



XVIII  
World Water Congress  
International Water Resources Association (IWRA)  
Beijing, China | September 11-15, 2023



# 都江堰，人与自然和谐共生的典范

DUJIANGYAN—A UNIQUE EXAMPLE OF HUMAN AND NATURE HARMONY

四川省都江堰水利发展中心 朱泽华

ZHU ZEHUA, DUJIANGYAN WATER CONSERVANCY DEVELOPMENT CENTER, SICHUAN PROVINCE



**都江堰水利工程，  
由战国时期蜀郡太守李冰率众修建，  
至今已有 2279 年历史，是集灌溉、防洪、排涝、  
生态、生产及城镇供水为一体的综合性水利工程  
。**

**Dujiangyan water conservancy project,  
Built by Li Bing, the prefect of Shu County  
during the Warring States Period,  
With a history of 2279 years, it is a  
comprehensive water conservancy project  
integrating irrigation, flood control,  
drainage, ecology, production and urban  
water supply.**

都江堰不仅是我国水利史、  
文化史上的一座丰碑，  
也是人类文明史上的一大奇迹，  
先后被列入世界文化遗产、  
世界灌溉工程遗产名录。

Dujiangyan is not only the history of water  
conservancy in China,  
A monument in the history of culture,  
It is also a great miracle in the history of  
human civilization. Has been included in  
the world cultural heritage, World irrigation  
project heritage list.



全世界迄今为止，年代最久、唯一留存、以无坝引水为特征的宏大水利工程

Up to now, the world's oldest and only surviving grand water conservancy project is characterized by dam-free water diversion.



# —— 第一节 ——

PART ONE

# 因势利导 千古传承的生态治水之道

ECOLOGICAL WATER CONTROL: GUIDED BY THE SITUATION AND INHERITED THROUGH THE AGES.

## 习近平总书记指出

General Secretary Xi Jinping pointed out

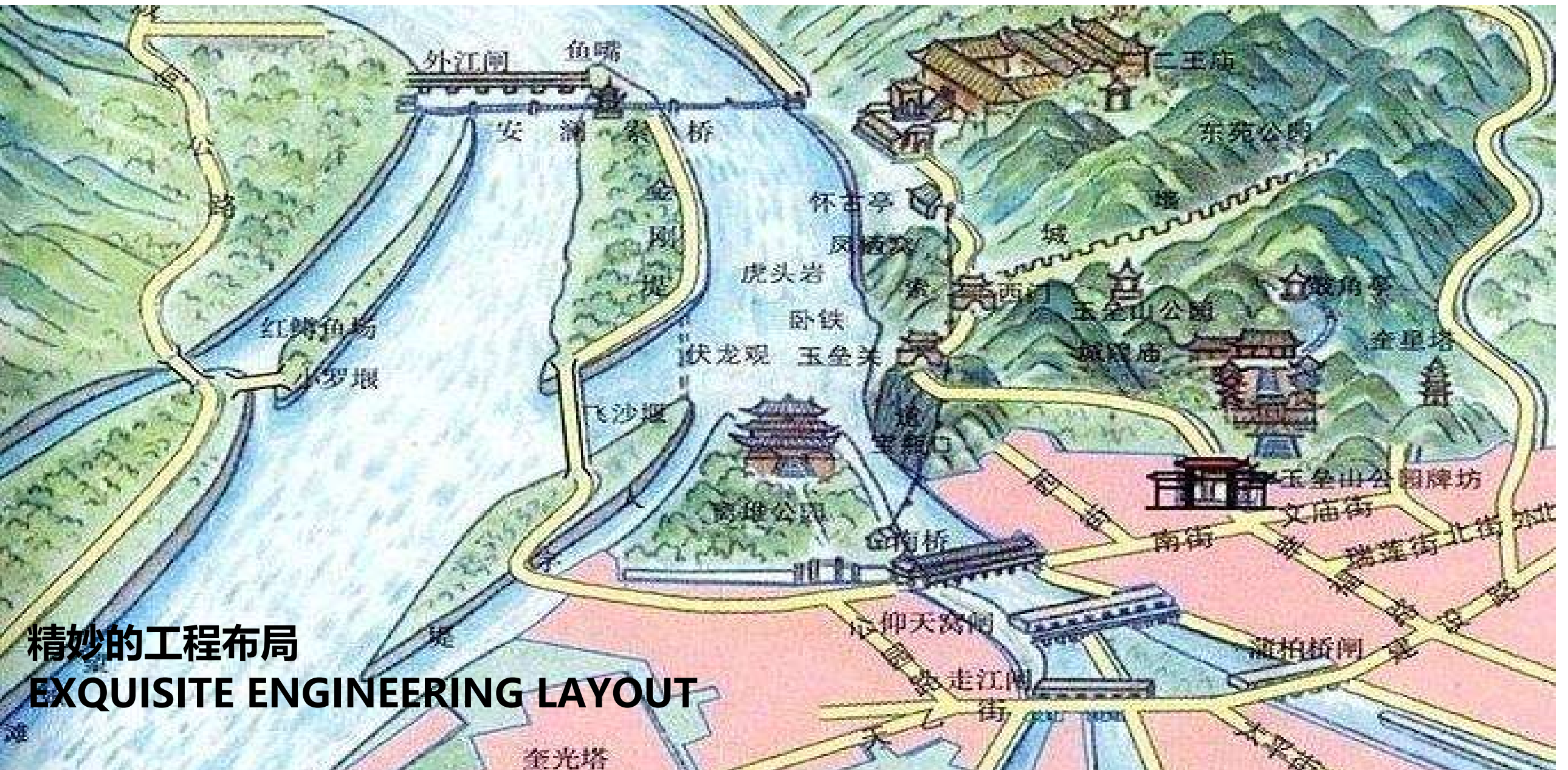


“始建于战国时期的都江堰，距今已有 2000 多年历史，就是根据岷江的洪涝规律和成都平原悬江的地势特点，因势利导建设的大型生态水利工程，不仅造福当时，而且泽被后世”。

Dujiangyan, which was built in the Warring States Period, has a history of more than 2,000 years. It is a large-scale ecological water conservancy project based on the flood law of Minjiang River and the topographic characteristics of the suspended river in Chengdu Plain, which not only benefited the time, but also benefited future generations.

# 因势利导，千古传承的生态治水之道

ECOLOGICAL WATER CONTROL: GUIDED BY THE SITUATION AND INHERITED THROUGH THE AGES.



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ECOLOGICAL WATER CONTROL: GUIDED BY THE SITUATION AND INHERITED THROUGH THE AGES.



都江堰渠首鱼嘴、飞沙堰、宝瓶口  
三大工程“三位一体、首尾相应”

Dujiangyan canal head fish  
mouth, flying sand weir and  
treasure bottle mouth three  
major projects "trinity, end to  
end corresponding."



**因势利导，千古传承的生态治水之道**  
ECOLOGICAL WATER CONTROL: GUIDED BY THE SITUATION AND INHERITED THROUGH THE AGES.

**科学的水量分配**  
**SCIENTIFIC**  
**WATER DISTRIBUTION**



## 因势利导，千古传承的生态治水之道

ECOLOGICAL WATER CONTROL: GUIDED BY THE SITUATION AND INHERITED THROUGH THE AGES.



**建堰后，通过三大工程的联动配合，以及灌区各级工程的联合调度，  
在 2000 多年的历史长河中，实现了水量的相对平衡，保证了灌区的均衡受益。  
After the weir was built, the relative balance of water quantity  
was realized and the balanced benefit of irrigation area was guaranteed.**

因势利导，千古传承的生态治水之道

ECOLOGICAL WATER CONTROL: GUIDED BY THE SITUATION AND INHERITED THROUGH THE AGES.

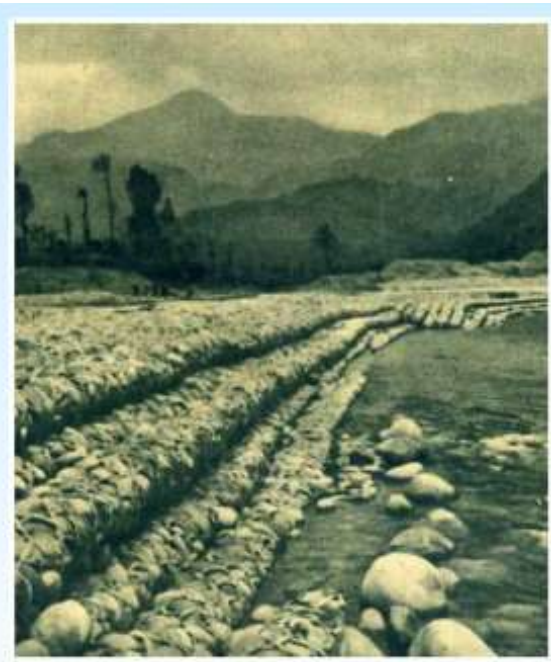
特有的堰工技术

UNIQUE WEIR TECHNOLOGY



## 因势利导，千古传承的生态治水之道

ECOLOGICAL WATER CONTROL: GUIDED BY THE SITUATION AND INHERITED THROUGH THE AGES.



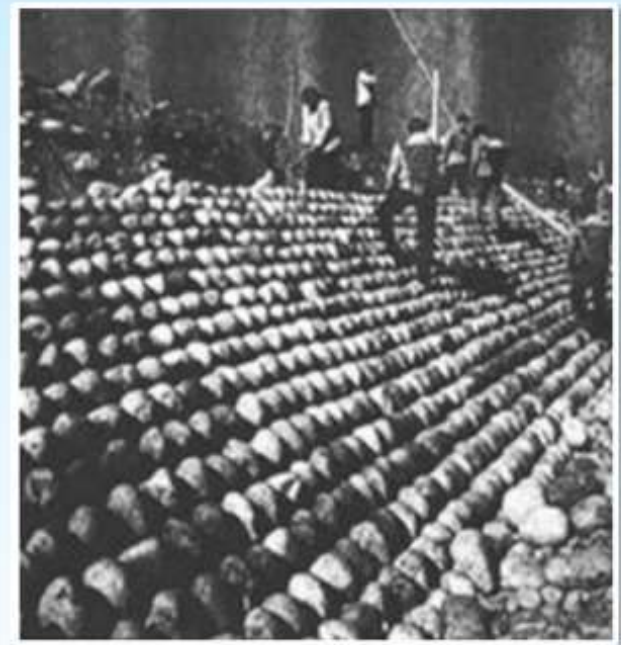
竹笼



杓槎



羊圈



干砌卵石

历史上，都江堰的建设大都就地取材，主要建材以岷江流域盛产的竹、木、卵石为主，广泛应用于截流分水、筑堤护岸、抢险堵口等水利施工实践。

Historically, Dujiangyan was mostly built with local materials, and the main building materials were bamboo, wood and pebbles rich in Minjiang River basin, which were widely used in water conservancy construction practices.

因势利导，千古传承的生态治水之道

ECOLOGICAL WATER CONTROL: GUIDED BY THE SITUATION AND INHERITED THROUGH THE AGES.

# 规范的运行管理 STANDARDIZED OPERATION MANAGEMENT

四川省都江堰  
水利工程管理条例

2003年11月28日四川省第十届人民代表大会  
常务委员会第六次会议通过

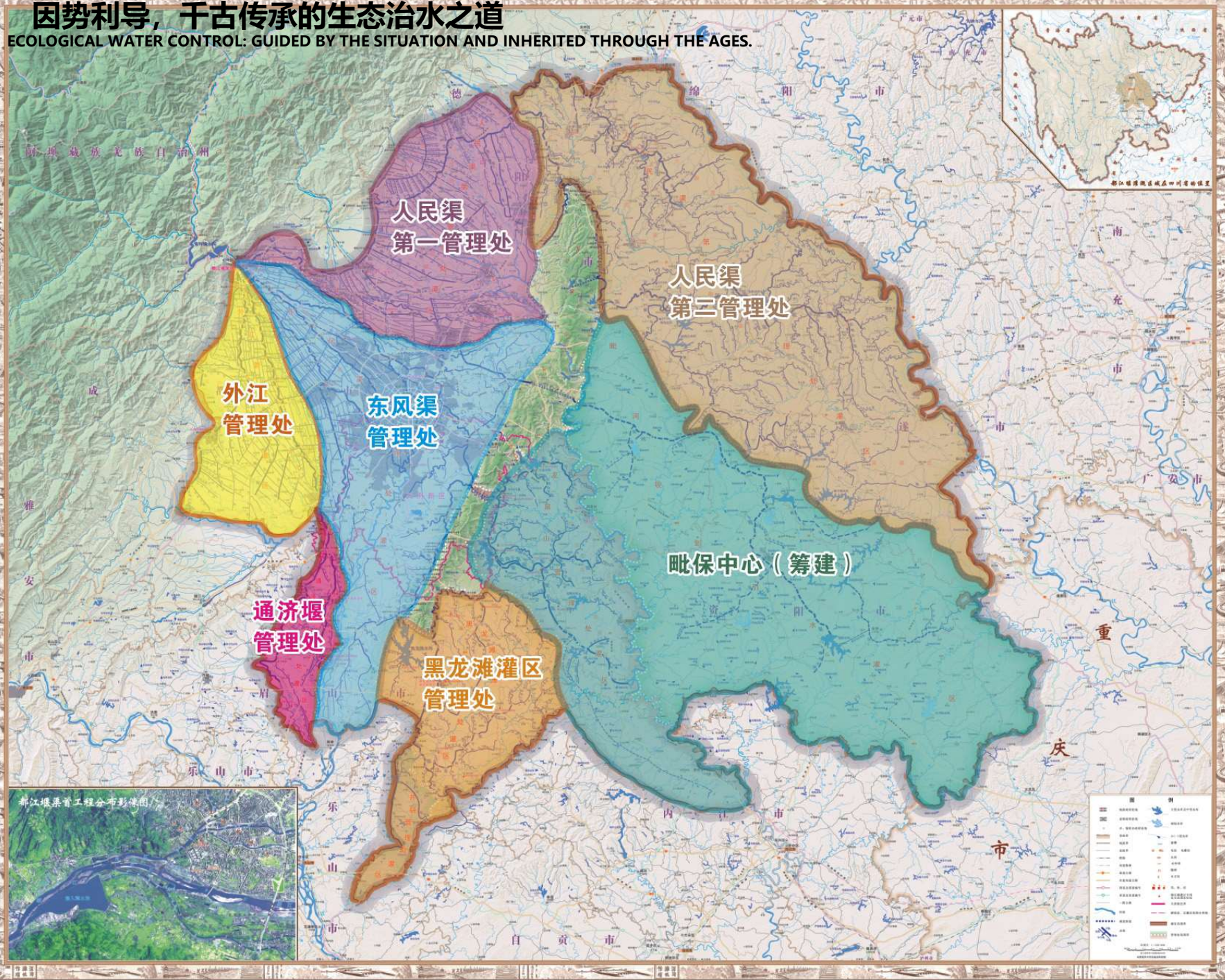
四川省水利工程  
管理条例

2017年6月3日四川省第十二届人民代表大会  
常务委员会第三十三次会议通过



# 因势利导，千古传承的生态治水之道

ECOLOGICAL WATER CONTROL: GUIDED BY THE SITUATION AND INHERITED THROUGH THE AGES.



从东汉创建起，都江堰就设有水利官员进行专管，专管制度一直延续至今。

Since the establishment of the Eastern Han Dynasty, Dujiangyan has had water conservancy officials to take charge of it, and the system of specialized management has continued to this day.

**内江两群运行操作规程**

1. 严格执行“安全第一、预防为主、综合治理”的安全方针，严格落实各项安全措施。
2. 严格执行《内江两群运行操作规程》，确保运行安全。
3. 严格执行《内江两群运行操作规程》，确保运行安全。

**两区交接制度**

1. 严格执行交接时间和交接标准。
2. 交接内容要完整、清楚、准确，不得遗漏。
3. 交接过程中发现问题要及时解决，不得推诿。

**县管水闸运行值班管理制度**

1. 严格执行“安全第一、预防为主、综合治理”的安全方针，严格落实各项安全措施。
2. 严格执行《县管水闸运行值班管理制度》，确保运行安全。
3. 严格执行《县管水闸运行值班管理制度》，确保运行安全。

因势利导，千古传承的生态治水之道

ECOLOGICAL WATER CONTROL: GUIDED BY THE SITUATION AND INHERITED THROUGH THE AGES



深厚的治水文化

PROFOUND WATER CONTROL CULTURE

# 因势利导，千古传承的生态治水之道

ECOLOGICAL WATER CONTROL: GUIDED BY THE SITUATION AND INHERITED THROUGH THE AGES.

道法自然 天人合一  
Taoism is natural,  
and heaven and man are one





# 第二章

PART TWO

# 水润天府

造福当代的生态治水之举

WATER MOISTENS ABUNDANCE AND BENEFITS CONTEMPORARY ECOLOGICAL WATER CONTROL

# 水润天府，造福当代的生态治水之举

WATER MOISTENS ABUNDANCE AND BENEFITS CONTEMPORARY ECOLOGICAL WATER CONTROL.



2022年6月，习近平总书记来川视察时强调，成都平原自古有“天府之国”的美称，要严守耕地红线，保护好这片产粮宝地，把粮食生产抓紧抓牢，在新时代打造更高水平的“天府粮仓”。

In June 2022, when General Secretary Xi Jinping visited Sichuan, he emphasized that Chengdu Plain has been known as "Land of Abundance" since ancient times, and it is necessary to strictly observe the red line of cultivated land. Protect this grain-producing land, pay close attention to grain production, and build a higher-level "Tianfu granary" in the new era.



## 建设方面 CONSTRUCTION ASPECT



20 世纪 50 年代初

实施了渠首加固改造、渠系调整优化和闸群配套建设，灌溉面积达 280 余万亩；



50 年代中期至 60 年代

通过总干渠建设及渠系配套，灌区范围覆盖成都平原全境，灌溉面积达 600 余万亩；



80 年代以后

都江堰先后建设了一、二期扩改建工程，1993 年实灌面积突破 1000 万亩。



21 世纪以来（党的十八大以来）

通过建设水源工程紫坪铺水利枢纽，实施灌区续建配套与节水改造，高标准骨干工程水网初具规模，新增灌面 80 万亩，改善灌面 480 万亩。

“国际知名、国内一流”

## 管理方面

2021年11月26日，四川省都江堰水利发展中心正式挂牌成立，这标志着都江堰灌区一体化改革发展开启了新的篇章。

## MANAGEMENT ASPECT

On November 26, 2021, Dujiangyan Water Conservancy Development Center in Sichuan Province was formally established

四川省都江堰水利发展中心（原都江堰管理局）

## 中共四川省委 四川省人民政府 关于进一步加强水利工程建设 保障经济社会高质量发展的意见 (2022年12月23日)

http://www.scjgdj.gov.cn/ (2023-01-03 09:23:18)

兴修水利、防治水害事关四川现代化建设全局。为深入贯彻落实中央关于加强水利等网络型基础设施建设决策部署，进一步加强水利工程建设，保障经济社会高质量发展，结合我省实际，现提出如下意见。

### 一、总体要求

(一)指导思想。以习近平新时代中国特色社会主义思想为指导，全面贯彻党的二十大精神，深入学习贯彻习近平总书记对四川工作系列重要指示精神，立足新发展阶段，完整、准确、全面贯彻新发展理念，服务和融入新发展格局，坚持“讲政治、抓发展、惠民生、保安全”工作思路，落实“四化同步、城乡融合、五区共兴”战略部署，积极践行“节水优先、空间均衡、系统治理、两手发力”治水思路，按照“确有需要、生态安全、可以持续”原则，系统谋划、遵循规律、改革创新，进一步加强水利工程建设，加快形成“系统完备、安全可靠，集约高效、绿色智能，循环通畅、调控有序”的水网体系，切实保障防洪安全、供水安全、粮食安全、能源安全和生态安全，为全面建设社会主义现代化四川提供有力支撑。

(二)总体目标。围绕国家水网建设规划和全省水利发展部署，构建“一主四片”水生产力布局。一主(即盆地腹地区)加快建设骨干水网，增强供水保障能力。川西南片加强水资源配置工程建设和山洪灾害防治、水土流失治理，川西北片加强水生态保护和高山区防洪治理，秦巴山片加强防洪工程建设和城乡用水保障，乌蒙山片加强水源工程建设和山洪灾害防治。

到2025年，水网骨架布局基本形成，实现水利发展大突破。城乡供水保障能力明显提升，新增供水能力20亿立方米，农村自来水普及率达到88%以上;防洪薄弱环节有效加强，水旱灾害防御能力全面提高;水生态保护工程加快实施，水土保持率提高到79%以上;水利工程建设大质量管理能力明显提升，管理体制机制更加完善。

到2030年，骨干水网总体架构基本完成，水安全保障能力全面提升。跨区域、跨流域水资源调配能力显著增强，重点城镇、重要河段达到国家规定的防洪排涝标准，水生态空间有效保护，水土流失有效治理，水利工程建设大质量管理体系全面构建，水利体制机制科学高效。

展望2035年，骨干水网有力支撑、大中小微协调配套、省市县乡村充分衔接的水网体系全面完善，建成与基本实现社会主义现代化相适应的水安全保障体系。

- 四川省委省政府出台《进一步加强水利工程建设保障经济社会高质量发展的意见》，
- The Sichuan Provincial Party Committee and the provincial government issued "Opinions on Further Strengthening the Construction of Water Conservancy Projects to Ensure High-quality Economic and Social Development"



**时至今日，都江堰灌区幅员面积达 2.86 万平方公里，灌溉面积达到 1133.2 万亩，规模居全国首位。为 2800 万人口提供生活生产生态用水服务。**

**Today, Dujiangyan irrigation area covers an area of 28,600 square kilometers, with an irrigation area of 11.332 million mu, providing ecological water service for life and production for 28 million people.**

# 第三章

PART THREE

## 继往开来

泽被后世的生态治水之思

THOUGHTS ON ECOLOGICAL WATER CONTROL IN FUTURE GENERATIONS

## 继往开来，泽被后世的生态治水之思

THOUGHTS ON ECOLOGICAL WATER CONTROL IN FUTURE GENERATIONS

新的历史阶段，都江堰将认真贯彻习近平总书记治水思路，全力推动都江堰水利事业高质量发展，服务社会高质量发展大局。

In the new historical stage, Dujiangyan will conscientiously implement the water management concept of President Xi Jinping, serving the overall situation of high-quality social development.

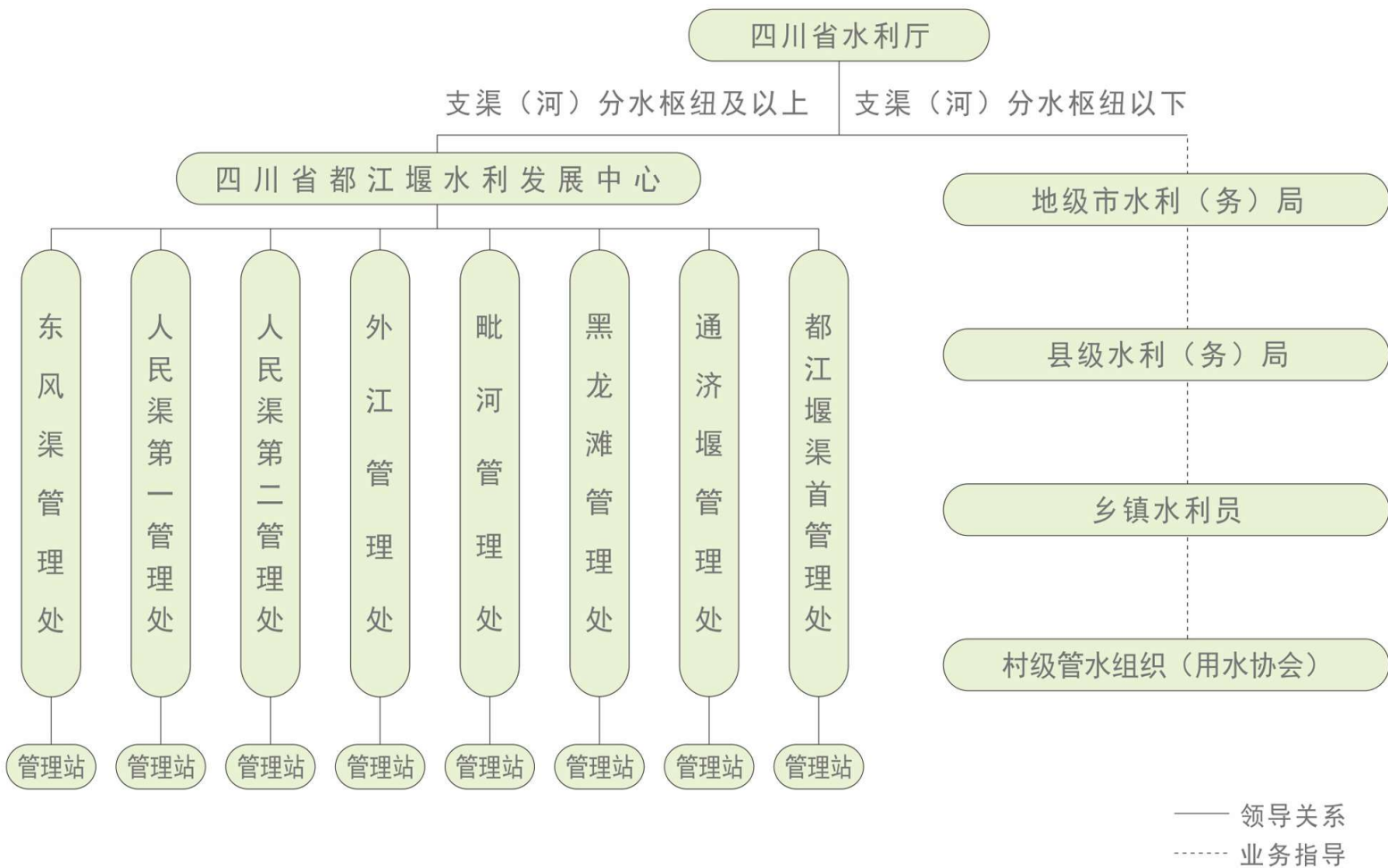
“节水优先、空间均衡、系统治理、两手发力”





# 继往开来，泽被后世的生态治水之思

THOUGHTS ON ECOLOGICAL WATER CONTROL IN FUTURE GENERATIONS



都江堰水利工程（灌区）管理体制结构图

以完善灌区骨干水网为目标，  
构建都江堰生态水利基础设施体系。

With the goal of improving the  
backbone water network in  
irrigation area,  
Constructing Dujiangyan ecological  
water conservancy infrastructure  
system.

以加速智慧水利建设为目标，构建都江堰水资源优化调度控制体系。  
With the goal of accelerating the construction of smart water conservancy,  
Construction of Dujiangyan water resources optimal dispatching control system.



# 继往开来，泽被后世的生态治水之思

THOUGHTS ON ECOLOGICAL WATER CONTROL IN FUTURE GENERATIONS



以保障经济社会发展为目标，构建都江堰水资源节约保护体系。

With the goal of ensuring economic and social development,  
Dujiangyan water resources conservation and protection system is constructed.

以锻造行业一流水利铁军为目标，  
构建都江堰现代化人力资源管理体系。

With the goal of forging the first-class water conservancy iron army in the industry,  
Constructing Dujiangyan modern human resource management system.



## 继往开来，泽被后世的生态治水之思

THOUGHTS ON ECOLOGICAL WATER CONTROL IN FUTURE GENERATIONS



**以打造世界水文化高地为目标，构建都江堰生态文化体系。**

**With the goal of building a highland of water culture in the world,  
Dujiangyan ecological and cultural system is constructed.**

继往开来，泽被后世的生态治水之思

THOUGHTS ON ECOLOGICAL WATER CONTROL IN FUTURE GENERATIONS

“东流不尽秦时水，润泽天府两千年”。

"The water flowing east is endless in Qin Dynasty,  
and it has moistened Tianfu for two thousand years".

继往开来，泽被后世的生态治水之思

THOUGHTS ON ECOLOGICAL WATER CONTROL IN FUTURE GENERATIONS

我们坚信，都江堰必将还会拥有更加辉煌的明天！

WE FIRMLY BELIEVE THAT DUJIANGYAN WILL SURELY HAVE A MORE BRILLIANT TOMORROW!





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Beijing, China | September 11-15, 2023



# 谢谢聆听 THAKYOU

四川省都江堰水利发展中心 朱泽华

ZHU ZEHUA, DUJIANGYAN WATER CONSERVANCY DEVELOPMENT CENTER, SICHUAN PROVINCE