Learn About:

- Green Infrastructure and the Sewer System Improvement Program
- The Chinatown Green Alley project and design concepts

Provide Input:

- Tell us how you want to use the project site
- Help us prioritize the project’s “look + feel”
(CHINATOWN GREEN ALLEY)
Understanding Challenges to the Combined Sewer System

Aging Infrastructure
Our pipes, treatment plants, and tunnels need ongoing repair, replacement, and vital upgrades.

Climate Change
Sea level rise could cause saltwater to flow back into our system, causing flooding and endangering our treatment plants.

Seismic Reliability
Requirements must be met to ensure public health and safety in the case of an earthquake.

Water Quality
Requirements may become more stringent in the future, and we must continue to protect the health of our coastal waters and marine life.

Localized Flooding
Stormwater runoff can overwhelm our system during heavy rains and lead to neighborhood flooding and partially treated wastewater discharging into the SF Bay and Pacific Ocean.

Odor Control
Odors can be a problem during dry weather in flat areas when there is minimal flow to push wastewater to treatment plants.
了解二合一排污系统

基礎建設老化
我們的管道、污水處理廠和隧道需要持續不斷地修繕、更換以及意義重大的升級換代。

氣候變化
海平面升高導致鹽水倒灌進入我們的系統，因此引發洪災並且危及我們的污水處理廠。

抗震可靠性
必須達到要求以防發生地震時確保公共安全和安全。

水質
今後對水質的要求會更加嚴苛，因此我們必須持續地保護沿海水域和海洋生物的健康。

地區性洪災
雨水徑流在暴雨期間可能會沖垮我們的系統，從而導致鄰里街區氾濫，並且將經過部份處理的污水排放到舊金山灣和太平洋。

氣味控制
在平坦地區的旱季，將污水流入污水處理廠的水流最小時，氣味可能會是一個問題。
Explore the North Shore Watershed

**FUN FACTS!** Did you know North Shore Watershed is made up of...

- 4.7 square miles
- 88,900 population
- 131,200 daily water users
- 68% covered in impervious surfaces
- 32% covered with rooftops
- 30% covered by streets
- 25% made up of parks and lakes

*Please note these numbers are approximate.*
瞭解北岸濱海水域 (North Shore Watershed)

有趣的事實！您是否知道北岸濱海水域 (North Shore Watershed) 的況：

佔地 4.7 平方英里
人口為 88.9 萬
每日用水人數為 13.12 萬
68% 由不透水表面覆蓋

32% 由屋頂覆蓋
30% 佈滿街道
25% 由公園和湖泊構成

請注意，這些數字是近似值。
Green Infrastructure Improvements

“Green” solutions, also called “green infrastructure” projects, are a stormwater management tool that reduces the burden on the City’s grey infrastructure. Green infrastructure can help manage and treat stormwater on site before it enters the combined sewer system. These projects also provide livable city benefits like neighborhood beautification and traffic calming.

Examples of GREEN infrastructure improvements include:

**Permeable Pavement**
Permeable paving allows stormwater to soak into the ground in contrast to hard surfaces (concrete or asphalt) where stormwater rapidly flows into the sewer system. **Planning Tip: Best used in alleyways, parking spaces, and sidewalks.**

**Rain Gardens**
Rain Gardens capture stormwater that runs off streets, roofs, and parking lots. Plants and soil absorb that water, reducing the amount of runoff entering our sewer system. **Planning Tip: Best along sidewalks (by streets) or bulb outs. You can also disconnect your downspout, and run your rainwater to a rain garden in your backyard!**

**Bulb Outs**
Bulb Outs are a traffic calming method that extends the sidewalk, reducing the distance to cross the street and increasing pedestrian visibility and safety. These can also include various green technologies to capture and treat stormwater. **Planning Tip: Implement along streets and at intersections.**

**Rainwater Harvesting**
Rainwater harvesting collects and diverts stormwater from hard surfaces such as roofs that would otherwise be going into the combined sewer system, making it available for use. **Planning Tip: Best for buildings and other structures with large, relatively clean, rainwater catchment areas – such as roofs – and sufficient space for above or below ground cisterns.**
綠色基礎建設改善

「綠色」解決方案，也稱為「綠色基礎建設」工程項目，是一種旨在減輕市政府灰色基礎建設負擔的雨水管理工具。綠色基礎建設有助於在雨水流入二合一排汚系統之前幫助管理和處理雨水。這些工程項目還可以提供宜居城市的福祉，例如：社區美化和交通靜化。

綠色基礎建設改善範例包括：

具有滲透性的鋪石路
具有滲透性的鋪石路可讓雨水滲入地下，相比之下，堅硬的路面（水泥或瀝青）則使雨水快速地流入污水系統。規劃提示：最好用於窄街小巷、停車場地和人行道。

雨水園藝
雨水園藝收集流經街道、屋頂和停車場的雨水，植物和土壤吸收水分，減少流入污水系統的徑流量。規劃提示：最好沿著人行道（在路邊）或突出街沿設置。您還可以切斷排水管，讓雨水流入您後院的雨水園藝！

突出街沿
突出街沿是一種交通靜化的方法，將人行道向外延伸，縮短行過馬路的距離，增加行人的可視度和安全性。突出街沿還可以包括各種收集和處理雨水的綠色技術。規劃提示：沿著街道和路口實施。

雨水收集
雨水收集是收集轉移來自屋頂等堅硬表面的雨水加以利用，避免其流入二合一排汚系統。規劃提示：最好用於建築和其它帶有面積大、相對潔淨的雨水存儲區（例如屋頂）以及附有足夠空間的地上或地下雨水收集箱的建築物。
Grey Infrastructure Improvements

“Grey” solutions, such as larger sewer pipes or upgraded pump stations, can improve the sewer system by providing additional capacity to store and convey wastewater. Repairing existing and constructing new grey infrastructure through the SSIP will upgrade our aging infrastructure to provide a reliable, sustainable, and systemically safe system now and for generations to come.

Examples of GREY infrastructure improvements include:

**Pump Station Repairs**
Upgrading and repairing our pump stations helps to ensure that the combined sewer system continues to operate reliably and efficiently.

**Pipe Replacements**
73% of our 1,000 miles of sewer pipes are over 100 years-old and parts of the system still has brick sewers built over 100 years ago! New and larger pipes provide more capacity to store and convey wastewater.

**Treatment Plant Upgrades**
All three wastewater treatment plants need vital updates. Our largest plant, the Southeast Treatment Plant in Bayview/Hunters Point, was built over 60 years ago and handles 80% of our wastewater – and is in need of major repairs and upgrades.
灰色基礎建設改善
「灰色」解決方案，例如：較大的排污管或升級後的抽水站，可以透過提供額外儲存和輸送污水能力
改善污水系統。透過程水系統改善計劃 (SSIP) 修繕
現有的和正在建造的全新灰色基礎建設將會提升我們老化的基礎建設，
為現在和子孫後代提供一個具有
可靠性、可持續性以及系統性的安全系統。

灰色基礎建設改善的範例包括：

修繕抽水站
升級和修繕我們的抽水站有助於
確保二合一排污系統持續
可靠性地和高效地運轉。

更換管道
我們 1,000 英里下水管中有 73% 已使用了
100 多年，並且其中部分系統仍
100 多年前建造的管結構下水管道！全新和較大的管道
提供較高的儲存和輸送污水的能力。

污水處理廠升級換代
所有三家污水處理廠都需要實質性的升級。我們最大的處理廠，位於 Bayview/Hunters 地點的東南污水處理廠
是 60 多年前建造的，處理我們 80% 的污水——因此需要
進行大規模的修繕和升級。
What is the Project Area?

The Chinatown Green Alley project is located on Ross and Spofford Alleys in San Francisco’s Chinatown, bordered by main streets Jackson and Clay, and Stockton and Grant.

**Project Timeline**

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<td>SUMMER - SUMMER</td>
<td>Construction</td>
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**PROJECT SITE**

- Ross Alley
- Spofford Alley

Existing conditions
## What is Driving This Project?

This project is an innovative stormwater management project that will include additional improvements for the street and neighborhood.

唐人街綠巷工程項目 (Chinatown Green Alley project) 位於舊金山唐人街的 Ross 小巷和 Spofford 小巷，毗鄰主要街道及臣街和企李街以及市德頓街和都板街。

### Project Timeline

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<th>Winter-Spring</th>
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*Existing conditions 現有條件*
What is Driving This Project?
促進本工程項目的動力是什麼？

This project is an innovative stormwater management project that will include additional improvements for the street and neighborhood.

此工程項目是具創新性的雨水管理工程項目，另外還包括對街道和街區的改善。

STORMWATER MANAGEMENT
雨水管理

Improvements developed for this project will manage stormwater, and may include rain gardens, tree wells, and permeable pavement.

為此工程項目開發的改善工作將會管理雨水，並且包括雨水園藝、樹井以及具有滲透性的鋪裝路面。

The five (5) categories illustrated on the board to the right summarize the additional components that this project will bring to the neighborhood. Help us understand what is MOST IMPORTANT to you!

在佈告牌右側所示的五 (5) 個種類概括了此工程項目為該街區帶來的額外元素。有助於我們瞭解什麼對您最重要！