SAN JOSÉ/SANTA CLARA TREATMENT PLANT ADVISORY COMMITTEE

CHUCK REED, CHAIR
JOSE ESTEVES, MEMBER
PAT KOLSTAD, MEMBER
JAMIE MATTHEWS, MEMBER
MADISON NGUYEN, MEMBER
CHUCK PAGE, MEMBER
JOHN GATTO, MEMBER
ED SHIKADA, MEMBER
KANSEN CHU, MEMBER

AGENDA/TPAC

4:30 p.m. **November 14, 2013** **Room 1734**

1. **ROLL CALL**

2. **APPROVAL OF MINUTES**

   A. October 10, 2013

3. **UNFINISHED BUSINESS/REQUEST FOR DEFERRALS**

4. **DIRECTOR'S REPORT** (verbal)

   A. Directors Verbal Report
   - **Cogeneration Facility Project Update**

5. **AGREEMENTS/ACTION ITEMS**

   A. Plant Master Plan EIR

   Staff Recommendation: Recommend to the City Council adoption of the draft Plant Master Plan for the San José-Santa Clara Regional Wastewater Facility with modifications to the Land Use Component consistent with staff recommendations.

   The Plant Master Plan EIR is scheduled for Council consideration on November 19, 2013

   B. Update on Financing and Alternative Project Delivery Options for Facility CIP Projects

   Staff Recommendation: Accept this report on Financing and Alternative Project Delivery Options for San José-Santa Clara Regional Wastewater Facility CIP Projects.

   The Update on Financing and Alternative Project Delivery Options for Facility CIP Projects is scheduled for Council consideration on November 19, 2013

C. Confined Space Rescue Services

Staff Recommendation: Authorize the City Manager to:

1. Execute an Open Purchase Order with Capstone Fire Management Systems, Inc. (San Diego, CA) for confined space rescue and emergency services at the San Jose-Santa Clara Regional Wastewater Facility ("Plant") for the period of November 22, 2013 through November 21, 2014, in an amount not-to-exceed $400,000.00; and

2. Exercise four additional one-year options to renew the Purchase Order, subject to the annual appropriation of funds.

The Confined Space Rescue Services report is scheduled for Council consideration on November 19, 2013

6. OTHER BUSINESS/CORRESPONDENCE

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. Semi Annual Regional Wastewater Facility CIP Report

1. Accept the Semiannual Status Report on the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program for the period January through June 2013; and
2. Cross-reference this item to the October 29, 2013 Council meeting for acceptance.

The Semi Annual Regional Wastewater Facility CIP Report was approved by Council on October 29, 2013

B. Facility Technical Training Contract

Adoption of a resolution to authorize the City Manager to execute an agreement with CTS International Corp (CTS) for consultant services to develop technical training at the San José-Santa Clara Regional Wastewater Facility, formally referred to as the San Jose/Santa Clara Water Pollution Control Plant, from the date of execution through June 30, 2017 in an amount not to exceed $2,250,000, and to provide for up to two, one-year options to extend the term through June 30, 2019, subject to the appropriation of funds.

The Facility Technical Training Contract was approved by Council on October 22, 2013

C. Annual Insurance Renewal Process

(a) Adopt a resolution authorizing the City Manager to select and purchase certain City property and liability insurance policies for the period from October 1, 2013 to October 1, 2014, at a total cost not to exceed $1,500,000 for all policies, with the following insurance carriers, subject to the appropriation of funds:
   (1) Lexington Insurance Company, (Boston, MA) for Property Insurance, including Boiler & Machinery.
   (2) QBE Insurance Corporation, (New York, NY) to provide the following coverage:
      (a) Airport Owners and Operators Liability including War Risks & Extended
      Perils Coverage (Primary and Excess).
      (b) Police Aircraft Hull & Liability including War Risks & Extended Perils.
   (3) St Paul/Travelers Insurance Company, (Hartford, CT) for Automobile Liability (Airport fleet vehicles including Shuttle Bus, and the San Jose-Santa Clara Regional Wastewater Facility (fleet vehicles) and Airport Shuttle Bus physical damage.
   (4) Indian Harbor Insurance Company, (Stamford, CT) for Secondary Employment Law Enforcement Professional Liability.

(b) Adopt the following 2013-14 Appropriation Ordinance amendments in the Convention and Cultural Affairs Fund:
   (1) Increase the Insurance Expenses appropriation to the Finance Department for Insurance Expenses by $702000; and
   (2) Decrease the Ending Fund Balance by $70,000

The Annual Insurance Renewal Process was approved by Council on September 24, 2013

8. REPORTS

A. Open Purchase Orders Greater Than $100,000 (including Service Orders)

The attached monthly Procurement and Contract Activity Report summarizes the purchase and contracting of goods with an estimated value between $100,000 and $1.08 million and of services between $100,000 and $270,000.

9. MISCELLANEOUS

A. The next TPAC meeting is December 12, 2013, at 4:30 p.m. City Hall, City Manager's Office, 17th Floor, Room 1734.

10. OPEN FORUM

11. ADJOURNMENT

NOTE: If you have any changes or questions, please contact Jennifer Hade, Environmental Services, 408-975-2515.
To request an accommodation or alternative format for City-sponsored meetings, events or printed materials, please call Jennifer Hade at (408) 975-2515 or (408) 294-9337 (TTY) as soon as possible, but at least three business days before the meeting/event.

Availability of Public Records. All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at San Jose City Hall, 200 East Santa Clara Street, 10th Floor, Environmental Services at the same time that the public records are distributed or made available to the legislative body.

2A

MINUTES OF THE
SAN JOSE/SANTA CLARA
TREATMENT PLANT ADVISORY COMMITTEE
City Hall, City Manager's Office, 17th Floor, Room 1734
Thursday, October 10, 2013 at 4:30 p.m.

1. **ROLL CALL**

Minutes of the Treatment Plant Advisory Committee convened this date at 4:30 p.m. Roll call was then taken, with the following members in attendance:

Committee members: Jose Esteves, John Gatto, Pat Kolstad, Jamie Matthews, Chuck Page, Chuck Reed, Ed Shikada

Absent: Committee members: Kansen Chu and Madison Nguyen

2. **APPROVAL OF MINUTES**

A. **September 12, 2013**
Item 2.A was approved.

3. **UNFINISHED BUSINESS/REQUEST FOR DEFERRALS**

4. **DIRECTORS REPORT**

A. Directors Verbal Report:
There was no Director's Report this month.

5. **AGREEMENTS/ACTION ITEMS**

A. Semi Annual Regional Wastewater Facility CIP Report

Staff Recommendation:
1. Accept the Semiannual Status Report on the San José-Santa Clara Regional Wastewater Facility Capital Improvement Program for the period January through June 2013; and
2. Cross-reference this item to the October 29, 2013 Council meeting for acceptance.

The Semi Annual Regional Wastewater Facility CIP Report is scheduled for Council Consideration on October 29, 2013

Ashwini Kantak, Assistant Director, Environmental Services gave a presentation.

David Wall, Public, spoke on this item.

Motion by Committee Member Kolstad, second by Committee Member Page to approve item 5.A. Item 5.A. was approved unanimously.

B. Facility Technical Training Contract

Staff Recommendation: Adoption of a resolution to authorize the City Manager to execute an agreement with CTS International Corp (CTS) for consultant services to develop technical training at the San José-Santa Clara Regional Wastewater Facility, formally referred to as the San Jose/Santa Clara Water Pollution Control Plant, from the date of execution through June 30, 2017 in an amount not to exceed $2,250,000, and to provide for up to two, one-year options to extend the term through June 30, 2019, subject to the appropriation of funds.

The Facility Technical Training Contract is scheduled for Council Consideration on October 22, 2013

Linda Charfauros, Division Manager gave a presentation.

David Wall, Public, spoke on this item.

Motion by Committee Member Matthews, second by Committee Member Page to approve item 5.B. and to direct staff to return with a more detailed plan on addressing staffing issues. Item 5.B was approved unanimously.

C. Annual Insurance Renewal Process

Staff Recommendation:

(a) Adopt a resolution authorizing the City Manager to select and purchase certain City property and liability insurance policies for the period from October 1, 2013 to October 1, 2014, at a total cost not to exceed $1,500,000 for all policies, with the following insurance carriers, subject to the appropriation of funds:
   (1) Lexington Insurance Company, (Boston, MA) for Property Insurance, including Boiler & Machinery.
   (2) QBE Insurance Corporation, (New York, NY) to provide the following coverage:
      (a) Airport Owners and Operators Liability including War Risks & Extended
      Perils Coverage (Primary and Excess).
      (b) Police Aircraft Hull & Liability including War Risks & Extended Perils.
   (3) St Paul/Travelers Insurance Company, (Hartford, CT) for Automobile Liability (Airport fleet vehicles including Shuttle Bus, and the San Jose-Santa Clara Regional Wastewater Facility (fleet vehicles) and Airport Shuttle Bus physical damage.
   (4) Indian Harbor Insurance Company, (Stamford, CT) for Secondary Employment Law Enforcement Professional Liability.

(b) Adopt the following 2013-14 Appropriation Ordinance amendments in the Convention and Cultural Affairs Fund:

(1) Increase the Insurance Expenses appropriation to the Finance Department for Insurance Expenses by $702000; and
(2) Decrease the Ending Fund Balance by $70,000

The Annual Insurance Renewal Process was considered by Council on September 24, 2013

Motion by Committee Member Gatto, second by Committee Member Kolstad to approve item 5.C. Item 5.C. was approved unanimously.

6. OTHER BUSINESS/CORRESPONDENCE

7. STATUS OF ITEMS PREVIOUSLY RECOMMENDED FOR APPROVAL BY TPAC

A. Consultant Agreement for Digester and Thickener Facilities Upgrade Project

Staff Recommendation: Approve a consultant agreement with Brown and Caldwell to provide engineering services for the Digester and Thickener Facilities Upgrade Project at the San Jose-Santa Clara Regional Wastewater Facility (formerly known as the San Jose/Santa Clara Water Pollution Control Plant). This agreement will be effective from the date of execution to December 31, 2019, for total amount not to exceed $12,017,526.

The Consultant Agreement for Digester and Thickener Facilities Upgrade Project is scheduled to be heard by City Council on October 8, 2013.

B. Program Management Consultant Agreement

Staff Recommendation:
(a) Approve a Master Services Agreement with MWH Americas, Inc. for Program Management Consultant Services at the San José-Santa Clara Regional Wastewater Facility, (formerly known as the San Jose/Santa Clara Water Pollution Control Plant), for a term beginning from the date of execution through September 30, 2018, including up to two, one-year extension options, in an initial amount not to exceed $7,295,000, and a maximum agreement amount not to exceed $39 million, subject to the appropriation of funds.

(b) ~~Adopt a resolution authorizing the City Manager to exercise the City's option to extend the agreement for up to two, one-year terms, subject to the appropriation of funds.~~

(c) Adopt the following 2013-2014 Appropriation Ordinance Amendments in the San José-Santa Clara Treatment Plant Capital Fund:
(1) Decrease the Ending Fund Balance in the amount of $4,372,000; and

(2) Increase the Program Management appropriation to the Environmental Services Department in the amount of $4,372,000.

On September 17, 2013, the Program Management Consultant Agreement was heard and tabled for further discussion and action by Council on September 24, 2013.

On September 24, 2013, Council approved staff recommendation A with modifications and staff recommendation C. Council did not approve staff recommendation B.

Items 7 A-C were approved to note and file.

8. REPORTS

A. Open Purchase Orders Greater Than $100,000

The attached monthly Procurement and Contract Activity Report summarizes the purchase and contracting of goods with an estimated value between $100,000 and $1.08 million and of services between $100,000 and $270,000.

Item 8.A was approved to note and file.

9. MISCELLANEOUS

The next TPAC meeting is November 14, 2013, at 4:30 p.m. City Hall, City Manager's Office, 17th Floor, Room 1734.

10. PUBLIC COMMENT

David Wall, Public, spoke on hiring youth at the Wastewater Facility.

11. ADJOURNMENT

A. The Treatment Plant Advisory Committee adjourned at 6:00 p.m.

Chuck Reed, Chair
Treatment Plant Advisory Committee

DRAFT

5A(1)

T&E AGENDA: 10-7-13
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow

SUBJECT: PLANT MASTER PLAN ADOPTION

DATE: September 30, 2013

Approved _____ Date 9/30/13

RECOMMENDATION

1. Recommend to the City Council adoption of the Plant Master Plan for the San José-Santa Clara Regional Wastewater Facility with modifications to the Land Use Component consistent with staff recommendations.
2. Recommend that this report be placed on the November 19, 2013 Council Agenda.

OUTCOME

Adoption of the staff-recommended land use scenario would replace the April 19, 2011 Preferred Alternative land use component for the Plant Master Plan (Plan) with a land use component that would maximize environmental features while still retaining the same economic development opportunity. Adoption of the Plant Master Plan would allow staff to begin critical infrastructure improvement at the San José-Santa Clara Regional Wastewater Facility.

EXECUTIVE SUMMARY

The City has engaged in a three-year process between the years 2007 and 2010 to develop the Plan. This extensive process involved community and stakeholder input and technical analysis and review. The primary purpose of the Plan is to ensure San José-Santa Clara Regional Wastewater Facility (Facility), formally known as the San Jose/Santa Clara Water Pollution Control Plant, continues to protect the public health and the environment, to support the region's economy, and to create a new vision for San José's South Bay shoreline.

The Plan has two components:

- **Technical Component**: The technical component provides a roadmap for replacing the Facility's aging facilities and infrastructure, and consists of process changes and long-range capital projects that will enable the Facility to meet future regulatory requirements and population demands using sustainable, energy-efficient, and cost-effective solutions. The capital projects include odor control projects and a major change in the treatment and disposition of biosolids. The proposed new process would phase out the current need for over 500 acres of open air lagoons and drying beds over the next 15 years. The new

process of enclosing the treatment and use of mechanical dewatering would shrink the Facility's operational footprint, and reduce odors enabling potential new land uses along the South San Francisco Bay shoreline.

- **Land Use Component (Project)**: The land use component proposes a mix of new land uses on the Facility bufferlands and current biosolids processing area that include: economic development with a focus on Clean Tech and job creation; recreational uses including trails and parks; enhancement of upland habitats; and restoration of habitats. The focus of the extensive community stakeholder process was on a balanced plan that would meet broad and important community goals like job and revenue generation, improve Facility operations, and promote environmental stewardship.

Pursuant to the California Environmental Quality Act (CEQA), a draft Environmental Impact Report (DEIR) was prepared and circulated in early 2013. The DEIR identified that the Plan could have environmental impacts in areas such as transportation, noise, air quality, biological resources, hydrology, hazard and hazardous materials, water quality, aesthetics and cultural resources. The DEIR, along with the 1st Amendment of the DEIR (collectively, the Final EIR), is scheduled for hearing by the Planning Commission on October 30, 2013 for consideration of certification. The Council must first consider the Final EIR before taking action on the proposed Plan.

The DEIR evaluated reasonable alternatives to the April 19, 2011 Preferred Alternative to either avoid or significantly reduce the environmental impact of the project. The DEIR examined five alternatives, including a No-Project Alternative. The other four alternatives consisted of several combinations of increased open space and reduced footprint of economic development, with jobs ranging from 6,700 to 15,400.

In response to the comments on the DEIR received from various resource agencies and the public, ESD staff evaluated several options that would go farther in addressing the concerns expressed. With input from the Office of Economic Development and the City Manager's office, staff is recommending that Alternative 4: the Eastern Open Space Compressed Development Plan be adopted, with minor modifications, as the new Land Use Component of the Plan. This alternative proposes a land use scenario with a smaller development footprint but virtually the same number of jobs compared to the April 19, 2011 Preferred Alternative. Economic development would be located along Highway 237 to promote visibility and viability. The proposed new land use scenario would also meet the goals of the Plan, such as job creation and habitat preservation. The details of Alternative 4 and its environmental impacts are described in section 7.3.4 of the DEIR. The Draft EIR is available online at http://www.sanjoseca.gov/DocumentCenter/View/10967.

If approved by the Council, the proposed land use scenario recommended by staff would replace the Land Use Component currently described in the Plan. Staff is not proposing any changes to the Technical Component of the Plan. The Plan summary report is available online at http://environment.sanjoseca.gov/DocumentCenter/View/5604.

BACKGROUND

The Facility serves approximately 1.4 million residents in the cities of San José, Santa Clara, Milpitas, Cupertino, Campbell, Los Gatos, Monte Sereno, and Saratoga. While the Facility has successfully served the community for 57 years, aging pipes, pumps, concrete, and electrical systems need immediate and long-range attention in order to continue those successful operations well into the future.

On March 27, 2007, the Council accepted staff's report analyzing the infrastructure, planning, and financing needs of the City's wastewater treatment facilities and provided direction to staff to proceed with the development of a Plan for the Facility. In November 2007, Council approved a contract with Carollo Engineers to develop a Plan that would address the operational needs of the Facility and potential development of the surrounding bufferlands through 2040.

The Plan project team was guided by the Plant Master Plan Steering Committee, made up of staff from the Facility's two co-owning cities (San José and Santa Clara) and from the tributary agencies served by the Facility. The project team also provided quarterly updates to the Treatment Plant Advisory Committee (TPAC), and the San José's Transportation and Environment Council Committee (T&E) to solicit policy guidance from interested stakeholders throughout the process..

The following goals for the Plan were developed based on the principles of sustainability:

- Operational: To have a Facility that is both reliable and can respond to changing conditions;
- Economical: To have a Plan that would maximize the economic benefits for ratepayers through cost-effective options;
- Environmental: To have a Plan that would improve the habitat in the bufferlands, and to minimize potential impacts to the local and global environment; and
- Social: To have a Plan that would maximize community benefits through improved aesthetics and recreational uses.

During the three-year Plan process, staff, with the assistance of Carollo Engineers, developed a set of technical components for the Plan, and three land use components. Through an extensive public input process, one of the land use alternatives was selected, and recommended to the Council as a "Preferred Alternative".

Staff developed the Preferred Alternative with extensive technical oversight, agency feedback, and public and stakeholder input. In addition, staff addressed comments from the Facility's tributary partners, and considered the Milpitas Guiding Principles for Plant Master Plan Reconstruction and Land Use Alternatives.
A critical component of the planning process included participation and input from stakeholders and the larger community on possible new land uses and proposed Facility improvements. The public input occurred through ongoing input from the Community Advisory Group (CAG), and at the following times for certain subject matters:

1. May to November 2009: input was collected on community values for the Facility lands, and this input was used to develop three land use alternatives.
2. May to November 2010: input was collected on three land use alternatives. The input was used to refine the Preferred Alternative.
3. November 2010 to January 2011: Community input was collected to further refine the "Preferred Alternative" recommended to the Council in April 2011.

In April of 2011, the City Council selected the Preferred Technical and Land Use Components for the Plan, and directed staff to proceed with the Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA) for the draft Plan.

The memorandum is available online at:
http://www3.sanjoseca.gov/clerk/Agenda/20110419/20110419_0704.pdf

The Draft EIR was circulated for public review for 61 days from January 11 to March 13, 2013. It is anticipated that the Final EIR will be presented at the Planning Commission hearing on October 30, 2013, for consideration of certification, pursuant to the CEQA process. The memorandum to the Planning Commission and the City Council discussing the Final EIR will be submitted under separate cover by the Planning Department.

ANALYSIS

The Land Use Component of the Preferred Alternative contained in the draft Plan includes proposed new uses for the lands not already reserved for wastewater treatment or Facility buffer, including commercial, retail, and light industrial development; creating and/or restoring habitat and natural corridors to support wildlife; and, a regional community park and trails to connect the Bay Trail and meet future recreational demand.

Staff now recommends Alternative 4 with certain modifications.

Alternative 4 (Modified)
The DEIR identified four land use alternatives to the "Preferred Alternative" selected in April 2011. The Alternative 4 - Eastern Open Space Compressed Development Plan would eliminate the Dixon-landing Road connection, and would limit economic development to the land south of the Facility operational area fronting Highway 237. Staff recommends the following minor modification to Alternative 4:

Increase Light Industrial use by replacing the Institute, Combined Industrial/Commercial, and Retail uses with more acreage for Light Industrial use, since this is one of the most highly desired job-types in the region.

Alternative 4 as modified represents a strategic opportunity to increase much needed jobs and advance the City's environmental goals. The modified Alternative 4 would allocate approximately 1,155 acres of land for habitat and roughly 15% of that acreage or roughly 160

acres of land for economic development. It is anticipated that through adjustment to the job mix, the development would still generate approximately the same number of jobs as the "Preferred Alternative" while minimizing the footprint of the development by over 50 percent. Due to the concentration of development in North San José, maintaining economic development along Highway 237 is highly desirable to certain industries because that location offers maximum visibility and accessibility to the existing roadways.

A map comparing the modified Alternative 4 to the Preferred Alternative is provided as Attachment A. A summary of land use areas of these two plans is provided as Attachment B.

Reduced Footprint
A modified Alternative 4 would provide opportunity to preserve flexible spaceotherwise eliminated by the construction of the Dixon Landing Road extension that was proposed for the area east and north east of the Facility operational area. This area currently contains the Santa Clara Valley Water District's mitigation area and the adjacent Coyote Creek. Alternative 4 as modified would also reduce some construction-related dust, noise, and emissions relative to the Project, since the footprint of economic development is reduced by almost 50 percent. Under this alternative, some of the potential concerns raised in the DEIR should decrease relative to the Project, with the exception of potential transportation impacts due to the development.

Plant Master Plan Objectives
The modified Alternative 4 meets most of the objectives of the Plan, and partially meets the objectives of Transportation and Recreation. If economic development is limited to the area south of the Facility operational area, there would not be a need to construct a Dixon-Landing Road connection which would reduce environmental impact to the area east and northeast of the Facility operational area. Staff is also recommending that the Institute, a proposed partnership between industry and education, be removed to preserve more of the existing development footprint for jobs. Staff will explore other educational partnerships.

Environmental Uses
The modified Alternative 4 would preserve approximately 1,155 acres of the Facility's property for habitat restoration. Habitat restoration would be implemented in partnership with other entities such as the Santa Clara Valley Audubon Society, the Santa Clara Valley Habitat Conservation Plan (HCP), and the Santa Clara Valley Water District. The following habitat types would still be protected, created, or restored under the modified Alternative 4:

- *Burrowing Owl Habitat.* Approximately 180 acres of grassland habitat west of the Facility operational area would be protected and managed to support burrowing owls, a California species of special concern. Staff recommends analyzing the various options available to the Facility to provide for the long term maintenance and protection of these lands for burrowing owls including, but not limited to, incorporation of the lands into the Habitat Conservation Plan area, and/or to meet any mitigation requirements in future permits required to implement the Technical Component.

- *Riparian Habitat.* Approximately 200 acres of riparian habitat adjacent to the Flex space, including the habitat along Coyote Creek and a restored Artesian Slough corridor, would be provided.
- *Marsh / Mudflats.* Situated on the site in the location of the existing Pond A18, over 800 acres of salt marsh habitat and tidal areas adjacent to the Bay could be constructed to help provide flood protection and restore a transition from the salt marsh habitat through brackish to perched freshwater wetlands and upland grasslands. This habitat would also support special status species such as the clapper rail and salt marsh harvest mouse and provide large contiguous areas for these inhabitants.

Flood Protection
As part of the Plan, Environmental Services staff has been actively coordinating with the Army Corps of Engineers, the State Coastal Conservancy, and the Santa Clara Valley Water District on the South Bay Shoreline Study project to determine the appropriate alignment for Bayside levees to protect the Facility and Alviso from sea level rise and tidal flooding; and to ensure that lands in the staff recommended land use scenario are designated for future levee placement. It is also anticipated that the restoration of A18 will occur as part of the Shoreline Project.

Recreational Uses
A modified Alternative 4 provides recreational opportunities on land surrounding the Facility's operational area. These facilities could be developed in partnership with other agencies and entities, as appropriate funding for these projects become available. Proposed facilities include:

- *Trails.* 9 miles of new trails and connection to the Bay Trail.
- *Park.* A new 40-acre park with sports fields.
- *Habitat Areas.* Access to the Facility's Bay front for bird watching and hiking.

Phasing and Fiscal Information
The development of the Facility lands proposed under the Plan is contingent on market demand. In addition, future development and availability of land would be contingent on ensuring that the infrastructure improvements at the Facility can adequately mitigate the effect of potential odors on sensitive receptors and that development would not interfere with Facility operations.

Market conditions for industrial property have improved significantly since prior economic and fiscal analysis was undertaken in 2008; land values have increased in the area. Silicon Valley's technology and manufacturing industries are vital. Large campus sites are highly desirable and in short supply. The highway 237 corridor has been firmly established as a desired location for tech and manufacturing users. Staff anticipates that up to 15,000 jobs could be supported through the land use plan as proposed. Associated employee income would be directly infused into the local economy and additional jobs and income would be indirectly implemented from the local purchases of goods and services by the new business and employees.

At build-out estimated ground lease revenue is projected to be between $10 million to $12.5 million annually. It is estimated that an additional $4 million to $5.5 million will be generated annually from associated property tax, sales tax, utility users tax, franchise tax, amongst other

revenues. Substantial additional benefit would be derived from the City of Santa Clara, the County of Santa Clara, local school districts and the tributary agencies. .

The economic analysis using the IMPLAN economic assessment model for Santa Clara County showed that the total economic impact of this development, considering construction and permanent economic activity, is approximately $16.5 billion – a substantial benefit to the region.

The staff recommended land use scenario is shown side-by-side with the original Preferred Alternative as a conceptual map in Attachment A. An Executive Summary of the Draft Plant Master Plan is provided as Attachment C.

EVALUATION AND FOLLOW-UP

The steps in the Draft Plant Master Plan adoption process include:

- ***First Amendment to the DEIR Circulation:*** The First Amendment to the DEIR will include response to comments received on the draft EIR and any revisions to the EIR text. The document is targeted for circulation no later than October 18, 2013 for the statutory 10-day public review period.

- ***Certification of the Final EIR.*** The Planning Commission public hearing to certify the Final EIR is tentatively scheduled for October 30, 2013. Prior to the Council's consideration of the adoption of the Plant Master Plan, an EIR resolution will be brought to Council to consider for adoption. This Council hearing is scheduled for November 19, 2013.

- ***Formal Approval of the Plant Master Plan:*** The Plant Master Plan is intended to guide both Plant infrastructure improvements and land use decisions for the next 30 years. Concurrent to the EIR adoption, the Planning Commission and Council will consider adoption of the Plant Master Plan.

- ***General Plan Amendment.*** The land use principles incorporated in the Plant Master Plan propose new uses in the lands surrounding the Facility, as well as new roads and trails. To implement these land use functions, the Envision 2040 General Plan need to be amended. The amendment proposal will be brought forward to the Planning Commission and the City Council, concurrent to the certification of the EIR and adoption of the Plan Master Plan at the hearing dates mentioned above.

- ***Formal Approval for the Santa Clara City Council:*** As a co-owner of the Facility, the Santa Clara City Council will also independently consider the Final EIR, and adoption of the Plant Master Plan, subsequent to San José City Council's final action. The date scheduled for this hearing is December 3, 2013. In addition, an informational memo about Plant Master Plan Adoption and the staff recommendation will be presented to the Santa Clara City Council on November 12, 2013.

POLICY ALTERNATIVES

Alternative #1: Adopt the Plant Master Plan with the "Preferred Alternative" selected by the Council in 2011
Pros: The Preferred Alternative selected in 2011is the Project based on the collective input of the stakeholders during the Plant Master Plan development process.
Cons: While the Preferred Alternative attempts to balance all interests, proceeding with the land use component would reduce future open space and habitat areas.
Reason for not recommending: Decreases remaining flexible space for habitat, open space, job development, or Facility expansion beyond the planning window.

Alternative #2: Select from Alternatives 2, 3, or 5 that were analyzed in the DEIR.
Pros: Alternatives 2, 3, or 5 offer a range of options with varying levels of development vs. preservation of open space/habitat.
Cons: None of these alternatives would meet the goals of the Project to the fullest extent practicable as modified Alternative 4.
Reason for not recommending: Limits either the potential for economic development or reduces the amount of open space/habitat depending on the alternative.

Alternative #3: No Project.
Pros: Conditions at the site remain largely unchanged.
Cons: Facility reliability could be expected to decline. Odor control projects would not be implemented. New jobs would not be implemented and new habitat would not be created.
Reason for not recommending: The no project alternative does not address any of the Facility's aging infrastructure needs, the City's economic development goals, or formally designate any areas for open space or habitat conservation.

PUBLIC OUTREACH/INTEREST

☐ **Criterion 1**: Requires Council action on the use of public funds equal to $1 million or greater. **(Required: Website Posting)**

✓ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**

☐ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

The DEIR was circulated from January 13, 2013 through March 13, 2013, which included a statutory public review period of 45 days and a 15-day extended review period. The First Amendment of the DEIR will be circulated for a statutory public review period of 10 days. Public comments were accepted by the Planning Department during these public review periods.

During these opportunities for public input, approximately 50 comment letters were received from US and State Resource Agencies, non-profit and environmental organizations, the Tributary Agencies, neighboring cities, private property owners adjacent to the Facility and other interested individuals. Public concern focused on land use issues, noise, hydrology and flood control issues, biological resources issues, and technical issues related to the DEIR text. Staff refined the Land Use Component of the Draft Plant Master Plan based on these comments.

COORDINATION

This report has been coordinated with the City Attorney's Office, the Budget Office, Department of Planning, Building and Code Enforcement, and the Office of Economic Development.

FISCAL/POLICY ALIGNMENT

This recommendation is consistent with the goals and objectives of the Envision San José 2040 General Plan and addresses critical infrastructure investment.

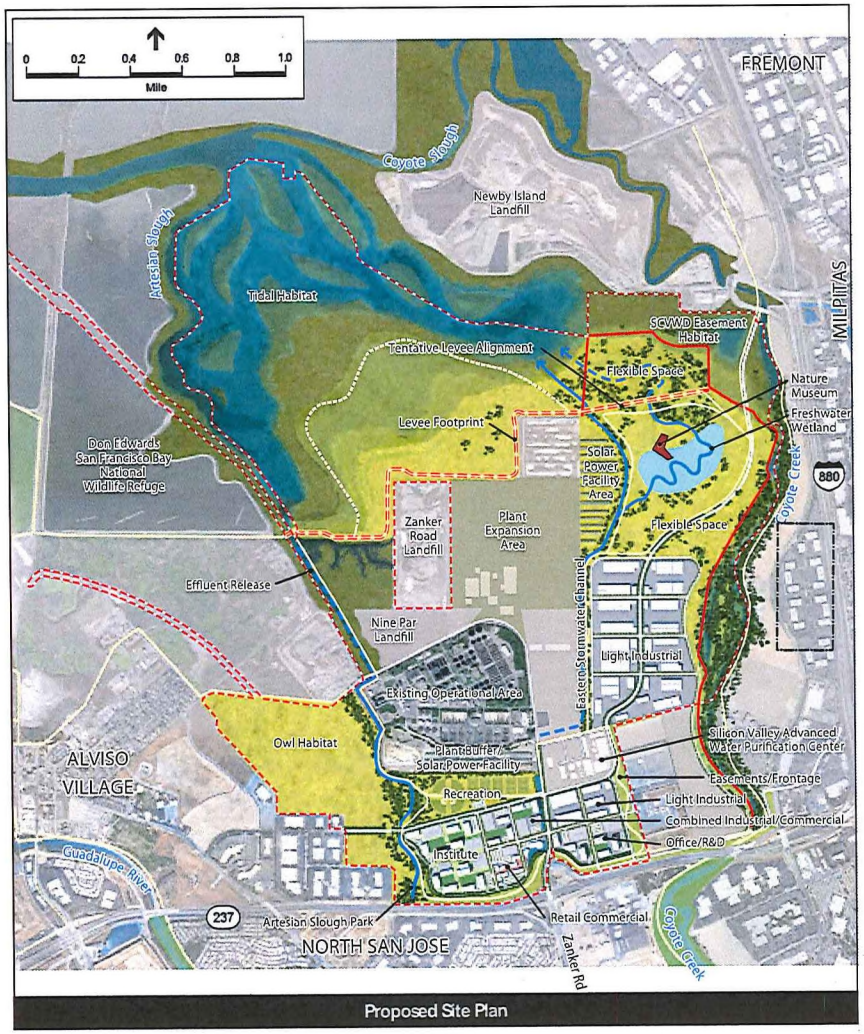
CEQA

Not a Project, File No. PP10-069 (a), Staff Reports / Assessments / Annual Reports / Informational Memos that involve no approvals of any City Actions.

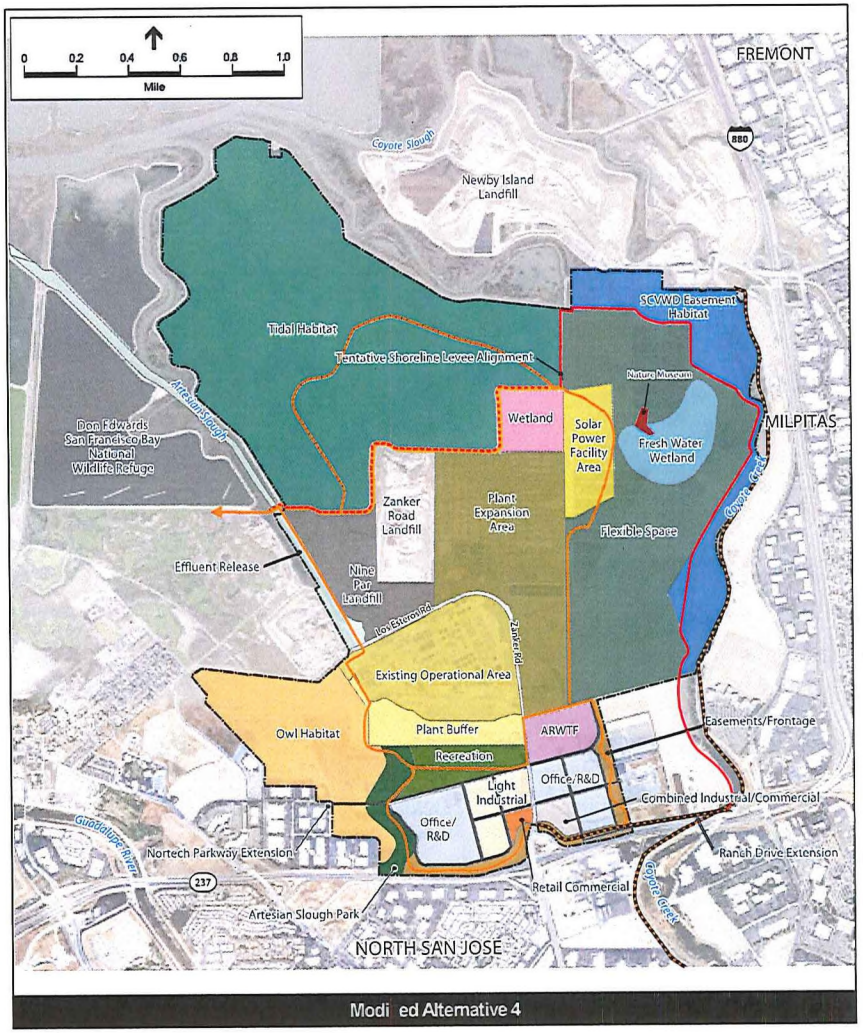
/s/
KERRIE ROMANOW
Director, Environmental Services

For questions, please contact René Eyerly, Manager, Sustainability and Compliance at (408) 975-2594.

Attachments:
Attachment A: Comparison of Staff Recommendation and Preferred Alternative Map
Attachment B: Comparison of Staff Recommendation and Preferred Alternative Project Details
Attachment C: Plant Master Plan Executive Summary



Proposed Site Plan



Modi ed Alternative 4

SOURCE (Proposed): Skidmore, Owings & Merrill LLP

Attachment A

San Jose/Santa Clara WPCP Master Plan

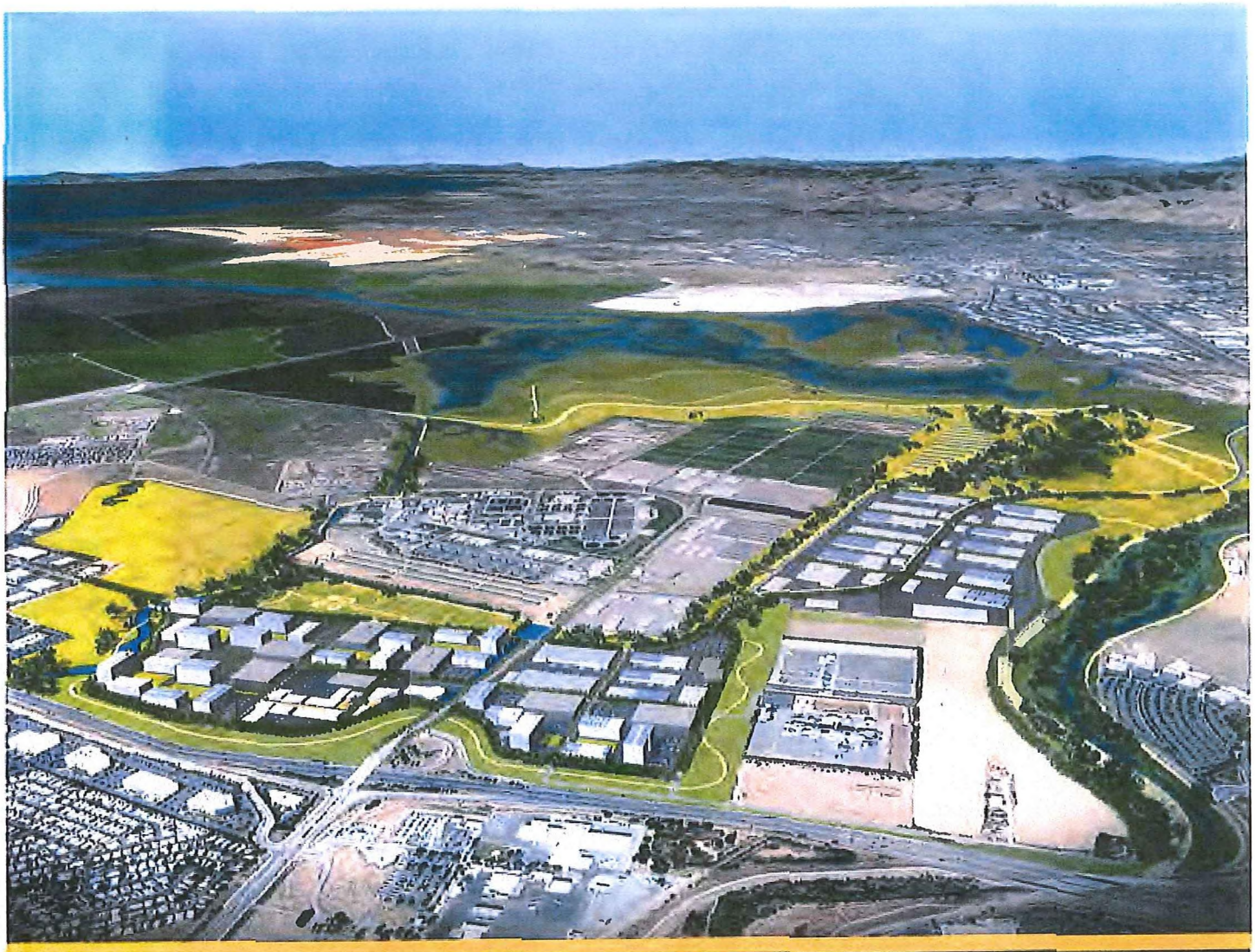
Proposed Site Plan and Modi□ed Alternative 4

LAND USE AREAS ASSOCIATED WITH PREFERRED ALTERNATIVE AND ALTERNATIVE 4

	Proposed Project	Alternative 4: Eastern Open Space Compressed Development	Modified Alternative 4
LAND USE			
WPCP and Recycled Water Area; Effluent Release			
Proposed Operational Area, Recycled Water Facilities, Effluent Release, Plant Buffer Area with Solar Power Facility (E1-P1), and Solar Power Facility Area (E1-P2)	*618*	*618*	*618*
Habitat and Flood Protection			
Levee and Marsh/Mudflat/Shallow Bay/Upland Habitat	847	847	847
Artesian Slough Riparian Corridor	32	32	32
Freshwater wetland	35	61	61
Wetland Refinement Area	35	35	35
Owl habitat	180	180	180
Eastern Stormwater Channel	18	18	-
Sub Total	*1,143*	*1,173*	*1,155*
Economic Development			
Light Industrial	158[a]	11	31
Institute	45	21	-
Office/R&D	23	81	81
Retail Commercial	16	5	5
Combined Industrial/Commercial	21	11	11
Road	64	31	31
Sub Total	*327*	*159*	*159*
Recreation			
Recreation (community park and athletic facility)	40	40	40
Trails	12 miles	9 miles	9 miles
Education Center / Nature Museum	2	2	2
Sub Total	*42*	*42*	*42*
Other Land Uses			
Flexible Space	247[a]	389	407
Easements/Frontage	37	37	37
Santa Clara Valley Water District (SCVWD) Easement	165	165	165
Nine Par Landfill	90	90	90
Sub Total	*539*	*681*	*699*
TOTAL	**2,674**	**2,674**	**2,674**

[a] In order to meet the jobs target for the PMP (15,400 jobs), 132 acres of the 247 total acres of Flexible Space, listed under "Other Land Uses", is assumed to be developed as Light Industrial. Flexible space may ultimately be proposed for light industrial, open space, or other uses at a future date.

Numbers may not total due to rounding.



Plant Master Plan

San Jose/
Santa Clara
Water Pollution
Control Plant

DRAFT
PLANT MASTER PLAN
Executive Summary

APRIL 2011

carollo
Engineers...Working Wonders With Water®

BROWN AND CALDWELL

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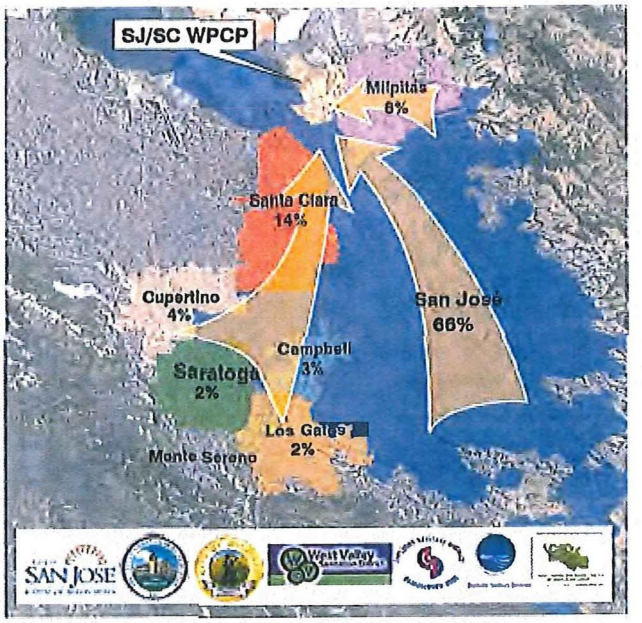
EXECUTIVE Summary

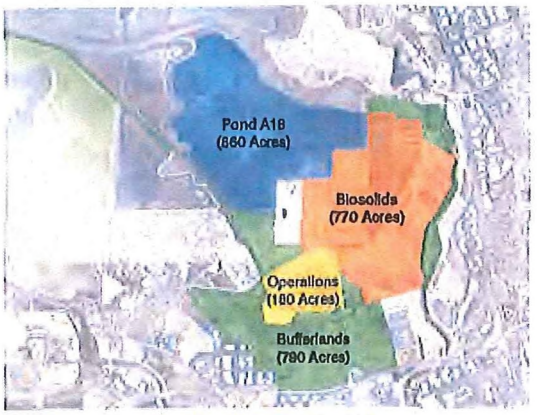
1: Purpose of the Plant Master Plan

The Plant Master Plan (PMP) development has been a three-year process based on the principles of sustainability. The purpose is to develop a central planning document to guide improvements to the San Jose/Santa Clara Water Pollution Control Plant (WPCP or Plant) over the next 30 years (through the year 2040). The Master Plan covers the facilities, processes, and land uses within the 2,684-acre boundary of the Plant, including the former salt pond A18.

The Master Plan does not address the sanitary sewer collection system, stormwater collection, water efficiency programs, or any area outside of the Plant's property. It does, however, consider several external factors potentially impacting planned wastewater treatment capacity, level of treatment, and selected technologies. These factors include: community concerns regarding adjacent land uses; potential impacts of upstream stormwater diversion; recycled water demand; water conservation; upstream source reductions; and climate change, among others.



The WPCP serves 1.4 million people in eight communities in the South Bay.



Existing uses on the Plant's 2,684-acre site.

The Master Plan is a comprehensive planning document that incorporates the values of the broader community and the public, and includes:

- An overall vision for the future, which includes the goals and objectives to achieve that vision.
- Identification and development of future projects, estimated costs, and establishment of the need and timing of:
  - repair/replacement of aging infrastructure;
  - new facilities to accommodate planned growth; and
  - new facilities to meet existing and future regulatory requirements.
- An Implementation Plan, including a Capital Improvement Plan (CIP), schedule, and cash flow analysis.
- A long-range Land Use Plan that balances economic development, environmental restoration, and recreational opportunities.

The Plant's future operations both determine the space available on the Plant lands for new uses and what uses will complement the Plant's operations.

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The Plant's potential to provide clean water, excess heat, and low-cost energy makes the Plant lands an optimal site for industrial development. The Plant lands' proximity to the San Francisco Bay and location between the Guadalupe River and Coyote Creek provides the region with a rare opportunity to create and protect threatened habitats and connect the regional trail system. The Plant Master Plan provides a blueprint for how these very different uses can thrive on the Plant lands while protecting the Plant's wastewater treatment operations, one of the region's most vital infrastructure assets valued at over $3 billion.

2: Plant Master Plan Process

The master plan process generally consisted of five phases: 1) defining the major goals, objectives, and master planning requirements including existing background setting and anticipated future needs; 2) brainstorming a wide range of solutions, and identifying conceptual alternatives, with screening to select viable alternatives; 3) developing viable alternatives; 4) evaluating viable alternatives; and 5) developing the recommended program. These five phases were incorporated into an overall alternatives development process. The environmental documentation associated with the completion of this Plant Master Plan will be completed in early 2013.

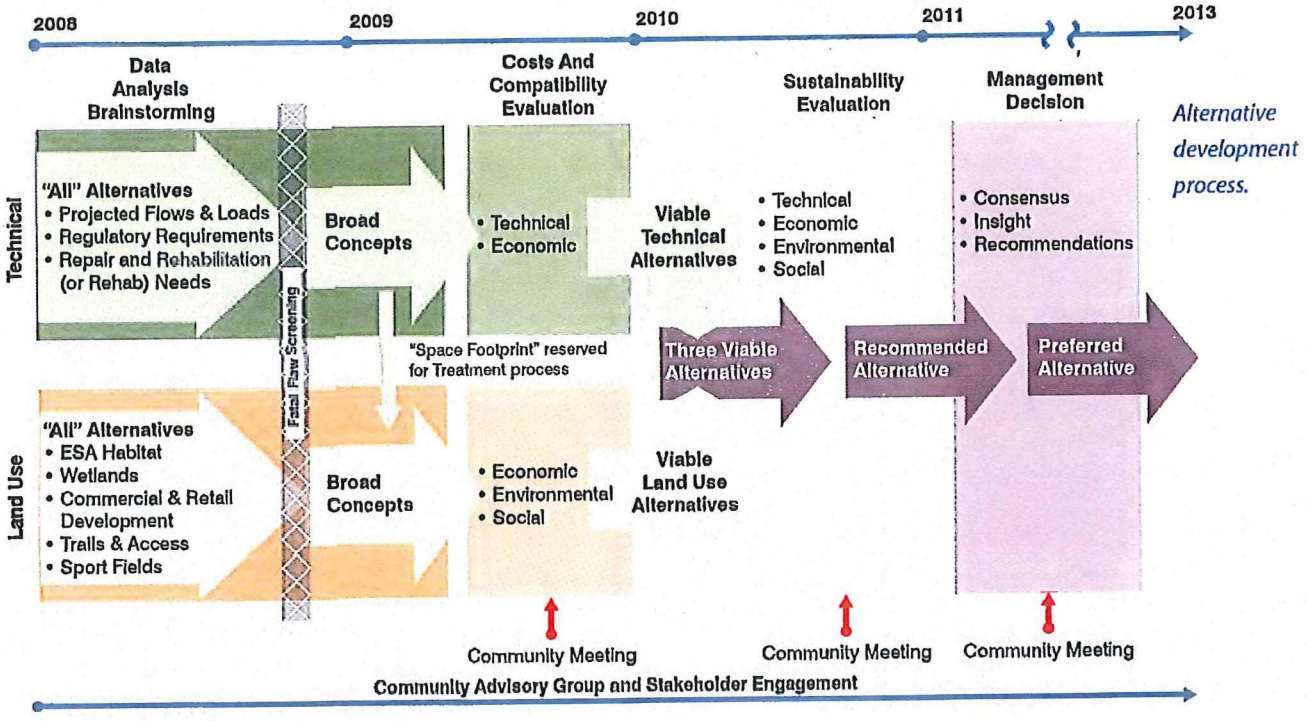
Stakeholder input was integral in shaping the direction of the Master Plan and its outcomes throughout the planning process. The stakeholders included the San José City Council, the City of Santa Clara and the tributary agencies, nearby communities, participating agencies, a Plant Master Plan Steering and Executive Committee, an independent Technical Advisory Group (TAG), and a Community Advisory Group (CAG).

"Fatal Flaw" Technical Screening Criteria

- Feasible at large-scale facility.
- Cannot significantly expand current process footprint.
- Cannot reduce system reliability.
- Must have the ability to meet future regulatory requirements.
- Good neighbor/public value.
- Must be able to mitigate odor impacts.
- Available buffer must be able to mitigate aesthetic impacts.

Internal Stakeholders

The project kicked off in 2008 with a series of meetings with staff and technical experts in wastewater, natural systems, and innovative land uses, to explore the entire range of possibilities for the Plant and the Plant lands. These concepts developed in a brainstorming workshop helped establish the overall goals and objectives for the Plan. The specific technologies and land uses were filtered through a fatal flaw analysis and the overall City of San José and regional land use goals. These foundational workshops allowed staff to begin the community engagement process with viable operational and land use concepts to ensure the highest quality input.



Alternative development process.

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Community Meetings

Inviting stakeholder and community input on possible new land uses and proposed Plant improvements has been a key part of the planning process. To date, there have been three phases of public input:

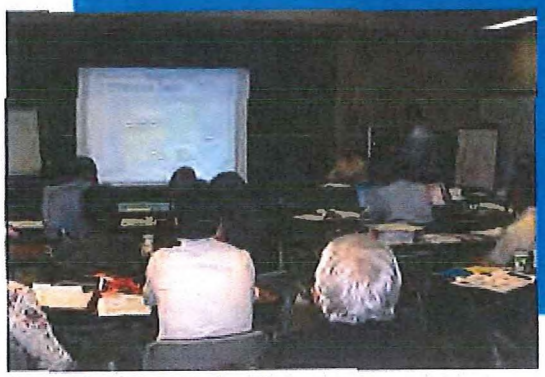
- May to November 2009, input was collected on community values for the Plant lands, and this input was used to develop three land use alternatives;
- May to November 2010, input was collected on the three land use alternatives – *Back to the Bay*, *Riparian Corridor*, and *Necklace of Lakes*. The input was used to refine the alternatives into one Draft Recommended Alternative; and
- November 2010 to January 2011, input on the Draft Recommended Alternative was collected and used to develop the Recommended Preferred Alternative.

City staff has prepared Input Summary Reports that include all comments received and are available at www.rebuildtheplant.org.

Community Advisory Group (CAG)

The CAG was formed in Fall 2008 to provide consistent community perspective throughout the Plant Master Plan development. CAG members bring expertise in education, environment, business, recreation, and community activism, and represent the Plant's tributary cities. The CAG met over 20 times

Community Advisory Group.



One of three TAG meetings in process.

to identify the appropriate size and location of different land uses, and also discussed the impact of technical issues, such as odor and biosolids options.

Technical Advisory Group (TAG)

Experts from the wastewater industry met at three key milestones of the Plan's development to both help direct the consultant team towards new, innovative technologies and approaches, and also to review the consultant team's work and assumptions. The TAG recommended analysis of upstream intervention, resource recovery, and greater emphasis on odor control.

Agency Coordination

Project staff have sought input from regulators who oversee Plant operations and lands throughout the project. These agencies include: US Fish and Wildlife Service, US Army Corps of Engineers, EPA, CA Department of Fish and Game, State Coastal Conservancy, Bay Conservation and Development Commission, SF Bay Regional Water Quality Control Board, and the Santa Clara Valley Water District.

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3: Plant Master Plan Goals and Objectives

The following goals were developed based on principles of sustainability.

Objectives

The following 15 objectives guided the development of the recommended alternatives:

- Protect the environment, public health, and safety through reliable wastewater treatment that can accommodate population growth and meet foreseeable future regulations.
- Maximize the long-range efficient use of the Plant's existing facilities and reduce the footprint of the existing biosolids treatment area.
- Maintain cost-effective Plant operations and competitive sewer rates through enhanced operations, flexibility, and rigorous evaluation of new technologies.
- Reduce visual, noise, and odor impacts from Plant operations to neighboring land uses to the extent practicable.
- Promote additional resource recovery from Plant operations by supporting recycled water production, increasing biogas production, and diversifying biosolids reuse options.
- Pursue energy self sufficiency and reduced greenhouse gas emissions by promoting renewable energy generation, increased energy efficiency, and enclosed biosolids processing.
- Allow for the beneficial use of Plant effluent through multiple effluent release points and creation of freshwater habitats.
- Allow for complementary economic development, that enhances job growth, generates revenue, provides for partnerships with educational institutions, and supports the regional growth of the Clean Tech industry.
- Locate economic development on Plant lands to maximize viability and visibility.
- Protect the small-town character of the Alviso Village.
- Allow for complementary recreational uses, including interconnected trails to the Bay, environmental education, and addressing regional recreational needs.
- In partnership with other agencies, protect, enhance, and/or restore habitat, including upland areas, wetlands, and riparian vegetation near creeks.
- Allow for Pond A18 to provide water quality, ecosystem benefits, and flood control benefits.
- Promote access to recreational, educational, and economic development uses by improving transportation connections through the Plant lands.
- In partnership with other agencies, protect the Plant from flooding and risks associated with sea level rise.

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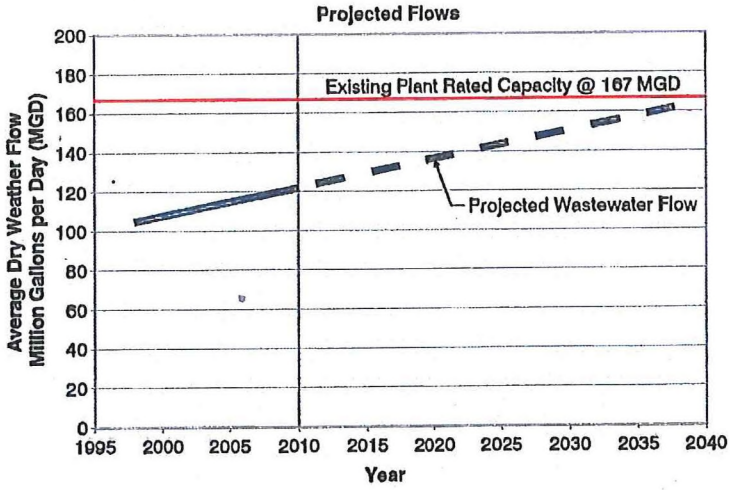
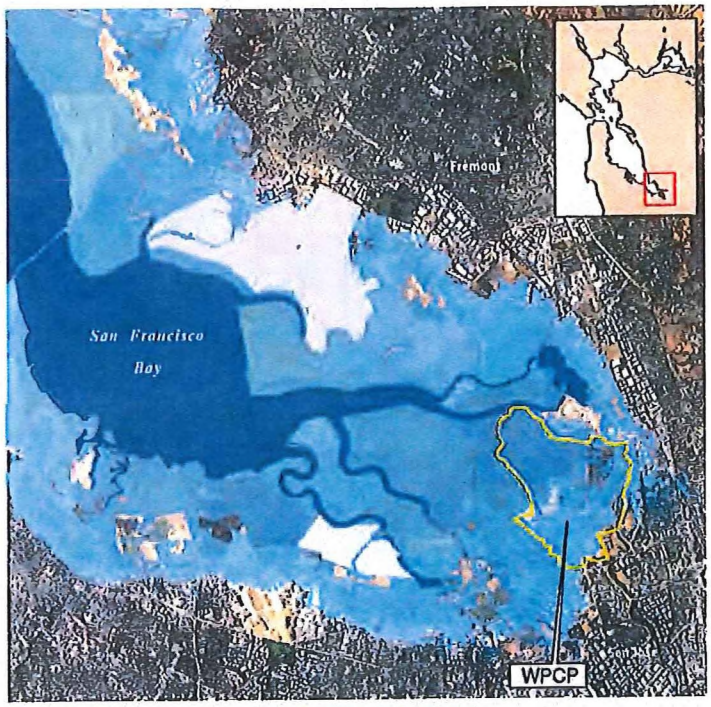
4: Anticipated Future Needs/ Project Triggers

In the first phase of the process, the project team investigated the existing background setting and anticipated future needs. For the Plant's operations this involved analysis of over 10,000 process data points, 30-year population projections, condition of existing facilities, and emerging regulations. Unlike other typical master plans, the analysis showed that this Master Plan is not flow driven. In addition, the analysis yielded the following project triggers.

- **Critical Condition:** risk of failure of a vital facility or process requires repairs/rehabilitation.
- **Regulatory Requirement:** future regulatory requirements require adjustments or new processes.
- **Economic Benefit:** opportunities to save operating costs, including energy.
- **Improved Performance Benefit:** process improvements to increase reliability and reduce risks.
- **Policy Decision:** improvements based on policy direction.





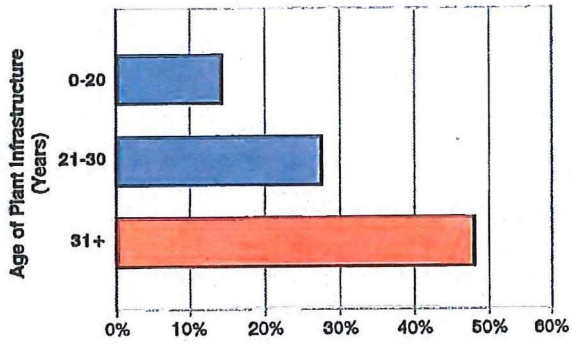
Light blue indicates projected 55-inch sea-level rise.

5: Major Benefits of the Plan

Addresses Aging Infrastructure

The Plant was built in 1956 to treat the wastewater from food canneries and raw sewage from residents and businesses that was being dumped directly into the Bay. Major upgrades in the 1960s and 1970s, in response to water quality regulations, helped make the Plant's discharge even cleaner. Today, much of the infrastructure at the Plant is more than 30 years old, well beyond its design life. The Plant Master Plan began after an asset study found $1 billion in infrastructure needs just to rebuild the existing Plant facilities, without looking at future needs and technology upgrades.

The facilities will be rebuilt to provide more efficient and cost-effective treatment by utilizing new technologies and maximizing the use of the existing infrastructure where possible.



Nearly 50 percent of the Plant facilities are over 30 years old.

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Improves Treated Water Quality

Improved Nutrient Removal - Nitrogen is a natural part of our environment, but too much nitrogen (in the form of nitrates and ammonia) in a body of water may cause the marine habitat to degrade. Much of the nitrogen in the wastewater is already removed in the secondary treatment process. The Plant currently meets permit requirements for nitrogen removal. Denitrification filters are an effective technology in removing total nitrogen that can be added in the future if limits become more stringent.

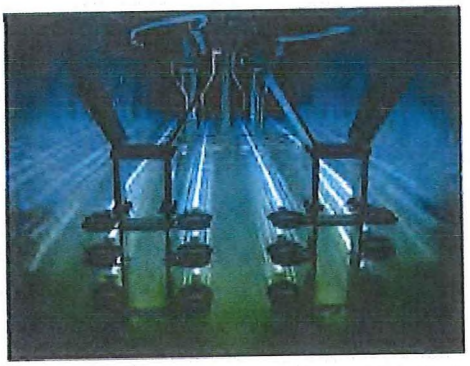
Ability to Handle Peak Flows - Even though untreated rainwater flows directly to the Bay through stormdrains, the flows to the Plant increase significantly during storm events. The Plant has already invested in a wet weather reliability project that provides for storage of raw sewage when needed. The Plant Master Plan recommends improving this storage basin as well as expanding the headworks and adding additional storage to handle increased seasonal flows.

Pilot programs, experimental small scale versions of a full-scale project, help the Plant make sure that the proposed technology is appropriate before beginning a major capital investment. These programs may also help grow the economy and produce cleantech jobs by promoting new technologies in Silicon Valley.

Additional Discharge Points - The Plant currently discharges to the Bay at one location – Artesian Slough. In the past, this discharge was thought to convert salt marsh to freshwater marsh. The Plant was therefore required to maintain summer discharge flows below 120 million gallons per day. To better distribute the Plant's constant supply of freshwater into the South Bay, three discharge points are proposed:

- Restored Artesian Slough riparian area;
- Freshwater wetlands discharging to the Bay; and
- Wet-weather overflow to the Bay.

Freshwater wetlands are an important habitat in the South Bay. Restoring a transition from salt to brackish to freshwater marsh was identified as a significant opportunity in the Baylands Ecosystem Habitat Goals Project developed by scientists for the Bay Area in 1999.



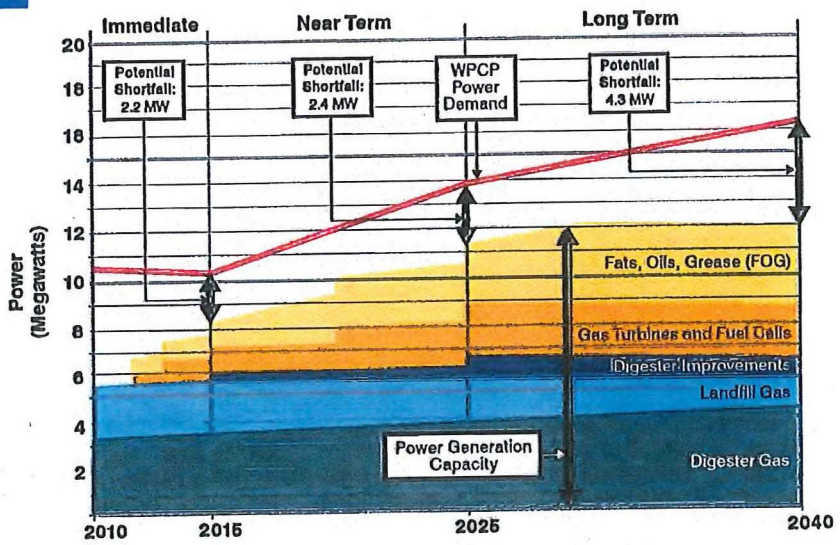
UV technology is gaining wide acceptance in the wastewater industry.

Addressing Contaminants of Emerging Concern - Contaminants of Emerging Concern (CECs) are pollutants not currently regulated or included in routine monitoring but may be regulated in the future. Ultraviolet disinfection in combination with peroxide has been shown to neutralize CECs and is recommended as one of the potential technologies to be evaluated for future implementation.

Turns Wastewater into Usable Energy, Byproducts, and Recycled Water

Biogas - The Plant already produces biogas and utilizes landfill gas (both are methane sources) to generate electricity, which would be generated in the future by gas turbine generators and fuel cells. Alternative energy technologies, like solar, are being

Improved technology and additional feedstock will help the Plant generate most of the power needed to meet its demand.



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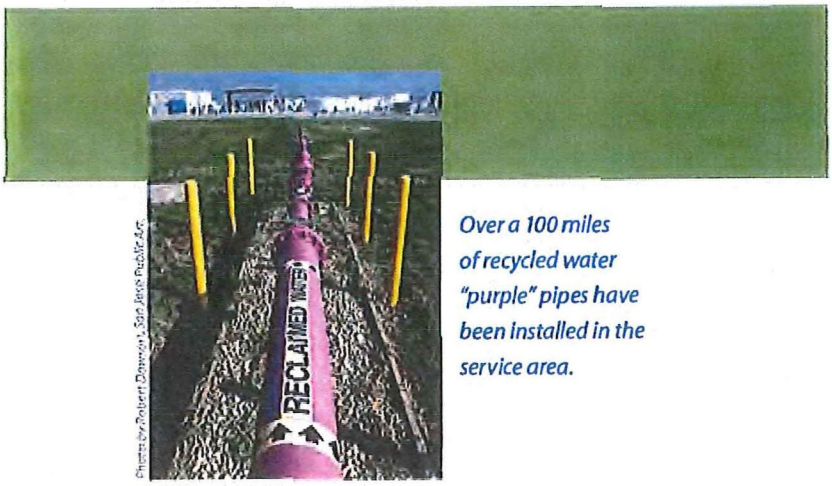


Photo by Robert Dawson, San Jose Public Art

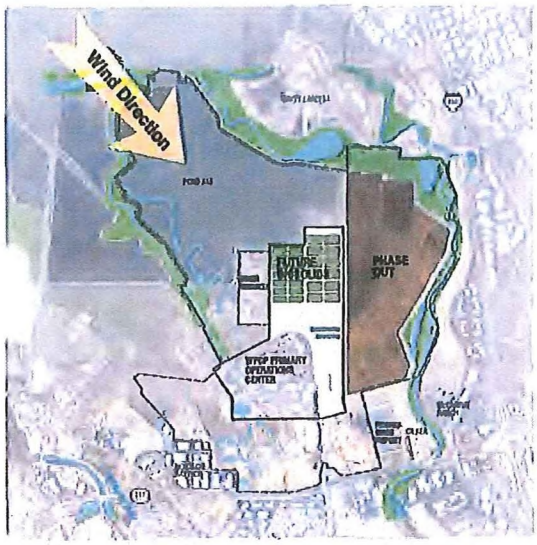
Over a 100 miles of recycled water "purple" pipes have been installed in the service area.

considered to help the Plant become fully energy self sufficient and reduce greenhouse gas emissions.

Biosolids - Major changes include:

- Improving the digesters' mixing technology will increase methane production. It is possible to enhance the methane production in the digesters by adding fats, oils, and grease (FOG) and food waste to the digesters.
- The Plant currently sends all of its dried biosolids to a nearby landfill as "alternative daily cover." Creating more disposition options for biosolids, like composting or land application through the use of new dewatering and drying technology, will allow the Plant to produce a usable product for agriculture.
- New technologies also enable the use of biosolids as a fuel source in a waste-to-energy facility.

Recycled Water - The Plant currently recycles about 10 percent of its flow for use by industrial and landscaping customers in San José, Santa Clara, and Milpitas as part of the South Bay Water Recycling program. In partnership with the Santa Clara Valley Water District, an Advanced Water Treatment Facility (AWTF) is being constructed to further improve the quality of recycled water and provide for additional applications. The Plant Master Plan reserves land for expansion of this facility in the future.



Phasing out the existing biosolids lagoons and drying beds will reduce off-site odor impacts.

Addresses Odors to be a Good Neighbor

To reduce odors in the region, the Plant has both changed its operational practices and is also planning to participate in a regional odor study with neighboring facilities. Furthermore, the Plant Master Plan proposes to cover and ventilate selected process tanks as they are repaired or replaced, and to treat the air to further reduce odors. The most significant odor control modifications will include converting the lagoons and drying beds to mechanical dewatering and drying. As a result, the biosolids processing area reduces from approximately 500 to 200 acres. This is the largest individual project over the next 30 years, and will enable the proposed land uses.

Drying and dewatering photos by Robert Dawson, San Jose Public Art

Biosolids dewatering and drying transition.

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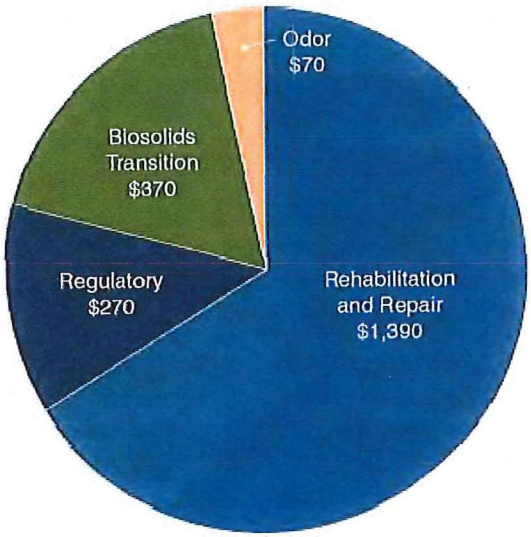
The Plant Master Plan team confirmed which of the existing treatment processes would be retained. Consequently, critical repair and replacement needs to these processes would need to be completed regardless of whether the Plant Master Plan is ultimately adopted.

30-Year Capital Improvement Plan at 2% Escalation ($ Million)



Approximately $1.4 billion will be spent on repair and rehabilitation of the existing facilities.

6: Implementation Plan/Costs

The Plant Master Plan proposes a $2.2 billion (annual escalation at 2 percent) 30-year capital improvement program (CIP) that includes improvements to every process area of the Plant, adds odor control to impacted processes, relocates and reduces the biosolids dewatering and drying process, and addresses future regulations. A detailed implementation plan and cost breakdown is presented at the end this executive summary.

The Plant's technical alternatives will be funded by ratepayers over the 30 years through a combination of rate increases and bonds. Plant staff will continue to aggressively pursue federal and state grants, but this revenue stream cannot be guaranteed. Projected rate increases will be determined by each partner agency based on their own rate structure requirements. Bonding options will also be analyzed.

7: Land Use Alternative

The Plant Master Plan reserves approximately 400 acres for Plant operations which includes space for potential processes needed beyond 2040 and appropriate buffer to neighboring uses.

The land use plan utilizes the land not used for process treatment needs. All of the potential land uses will require their own funding sources.

Economic Uses

The Plant lands provide a unique opportunity to build and grow new industries for the region. About 300 acres are allocated to a mix of retail, office, and light industrial uses. These proposed developments can provide over 17,000 jobs, and can generate revenue for the Plant and its partner agencies. The Plant Master Plan also includes 45 acres along

Recommended future land use: clean tech manufacturing.

Recommended future land use: institute.

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Highway 237 to allow for a clean tech and water institute that could be an incubator and demonstration facility for water-related technologies. This presents a significant opportunity to develop a public-private partnership.

The type and extent of development will be dependent on market demand, and build-out of the area is not expected until the end of the planning period (2040).

Recreational Uses

The improved site circulation plan, when coupled with a proposed 16 miles of trails, will allow unprecedented access to the Bay and connect a vital segment of the Bay Trail linking Sunnyvale to Fremont through Alviso and the Plant.

These trails will link existing and proposed educational areas, including: Don Edwards San Francisco Bay National Wildlife Refuge Education Center (existing), a 40-acre park with ball fields (proposed), the clean-tech water institute (proposed), nature museum (proposed), and a boardwalk nature trail (proposed). These recreational uses have been planned with input from the regional parks departments.

Recommended future land use: mud flats/marsh.

Recommended future land use: parks.

Environmental Uses

The recreational areas also connect enhanced and restored areas of the Plant lands. The Plan proposes habitat for the endangered California Clapper Rail and the Salt Marsh Harvest Mouse along with the Western Burrowing Owl, a species of special concern. The habitats along the Bay, open water, mudflats, and marsh, could provide additional protection from the threat of sea-level rise. These land uses have been carefully planned with input from resource agencies, the Santa Clara Valley Water District, the Don Edwards San Francisco Bay Wildlife Refuge, and the Army Corps of Engineers.

Recommended future land use: riparian habitat.

Recommended future land use: owl habitat.

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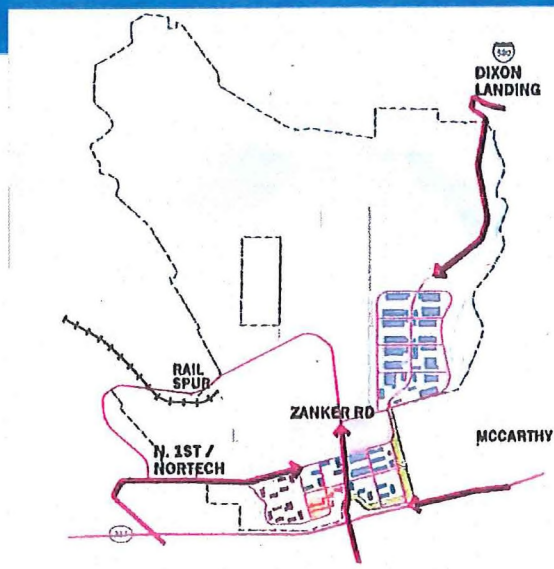
Improving Circulation Around and Through the Plant Lands

The Plant Master Plan proposes connecting Nortech Drive to Zanker Road. This road is proposed to be extended north to Dixon Landing Road. An additional connection between Zanker Road and McCarthy Boulevard (partially on Plant lands) would also increase access opportunities. These road connections would also provide bicycle and pedestrian access.



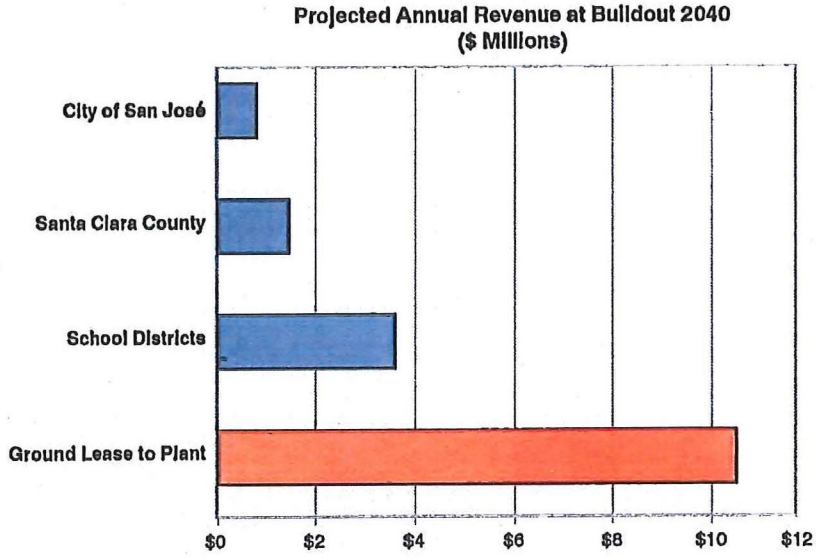
Land use plan enhances site circulation.

8: Economic benefits of the Proposed Land Use Alternatives

The development of the Plant lands under the Plan is contingent on market demand. In addition to market demand, phasing of the development and availability of land will depend on the infrastructure improvements at the Plant to control odors and change the solids processing technologies.

At build-out, the positive fiscal impact is projected to be $1.1 million based on property and sales tax revenue, with substantial additional benefit to Santa Clara County and local School Districts. The annual projected ground lease revenue at build-out is projected to be $10.5 million. The timing of infrastructure capital investment precedes the development of the land and potential resulting revenues. Therefore, revenues at build-out have the potential to offset future operating and maintenance costs for the Plant but do not offset the capital investment included in the Plant Master Plan.

The economic analysis showed that the total economic impact of this development, considering construction and permanent economic activity, is approximately $16.5 billion, a substantial benefit to the region.



Projected annual revenue at build-out.

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9: A Sustainable Plan

Operational:

- Defines the future footprint of the Plant.
- Provides for reliable wastewater treatment service for the next 30 years.
- Reduces odor emission sources.
- Protects the Plant from sea-level rise.

Economical:

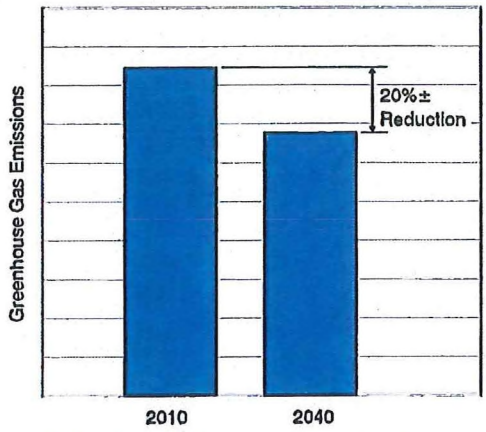
- Allows for 300 acres of cleantech, environmentally sustainable development.
- Provides revenue opportunities for the Plant, City of San José, and its tributary partners.
- Includes large parcels for future job growth.

Environmental:

- Creates over 1,200 acres of protected habitat.
- Re-establishes a connection between Coyote Creek and the Bay.
- Restores Artesian Slough creating new riparian habitat.
- Reduces the Greenhouse Gas (GHG) emissions.

Social:

- Connects the Bay Trail and south Bay trail system (over 10 miles of new trails).
- Creates space for a regional park with multiple ball fields.
- Provides flexible space for future recreational opportunities.



Carbon footprint is expected to reduce by approximately 20 percent over the 30-year planning period.

Photos by Robert Dawson, San José Public Art.

A master plan program of this size and complexity will require regular updates, including a review of basic planning assumptions and planning triggers used to develop the 30-year implementation plan.

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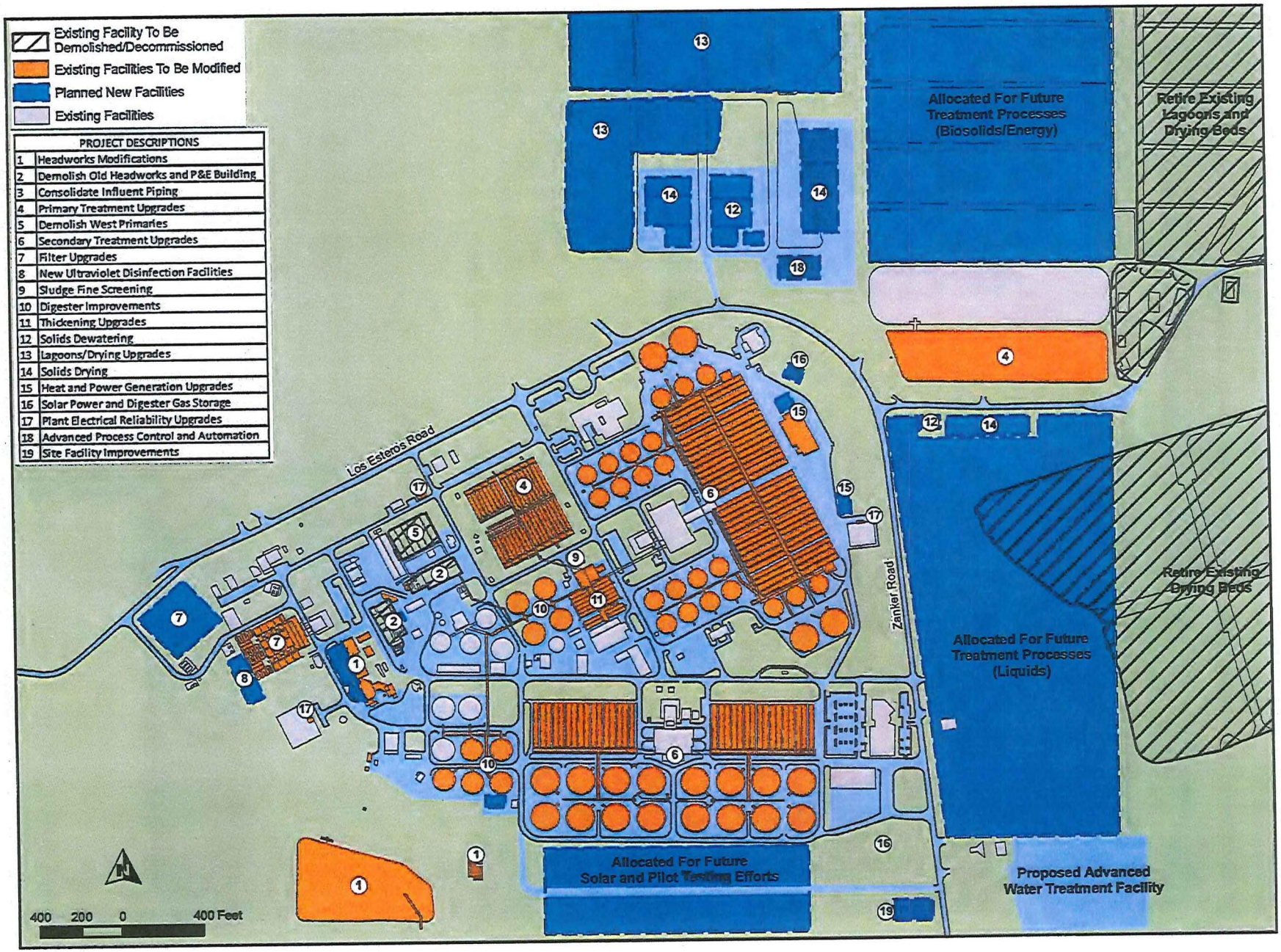

PROJECT DESCRIPTIONS	
1	Headworks Modifications
2	Demolish Old Headworks and P&E Building
3	Consolidate Influent Piping
4	Primary Treatment Upgrades
5	Demolish West Primaries
6	Secondary Treatment Upgrades
7	Filter Upgrades
8	New Ultraviolet Disinfection Facilities
9	Sludge Fine Screening
10	Digester Improvements
11	Thickening Upgrades
12	Solids Dewatering
13	Lagoons/Drying Upgrades
14	Solids Drying
15	Heat and Power Generation Upgrades
16	Solar Power and Digester Gas Storage
17	Plant Electrical Reliability Upgrades
18	Advanced Process Control and Automation
19	Site Facility Improvements

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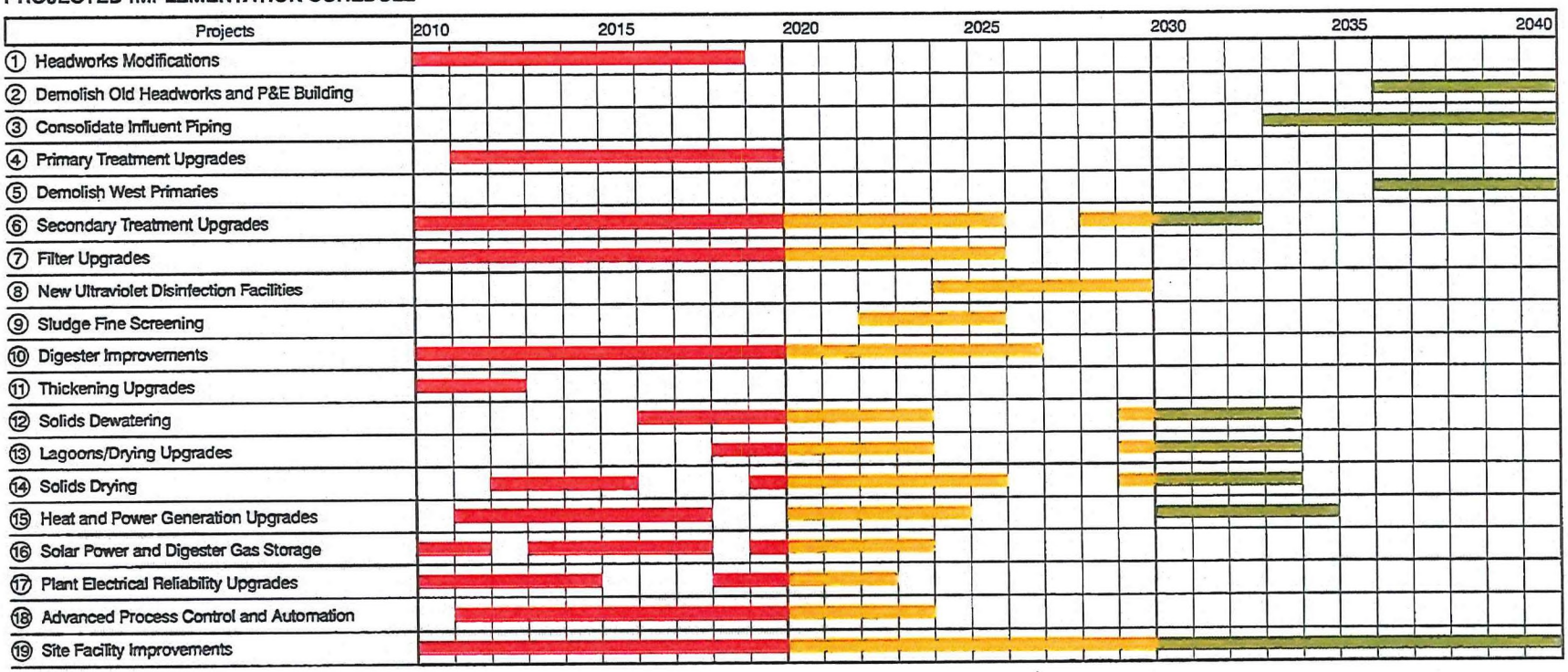
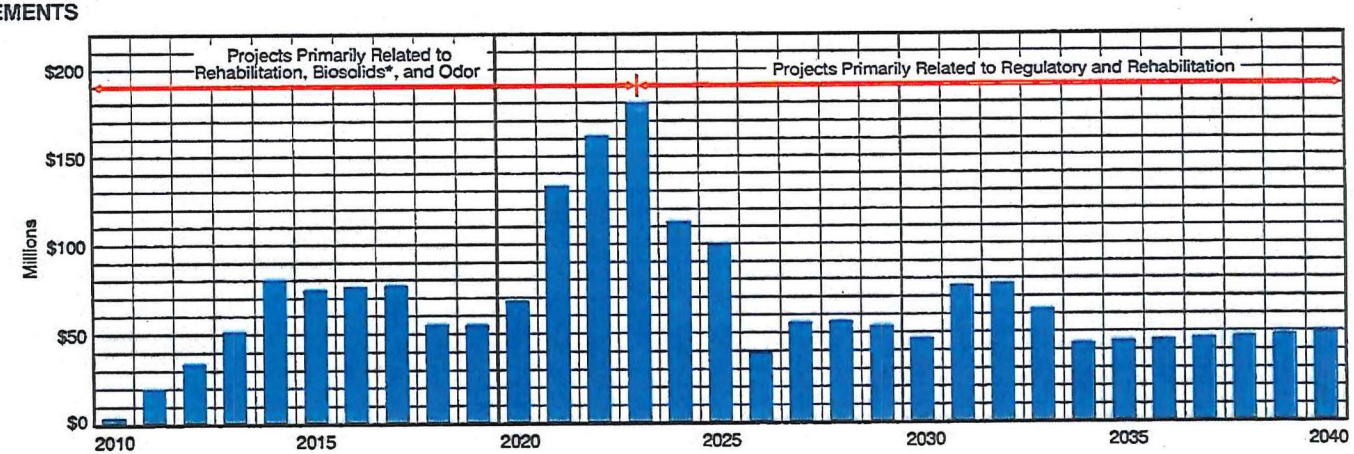
PROJECTED IMPLEMENTATION SCHEDULE



PROJECTED CASHFLOW REQUIREMENTS FOR CAPITAL COSTS ONLY (escalated at 2%)



*The transition to mechanical and covered dewatering and drying of biosolids would result in an increase of approximately 10% in operations and maintenance costs.

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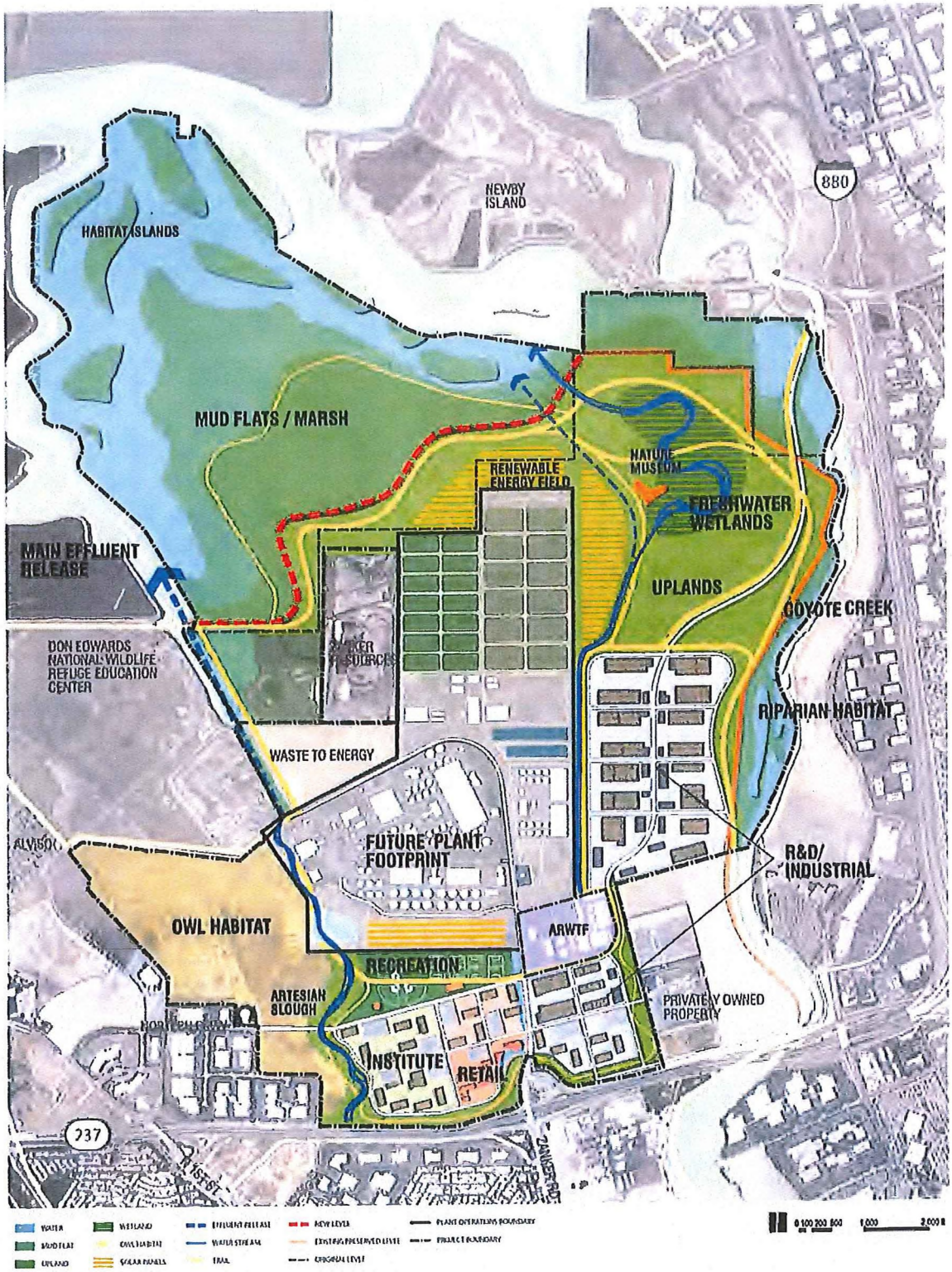
SJ/SC WPCP CONCEPT PLAN



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5A(a)

Planning Commission 10-30-13
AGENDA:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: PLANNING COMMISSION **FROM:** Kerrie Romanow

SUBJECT: PLANT MASTER PLAN ADOPTION **DATE: 10-17-13**

Approved _____ Date 10/17/13

RECOMMENDATION

Recommend to the City Council adoption of the draft Plant Master Plan for the San José-Santa Clara Regional Wastewater Facility with modifications to the Land Use Component consistent with staff recommendations.

OUTCOME

Adoption of the Plant Master Plan (Plan) would allow staff to begin implementing the Plan including critical infrastructure improvement at the San José-Santa Clara Regional Wastewater Facility (Wastewater Facility). The implementation of the Plan will also result in creating a variety of economic and community benefits such as increased operational reliability, creation and maintenance of sensitive habitat, a variety of economic development resulting into up to 15,000 jobs and recreational amenities for residents.

Adoption of the staff-recommended land use scenario would replace the April 19, 2011 Preferred Alternative land use component for the Plant Master Plan with a land use component that would maximize environmental features while still retaining the same economic development opportunity.

EXECUTIVE SUMMARY

The purpose of the Plan is to ensure the continued role of the Wastewater Facility in protecting public health and the environment, while supporting the region's economy and creating a new vision for San José's South Bay shoreline. The City has engaged in a three-year process between the years 2007 and 2010 to develop the Plan. This extensive process involved community and stakeholder input and technical analysis and review. The primary purpose of the Plan is to ensure that the Wastewater Facility continues to protect the public health and the environment, to support the region's economy, and to create a new vision for San José's South Bay shoreline.

section 7.3.4 of the DEIR. The Draft EIR is available online at http://www.sanjoseca.gov/DocumentCenter/View/10967.

The Transportation and Environment Committee (T&E) considered staff recommendation at a public hearing on October 7, 2013 and recommended to the Council to adopt the Plant Master Plan with the Modified Alternative 4 as the Land Use Component. Staff is not proposing any changes to the Technical Component of the Plan. The Plan summary report is available online at http://environment.sanjoseca.gov/DocumentCenter/View/5604.

Planning Commission Review
Pursuant to Section 1000 (a) of the San José City Charter, Staff is seeking the Planning Commission's review for recommendations to the Council respecting the adoption of the Plant Master Plan.

BACKGROUND

The San José -Santa Clara Regional Wastewater Facility (legally and officially named the San Jose/Santa Clara Water Pollution Control Plant) is the largest advanced wastewater treatment facility in the western United States. The Wastewater Facility serves approximately 1.4 million residents in the cities of San José, Santa Clara, Milpitas, Cupertino, Campbell, Los Gatos, Monte Sereno, and Saratoga. The City of San José and the City of Santa Clara co-own the Wastewater Facility. Pursuant to the Master Agreement dated 1959, and as amended in 1983 between the Cities of San José and Santa Clara, the City of San José manages the Wastewater Facility operations and the surrounding lands. In 1983, the Cities of San José and Santa Clara jointly contracted to provide sewage treatment capacity to additional five Sanitation Districts which together constitute the tributary agencies.

Wastewater Treatment Process Overview
In this Wastewater Facility, wastewater undergoes a sophisticated 10.5-hour treatment process that simulates the way nature cleans water. After wastewater enters the Wastewater Facility, in a three-step treatment process, solids, pollutants, and pathogenic bacteria are removed from the wastewater. Machinery and gravity separate solids from the wastewater. Added bacteria clean the water pollutants before the flow enters the advanced filter process.

Additional advanced (tertiary) level treatment is necessary to meet our region's strict state regulations for the shallow waters and sensitive ecosystem of the southern Bay. Very few communities undertake this third step of purification. This treatment process produces water that is 99% purified. Ninety percent of this treated water is subsequently discharged into the Bay. The remaining 10% of the treated water is sent to South Bay Water Recycling located onsite and is eventually used to irrigate food crops, parks, schools, golf courses, street medians, cooling towers and business park landscaping.

The Plan project team was guided by the Plant Master Plan Steering Committee, made up of staff from the Wastewater Facility's two co-owning cities and from the tributary agencies served by the Wastewater Facility. The project team also provided quarterly updates to the Treatment Plant Advisory Committee (TPAC), and the San José's Transportation and Environment Council Committee (T&E) to solicit policy guidance from interested stakeholders throughout the process.

The following goals for the Plan were developed based on the principles of sustainability:

- Operational: To have a Wastewater Facility that is both reliable and can respond to changing conditions;
- Economical: To have a Plan that would maximize the economic benefits for ratepayers through cost-effective options;
- Environmental: To have a Plan that would improve the habitat in the bufferlands, and to minimize potential impacts to the local and global environment; and
- Social: To have a Plan that would maximize community benefits through improved aesthetics and recreational uses.

During the three-year Plan process, staff, with the assistance of Carollo Engineers, developed a set of technical components for the Plan, and three land use components. Three different land use proposals were developed that contained varying levels of economic development, social land uses, and environmental uses (e.g., habitat restoration). Through an extensive public input process, one of the land use alternatives was selected, and recommended to the Council as a "Preferred Alternative". The details of these land use proposals are provided in a Technical Memorandum available online at http://www.sanjoseca.gov/ArchiveCenter/ViewFile/Item/1562

Staff developed the Preferred Alternative with extensive technical oversight, agency feedback, and public and stakeholder input. In addition, staff addressed comments from the Wastewater Facility's tributary partners, and considered the Milpitas Guiding Principles for Plant Master Plan Reconstruction and Land Use Alternatives adopted by the City of Milpitas.

A critical component of the planning process included participation and input from stakeholders and the larger community on possible new land uses and proposed Wastewater Facility improvements. The public input occurred through ongoing input from the Community Advisory Group (CAG), and at the following times for certain subject matters:

1. May to November 2009: input was collected on community values for the Wastewater Facility lands, and this input was used to develop three land use alternatives.
2. May to November 2010: input was collected on three land use alternatives. The input was used to refine the Preferred Alternative.
3. November 2010 to January 2011: Community input was collected to further refine the "Preferred Alternative" recommended to the Council in April 2011.

In April of 2011, the City Council selected the Preferred Technical and Land Use Components for the Plan, and directed staff to proceed with the Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA) for the draft Plan.

Technical Component of the Plant Master Plan

Aging infrastructure and preparation for meeting stricter future regulations are two major drivers behind the technical component of the Plan. The Wastewater Facility has operated continuously since its construction in 1956, and now faces a need for repair and replacement. In addition, the Wastewater Facility must prepare for potential future changes in regulation affecting the operations. Some of the possible regulatory trends that drive the Plan are stringent requirements for removal of nitrogen, phosphorous, metals, and PCBs.

Biosolids Process
Instead of using over 500 acres of open air lagoons and drying beds, the Plan proposes using a new, enclosed mechanical dewatering and drying processes that will minimize odors, and result in a smaller footprint for that operation of approximately 160 acres. The new process will also help prepare the Wastewater Facility for future greenhouse gas regulations and landfill closure, and allow for diversification of disposal and reuse of the biosolids as a resource.

The magnitude and complexity of the transition to a new biosolids process for the Wastewater Facility that treats the wastewater of 1.4 million people makes it one of the largest in the country. Therefore, the Plan proposes a phased approach to implementation. This phased approach includes field piloting of potential processes to ensure that the significant investment will be successful and the performance and reliability are optimized while minimizing environmental impacts. Each treatment plant's solids are unique and processes must be chosen and fine-tuned to ensure successful operation and optimized operational expenses. Full transition to a new technology under the Plan is estimated to occur in the next several years.

Odor Control
The Plan also includes projects to further reduce odors throughout the Wastewater Facility. Odor control for certain operations such as headworks, primary, and the thickening process will include covering the equipments and treatment of the captured air. Odor control will result in increased operating and maintenance costs, but would fulfill project objective of reducing visual, noise, and odor impacts from Wastewater Facility operations to neighboring land uses to the extent practicable.

New Technologies
New technologies that may be needed to meet future regulations such as new filters and disinfection facilities for discharge to the Bay and provision of recycled water or future renewable energy projects such as solar arrays are reviewed at the programmatic level in the DEIR, and will be evaluated more closely once more information becomes available before these particular projects are implemented.

The total projected capital cost of all the technical improvements identified by the Plant Master Plan process is estimated at $2.2 billion over 30 years (escalated at two percent annually) for all capital projects, including immediate and critical rehabilitation and repair.

In response to the comments on the DEIR received from various resource agencies and the public, ESD staff evaluated several options that would go farther in addressing the concerns expressed. With input from the Office of Economic Development and the City Manager's office, staff is recommending the adoption, with minor modifications, of Alternative 4: the Eastern Open Space Compressed Development Plan as the new Land Use Component of the Plan. This alternative proposes a land use scenario with a smaller development footprint, but virtually the same number of jobs compared to the April 2011 Preferred Alternative land use component, and also eliminates the Dixon Landing Connection.

All economic development would be located along Highway 237 to promote visibility and viability. The proposed new land use scenario would also meet the goals of the Plan, such as job creation and habitat preservation. Alternative 4 as modified represents a strategic opportunity to increase much needed jobs and advance the City's environmental goals. The modified Alternative 4 would allocate approximately 1,155 acres of land for habitat and roughly 15% of that acreage or roughly 160 acres of land for economic development. It is anticipated that through adjustment to the job mix, the development would still generate approximately the same number of jobs as the "Preferred Alternative" while minimizing the footprint of the development by over 50 percent. Due to the concentration of development in North San José, maintaining economic development along Highway 237 is highly desirable to certain industries because that location offers maximum visibility and accessibility to the existing roadways.

A map comparing the modified Alternative 4 to the Preferred Alternative is provided as Attachment A. A summary of land use areas of these two plans is provided as Attachment B.

Reduced Footprint
A modified Alternative 4 would provide opportunity to preserve habitat otherwise eliminated by the construction of the Dixon Landing Road extension that was proposed for the area east and north east of the Wastewater Facility operational area. This area currently contains the Santa Clara Valley Water District's mitigation area and the adjacent Coyote Creek. Alternative 4 as modified would also reduce some construction-related dust, noise, and emissions relative to the Project, since the footprint of economic development is reduced by almost 50 percent. Under this alternative, some of the potential concerns raised in the DEIR should decrease relative to the Project, with the exception of potential transportation impacts due to the development.

Plant Master Plan Objectives
The modified Alternative 4 meets most of the objectives of the Plan, and partially meets the objectives of Transportation and Recreation. If economic development is limited to the area south of the Wastewater Facility operational area, there would not be a need to construct a Dixon Landing Road connection which would reduce environmental impact to the area east and northeast of the Wastewater Facility operational area. Staff is also recommending that the Institute, a proposed partnership between industry and education, be removed to preserve more of the existing development footprint for jobs. Staff will explore other educational partnerships to fulfill the education-related objectives in the Plan.

maintenance and protection of these lands for burrowing owls including, but not limited to, incorporation of the lands into the Habitat Conservation Plan area, and/or to meet any mitigation requirements in future permits required to implement the Technical Component.

- *Riparian Habitat.* Approximately 200 acres of land, including the riparian habitat along Coyote Creek and a restored Artesian Slough corridor, would be provided for protection, maintenance or restoration of riparian habitat.
- *Marsh / Mudflats.* Situated on the site in the location of the existing Pond A18, over 800 acres of salt marsh habitat and tidal areas adjacent to the Bay could be constructed to help provide flood protection and restore a transition from the salt marsh habitat through brackish to perched freshwater wetlands and upland grasslands. This habitat would also support special status species such as the clapper rail and salt marsh harvest mouse and provide large contiguous areas for these inhabitants.

Flexible Space

Approximately 390 acres of land currently occupied by the Wastewater Facility's sludge lagoons and drying beds could become available as open space, once that part of the Wastewater Facility's operation is phased out over the next decade. This space could have many potential future uses. Any use that would result in the generation of more vehicle trips than what was analyzed in the EIR will require additional environmental review prior to implementation.

Flood Protection

As part of the Plan, Environmental Services staff has been actively coordinating with the Army Corps of Engineers, the State Coastal Conservancy, and the Santa Clara Valley Water District on the South Bay Shoreline Study project to determine the appropriate alignment for Bayside levees to protect the Wastewater Facility and Alviso from sea level rise and tidal flooding; and to ensure that lands in the staff recommended land use scenario are designated for future levee placement. It is also anticipated that the restoration of A18 will occur as part of the Shoreline Project.

Recreational Uses

A modified Alternative 4 provides recreational opportunities on land surrounding the Wastewater Facility's operational area. These facilities could be developed in partnership with other agencies and entities, as appropriate funding for these projects become available. Proposed facilities include:

- *Trails.* 9 miles of new trails and connection to the Bay Trail.
- *Park.* A new 40-acre park with sports fields.
- *Habitat Areas.* Access to the Wastewater Facility's Bay front for bird watching and hiking.

Phasing and Fiscal Information

The development of the Wastewater Facility lands proposed under the Plan is contingent on market demand. In addition, future development and availability of land would be contingent on ensuring that the infrastructure improvements at the Wastewater Facility can adequately mitigate

Drive to run parallel to and north of SR 237 from its current terminus west of McCarthy Boulevard to Zanker Road.

POLICY ALTERNATIVES

Alternative #1: Recommend that the Council adopt the Plant Master Plan with the "Preferred Alternative" selected by the Council in 2011
Pros: The Preferred Alternative selected in 2011is the Project based on the collective input of the stakeholders during the Plant Master Plan development process.
Cons: While the Preferred Alternative attempts to balance all interests, proceeding with the land use component would reduce future open space and habitat areas.
Reason for not recommending: Decreases remaining flexible space for habitat, open space, or Wastewater Facility expansion beyond the planning window.

Alternative #2: Recommend that the Council to select from Alternatives 2, 3, or 5 that were analyzed in the DEIR.
Pros: Alternatives 2, 3, or 5 offer a range of options with varying levels of development vs. preservation of open space/habitat.
Cons: None of these alternatives would meet the goals of the Project to the fullest extent practicable as modified Alternative 4.
Reason for not recommending: Limits either the potential for economic development or reduces the amount of open space/habitat depending on the alternative.

Alternative #3: Recommend that the Council not adopt the Plant Master Plan.
Pros: Conditions at the site remain largely unchanged.
Cons: Wastewater Facility reliability could be expected to decline. Odor control projects would not be implemented. New jobs would not be implemented and new habitat would not be created.
Reason for not recommending: The no project alternative does not address any of the Wastewater Facility's aging infrastructure needs, the City's economic development goals, or formally designate any areas for open space or habitat conservation.

PUBLIC OUTREACH/INTEREST

☐ **Criterion 1:** Requires Council action on the use of public funds equal to $1 million or greater. **(Required: Website Posting)**

✓ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**

☐ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

CEQA

CEQA for the environmental impacts of this project were addressed by an Environmental Impact Report (EIR) entitled "San José/Santa Clara Water Pollution Control Plant Master Plan" to be heard by the City of San José Planning Commission on October 30, 2013. The Master Plan EIR serves as both a program and a project EIR for the Master Plan, which includes proposed upgrades to the Wastewater Facility reviewed a project-level of detail and other uses of Wastewater Facility lands reviewed at a program-level. The EIR is discussed in detail in a separate staff report. The EIR and technical appendices are available for review on the Planning web site at: http://www.sanjoseca.gov/index.aspx?nid=2434

/s/ Ashwini Kantak for
KERRIE ROMANOW
Director, Environmental Services

For questions, please contact René Eyerly, Manager, Sustainability and Compliance at (408) 975-2594.

Attachments:
Attachment A: Comparison of Staff Recommendation and Preferred Alternative Map
Attachment B: Comparison of Staff Recommendation and Preferred Alternative Project Details
Attachment C: Plant Master Plan Updated Land Use Component

5B

T&E AGENDA: 11-4-13
ITEM: D6

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow
David Sykes
Julia H. Cooper

SUBJECT: SEE BELOW

DATE: October 25, 2013

Approved [signature]

Date 10/25/13

SUBJECT: REPORT ON FINANCING AND ALTERNATIVE PROJECT DELIVERY OPTIONS FOR REGIONAL WASTEWATER FACILITY CIP PROJECTS

RECOMMENDATION

Accept this report on Financing and Alternative Project Delivery Options for San José-Santa Clara Regional Wastewater Facility CIP Projects.

BACKGROUND

The San José-Santa Clara Regional Wastewater Facility[1] (Wastewater Facility) is owned by the cities of San José and Santa Clara pursuant to a joint powers agreement. The joint powers agreement provides for San José to administer and operate the Wastewater Facility. The Wastewater Facility has contracted to provide wastewater treatment services to the cities of Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno, and to unincorporated areas of the County (collectively "Tributary Agencies").

The Wastewater Facility is now over 50 years old and requires significant rehabilitation of its infrastructure. The adopted five year CIP to support this modernization is roughly $725 million. By comparison, the adopted five-year CIP has averaged $344 million, (Fiscal Year to Fiscal Year) over the past seven years. The $725 million includes funding for Wastewater Facility construction projects, South Bay Water Recycling, non-construction projects, public art, reserves, and ending fund balance. Of the $725 million, $583 million is allocated for the Wastewater Facility CIP projects; this amount is significantly higher than the approximately $200 million funding for CIP projects ($40 million annually) that is supported by the current rate structure for San José, Santa Clara, and all the Tributary Agencies. As part of the FY 14-18 CIP budget process,

[1] **The legal, official name of the facility remains San José/Santa Clara Water Pollution Control Plant, but beginning in early 2013, the facility was approved to use a new common name, the San José-Santa Clara Regional Wastewater Facility.*

TPAC recommended and Council approved a financing strategy that would examine external financing options for a portion of the CIP, primarily the Package 2 projects described below.

In February 2012, the City Council approved a packaged delivery approach to effectively implement the CIP. This strategy is illustrated in Attachment A and is described below:

- **Package 1** – This package includes critical rehabilitation projects in various process areas such as the rebuilding of the headworks; rehabilitating and seismically upgrading the primary and secondary tanks; rehabilitating the digesters, covers, and mixing systems; upgrading the gas handling and heating systems; and upgrading the electrical distribution systems. The five-year CIP budget for Package 1 projects is $159 million. Altogether, these projects are estimated to cost $400 million over the next 10 years.
- **Package 2** – This package includes projects that address significant challenges faced by the Wastewater Facility, such as deteriorating power generation equipment, deteriorating filter systems, and odor impacts to the neighboring communities. Package 2 projects include transitioning from open-air biosolids drying to mechanical dewatering and drying; installing new gas turbines or advanced internal combustion engines to replace aging engine generators; and replacing existing gravity filters with newer filtration technology. Package 2 costs are estimated at approximately $500 million over six years.
- **Package 3 and 3A** – This package includes projects that are expected to exceed the 10-to-15 year implementation horizon, such as estimated end-of-life replacement of existing infrastructure and new projects that may be required based on future regulations or changes in wastewater flows and volume loads. The total cost of these projects over the 20-year period is estimated at $1.05 billion, with a highly variable annual cost that is dependent on future regulatory and flow triggers.

On December 3, 2012, staff presented a report to the Transportation and Environment Committee (T&E) on the Water Pollution Control Capital Improvement Program (Item d(5)). The report provided an update on the implementation of the CIP and the evaluation of using alternative project delivery strategies to advance certain projects of a critical nature. Staff committed to providing regular reports to T&E and the Treatment Plant Advisory Committee (TPAC), especially related to the various financing and alternative project delivery options that might be utilized. The purpose of this report is to provide an update on these items.

ANALYSIS

Financing

Financing options are currently being evaluated in light of the scoping and timing of upcoming projects. Validation of major elements of the Capital Improvement Program is underway and will be completed by early 2014. This work will better define the size and timing of the projects

and will enable a more accurate determination of the most appropriate financing options. The CIP validation will determine the amount of funding needed in FY 14-15 and beyond and could result in changes to the previously envisioned financing timeline.

In order to ensure that the cities of San José and Santa Clara, along with the Tributary Agencies, understand financing options available once the results of the validation efforts are known, the San José Finance Department is currently evaluating, with the assistance of a financial advisor, both short-term ("bridge") financing and long-term bonds. By evaluating these various financing options the Finance Department will be better prepared to recommend the most appropriate option(s) based on the scoping and timeline of upcoming projects.

During February and March of each year, as part of the annual budget development process, the Environmental Services Department works with Santa Clara and the Tributary Agencies to determine their required cash contributions for the Wastewater Facility's CIP program. Once validation of the CIP projects has been completed and the five-year CIP has been developed, the need for financing for San Jose, Santa Clara, and the Tributary Agencies will be developed and incorporated into the CIP budget. As stated above, TPAC and Council have provided direction to use external financing for the larger Package 2 projects to assist in providing rate stabilization. San Jose is committed to working with Santa Clara and the Tributary Agencies to identify funding options to address rate stabilization needs. In the event that San Jose does not require external financing in FY 14-15 but Santa Clara or other Tributary Agencies do, the City will work with the other agencies to explore funding options. However it should be noted that the cost effectiveness of capital project financing generally diminishes with smaller programs as the fixed costs associated with the financing becomes a larger proportional share of the issuance.

Alternative Project Delivery – Design Build

Capital projects at the Wastewater Facility typically have been delivered using the traditional "design-bid-build" method. As its name suggests, "design-bid-build" involves the City delivering an improvement by contracting with two separate entities: one entity to design the improvement and another entity to construct the improvement. While "design-bid-build" works well for delivering certain types of capital improvements, in some cases it can be more susceptible to disputes between designers, contractors and the City when issues are encountered during construction. Application of a "design-build" project delivery work best in high risk construction environments as well as working on and within an operating facility.

Unlike "design-bid-build," the "design-build" method of project delivery involves contracting with a single entity for ***both*** the design and construction of an improvement. The use of "design-build" is growing rapidly in the water/wastewater sector. According to the Design-Build Institute of America, "Twenty to 30 percent of all U.S. water and wastewater projects already use the design-build method and this percentage is growing every year."

Staff believes that the "design-build" alternative provides a better method of delivering many of the CIP improvements at the Wastewater Facility, especially considering the size and complexity of the improvements associated with Package 2. The design-build approach is often employed where there is a high likelihood of design or construction issues due to the complexity of the project or the interface between project components. By securing design and construction services in a single contract, the responsibility for resolving design or construction issues resides with the design-build entity. Moreover, there is evidence that design-build can lead to faster project completion times, lowers overall costs and results in better quality in the finished product.

"Progressive" design-build is a method of implementing design-build that offers concurrence of design elements, cost and schedule at various points during the design phase. A guaranteed maximum price is established and the City is provided an opportunity to agree to continue developing the project or terminate the design-build contract and proceed with a different project delivery method. The City has successfully used progressive design-build at the Airport and at the recently completed Convention Center Expansion.

The City is not able to use its Charter provisions to procure design build services at the RWF. Instead the City must procure design-build entities for improvements at the Wastewater Facility in accordance with State law because the Facility is regional in nature, jointly owned, and provides services to multiple agencies. Consequently, the construction projects at the Wastewater Facility are not "municipal affairs" but matters of "statewide concern" subject to State law procurement requirements.

Existing State law authorizes the use of design-build contracting at wastewater facilities in the form of a pilot program, subject to a number of project registration and reporting requirements. The existing law permits the City – as the operator of a wastewater facility – to procure a design-build entity using the "best value" approach based on an evaluation of objective criteria related to price, features, functions, life cycle costs, experience and past performance. Using a "best value" method of selecting a design-build entity provides many cost, schedule and quality advantages, particularly for complex projects like the new Cogeneration Facility and the Biosolids Dewatering and Drying Project.

The Emergency Generators and Gas Compressor projects are currently being developed by the City. For these projects, the City is pursuing a low bid design-build approach; primarily due to the fact that these projects are centered on equipment costs and that there are limited opportunities for significant innovation (which might result in cost/schedule savings and improved quality). The City is developing a performance based set of specifications where the lowest responsible bidder will procure and install equipment based on performance criteria rather than a detailed set of plans. The lowest bidder will be responsible for completing the design, constructing and ensuring that all systems work together properly and meet the required performance objectives.

EVALUATION AND FOLLOW-UP

Staff will continue to provide regular updates to T&E, TPAC and Council to inform them of significant changes or issues, particularly as related to rate impacts, as the program implementation progresses.

PUBLIC OUTREACH/INTEREST

- ☐ **Criterion 1**: Requires Council action on the use of public funds equal to $1 million or greater. **(Required: Website Posting)**
- ☐ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**
- ☐ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

This report does not meet the criteria listed above. This memorandum will be posted on the City's website for the November 4, 2013 Transportation and Environment Committee agenda.

COORDINATION

This report will be presented to the Treatment Plant Advisory Committee (TPAC) at its November 14, 2013 meeting.

CEQA

Not a Project, File No. PP10-069 (a) Staff Reports.

/s/
KERRIE ROMANOW
Director, Environmental Services

/s/
DAVID D. SYKES
Director, Public Works

/s/
JULIA H. COOPER
Director, Finance

For questions please contact Ashwini Kantak, Assistant Director (ESD), at (408) 975-2553

Attachment A – Project Packaging

Package 1 Critical Rehabilitation	Package 2 New Technologies	Package 3 Beyond 15 Years
• Headworks Improvements	• Legacy Lagoon Clean-up	• Ongoing Repair and Rehabilitation
• Primary Rehabilitation	• Biosolids Dewatering and Drying	• Regulatory Driven Improvements to Secondary and Filtration
• Secondary Rehabilitation	• Power Generation	• Flow Driven Improvements
• Digester Rehabilitation	• Filter Reconstruction	
• Facilities Improvements		

CIP PROJECT PACKAGING

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

COUNCIL AGENDA: 11/19/13
ITEM: 5C

CITY COUNCIL ACTION REQUEST

Department(s): Finance	**CEQA:** Not a Project, File No. PP10-066(a), Agreements and Contracts	**Coordination:** ESD, CAO, Fire, CMO - Budget Office On November 14, 2013, the Treatment Plant Advisory Committee is scheduled to consider this item.	**Dept. Approval:** /s/ Julia H. Cooper
Council District(s): Citywide			**CMO Approval:**

SUBJECT: EXECUTE A PURCHASE ORDER WITH CAPSTONE FIRE MANAGEMENT SYSTEMS

RECOMMENDATION:

Authorize the City Manager to:

(a) Execute an Open Purchase Order with Capstone Fire Management Systems, Inc. (San Diego, CA) for confined space rescue and emergency services at the San José-Santa Clara Regional Wastewater Facility ("Plant") for the period of November 22, 2013 through November 21, 2014, in an amount not-to-exceed $400,000; and

(b) Exercise four additional one-year options to renew the Purchase Order, subject to the annual appropriation of funds.

Desired Outcome: Provide for the continued safety of the Environmental Services Department employees working in confined spaces at the Plant and South Bay Recycle Stations.

BASIS FOR RECOMMENDATION:

The Plant requires confined space rescue and emergency team services including training services as required. The Plant has many confined spaces with hazardous atmospheric conditions that require specialized knowledge and equipment for confined space search and rescue operations and training.

On July 31, 2013, the Finance Department released a Request for Bid (RFB) for Confined Space Rescue and Emergency Services at the Plant and South Bay Recycle Stations. A total of thirty-four companies viewed the RFB, and seven bids were received by the August 29, 2013 deadline. Capstone Fire Management Inc. submitted the lowest bid.

No protests were received during the protest period which ended on October 11, 2013.

Office of Equality Assurance: Living Wage or Prevailing Wage is not applicable to work under this purchase order.

This Council item is consistent with Council approved Budget Strategy General Principle #2: "We must focus on protecting our vital core City services for both the short and long-term."

COST AND FUNDING SOURCE:

Fund #	Appn #	Appn. Name	Total Appn.	Amt. for Recommendation	2013-2014 Adopted Budget Page	Last Budget Action (Date, Ord. No)
513	0762	NP/Equip-Environmental	$28,567,518	$400,000	XI-85	06/18/2013, 29271

FOR QUESTIONS CONTACT: Mark Giovannetti, Purchasing Division Manager at (408) 535-7052

City Manager's Contract Approval Summary

For Procurement and Contract Activity between $100,000 and $1.08 Million for Goods and $100,000 and $270,000 for Services

OCTOBER 1 - OCTOBER 30, 2013

Description of Contract Activity [1]	Fiscal Year	Req#/ RFP#	PO#	Vendor/Consultant	Original $ Amount	Start Date	End Date	Additional $ Amount	Total $ Amount	Comments
NEW:										
CONFINED SPACE RESCUE	FY13-14	15722	47445	VEOLIA ENVIRONMENTAL SERVICES	$250,000	9/15/12	11/30/13	$20,000	$270,000	EXTENSION 9/30/13 TO 11/30/13
COMPRESSED GASSES AND WELDING EQUIPMENT SERVICES & SUNDRIES	FY13-14	18297			$100,000	12/1/13	11/30/14			LABORATORY (40K) & MAINTENANCE (60K)
SERVICEGRID MAINTENANCE & SUPPORT SERVICES	FY13-14	18375		ABB INC	$206,706	12/1/13	11/30/14			
OWNER'S ENGINEER SERVICES - FEASIBILITY STUDY AND CONTRACTING STRATEGY REVIEW FOR BIOSOLIDS PROCESSING	FY13-14		AC21248	BROWN & CALDWELL	$695,018	10/8/13	195 DAYS OF NTP			SERVICE ORDER #5 (MASTER AGREEMENT TERM 3/25/08-6/30/15)
CAPITAL IMPROVEMENT PROGRAM MANAGEMENT CONSULTANT SERVICES	FY13-14		AC25704	MWH AMERICAS, INC	$3,776,800	10/11/13	8/31/14			SERVICE ORDER #1 (MASTER AGREEMENT TERM 9/24/13-9/30/18)
CAPITAL IMPROVEMENT PROGRAM MANAGEMENT CONSULTANT SERVICES - START UP	FY13-14		AC25704	MWH AMERICAS, INC	$2,521,000	10/21/13	120 DAYS OF NTP			SERVICE ORDER #2 (MASTER AGREEMENT TERM 9/24/13-9/30/18)
ONGOING:										
CONFINED SPACE RESCUE TEAM	FY13-14	18067			$250,000	9/15/13	9/14/14			
SANDBLASTING & PAINTING	FY13-14	18108			$400,000	11/1/13	10/31/14			
WEMCO MODEL C 8"X8 " PUMP S/N 8396858-9	FY13-14	18242			$152,464					

[1] This report captures in process contract activity (Requisition Number or RFP Number) and completed contract activity (Purchase Order Number, Contract Term, and Contract Amount)