

The Beverly Hills City Council Liaison / Public Works Commission Committee will conduct a Special Meeting, at the following time and place, and will address the agenda listed below:

Teleconference/Video Conference Meeting <u>https://www.gotomeet.me/BHLiaison</u> You can also dial in by phone: United States (Toll Free): 1-866-899-4679 or United States: 1-646-749-3117 Access Code: 660-810-077 Beverly Hills, CA 90210

> Tuesday, August 11, 2020 1:00pm

Pursuant to Executive Order N-25-20 members of the Beverly Hills City Council and staff may participate in this meeting via a teleconference. In the interest of maintaining appropriate social distancing, members of the public can participate in the teleconference/video conference by using this link: <u>https://www.gotomeet.me/BHLiaison</u> or by phone at 1-866-899-4679 or 1-646-749-3117, Access Code: 660-810-077. Written comments may be emailed by 12:00pm on the date of the meeting to <u>mayorandcitycouncil@beverlyhills.org</u> and will be read at the meeting.

## AGENDA

- 1) Public Comment
  - a. Members of the public will be given the opportunity to directly address the Committee on any item listed on the agenda.
- 2) Integrated Water Resources Master Plan 2020 (IWRMP)
- 3) Adjournment

George Chavez City Manager

Posted: August 6, 2020

A DETAILED LIAISON AGENDA PACKET IS AVAILABLE FOR REVIEW AT <u>WWW.BEVERLYHILLS.ORG</u>



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# **CITY OF BEVERLY HILLS**

# PUBLIC WORKS DEPARTMENT

### MEMORANDUM

то:	Vice Mayor Robert Wunderlich, Ph.D. and Councilmember Julian A. Gold, M.D.
FROM:	Shana Epstein, Director of Public Works Gil Borboa, P.E., Assistant Director of Public Works/Utilities
DATE:	August 11, 2020
SUBJECT:	Integrated Water Resources Master Plan 2020 (IWRMP)
ATTACHMENTS:	1. Executive Summary, 2020 IWRMP

#### **RECOMMENDATION**

Staff recommends that the City Council Public Works Liaison Committee receive and recommend to take to the full City Council for review and approval the June 2020 Integrated Water Resources Master Plan.

#### BACKGROUND

The Integrated Water Resources Master Plan (IWRMP) is a comprehensive planning document that analyzes the water, sewer, and storm drain systems owned, operated, and maintained by the City of Beverly Hills (City). The Executive Summary of the report is attached herewith as Attachment 1. The full IWRMP Part 1 and Part 2, is available at the following link: <u>http://www.beverlyhills.org/IWRMP</u>

The IWRMP – Part 1 addresses the City's major water resources strategy, which includes imported water, groundwater, and other potential supply sources. Part 1 also addresses other topics including emergency storage for the water system, and stormwater compliance. The IWRMP – Part 2 is a master plan of the water, sewer, and storm drain systems. For each system, the document addresses the existing system and service area, evaluation and design criteria, system analysis, and capital improvements. Particular attention should be given to the selection criteria and recommended ranked Capital Improvement Project list for each utility system.

The theme of the IWRMP is to focus on near-term practical solutions with an eye towards what could be done in the future. The near-term represents a focus on projects that may be implemented within the next five years – 2021 through 2025. Proposed future actions include taking the necessary steps now to position for long-term resiliency and reliability of the City's water, sewer, and storm drain systems.

## DISCUSSION

IWRMP priorities and criteria were developed in collaborative workshops with the consultant team, City staff, and the Public Works Commission. The following workshops and meetings have been conducted to date to prepare the draft IRWMP report:

- 1/31/19 Water System Workshop
- 2/13/19 Sewer and Storm Drain Systems Workshop
- 3/13/19 Groundwater Workshop
- 3/20/19 Meeting with Commissioners Greer and Aronberg (planning for upcoming June 27, 2019 PWC workshop)
- 6/27/19 All PWC Workshop
- 6/11/20 PWC Workshop to present draft IWRMP
- 6/19/20 Ad Hoc PWC meeting to further discuss IWRMP questions, project selection criteria and rankings
- 6/24/20 Ad Hoc PWC meeting to discuss IWRMP project selection criteria and rankings
- 7/9/20 PWC Workshop; Commission priorities developed

Priorities and criteria developed and discussed during the first PWC workshop, June 27, 2019, were used to guide the analysis, develop projects, and set prioritization for implementation. A brief description of the IWRMP priorities is provided below:

- Water Supply Reliability Increasing flexibility of the City's water supply by increasing local water supply, which includes alternative water resources, and reducing imported water reliance on Metropolitan Water District.
- Emergency Resiliency Implementing projects that make systems more resilient to emergencies.
- Addressing Aging Infrastructure Taking a proactive approach to replacing aging infrastructure for the water, sewer, and storm drain systems.
- Accounting for Growth Needs Ensuring the City's systems are adequately addressing growth within the service area.

#### Project Rankings and Priorities

While the Public Works Commission acknowledged that although the City has multiple water supply sources, certain emergency scenarios, in the opinion of the PWC, existed where those sources may not be available or sufficient. Among the concerns, the PWC felt a higher priority was fire protection and earthquakes.

The PWC noted the example of a catastrophic earthquake that severs or significantly impairs both supply points from Metropolitan Water District and all three interconnections with LADWP. In those times, the City must rely solely on the storage in its reservoirs. As Section 5 of this document reports, in a low capacity mode for the City water reservoir system, the City may only have 0.4 days of emergency water storage. Given the history of wildfires in the LA Basin and the fast spreading and devastating nature of those fires, the PWC felt that the level of emergency storage currently existent, particularly at low capacity, merited a priority consideration. Therefore, the PWC offered recommendations,

which prioritized emergency storage projects, and which differed from the ranking of projects developed for the IWRMP, as follows:

The Public Works Commission, upon reviewing the IWRMP analysis, recommends to the City Council that the following four (4) projects merit priority consideration for CIP funding:

- Potable Water Cabrillo Reservoir (estimated cost: \$6,352,000)
- Reservoir 4C (estimated cost: \$4,915,000)
- LADWP Interconnection Upgrade at Coldwater Reservoir (estimated cost: \$433,000)
- Coldwater Pump Station (PS-2) Improvements (estimated cost: \$3,538,000)

This priority list differs from the rankings provided in the IWRMP, for which the top twenty projects are summarized in the table below (from IWRMP table 7-2).

Project #	Project Type	Name	Capital Cost	Score
ER-1	Emergency Resiliency	Reservoir 4C	\$4,915,000	87
G-6	Groundwater	Foothill WTP Expansion to 4.7 MGD	\$6,493,000	80
WS-2	Water System	LADWP Interconnection Upgrade at Coldwater Reservoir	\$433,000	80
WS-3	Water System	Pipeline Project No. 1	\$15,561,000	80
WS-4	Water System	Pipeline Project No. 2	\$8,195,000	80
WS-5	Water System	Pipeline Project No. 3	\$6,899,000	80
SS-5	Sewer System	Oakhurst Drive Capacity Improvement Project	\$3,519,000	80
SS-4	Sewer System	Small Diameter Capacity Relief Project	\$836,000	80
SS-11	Sewer System	N. Sierra Drive "Bottleneck" Capacity Relief Project	\$213,000	80
AS-4	Alternative Sources	La Cienega Park Irrigation Supply	\$1,392,000	77
SS-12	Sewer System	La Cienega Boulevard Capacity Improvement Project	\$1,031,000	77
G-3	Groundwater	La Brea Well #2 (La Cienega Park)	\$4,324,000	73
G-4	Groundwater	La Brea Well #3 (La Cienega Park)	\$4,324,000	73
G-7	Groundwater	Hollywood GWB Deep Well	\$5,447,000	73
G-8	Groundwater	Hollywood GWB Shallow Well	\$5,187,000	73
SS-10	Sewer System	Annual Rehabilitation Project	\$271,000	73
WS-1	Water System	Coldwater Pump Station (PS 2) Improvements	\$3,538,000	70
SS-1	Sewer System	Sewer System Pipeline and Manhole Rehabilitation Project - Year 1 (North)	\$5,448,000	70
SS-2	Sewer System	Sewer System Pipeline and Manhole Rehabilitation Project - Year 2 (Central)	\$4,106,000	70
SS-3	Sewer System	Sewer System Pipeline and Manhole Rehabilitation Project - Year 3 (South)	\$4,749,000	70
SS-14	Sewer System	Inflow & Infiltration Study	\$433,000	70
ER-2	Emergency Resiliency	Potable Water Cabrillo Reservoir	\$6,352,000	67
SS-6	Sewer System	Additional Permanent Flow Monitoring Sites	\$240,000	67
G-5	Groundwater	La Brea Well #4 (Location TBD)	\$7,947,000	63
SS-13	Sewer System	Dry-Weather TMDL to Sewer Diversion Project	\$313,000	57
G-9	Groundwater	Santa Monica GWB Irrigation Supply Well (Roxbury Park)	\$2,825,000	50
AS-2	Alternative Sources	Roxbury Park Stormwater Diversion	\$3,688,000	33
AS-3	Alternative Sources	Subterranean Parking Groundwater Diversion	\$6,398,000	33
SD-6	Storm Drain	Storm Water System Pipeline Upgrade Project and Optional Flood Barrier Protection Project	\$24,294,000	30

# Summary of Capital Improvement Projects

## Fiscal Impact

A stated in the report, a near term focus of the study looked at projects and programs which could be implemented within the next five years. In each, maintaining flexibility is required in recognition of uncertainties inherent in the current pandemic response circumstances. In response to the Ad Hoc subcommittee's suggestion for a more immediate outlook – two years – the following table presents three projects which staff believes can be addressed by the end of FY 2021-2022

	Projected Cost	Current Funding Available	Comments
Reservoir 4C WTP Pretreatment	\$4,915, 000 \$9,919,000	\$4,915, 000 \$11,406,850	Funding currently available Project awarded 6/16/20
Cabrillo Reservoir	\$6,352,000	\$2,233,146.75	Current funding can be used to start environmental review and preliminary design; balance deferred to next rate case

### NEXT STEPS

Pending support to proceed from City Council Liaison committee members Vice Mayor Wunderlich and Councilmember Gold, staff will prepare to bring the Integrated Water Resources Master Plan before the full Council for direction on preferred priorities, and approve and receive.

Staff and Hazen & Sawyer, the City's consultant, will be available at the Liaison meeting to discuss the assumptions, methodologies, results, and findings prepared in the draft IRWMP report.





# **Executive Summary**

The Integrated Water Resources Master Plan (IWRMP) is a comprehensive planning document that analyzes the water, sewer, and storm drain systems owned, operated, and maintained by the City of Beverly Hills (City). The IWRMP is comprised of Part 1 and Part 2.

The IWRMP – Part 1 addresses the City's major water resources strategy which includes imported water, groundwater, and other potential supply sources. Part 1 also addresses other topics including emergency storage for the water system, and stormwater compliance. The IWRMP – Part 2 is a master plan of the water, sewer, and storm drain systems. For each system, the document addresses the existing system and service area, evaluation and design criteria, system analysis, and capital improvements.

The theme of the IWRMP is to focus on near-term practical solutions with an eye towards what could be done in the future. The near-term represents a focus on projects that should be implemented within the next five years -2021 through 2025. An eye towards the future includes taking the necessary steps now to position for long-term resiliency and reliability of the City's water, sewer, and storm drain systems.

### **IWRMP** Priorities

IWRMP priorities and criteria were developed in collaborative workshops with the consultant team, City staff, and the Public Works Commission. Priorities and criteria were used to guide the analysis, develop projects, and set prioritization for implementation. A description of the IWRMP priorities is provided below:

- Water Supply Reliability Increasing flexibility of the City's water supply by increasing local water supply, which includes alternative water resources, and reducing imported water from Metropolitan Water District.
- **Emergency Resiliency** Implementing projects that make systems more resilient to emergencies.
- Addressing Aging Infrastructure Taking a proactive approach to replacing aging infrastructure for the water, sewer, and storm drain systems.
- Accounting for Growth Needs Ensuring the City's systems are adequately addressing growth within the service area.

# Water Supply Portfolio

The current, near-term, and future water supply portfolio will include conservation, imported water from Metropolitan Water District (MWD), local groundwater, and may also include alternative sources. With the completion of the La Brea Subarea water supply projects, which includes new groundwater wells and a transmission main, the water supply portfolio from current conditions to year 2025 is illustrated in Figure ES-1. Future year conditions also account for projected water demand using the most conservative





methodology (discussed further in Section 2). As shown, over 20% reduction in imported water is anticipated.

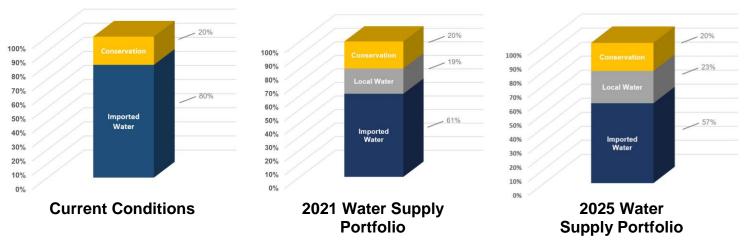


Figure ES-1: Water Supply Portfolio Summary

#### Groundwater

The City's water supply includes groundwater wells in the Hollywood Groundwater Basin and the La Brea Subarea of the Central Groundwater Basin. Implementation steps have been identified to maintain the existing groundwater supplies, develop new groundwater supplies, and expand the Foothill Water Treatment Plant to increase water supply reliability.

Maintaining the existing groundwater supplies will require regular monitoring of well operational data, well testing and rehabilitation, and operations best practices.

To develop new groundwater supplies, in addition to the first La Brea Subarea Well at the former Coffee Bean site, the following projects have been identified:

- Two (2) La Brea Subarea Wells to be located at La Cienega Park
- One (1) La Brea Subarea Well to be located at a location to be determined
- One (1) Hollywood Groundwater Basin Well located at Santa Monica Boulevard and Foothill Road
- One (1) Hollywood Groundwater Basin Well located at 3<sup>rd</sup> Street and Foothill Road
- One (1) Santa Monica Groundwater Basin Well located at Roxbury Park to supply the local irrigation demand

To accommodate the additional groundwater supplies, improvements have been identified at Foothill Water Treatment Plant to increase plant capacity from 2.3 to 4.7 million gallons per day (MGD).





# **Alternative Sources**

A priority for the City is to take immediate steps now to position for long-term water supply options. It is recognized that all potential water supply sources should be identified and evaluated. One potential alternative source of water is shallow groundwater to be used to meet irrigation demand for non-residential uses such as parks, schools, and median landscaping.

Potential alternative source projects and multi-benefit projects have been identified. The projects include:

- Roxbury Park stormwater diversion, treatment, and distribution for irrigation supply
- Subterranean Parking Structures shallow groundwater diversion, treatment, and distribution for irrigation supply
- La Cienega Park raw water distribution from La Brea Well(s) for irrigation supply
- Desalination buying into a desalination plant and delivery through MWD

### **Emergency Resiliency**

One of the priorities of the IWRMP is Emergency Resiliency – ensuring the City is implementing projects that make systems more resilient to emergencies, such as emergency storage for the water system. The recommended near-term emergency storage projects are:

- Reservoir 4C 1-million-gallon tank to be constructed adjacent to existing Reservoir 4B
- Cabrillo Reservoir up to 3-million-gallon tank to be constructed at the inactive Cabrillo Reservoir site

### **Stormwater Compliance**

The City is located entirely within the watershed of Ballona Creek. Stormwater Compliance refers to efforts to maintain the Ballona Creek watershed through compliance with the 2016 Ballona Creek Enhanced Watershed Management Program (BCEWMP).

The "Stormwater Compliance Capital Improvement Program Master Plan – Project Concepts for Stormwater Compliance" was completed in August 2019 that included a multitude of stormwater compliance recommendations such as Burton Way Green Streets and other multi-benefit projects. In addition, this report identified a potential project to utilize sewer system capacity to help the City comply with the MS4 stormwater discharge permit compliance. Three (3) locations were identified in the City's business and restaurant district to divert dry-weather flow to the sewer system.

The City's current implementation approach to stormwater compliance projects is to combine them with other City improvement projects when feasible.





## Capital Improvement Projects, Annual Programs, and Stakeholder Involvement

A summary of the capital improvement projects, annual programs, and stakeholder involvement identified in this report are shown in Table ES-1 and Table ES-2. Total capital costs for projects were estimated including construction costs, engineering and administrative costs, and land acquisition where applicable. Scoring for each project was based on the following criteria (all equally weighted): cost, reliability, timeframe, feasibility, emergency resiliency, and risk factors. Project descriptions, cost information, and scoring criteria are included in Section 7.

Project #	Project Type	Name	Capital Cost	Score
ER-1	Emergency Resiliency	Reservoir 4C	\$4,915,000	87
G-6	Groundwater	Foothill WTP Expansion to 4.7 MGD	\$6,493,000	80
WS-2	Water System	LADWP Interconnection Upgrade at Coldwater Reservoir	\$433,000	80
WS-3	Water System	Pipeline Project No. 1	\$15,561,000	80
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SS-14	Sewer System	Inflow & Infiltration Study	\$433,000	70
ER-2	Emergency Resiliency	Potable Water Cabrillo Reservoir	\$6,352,000	67
SS-6	Sewer System	Additional Permanent Flow Monitoring Sites	\$240,000	67
G-5	Groundwater	La Brea Well #4 (Location TBD)	\$7,947,000	63
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SD-6	Storm Drain	Storm Water System Pipeline Upgrade Project and Optional Flood Barrier Protection Project	\$24,294,000	30

#### Table ES-1: Summary of Capital Improvement Projects





Project #	Project Type	Name	Annual Cost
G-1	Groundwater	Production Well Maintenance Program	\$300,000
G-2	Groundwater	GWB Monitoring Program	\$100,000
WE-1	Water Efficiency	Conservation Program	\$600,000
WE-2	Water Efficiency	Leak Detection Program	\$200,000
WS-6	Water System	PRV Asset Management Program	\$500,000
SS-7	Sewer System	CCTV Remainder of System - Year 1 (North)	\$1,421,634
SS-8	Sewer System	CCTV Remainder of System - Year 2 (Central)	\$1,421,634
SS-9	Sewer System	CCTV Remainder of System - Year 3 (South)	\$1,421,634
SD-1	Storm Drain	Storm Drain CCTV Inspection - Year 1	\$1,013,135
SD-2	Storm Drain	Storm Drain CCTV Inspection - Year 2	\$1,068,120
SD-3	Storm Drain	Storm Drain CCTV Inspection - Year 3	\$643,965
SD-4	Storm Drain	Storm Drain CCTV Inspection - Year 4	\$473,005
SD-5	Storm Drain	Storm Drain CCTV Inspection - Year 5	\$387,090
SC-1	Stormwater Compliance	Misc. BMPs from Stormwater Compliance Master Plan	Varies
AS-1	Alternative Sources	Recycled Water Stakeholder Involvement	\$0
AS-5	Alternative Sources	Desalination Stakeholder Involvement	\$0

#### Table ES-2: Summary of Annual and Stakeholder Involvement Programs

### **Public Works Commission Recommendations**

Throughout the multiple PWC workshops and meetings, the input provided from various members of the PWC was that the highest priority should be given to emergency water storage projects. Emergency water storage projects include new reservoirs and tanks for the City's water system.

At the July 9, 2020 PWC Regular Meeting, the following three (3) motions passed 5-0:

- The Public Works Commission, upon reviewing the IWRMP analysis, recommends to City Council the following four (4) projects merit priority consideration for CIP funding:
  - Potable Water Cabrillo Reservoir (estimated cost: \$6,352,000)
  - Reservoir 4C (estimated cost: \$4,915,000)
  - o LADWP Interconnection Upgrade at Coldwater Reservoir (estimated cost: \$433,000)
  - Coldwater Pump Station (PS 2) Improvements (estimated cost: \$3,538,000)
- The Public Works Commission requested City Staff to add the topic of "Emergency Storage" to future PWC meeting agendas.
- The Public Works Commission recommends that City Staff reconstitute the IWRMP report to take into consideration that the PWC recommends a priority of emergency storage and presents the report with that priority indicated.