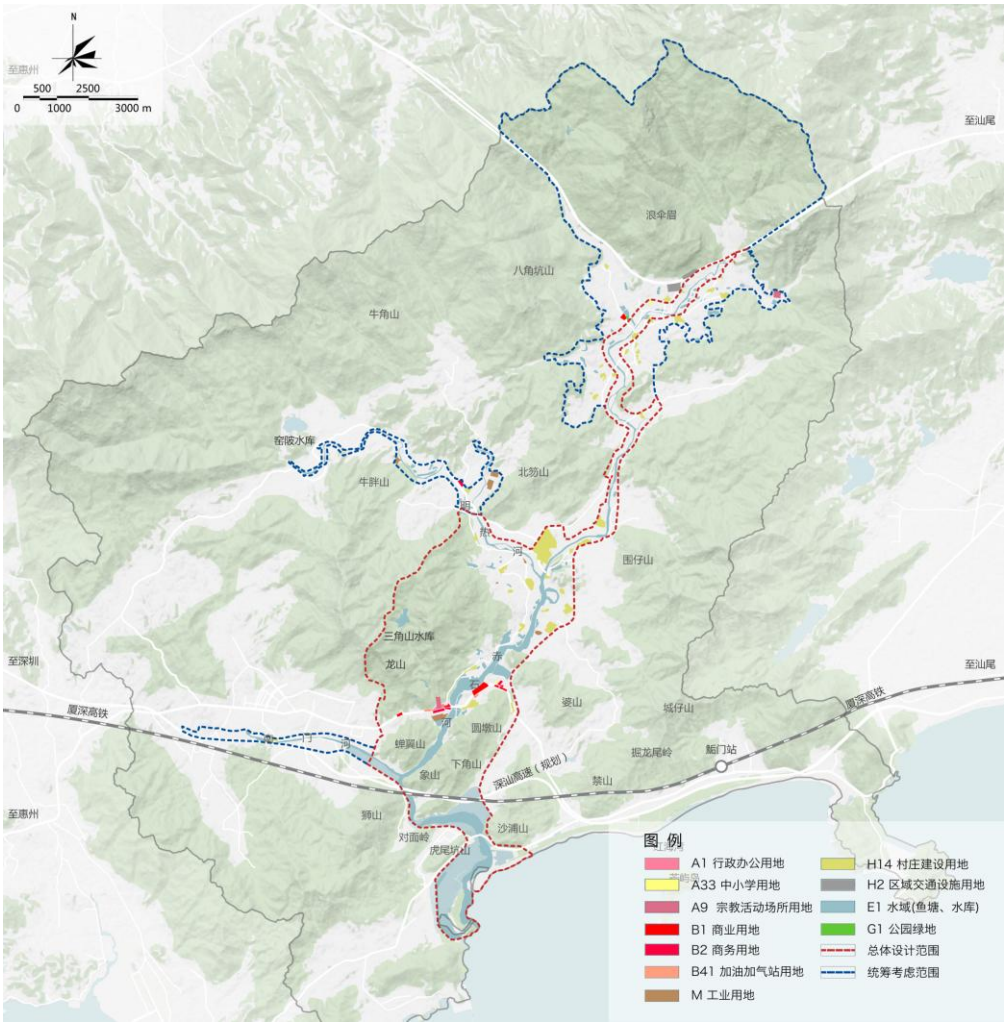
旧村落主要位于设计范围中北部，沿赤石河两岸零散分布；零售商业、行政办公、宗教场所主要分布在范围内324国道两侧和赤石镇内。河口入海湿地处规划打造湿地公园。

The old villages are mainly located in the central and northern part of the design scope, and are scattered along both banks of Chishi River; the retail business, administrative and religious sites are mainly located on both sides of National Highway 324 and in Chishi Town within the design scope. In addition, a wetland park is planned in the estuarine wetland.

规划范围内赤石镇产业以制造业和种植业为主，全镇现有电线、塑料、皮革、造纸、塑料制瓶、毛织、制鞋、假发等企业近30家，现已建成了以西番莲、葛薯、马铃薯、山姜、菜椒为主的五大农业生产基地。

Within the planning scope, Chishi Town is dominated by manufacturing and planting. There are nearly 30 industrial enterprises in such areas as electric wires, plastics, leather, papermaking, plastic bottles, woollen fabrics, shoes, and wigs, and 5

major agricultural production bases with the main crops of passiflora edulis, pueraria, potato, alpinia japonica, and pepper.



土地利用现状图
Current Land Use

赤石镇村落风貌
Villagesin Chishi Town

福田村风貌
Futian Village

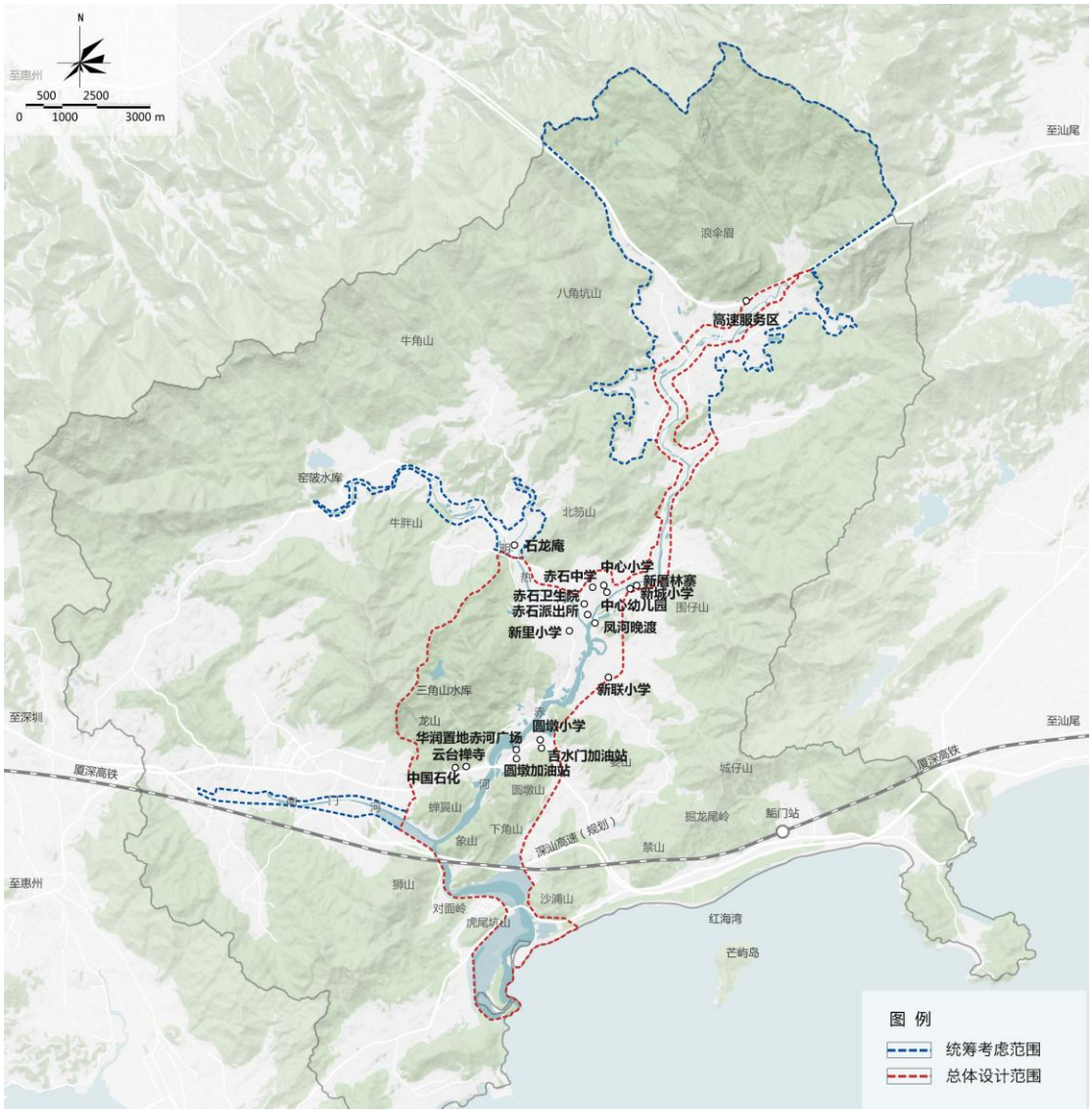
云台禅寺
Yuntai Temple

现状湿地景观
Current Wetland Landscape

（2）现状服务设施情况 Current Service Facilities

范围内商业旅游服务设施较少，主要设施包括：凤河晚渡、新厝林寨、华润置地赤河广场、1个高速服务区、3座寺庙；公共服务设施主要是为村镇服务的公服，主要包括：1个中学、4个小学、1个幼儿园、3个加油站、1个派出所、1个卫生院。

There are few commercial tourism service facilities within the planning scope. The main facilities here include Phoenix River Ferry, Xincuolin Village, Chishi Square of China Resources Land, a highway service area and 3 temples. The public service facilities mainly serve the villages and towns, including 1 middle school, 4 primary schools, 1 kindergarten, 3 gas stations, 1 police station, and 1 health center.



现状公共服务设施分布图
Layout of Existing Public Service Facilities

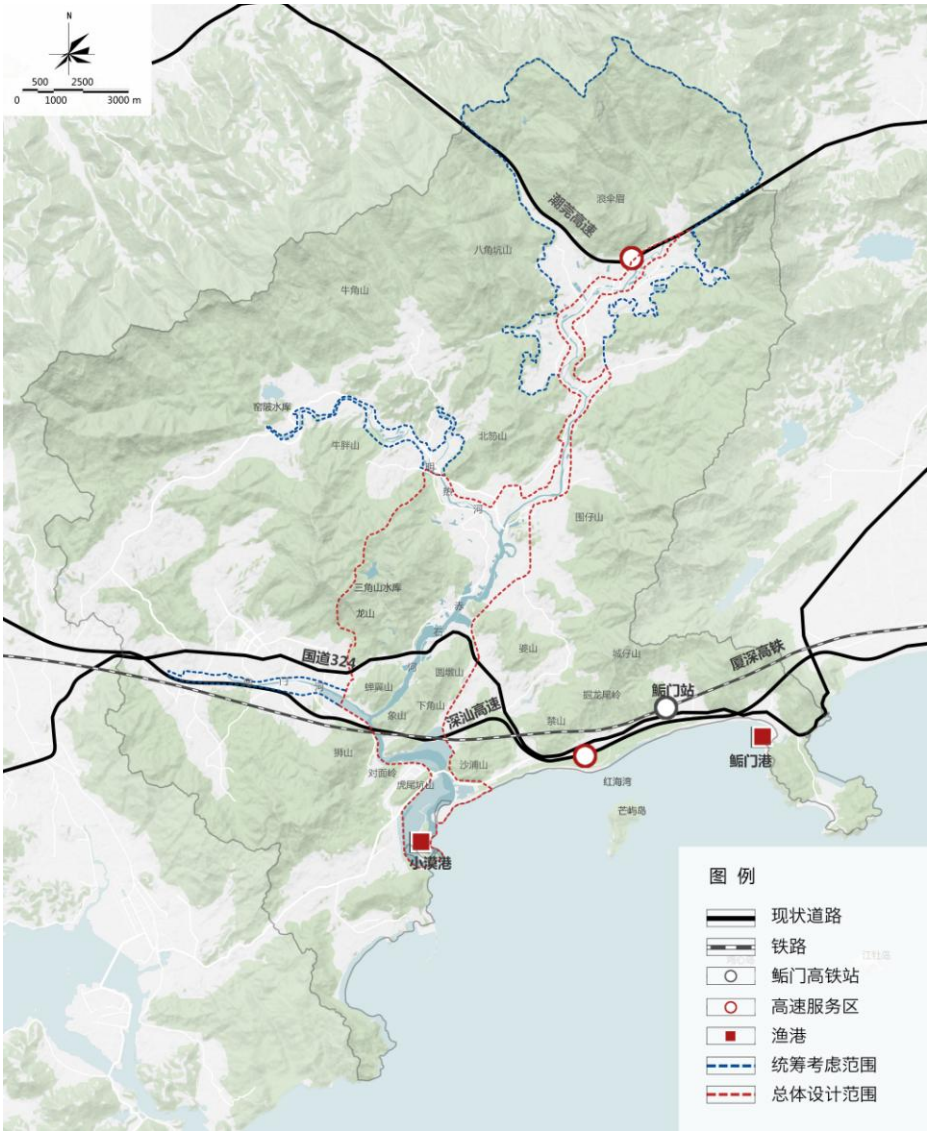
6.1.6 交通情况 Traffic Conditions

（1）区域交通 Regional Traffic

从设计范围内经过的轨道轨道交通主要有厦深铁路，在范围外东侧设有鲘门站。对外联系的道路主要有南部的深汕高速（双向4车道）及324国道（双向2车道，局部双向6车道）、北部的潮莞高速，总规中已明确深汕高速改线。

The railway passing the planning scope is mainly Xiamen-Shenzhen High-speed

Railway with Houmen Station on the east side of the planning scope. The roads for external connection mainly includes Shenzhen-Shantou Expressway (two-way 4 lanes) and National Highway 324 (two-way 2 lanes, and two-way 6 lanes in some parts) in the south, and Chaozhou-Dongguan Expressway in the north. The rerouting of Shenzhen-Shantou Expressway has been specified in the overall plan.



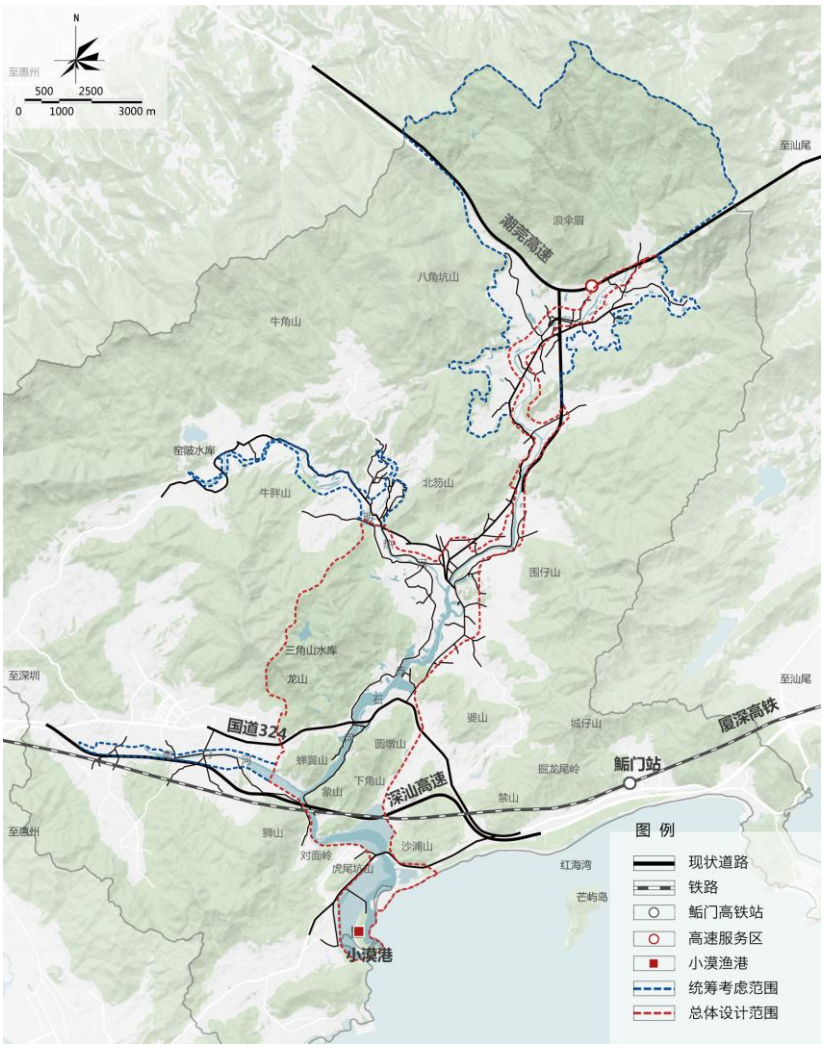
现状区域交通情况图
Current Regional Traffic

（2）内部交通 Internal Traffic

设计范围内部交通尚不完备，东西向以南部的深汕高速（双向4车道）及324国道（双向2车道，局部双向6车道）、北部的潮莞高速为主；南北向道路以赤石

镇内乡道为主，疏密不一，断头路较多。赤石河沿岸有连续的道路连通，具备良好的亲水性本底。

The traffic in the planning scope is not complete yet. The east-to-west roads mainly include Shenzhen-Shantou Expressway (two-way 4 lanes) and National Highway 324 (two-way 2 lanes, and two-way 6 lanes in some parts) in the south, and Chaozhou-Dongguan Expressway in the north. The south-to-north roads are mainly village roads in Chishi Town with various densities, among which there are many dead end roads. There are continuous roads along Chishi River, with a good hydrophilic background.



现状内部交通情况图
Current Internal Traffic

（3）水上交通 Water Traffic

范围内水上交通枢纽主要有小漠渔港，范围外东侧设有鲎门港。

The main water transport hub in the planning scope is Xiaomo Fishing Port. In addition, there is Houmen Port on the east of the planning area.

6.2 相关规划 Related Plans

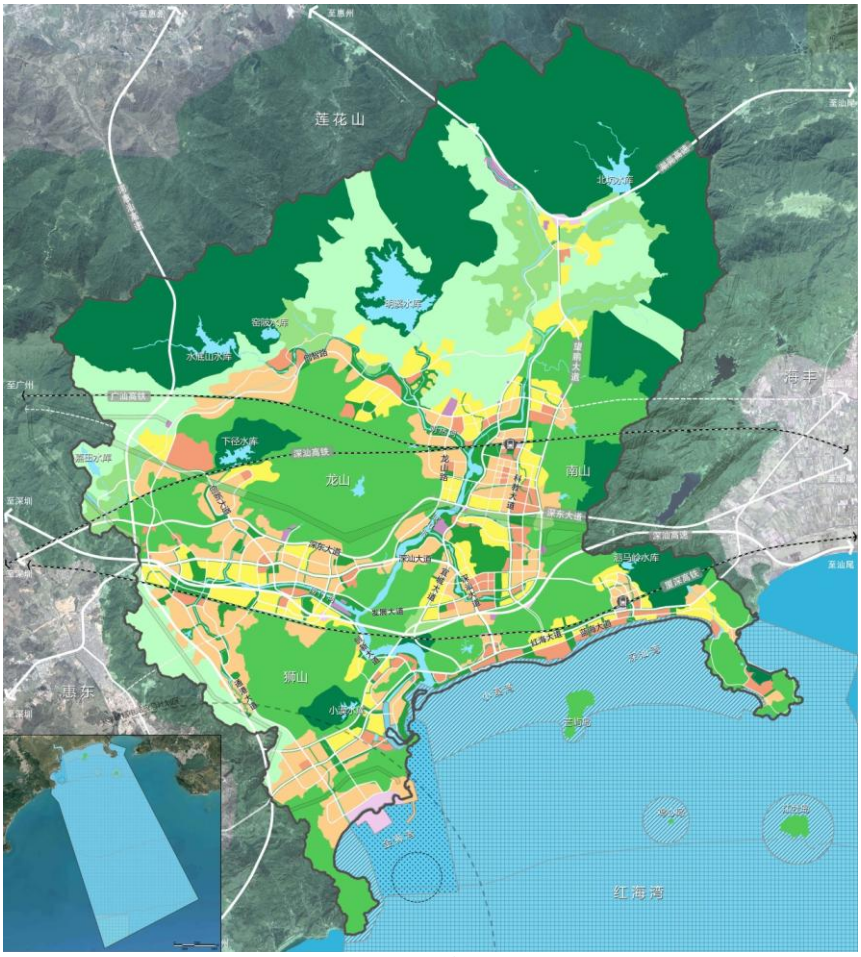
深汕合作区在总体层面编制《深汕特别合作区总体规划（2020~2035年）纲要》作为本次规划的前提基础。针对于研究重点——河流韧性安全，开展过《深汕特别合作区水利综合规划修编》、《深汕特别合作区中心区竖向与排水防涝规划研究》等规划，作为生态安全的资料基础。同时深汕合作区内曾组织《深汕特别合作区中心区概念城市设计》，中心城区段区域建议充分吸收中心区概念城市设计的优点进行设计优化。

The *Overall Planning Outline of Shenshan Special Cooperation Zone (2017-2035)* was prepared for Shenshan Cooperation Zone at the overall level as the premise of this planning. In view of the research focus, i.e. river resilience and safety, the plans such as *Revision on the Overall Water Conservancy Planning of Shenshan Special Cooperation Zone*, and *Vertical and Drainage Planning for the Central Area of Shenshan Special Cooperation Zone* were compiled as data base for ecological security. Meanwhile, the *Conceptual Urban Design of the Central Area in Shenshan Special Cooperation Zone* was organized, in which it's recommended to fully take use of its advantages for optimizing the design of the central urban section.

6.2.1《深汕特别合作区总体规划（2020~2035 年）纲要》 *Overall Planning Outline of Shenshan Special Cooperation Zone (2017-2035)*

《深汕特别合作区总体规划（2020~2035年）纲要》（以下简称《纲要》）提出打造“新时代区域协调创新发展的山水田园生态城市”的总体发展目标。

The *Overall Planning Outline of Shenshan Special Cooperation Zone (2017-2035)* (hereinafter referred to as 'the Outline') puts forward the overall development goal of building the 'pastoral and ecological city of regional coordinative and innovative development in new era”.



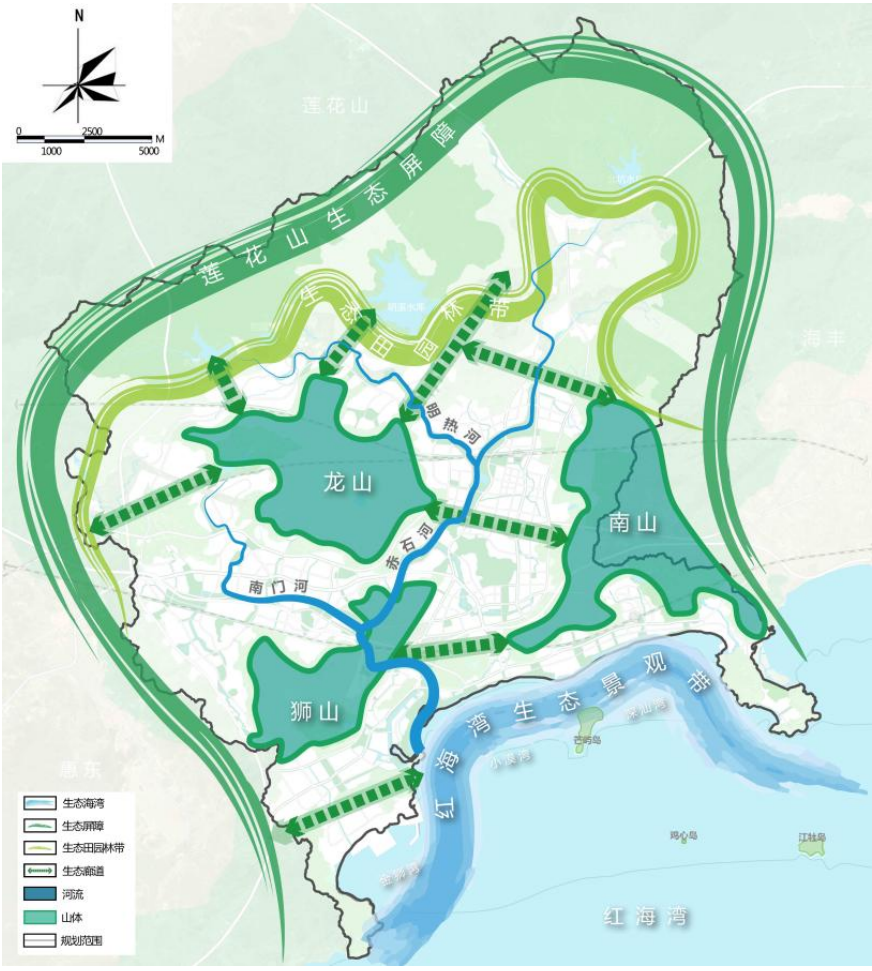
总规纲要全域要素布局规划图

Layout Plan of the Whole Regional Elements in the *Outline*

（1）生态空间格局 Ecological Spatial Pattern

《纲要》提出要构筑“一湾、一屏、三山、三河、多廊”的全域生态安全格局。其中“三河”，即赤石河、南门河、明热河骨干水系，是彰显水城共融、蓝绿交织城市底蕴的生态脉络。同时要求依托赤石河打造“一河两岸”滨水特色景观带。

The Outline puts forward to construct an ecological security pattern of 'one bay, one shield, three mountains, three rivers and multiple corridors', where the three rivers, i.e. Chishi River, Nanmen River and main stream of Mingre River, are the ecological context highlighting the urban connotation of integrating waters and the city and intertwining of waters and forests. In addition, the Outline also requires establishing featured riverfront landscape relying on Chishi River.



总规纲要生态空间格局规划图

Planning of the Ecological Spatial Pattern in the Outline

在具体管控层面，《纲要》提出要防止赤石河、明热河、南门河等自然水体水质恶化，地表水环境功能区、近岸海域环境功能区水质达标率力争达到100%。并要求对于赤石河主干道两侧及滨海岸线管理基线应保留一定后退范围的建设管控区。管控范围内应尊重现状自然生态环境，保护自然滩涂、湿地、红树林、沙滩等稀缺资源，不得开展对城市综合安全、环境风貌有影响的建设活动。尤其要加强赤石河和明热河两岸自然滩涂、湿地、红树林等资源的保护，彰显城乡交融、城绿相映的生态河畔风貌，南门河侧重打造生活气息浓厚、生态文明发达的滨水生息风貌。

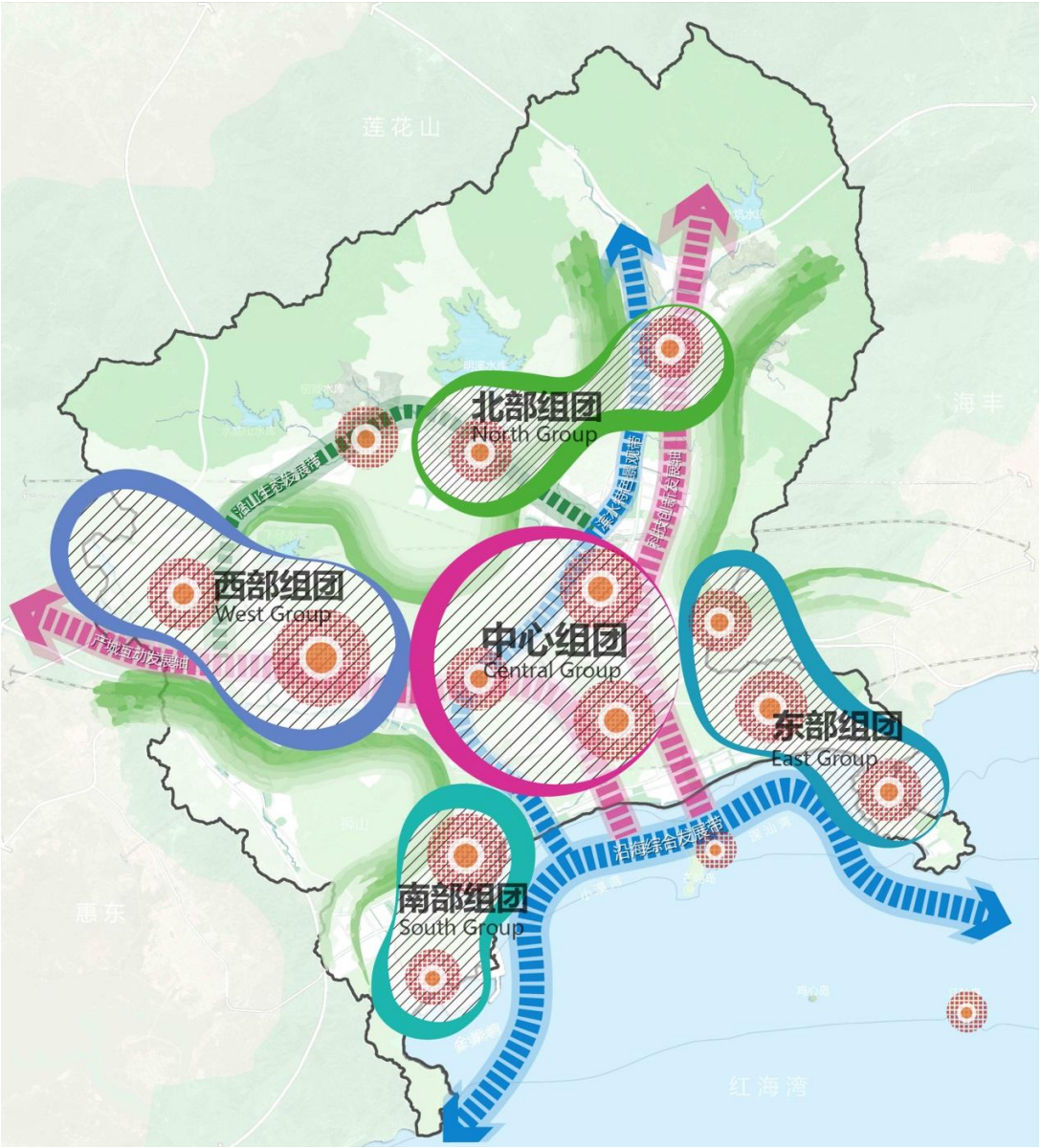
The Outline, at the level of specific management and control, proposes to prevent the deterioration of water quality of natural water bodies such as Chishi River, Mingre River, and Nanmen River, and strive for 100% water quality compliance rate in surface water environment functional areas and offshore marine environment functional areas. It also requires maintaining a construction control area with certain receding area for the two sides of the main stream of Chishi River and the coastline management baseline. In the construction control area, the current natural ecological environment shall be respected; scarce resources such as natural tidal flats, wetlands, mangroves, and beaches shall be protected; and construction activities having impact on the comprehensive security of city and environmental features shall not be carried out. In particular, it is necessary to strengthen the protection of resources such as natural tidal flats, wetlands, mangroves on the banks of Chishi River and Mingre River, to highlight the ecological riverside features integrating urban and rural areas and fusing of city and environment. Meanwhile, it requires focusing on creating waterfront living landscape with strong atmosphere of life and developed ecological civilization in the

area of Nanmen River.

（2）空间结构与组团情况 Spatial Structure and Clusters

《纲要》同时确定了深汕合作区“一心，两轴，三带，四组团”的整体空间结构。

The Outline also defines the overall spatial structure of 'one center, two axes, three belts and four clusters' in Shenshan Cooperation Zone.



总规纲要城乡空间结构规划图

Planning of Urban and Rural Spatial Structure in the Outline

中心组团是围绕政务文化片区和高铁站片区形成的具有综合功能的城市组团，该组团作为高端商务区和政务区，以行政、文化、商务、科研等为主导，并安排城市级大型公共服务设施。

The Central Cluster is the urban one with comprehensive functions formed around the governmental and cultural area as well as the high-speed railway station area.The Central Cluster is a high-end business and government district with main functions including administration, culture, business and scientific research, etc. It is equipped with large-scale municipal public service facilities.

南部组团作为新兴海港商贸区和滨海生态旅游区，以文化旅游、临港产业等为主导功能。

The Southern Cluster is the emerging harbour business area and the coastal ecotourism area with main functions of cultural tourism and port-centered industry.

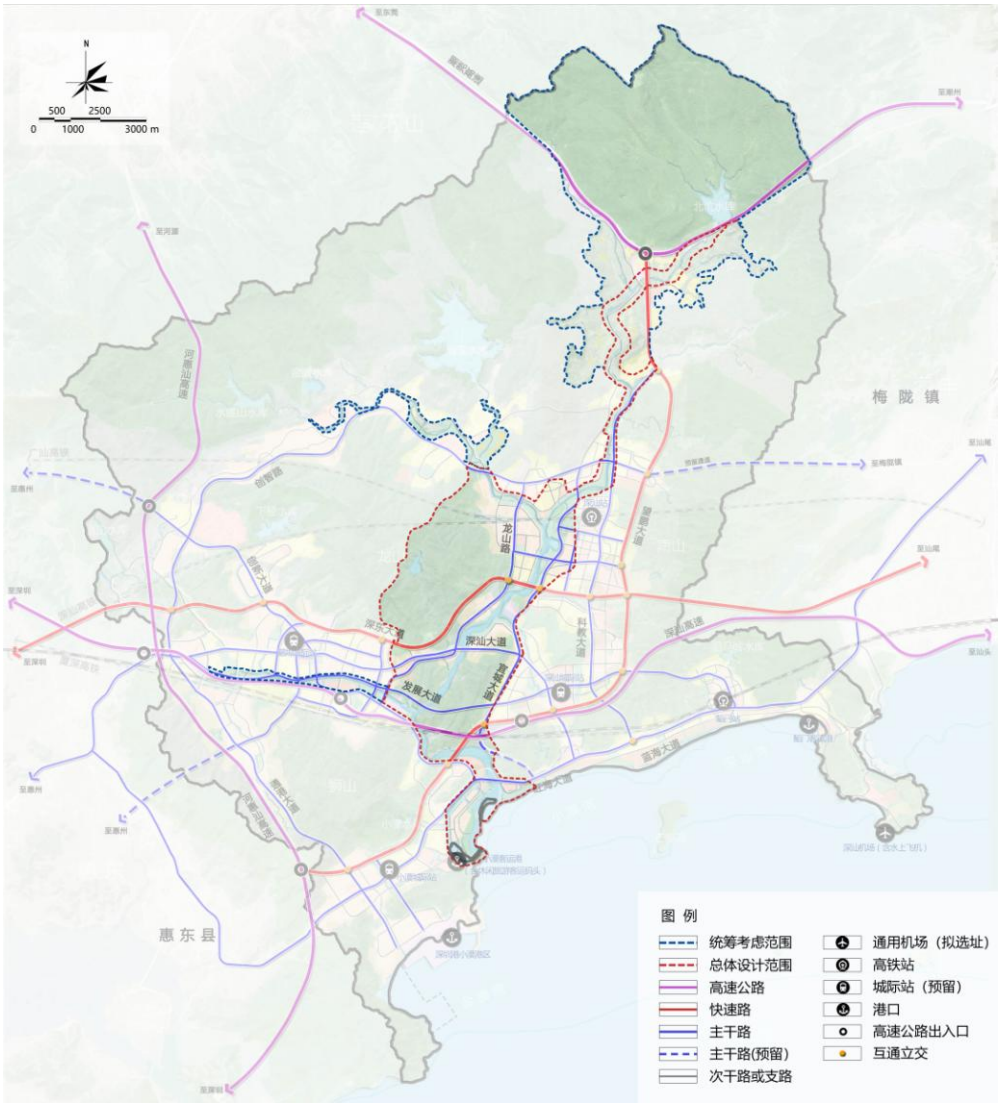
北部组团作为康养度假区，以生态康养、休闲度假等为主导功能，并结合山水田园建设美丽乡村。

The Northern Cluster is the health and holiday resort district with main functions of ecological health, leisure and tourism, etc. In this cluster, the beautiful villages will be constructed in combination of its landscape with mountains and waters.

（3）道路交通 Road Traffic

总体设计范围内规划有两条城市快速路，深东大道与望鹏大道；规划城市主干道8条，其中包括发展大道、宜城大道、龙山路、深汕大道、科教大道、创智路等；规划互通立交3个；港口1个，即小漠客运港。规划范围中部东侧紧邻深汕站枢纽，设计范围内未规划其他大型交通枢纽设施。

In overall design scope, the planned traffic includes two urban expressways, i.e. Shendong Avenue and Wangpeng Avenue; 8 urban trunk roads such as Fazhan Avenue, Yicheng Avenue, Longshan Road, Shenshan Avenue, Kejiao Avenue, Chuangzhi Road, etc.; 3 fly-over crossways; and 1 port, namely Xiaomo Passenger Port. A Shenshan-Station hub will be on the east of the middle part of the planning scope, and no other large-scale transport hubs are planned in the design scope.



总规纲要城市道路交通规划图

Planning of Urban Road Traffic in the Outline

（4）公共设施 Pubic Facilities

总体设计范围内包含1个会展博览中心/国际会议中心，1个宗教设施，1个综合体育馆，1个综合医院，1个海洋博物馆及1个海上运动基地。

There will be 1 expo center/international convention center, 1 religious facility, 1 multi-purpose sports stadium, 1 general hospital, 1 maritime museum and 1 marine sports base in the overall design scope.

总规纲要重大公共服务设施规划布局图

Planned Layout of Major Public Service Facilities in the Outline

（5）特色村落 Featured Villages

总规纲要提出延续地方乡愁，重点保护新厝林、秋塘村、新城寨、洋坑寨等具有特色古村落，合理和适度开发赤石古村落群、鹅埠畲族村等特色村落，保留赤石北等片区的乡村聚落。规划设计应在上述规定范围内探讨保留村庄的处理方式，注重延续原住居民社群根基与文脉，彰显文化传承与活力。

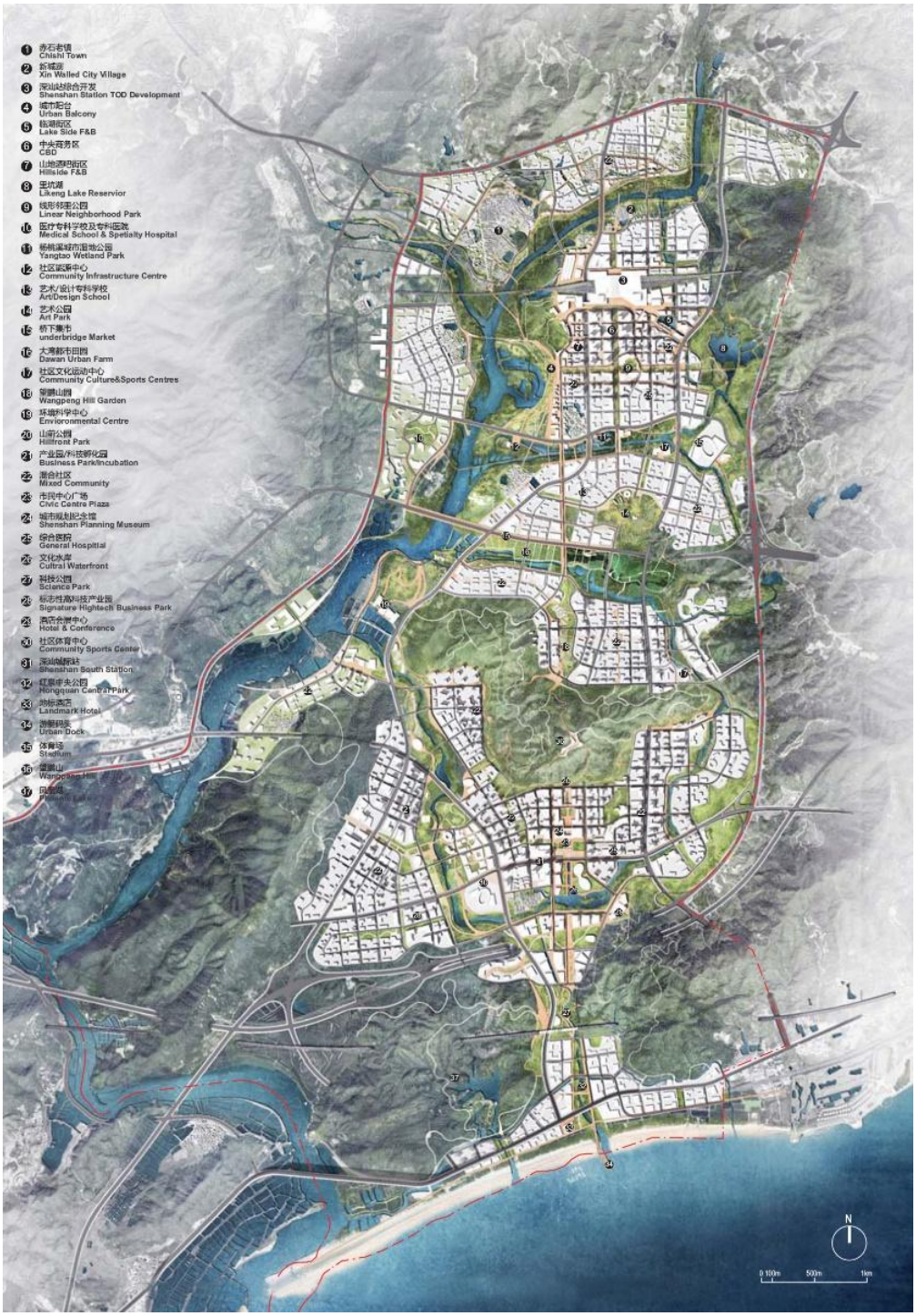
The Outline proposes to maintain the local features with the focus on protection of characteristic ancient villages such as Xincuolin Village, Qiutang Village, Xincheng Village and Yangkeng Village; rationally and properly develop featured villages such as the ancient villages of Chishi Town and She Minority Village in Ebu Town, and preserve the rural settlement in North of Chishi Town. The planning and design shall, within the scope specified above, explore treatment methods of retaining the villages with attention to the continuation of the foundation and context of native communities, and highlighting the cultural heritage and vitality.

6.2.2《深汕特别合作区中心区概念城市设计》*Conceptual Urban Design of the Central Area in Shenshan Special Cooperation Zone*

《深汕特别合作区中心区概念城市设计》（以下简称《中心区城市设计》）以“共生绿都”为愿景，强调山水绿廊的贯通，构建一个基于多元化城市建构理念的新城市。国际咨询应考虑与中心区设计方案的良好衔接。

The *Conceptual Urban Design of the Central Area in Shen-Shan Special Cooperation Zone* (hereinafter referred to as 'the *Urban Design of the Central Area*') follows the prospect of 'co-building a green city', with emphasis on the connection of mountainous and water corridors in order to present a new city based on diversified urban construction concepts. Connection with the Urban Design of the Central Area

shall be taken into consideration in this International Consultation.



中心区城市设计总平面图

Overall Layout Plan of Urban Design in the Central Area

6.2.3《小漠文化旅游小镇规划》Planning of Xiaomo Cultural & Tourism Town

小漠片区规划正在编制过程中，未来定位为“国家级文化旅游特色小镇，中国生态度假城镇标杆示范”，并提出“开创新时代的滨海生活方式”的发展愿景，打造富有活力的滨海生活。

The planning of Xiaomo Area is now in process, and it will be a 'National Cultural & Tourism Featured Town' and 'a Model of Eco-vacation Town in China'. It proposes the development prospect of 'building a new coastal lifestyle in the new era', to create a coastal lifestyle full of vitality.

国际咨询可以进一步优化片区方案，并注重赤石河入海口区域的生态环境修复与保护，结合河道的综合整治，增强区域防灾能力，提高赤石河“一河两岸”整体景观风貌品质，丰富城市服务功能。

In this International Consultation, the area's planning may be further optimized with attention paid to ecological restoration and protection at the estuary of Chishi River, in order to improve the area’s resistance of disasters by comprehensive control of river courses, improve the overall landscape quality of Chishi Riverside, and enrich urban service functions.

小漠文化旅游小镇总平面图（2019 年 8 月阶段成果图）

Overall Layout Plan of Xiaomo Cultural & Tourism Town (Staged Outcomes by August 2019)

6.2.4《深汕特别合作区水利综合规划修编》*Revision on the Overall Water Conservancy Planning of Shenshan Special Cooperation Zone*

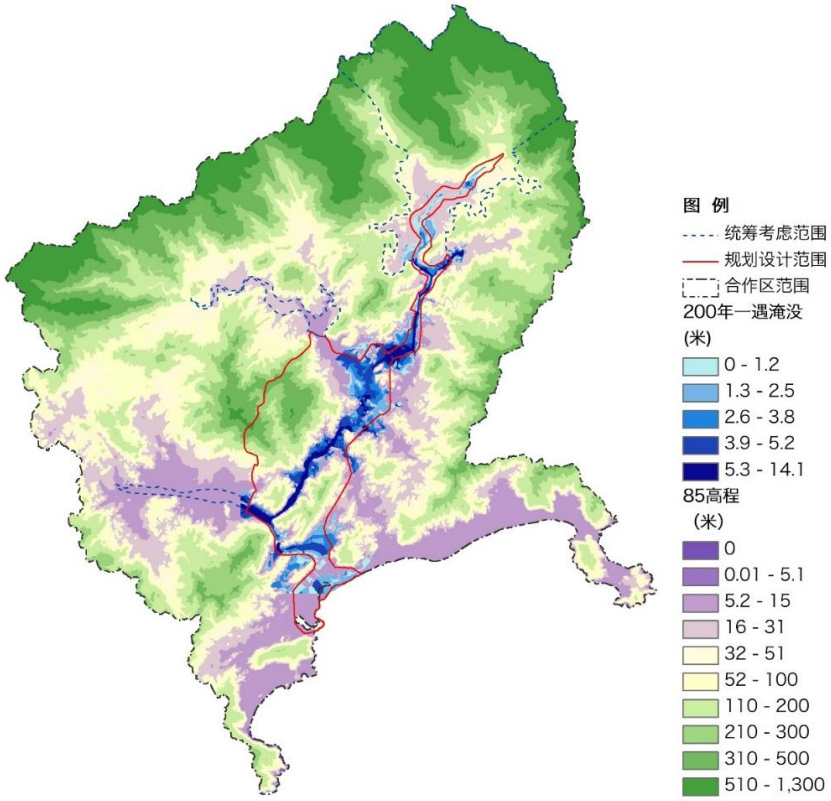
该规划对前期编制的防洪排涝规划、水系规划进行整合，与《深汕特别合作区中心区竖向与排水防涝规划研究》、《深圳市河道管理范围线勘定工程》进行衔接，提出防洪潮排涝系统方案，并划定水系控制范围线。

Integrating the flood prevention & drainage planning and the water system planning drafted before, and connecting with the *Vertical and Drainage Planning for the Central Area of Shenshan Special Cooperation Zone* and the *Demarcation of the River Control Line in Shenzhen*, this planning proposes a flood prevention and drainage system plan, and draws the water control line.

（1）现状淹没评估Assessment on Current Submergence

现状条件下，赤石河200年一遇洪水位下淹没评估如下所示。

The assessment of submergence in Chishi River at the flood level occurring once every 200 years under current situations is as follows.



现状条件下赤石河沿线 200 年一遇淹没范围
Submerged Area of Flood Occurring Once Every 200 Years
in Chishi River under Current Conditions

（2）防洪排涝标准 Criteria for Flood Control and Drainage

规划确定防洪潮标准为：深汕合作区的城市防护等级为Ⅰ级。防御海潮标准为200年一遇，赤石河干流防洪标准为200年一遇，明热河干流、南门河干流的洪水标准为100年一遇，各片区内部水系防御标准为50年一遇。

The criteria for flood and tide control defined by the planning are as follows: urban protection of Shenshan Cooperation Zone is of Grade I. The criteria for sea tide control is withstanding the tide occurring once every 200 years. The criteria of flood control for the mainstream of Chishi River are withstanding the flood occurring once every 200 years, and that for the mainstreams of Minger River and Nanmen River are withstanding the flood occurring once every 100 years; and that for water system in each area are withstanding the flood occurring once every 50 years.

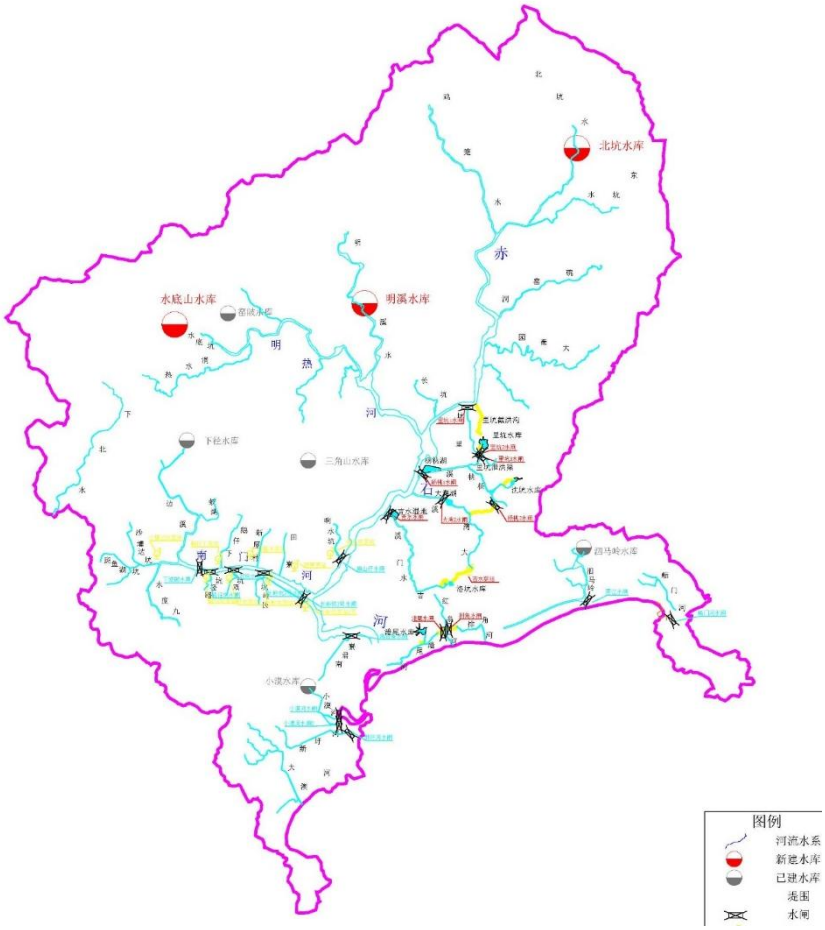
排水防涝标准为：能有效应对不低于50年一遇暴雨。

The drainage criteria are as follows: being able to withstand storm rain occurring at least once every 50 years.

（3）总体防洪排涝体系 Overall Flood Control and Drainage System

以整条河流为治理单元，统筹流域防洪规划，采取“蓄洪、滞洪、截洪、排洪、挡洪、避洪”等工程措施和非工程措施相结合，进行综合治理。受赤石河洪水顶托时，中心城区内小水系衔接处需建设闸门，考虑抽排和调蓄涝水。赤石河、南门河下游受潮水顶托时候，利用河道空间进行错峰调蓄，潮水退下时再排入海湾。

Taking the entire river as a management unit, the flood control planning of the river basin shall be coordinated, and the engineering measures such as 'flood storage, detention, interception, drainage, block and prevention' shall be combined with non-engineering measures, for comprehensive management. It is required to build a gate at the confluence of small water system in the central urban area and consider drainage and storage of flood at the time of being affected by flood of Chishi River. It is also required to carry out regulating storage by utilizing channel space when the lower reaches of Chishi River and Nanmen River are affected by tides, and the water can be discharged into the bay when the tide recedes.



防洪排涝工程体系

Flood Control and Drainage System

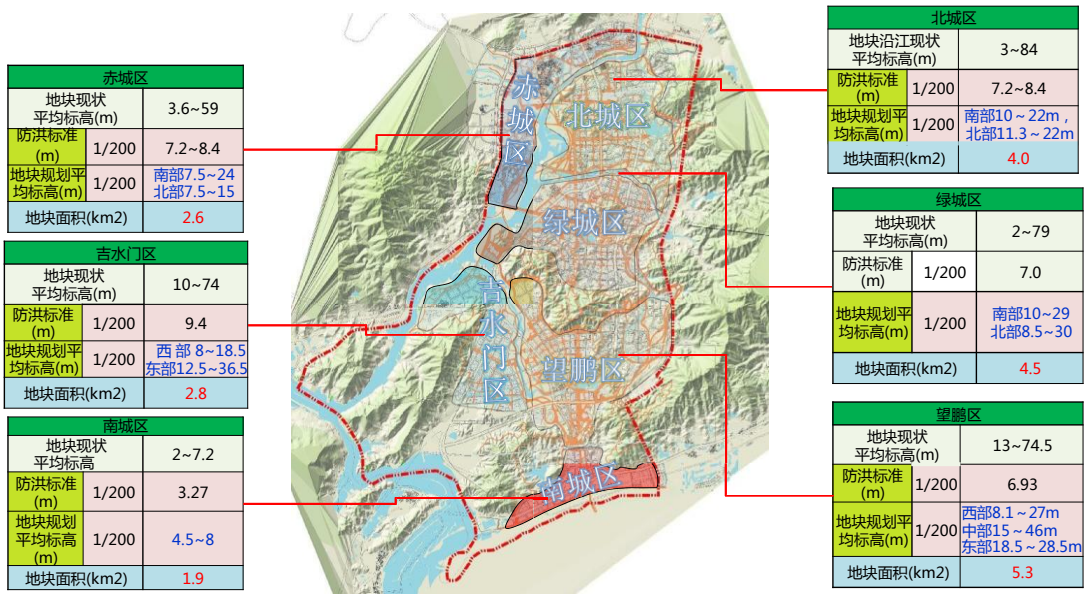
6.2.5《深汕特别合作区中心区竖向与排水防涝规划研究》（在编） *Vertical and Drainage Planning Study for the Central Area of Shenshan Special Cooperation Zone(Being Drafted)*

该规划研究与《深汕特别合作区水利综合规划修编》在水系规划、赤石河防洪规划方面进行了协调，相关标准及水系管控范围等相一致。

This planning was coordinated with the *Revision on the Overall Water Conservancy Planning of Shenshan Special Cooperation Zone* in terms of water system planning and Chishi River flood control planning, to keep consistent in relevant criteria and water system control range.

该规划在防洪排涝规划、道路规划和排水管网规划的基础上进行了竖向总体布局。规划对于洪涝风险区的整体处理策略为抬高建设场地至200年一遇洪水位，同时，注重对现状山体、村庄、内部排涝通道等的预留和保护，确定整体场地竖向规划方案，并根据防洪排涝水位等确定道路标高，并在此基础上进行了雨水工程和污水工程的系统规划。

This planning sets out the overall vertical layout based on the flood control and drainage planning, road planning and drainage network planning. The overall treatment strategy for the area with flood risk in this planning is lifting the construction site to the water level of flood occurring once every 200 years. Meanwhile, it also requires reserving and protecting existing mountains, villages, internal drainage channels, etc., and determines the overall site vertical plan and elevation of the road according to the flood control and drainage levels, according to which the systematic planning of rainwater and sewage engineering was carried out.



整体竖向规划方案

Overall Vertical Plan

6.2.6 深圳市河道管理范围线勘定工程（三期）——深汕合作区 *Demarcation of the River Control Line in Shenzhen (Third Phase) – Shenshan Special Cooperation Zone*

深汕合作区内的河道多为天然河道，目前正在开展《深汕特别合作区水利综合规划修编》工作，且规划成果并未最终确定，该河道管理范围线勘定依据为截止至 2019 年 10 月 31 日深汕合作区内的河道现状及《深汕特别合作区水利综合规划修编》的最新规划成果，旨在为河道后续的综合治理提供用地保障。

Most of the rivers in Shenshan Cooperation Zone are natural rivers. At present, the *Revision on the Overall Water Conservancy Planning of Shenshan Special Cooperation Zone* is being drafted, and its results has not been finalized. The demarcation of the river control line, based on the status of the riversin Shenshan Cooperation Zone by October 31, 2019, and the latest planning results of the *Revision on the Overall Water Conservancy Planning of Shenshan Special Cooperation Zone,* are to guarantee the land for subsequent comprehensive management of river courses.

本次设计可参照河道管理范围线范围进行相关设计，如规划方案对既有水系、防洪排涝、竖向规划等进行了优化调整，可根据方案需求，校核并优化目前河道管理范围线。

This design can be carried out in accordance with the scope of river control line. In case of any optimization of existing water system, floor control and drainage, and vertical planning in this design, the current river control line can be checked and optimized.

6.2.7 《深汕特别合作区生态环境保护规划（2016-2035 年）》（送审稿）

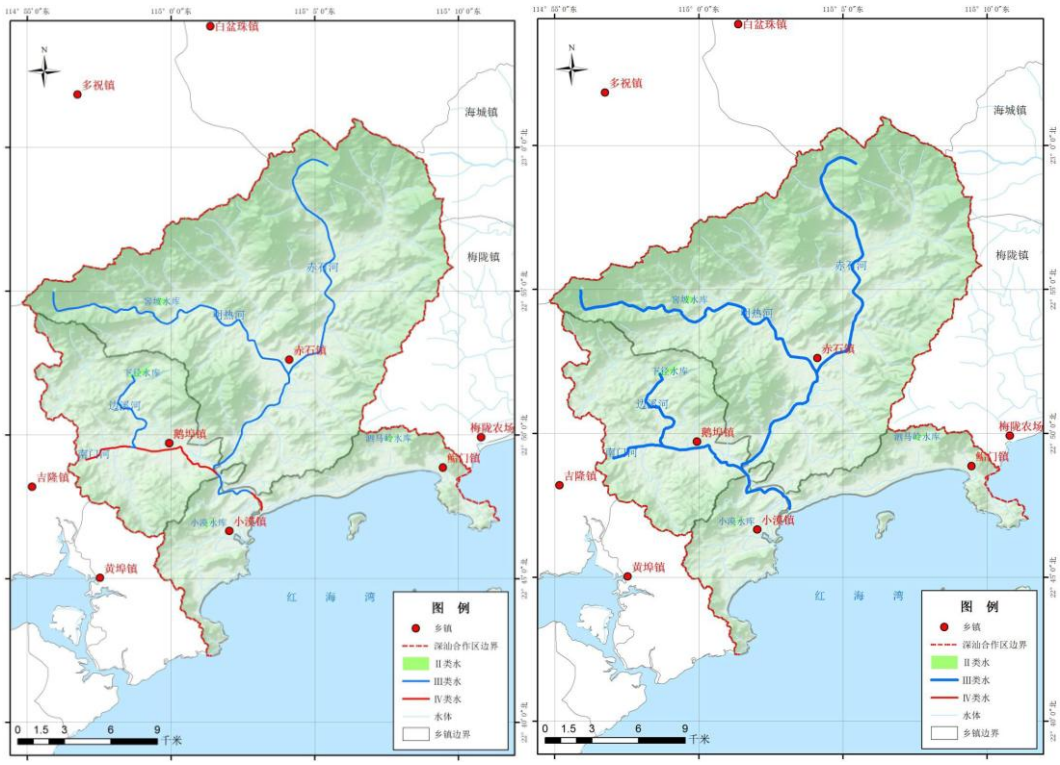
Ecological Environment Protection Planning of Shenshan Special Cooperation Zone (2016-2035) (Draft for Approval)

该规划与本次咨询相关内容主要涉及水环境功能区划方案。

This International Consultation mainly involves the functional zoning of water environment in this planning.

深汕合作区水系水环境水质目标远期全部执行Ⅲ类地表水水质标准，近期南门河与边溪河交汇口至南门河与赤石河汇口段、赤石河小漠桥至赤石河入海段口段执行地表水IV类标准。

The long-term target of water quality of the water system in Shenshan Cooperation Zone shall meet the Class III criteria for surface water. The short-term target for the reach from the confluence of Nanmen River and Bianxi River to the confluence of Nanmen River and Chishi River, and the reach from Xiaomo Bridge on Chishi River to the estuary of Chishi River shall meet Class IV criteria for surface water.



水质目标（左图为近期，右图为远期）

Target of Water Quality (the left is the short-term target and the right is the long-term target)