

Public Works Commission

Regular Meeting
PUBLIC WORKS COMMISSION
Agenda
Thursday, May 1, 2014 at 7:00 p.m.
City of Berkeley Corporation Yard, Willow Conference Room
Ratcliff Building, 1326 Allston Way

7:00 pm CALL TO ORDER: Chair will call the meeting to order; Secretary will call roll.

7:05 pm PUBLIC COMMENT: Each speaker is limited to three (3) minutes.

7:10 pm APPROVAL OF MINUTES: Regular Meeting of April 3, 2014 *

7:15 pm CHAIR REPORT: None

7:20 pm STAFF REPORT: 1) Public Works Week Invitation - May 22, 2014; 2) Allston Project Update; 3) Mandatory Officer Training for Chairs and Vice-Chairs by June 10, 2014

7:30 pm PRESENTATION: Water Conservation by Richard Harris, EBMUD

7:45 pm ACTION ITEMS: (Matters for discussion and possible action)

1. Measure M and Paving Subcommittee will report on their review of the updated 5-year paving plan and vote on their recommendations. *
2. Water conservation referral – recommendation to City Council *

8:15 pm INFORMATION ITEMS: (Action may be taken on any information item at this meeting if a majority of Commissioners votes to move it to an action item. This vote may take place at or before the time the item is scheduled to come up).

1. Grant update – EPA Water Quality Improvement Fund (Rose)
2. Rainwater harvesting conference call (Swift)
3. Sidewalk Policy Update (Rose)

9:20 pm FUTURE AGENDAS:

1. Transportation grants
2. Public outreach

9:30 pm ADJOURN

* Indicates written material included in packet.

** Indicates material to be delivered at meeting.

A complete agenda packet is available for public review at the Engineering Division front desk.

ADA Disclaimer:

This meeting is being held in a wheelchair accessible location. To request a disability-related accommodation(s) to participate in the meeting, including auxiliary aids or services, please contact the Disability Services specialist at 981-6346(V) or 981-7075 (TDD) at least three business days before the meeting date. Please refrain from wearing scented products to this meeting.

SB 343 Disclaimer:

Any writings or documents provided to a majority of the Commission regarding any item on this agenda will be made available for public inspection at the Public Works Department located at the address below.

Communications Disclaimer:

Communications to Berkeley boards, commissions or committees are public record and will become part of the City's website. Please note: e-mail addresses, names, addresses, and other contact information are not required, but if included in any communication to a City board, commission or committee, will become part of the public record. If you do not want your e-mail address or any other contact information to be made public, you may deliver communications via U.S. Postal Service or in person to the Secretary of the relevant board, commission or committee. If you do not want your contact information included in the public record, please do not include that information in your communication. Please contact the Secretary of the relevant board, commission or committee for further information.

Acting Commission Secretary:

Sean R. Rose, P.E., Supervising Civil Engineer, Public Works Engineering Division, 1947 Center St., 3rd Floor, Berkeley, CA, 94704, Telephone (510) 981-6435, Fax: (510) 981-6390 TDD: (510) 981-6903 email: srose@cityofberkeley.info.

Regular Meeting
PUBLIC WORKS COMMISSION
Minutes
Thursday, April 3, 2014
1326 Allston Way, Ratcliff Building

CALL TO ORDER: 7:04 PM

Present: Henry, Kelley, Neal, Schueler, Swift, Abramson, Yep

Absent: None

Leave of absence:

Staff: Sean Rose (Acting PWC Secretary)

PUBLIC COMMENT: No members of the public were present.

APPROVAL OF MINUTES: The minutes of the Regular Meeting of March 6, 2014 were approved as amended. (MSC Swift/Kelley, with a vote of 6-0-0)

CHAIR REPORT: Chair Yep expressed interest in having a summer social event of the Commission and invitees. The Commissioners discussed having the event in June-July.

STAFF REPORT: None.

PRESENTATION: Ryan Shafer of Nichols Consulting Engineers (NCE) gave a presentation on Alternative Pavement Treatments. Secretary Rose reported that NCE will be tasked with inspecting all of the 2015 streets slated for paving prior to initiating design. The Commission requested that they have the opportunity to walk along with NCE during part of their inspection.

ACTION ITEMS:

1. **Review of the Updated 5-Year Paving Plan:** The Measure M and Paving Subcommittee (Yep, Swift, Henry) provided the Commission with a summary of the subcommittee meeting held with City staff on March 25, 2014 to review the City's proposed update to the 5-Year Paving Plan. Because of the compressed timeframe to review the plan, the update will include 2015 and 2016. Next year's update of the plan will include the full five years. The subcommittee has asked staff to revise the 2016 plan to consider cul-de-sacs and other streets adjacent to streets being paved. Another subcommittee meeting will be held on April 24, 2014 to discuss the revisions. The subcommittee will draft a report summarizing their recommendations prior to the May Commission meeting.

INFORMATION ITEMS:

The following information items were discussed:

1. Measure M and Paving Subcommittee reported on their review of the Allston Way Permeable Paver Demonstration Project.
2. Update on the sidewalk policy report going to Council on April 29, 2014.
3. Update by Larry Henry on the residential curbside electric vehicle charging policy.

FUTURE AGENDA TOPICS:

1. Water conservation – Richard Harris, EBMUD – May 2014 meeting (Schueler)
2. Rainwater harvesting (Swift)
3. Measure M public outreach
4. Update on LHMP and EV Charging

ADJOURNMENT: 9:40 pm



Public Works Commission

ACTION CALENDAR

June 3, 2014

To: Honorable Mayor and Members of the City Council
From: Public Works Commission
Submitted by: Ray Yep, Chair, Public Works Commission
Subject: Update of the 5-Year Street Paving Plan, FY 2015 – FY 2019

RECOMMENDATION

Adopt a Resolution updating the City's 5-Year Street Paving Plan for FY 2015 – FY 2016 with plans for FY 2017 – FY 2019 to be developed on an annual basis.

FISCAL IMPACTS OF RECOMMENDATION

Cost of projects based on staff analyses (see staff report).

FISCAL IMPACTS OF RECOMMENDATION

The attached 5-Year Street Paving Plan is based on the following estimated funding levels, which correspond to the current CIP Budget adopted by Council:

FY 2014	\$5,944,303
FY 2015	\$9,444,303
FY 2016	\$9,444,303
FY 2017	\$9,444,303
FY 2018	\$9,444,303

CURRENT SITUATION AND ITS EFFECTS

Since the adoption of its Paving Repair Policy, Berkeley has maintained a rolling 5-Year Street Rehabilitation Plan for paving and reconstructing City streets. City staff updates the Plan on an annual basis, and presents it to the Public Works Commission (PWC). The PWC reviews the Plan and recommends action to the City Council to ensure that the 5-Year Street Plan is consistent with Berkeley's Street Rehabilitation and Repair Policy. With the passage of Measure M in November 2012, the City of Berkeley now has an additional \$30 million to invest in street repaving/rehabilitation and related green infrastructure over the next 5 years.

The implementation of Measure M began with a public participation process led by the Public Works Commission. The process included community meetings, a wide range of public input, and the development of recommended actions for implementing Measure

M. The overall process and recommendations are documented in a report that was presented to Council on October 1, 2013¹.

Public Works staff incorporated the recommendations from this process into the implementation of street improvements for FY 2014. Staff has taken an approach called a 2+3 plan. The first 2 years of the plan have substantial details and was generated with a computerized StreetSaver® program to identify, rank, and select streets for sealing, overlay, and reconstruction treatments. The Measure M Scorecard was used to further rank and select streets for more substantial reconstruction using the bond funding. The following 3 years of the plan have fewer details and staff expects to evaluate the results and refine the process during development of next year's revision of the 5-Year Plan. In addition, evaluation of cost and effectiveness of trial watershed projects included in the first 2 years will guide the recommendations for the outlying years.

PUBLIC WORKS COMMISSION'S REVIEW

The PWC has reviewed and supports the FY 2015 – FY 2016 Paving Plan proposed by staff. The plan incorporates the following input from the PWC and discussions with staff:

- The plan for FY 2015 greatly increases the street improvements with the use of Measure M funds (to approximately \$10 million). Due to the timing of getting the design consultant contracted, the PWC recommends that the consultant review the use of appropriate alternative street rehabilitation technologies before construction to assure maximum cost effectiveness.
- The plan for FY 2016 greatly increases the street improvements with the use of Measure M funds (to approximately \$9 million). Staff has reviewed and incorporated isolated streets (i.e. short connectors, cul-de-sacs, etc.) in the plan where contiguous with other streets being paved. The PWC recommends that lessons learned from the FY 2015 work be incorporated into outlying years' work.
- Green infrastructure components have been included in both years of the plan. In FY 2015, a cistern project on Parker Street (between 8th and San Pablo) is planned at a cost \$750,000. The project will provide for flood attenuation and will use permeable paving and bioretention. In FY 2016, a cistern project is planned on Woolsey between Adeline and Tremont as well as surface green infrastructure at an estimated cost of \$1.2 million. The site is located midway in the Potter watershed and will aid in flood attenuation.
- The PWC supports the ongoing work of staff to research and apply for grants to increase watershed improvements.
- The PWC supports the use of the Measure M scorecard and other inputs received from the community in 2013. The PWC also supports continuing to

¹ Measure M and 5-Year Street Paving Plan, October 2013:
www.cityofberkeley.info/Clerk/City_Council/2013/10Oct/City_Council_10-01-2013_-_Special_Meeting_Annotated_Agenda.aspx

reach out to the community to inform them of progress made and to solicit further input.

- The PWC recommends a clear breakout of the 5-Year Paving Plan expenditures between those funds coming from the general fund, gas tax and Measure B that will fund maintenance (sealing and overlay treatments) activities; and Measure M funds dedicated to street ‘reconstruction’, to reassure the community that bonded debt monies are being used for capital projects or street reconstruction and not ongoing maintenance activities.

The plan is consistent with Berkeley’s Street Rehabilitation and Repair Policy, has incorporated recommendations from the Measure M public participation process, will accelerate improving the condition of Berkeley’s streets, and will include green infrastructure components where appropriate. This action was taken at the Commission’s May 1, 2014 meeting. (M/S/C:)

ENVIRONMENTAL SUSTAINABILITY

The Paving Plan incorporates Green Infrastructure, where appropriate, which will reduce the volume of storm water entering City storm drains, improve the quality of urban runoff from the roadways, and reduce greenhouse gas emissions by using newer technologies for street rehabilitation.

RATIONALE FOR RECOMMENDATION

This Paving Plan is consistent with Berkeley’s Street Rehabilitation and Repair Policy.

ALTERNATIVE ACTIONS CONSIDERED

None.

CITY MANAGER

The City Manager takes no position on the content. See staff companion report.

CONTACT PERSON

Ray Yep, Chair, Public Works Commission
Sean Rose, Secretary, Public Works Commission, 981-6435

Attachments:

1: Resolution

Exhibit A: 5-Year Street Paving Plan FY 2015-FY 201

RESOLUTION NO. ##,###-N.S.

UPDATE OF THE 5-YEAR STREET PAVING PLAN FOR FY 2014 – 2018

WHEREAS, the Street Rehabilitation Policy, Resolution No. 55,384-N.S. approved on May 22, 1990, requires that there be a 5-Year Street Paving Plan for the entire City to be adopted by the City Council; and

WHEREAS, the Street Rehabilitation Policy shall be reviewed and updated annually by the City Council, with the advice of the Public Works Commission; and

WHEREAS, the Public Works Commission is satisfied that the 5-Year Plan meets the full intent of the Measure M ballot language and that the Measure M implementation plan has been initiated successfully; and

WHEREAS, the Public Works Commission recommends that Council adopt the 5-Year Street Paving Plan, attached as Exhibit A.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the updated 5-Year Street Paving Plan for Fiscal Year 2014 – Fiscal Year 2018, attached as Exhibit A, and made a part hereof, is hereby adopted.

BE IT FURTHER RESOLVED that staff will prepare the paving plan by June of each year.

Exhibit

A: 5-Year Street Paving Plan FY 2013 – FY 2018

**2014 Update of the City of Berkeley's Rolling 5-Year Paving Plan
Presented to the
Public Works Commission Subcommittee on Measure M and the Paving Plan**

March 25, 2014, 3:00-4:30pm
1326 Allston Way, Willow Room

Background and Introduction

City staff annually updates its rolling 5-Year Paving Plan. Each year, the Plan is reviewed by the Public Works Commission (PWC) for consistency with the City's street rehabilitation and repair policy, and the plan is subsequently presented to the City Council for approval.

In November 2012, voters approved Measure M, a \$30 million bond measure to accelerate street improvements and integrate green infrastructure where appropriate and consistent with the Watershed Management Plan. In 2013, the Public Works Commission led an extensive community outreach process on Measure M and the Paving Plan. The process gathered significant community input and created outcome and performance measures, monitoring and oversight recommendations, and scorecard criteria to be added to the paving plan development process as part of an Integrated Streets Improvement Plan (ISIP). The bond funds are to be spent over five years from 2014 through 2018. Measure M funding significantly increases funding for street paving from pre-Measure M levels and provides funding for green infrastructure.

The 5-Year Plan is generated with the aid of Streetsaver software developed by the Metropolitan Transportation Commission. Streetsaver criteria include: a) pavement condition, b) type of repair required, c) road classification (arterial, collector, residential), d) cost effectiveness, and e) budget constraints. Berkeley's Street Rehabilitation Policy further guides the development of the paving plan as follows:

- Implement integrated solutions
- Coordinate with other City programs
- Coordinate with utility company work
- Budget distributed to: arterials – 10%, collectors – 50%, residential – 25%, discretionary and demonstration – 15%
- Prioritize collector and residential streets with AC Transit bus routes or bicycle routes
- Improve contiguous blocks rather than one block at a time as much as possible.

The policy was amended in November 2013 to incorporate the outcome of the Measure M process to 1) incorporate the Measure M scorecard criteria, 2) incorporate green infrastructure where appropriate, and 3) monitor performance measures.

After completion of the 2013 outreach process, in November 2013 Council approved the 2013 annual update of the plan for 2014 and 2015 only, in order to allow time to apply lessons learned from the first two years of the plan to the outer years of the plan. This plan was termed the “2+3” Plan. The 2014 and 2015 plans incorporated the Measure M scorecard criteria and public input received during the Measure M outreach process.

This year’s plan update will be presented to City Council in June 2014. Because of the short time available for the Commission to review the Plan before Council considers approval, another rolling “2+3” Plan will be prepared, this time for 2015 and 2016.

The Plan is being reviewed by the PWC’s Measure M and Paving Subcommittee on March 25th and by the full Commission on April 3rd. The current plan is to take the plan including any recommendations by the PWC, to Council at the June 3, 2014 Council meeting (date subject to change).

2014 Plan Update

The following is staff’s presentation of the 2014 update of the 5-year paving plan, including a status report on the progress of the 2014 plan, a revision of the 2015 plan and a summary of the proposed 2016 plan. The presentation generally follows the format utilized in the PWC’s ISIP.

Plan Development Process

Staff takes a deliberative approach to selecting streets for inclusion into the paving plan, utilizing the street rehabilitation policy and Measure M scorecard criteria. Sites for implementation of green infrastructure are carefully selected, generally in accordance with criteria set forth in the Watershed Management Plan, including, but not limited to, drainage area, utility constraints, traffic/parking impacts, cost/benefit analysis, available funding, pollutant treatment effectiveness and efficiency, etc.

2014 Projects – Status Update

Implementation of the previously approved 2014 paving and green infrastructure projects are on schedule. The paving work is being completed in two phases, both of which have opened bids and are scheduled to start construction in April/May and continue throughout summer 2014. The estimated construction cost of 2014 paving work is \$4.4 million. The four green infrastructure sites are going to Council for award on May 20, 2014 and will commence construction in July. The estimated construction

cost of the 2014 green infrastructure sites is \$650,000. The sites and corresponding stormwater treatment improvements are:

1. Allston Way at California Street – Bioswale within Presentation Park
2. Vine Street and Spruce Street – Bioretention area within traffic circle and bulbout in northwest corner of intersection.
3. Eunice and Milvia – Permeable pavers in the parking area and crosswalk, and cistern in the cul-de-sac attenuating peak flows.
4. Milvia Street and Hopkins Street– Permeable pavers in the parking area and tree well filters in the planting strip.

2014 also includes the Allston Way Permeable Paver Demonstration Project, if Council elects to proceed with the project.

2015 Projects

The 2015 paving plan is attached. Necessary amendments were made to the previously approved version as follows:

The following streets were moved from 2015 to 2016 to accommodate EBMUD's Stonewall Reservoir project, scheduled to begin construction in August 2015 and be completed by May 2016:

- Piedmont Crescent – Dwight to Warring, Collector
- Warring St – Dwight to Derby, Collector
- Derby St – Warring to Belrose, Arterial
- Belrose Ave – Derby to Claremont Blvd, Collector
- Claremont Blvd – Belrose to Claremont Ave, Collector

Moved from 2016 into 2015 to replace the above streets:

- Dwight Way – San Pablo to Sacramento, Arterial
- Fulton St – Bancroft to Durant, Arterial
- Fulton St – Durant to Dwight, Arterial
- Alcatraz Ave – Adeline to City Limit (Dover), Collector
- Spruce St – Vine to Cedar, Residential Bike route
- Spruce St – Cedar to Virginia, Residential Bike route
- Spruce St – Virginia to Hearst, Residential Bike route

Added to 2015 for the reasons as follows:

- Bay St – Potter to Ashby Overcrossing hazardous, traffic volumes/speeds, public outreach
- Bolivar Dr – Cul de sac to Potter hazardous, traffic volumes/speeds, public outreach
- Potter St – I-80 to Bay – hazardous, traffic volumes/speeds, public outreach
- Columbia Circle – Columbia Path to Fairlawn Dr – proximity to other paving
- The Spiral – Dead End to Wildcat Canyon – proximity to other paving

The 2015 project will include a slurry seal project, a resurfacing project designed in-house, and a third larger project designed by a consultant that will include evaluation and possibly implementation of cost-effective and environmentally-beneficial alternatives to traditional pavement treatment method(s) (cold-in-place recycling, full depth reclamation, etc.). The slurry seal project will be the first such project in the City in many years. Slurry seal is considered a best practice for preventative maintenance and will extend the life of existing pavement.

The 2015 GI project remains the Parker Street project from 8th to San Pablo. The project will construct a cistern for flood attenuation and surface LIDs permeable paving and bioretention area at the corner of Parker and 10th. The design of the project is at 95% completion and will be substantially complete in summer 2014 and be constructed in summer 2015. The estimated construction cost of that project is \$750,000.

2016 Projects

The attached 2016 paving plan was developed based on the criteria described above and with extensive coordination with the Sanitary Sewer program. The following is a summary of the 2016 paving plan:

- Arterials – 2.20 miles
- Collectors – 1.44 miles
- Residentials – 13.14 miles
- Bicycle routes – 8.70 miles

- Slurry seals – 5.62 miles
- Overlays – 8.25 miles
- Reconstructs – 2.91 miles

The total construction cost estimate of the planned paving work is \$8.3 million.

The GI project selected is on Woolsey between Adeline and Tremont. Staff believes this is a very promising site as it is situated near a large storm drain pipeline and end of a significant sub-watershed of the Potter drainage basin, a basin particularly noted for flooding problems. Moreover, the street is particularly wide at this location creating the possibility for an underground cistern for flood attenuation and a center median and/or curb extension bioswale. The estimated cost of the green infrastructure project on Woolsey is \$1.2 million, at a very initial planning level.

Street Maintenance

Street Operations staff has implemented a number of improvements over the past two years. The City purchased a new crack sealing machine in 2013 and is now crack sealing many more streets on an annual basis than it did in the past. They are currently crack sealing ahead of the 2015 slurry seal streets mentioned previously. They are also performing many more cut and plug repairs than in the past, in lieu in many cases of pothole repair. This greatly extends the life of the repair and is more cost effective in the long run.

Outcome Measures

A brief discussion of the status of outcome measures set forth in the ISIP are as follows:

- Streets are in good safe condition for all users – The significant acceleration and operational improvements in paving and street maintenance will result in a significant improvement on the overall condition of the City's street network. Many of the streets being paved in the plan have been reported by motorists, bicyclists, and pedestrians as being hazardous due to their deteriorated condition. The accomplishments in the plan outlined herein will improve that.
- Reduced neighborhood flooding – Reducing flooding is generally more costly than treating urban runoff. Nonetheless, in the first three years of Measure M implementation three cisterns will be installed that will attenuate peak flow to varying degrees and reduce flooding impacts. The stormwater treatment LIDs also reduce flooding, to a lesser degree.
- Our environment is more sustainable – Green infrastructure improvements are being installed at least seven locations throughout the City under Measure M in the first three years of the program. Additionally, starting in 2015 staff will be evaluating and potentially implementing more cost-effective and environmentally beneficial alternate treatment methods to traditional asphalt paving. These alternate methods if deemed applicable and cost-effective, have been shown to lessen greenhouse gas emissions and recycle precious resources including dwindling aggregate reserves.

Community Involvement

To date under Measure M implementation, staff has completed the following community involvement and outreach:

1. Conducted focused public outreach on 2014 and 2015 GI sites, including communications with neighborhood key contacts. Held several public meetings throughout the City.
2. Sent out construction notices for 2014 paving projects.
3. Incorporated Measure M outreach and ongoing public input into development of paving plan.
4. Ongoing communication with residents and Council on as-needed basis.

Going forward, staff plans to engage volunteers to assist with outreach and other aspects of the program. Outreach needs include providing program updates and creating interpretive signage for Measure M project sites. Staff also plans to engage the community and volunteers to help evaluate the demonstration and green infrastructure projects being implemented under Measure M.

Project Schedule and Cost

2014 Projects:

Paving: \$4.4 million

Green Infrastructure: \$1.65 million (includes Allston PPP)

2015 Projects:

Paving: \$9.9 million

Green infrastructure: \$750,000

2016 Projects:

Paving: \$8.3 million

Green infrastructure: \$1.2 million

All projects will be constructed in spring/summer/early fall of each year. Design of all projects will commence approximately one year prior to the start of construction.

Oversight and Monitoring of Performance Measures

- Track miles of street reconstruction –
 - 1.6 mi 2014
 - 4.9 mi 2015
 - 2.9 mi 2016
- Track PCI –

- 2011: 59
- 2013: 58
- Track green infrastructure installations and flooding mitigation –
 - Number of GI sites and cost
 - 2014: 4 sites, \$1.65 million
 - 2015: 1 site, \$750,000 cost
 - 2016: 1 site, \$1.2 million
- Track life cycle cost effectiveness of Measure M investments – Have collected and if built will continue to track data on the Allston Permeable Paver Demonstration Project. Including life cycle analysis in 2015 design consultant scope as part of evaluating alternative treatment methods.
- Track ongoing public communication – Focused public outreach on GI sites, including communications with neighborhood key contacts and public meetings. Sent out construction notices for 2014 paving projects. Ongoing communication with residents and Council on as-needed basis.

Attachments: 1. 2015 and 2016 Draft Paving Plan
 2. 2014, 2015 and 2016 Paving Map

**5-YEAR STREET PAVING PLAN
APRIL 2014**

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST	GREEN INFRA	DISTRICT	P	MILEAGE SCORECARD	PCI	LAST PAVED	LAST TYPE	
2015	DWIGHT WAY	SAN PABLO AVE	SACRAMENTO ST	A	RECONSTRUCT	747760		2	C	0.46	5	38	1991	O
2015	DWIGHT WAY	TELEGRAPH AVE	BOWDITCH ST	A	RECONSTRUCT	203096		7	C	0.13	11	42	1991	O
2015	DWIGHT WAY	BOWDITCH ST	COLLEGE AVE	A	RECONSTRUCT	225662		7	C	0.13	11	17	1991	O
2015	DWIGHT WAY	COLLEGE AVE	PIEDMONT AVE	A	RECONSTRUCT	253007		8	C	0.15	11	39	1993	O
2015	FULTON ST	BANCROFT WAY	DURANT AVE	A	OVERLAY	33383		4	B	0.06		45	1997	O
2015	FULTON ST	DURANT AVE	DWIGHT WAY	A	RECONSTRUCT	313783		4	B	0.19	6	38	1986	O
2015	HEARST AVE	SHATTUCK AVE	OXFORD ST	A	OVERLAY	67272		4	B	0.12		89	1989	O
2015	HEARST AVE	OXFORD ST	SPRUCE ST	A	OVERLAY	22478		47	B	0.05		80	1998	R
2015	HEARST AVE	SPRUCE ST	ARCH ST	A	OVERLAY	38212		67	B	0.08		75	1998	R
2015	HEARST AVE	ARCH ST	EUCLID AVE	A	OVERLAY	90623		67	B	0.22		61	1998	R
2015	HEARST AVE	EUCLID AVE	LA LOMA AVE	A	OVERLAY	60275		67	B	0.18		77	1998	O
2015	SACRAMENTO ST	VIRGINIA ST	UNIVERSITY AVE	A	RECONSTRUCT	1221432		1	D	0.30	2	40	1986	O
2015	SHATTUCK AVE (SB)	CENTER ST	UNIVERSITY AVE	A	OVERLAY	50864		4	C	0.13		60	1994	O
2015	SHATTUCK SQUARE	UNIVERSITY AVE	ADDISON ST/BERKELEY SQ	A	OVERLAY	35377		4	C	0.07		41	1994	O
2015	BERKELEY SQUARE	ADDISON ST	CENTER ST	A	OVERLAY	32426		4	C	0.06		52	1994	O
2015	SHATTUCK AVE	CENTER ST	ALLSTON WAY	A	OVERLAY	35669		4	C	0.06		51	1994	O
2015	4TH ST	CHANNING WAY	DWIGHT WAY	C	SLURRY	10976		2	D	0.15		25	1999	R
2015	6TH ST	UNIVERSITY AVE	ALLSTON WAY	C	OVERLAY	72854		2	C	0.19		44	1995	O
2015	ALCATRAZ AVE	ADELIN ST	CITY LIMIT (DOVER ST)	C	OVERLAY	85226		3	D	0.17		52	1995	O
2015	CEDAR ST	SAN PABLO AVE	CHESTNUT ST	C	RECONSTRUCT	439377		1	C	0.28	2	20	1992	O
2015	CEDAR ST	CHESTNUT ST	ACTON ST	C	RECONSTRUCT	337300		1	C	0.22	5	20	1992	O
2015	CEDAR ST	ACTON ST	SACRAMENTO ST	C	RECONSTRUCT	170170		1	C	0.13	5	40	1992	R
2015	CEDAR ST	SPRUCE ST	EUCLID AVE	C	SLURRY	16340		46	D	0.26		70	1988	O
2015	CEDAR ST	EUCLID AVE	LA LOMA AVE	C	OVERLAY	55853		6	D	0.17		48	1986	O
2015	COLLEGE AVE	BANCROFT WAY	DWIGHT WAY	C	OVERLAY	86136		78	C	0.25		49	1989	O
2015	DURANT AVE	FULTON ST	BOWDITCH ST	C	OVERLAY	227123		47	C	0.50		46	1997	O
2015	DURANT AVE	BOWDITCH ST	COLLEGE AVE	C	SLURRY	11900		7	C	0.13		53	1989	O
2015	DURANT AVE	COLLEGE AVE	PIEDMONT AVE	C	SLURRY	8049		8	C	0.12		68	1986	O
2015	GLENDALE AVE	CAMPUS DR	LA LOMA AVE	C	OVERLAY	32958		6	D	0.12		50	1993	O
2015	GRIZZLY PEAK BLVD	SHASTA RD	(EXTENSION OF EUNICE)	C	RECONSTRUCT	289124		6	B	0.20	3	47	1986	O
2015	GRIZZLY PEAK BLVD	(EXTENSION OF EUNICE)	EAST CITY LIMIT (GOLF COURSE)	C	OVERLAY	188555		6	B	0.63		52	1986	O
2015	HEARST AVE	SACRAMENTO ST	CALIFORNIA ST	C	OVERLAY	37649		1	D	0.11		51	1997	R
2015	HEARST AVE	CALIFORNIA ST	MC GEE AVE	C	SLURRY	8792		1	B	0.13		60	1997	R
2015	HEARST AVE	MC GEE AVE	MARTIN LUTHER KING JR WAY	C	SLURRY	18591		14	B	0.26		61	1997	R
2015	KEITH AVE	SPRUCE ST	EUCLID AVE	C	SLURRY	11983		6	B	0.28		65	1988	O
2015	KEITH AVE	EUCLID AVE	SHASTA RD	C	OVERLAY	111988		6	D	0.49		49	1988	O
2015	LA LOMA AVE	GLENDALE AVE	EL PORTAL CT	C	SLURRY	2960		6	D	0.05		66	1993	O
2015	LA LOMA AVE	EL PORTAL CT	QUARRY RD	C	OVERLAY	8240		6	D	0.03		64	1993	O
2015	LOS ANGELES AVE	THE CIRCLE	SPRUCE ST	C	SLURRY	19481		5	B	0.33		70	2003	O
2015	MILVIA ST	HEARST AVE	UNIVERSITY AVE	C	OVERLAY	30748		4	A	0.12		75	1990	O
2016	ROSE ST	MARTIN LUTHER KING JR WAY	MILVIA ST	C	OVERLAY	37420		5	B	0.13		52	1994	O
2015	ROSE ST	MILVIA ST	SHATTUCK AVE	C	SLURRY	7419		5	B	0.13		63	1994	O
2015	ROSE ST	SHATTUCK AVE	SPRUCE ST	C	OVERLAY	52250		5	B	0.18		71		
2015	SHASTA RD	CRAGMONT AVE	KEELER AVE	C	SLURRY	6290		6	B	0.13		65	1994	O
2015	SPRUCE ST	EUNICE ST	ROSE ST	C	OVERLAY	105273		56	B	0.31		52	1994	O
2015	THOUSAND OAKS BLVD	COLUSA AVE	VINCENTE AVE	C	SLURRY	2812		5	D	0.07		67	1988	S
2015	THOUSAND OAKS BLVD	VINCENTE AVE	THE ALAMEDA	C	SLURRY	7548		5	D	0.16		55	1988	S
2015	THOUSAND OAKS BLVD	THE ALAMEDA	ARLINGTON AVE	C	SLURRY	15441		5	D	0.30		87	2002	O

NOTE: COLUMN P DENOTES PRESENCE OF (A) BICYCLE BOULEVARD, (B) BICYCLE ROUTE, (C) BUS ROUTE, OR (D) NONE

**5-YEAR STREET PAVING PLAN
APRIL 2014**

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST	GREEN INFRA	DISTRICT	P	MILEAGE SCORECARD	PCI	LAST PAVED	LAST TYPE
2015	5TH ST	CEDAR ST	VIRGINIA ST	R	SLURRY	6586		1	B	0.13		73	
2015	5TH ST	VIRGINIA ST	UNIVERSITY AVE	R	SLURRY	16099		1	B	0.31		68	
2015	9TH ST	CEDAR ST	DELAWARE ST	R	SLURRY	22274		1	A	0.25		55	1991 O
2015	9TH ST	DELAWARE ST	HEARST AVE	R	SLURRY	8280		1	A	0.09		68	1991 O
2015	9TH ST	HEARST AVE	UNIVERSITY AVE	R	SLURRY	8039		1	A	0.09		31	1991 O
2015	9TH ST	UNIVERSITY AVE	BANCROFT WAY	R	SLURRY	27381		2	A	0.31		71	1990 O
2015	10TH ST	NORTH CITY LIMIT	HARRISON ST	R	SLURRY	5018		1	D	0.09		42	
2015	10TH ST	HARRISON ST	CAMELIA ST	R	RECONSTRUCT	181814		1	D	0.24	12	19	
2015	ACTON ST	RUSSELL ST	ASHBY AVE	R	SLURRY	6159		2	D	0.09		82	
2015	ALVARADO RD	TUNNEL RD	NORTH CITY LIMIT	R	RECONSTRUCT	115726		8	D	0.15	9	42	
2015	ALVARADO RD	NORTH CITY LIMIT	BRIDGE RD	R	RECONSTRUCT	67632		8	D	0.09	9	6	1992 O
2015	BAY ST	POTTER ST	ASHBY OVERCROSSING		RECONSTRUCT	219937		2	D	0.11		14	
2015	BERKELEY WAY	MARTIN LUTHER KING JR WY	MILVIA WAY	R	SLURRY	8568		4	D	0.13		74	1986 O
2015	BERKELEY WAY	MILVIA WAY	SHATTUCK AVE	R	SLURRY	9288		4	D	0.12		53	
2015	BOLIVAR DR	CUL DE SAC	POTTER ST		RECONSTRUCT	167152		2	D	0.07			
2015	BRIDGE RD	ALVARADO RD	TUNNEL RD	R	RECONSTRUCT	67632		8	D	0.09	13	18	1992 O
2015	BROOKSIDE AVE	CLAREMONT AVE	DEAD END (CLAREMONT AVE)	R	SLURRY	3850		8	D	0.08		77	
2015	BROOKSIDE CT	DEAD END	BROOKSIDE DR	R	OVERLAY	4316		8	D	0.02		45	
2015	BROOKSIDE DR	CLAREMONT AVE	CLAREMONT AVE	R	RECONSTRUCT	73711		8	D	0.10	12	23	
2015	BUENA AVE	WEST DEAD END	MCGEE AVE	R	OVERLAY	41104		1	D	0.17		30	
2015	CALIFORNIA ST	UNIVERSITY AVE	DWIGHT WAY	R	SLURRY	50492		4	A	0.57		60	1992 O
2015	CHABOLYN TERRACE	SOUTH CITY LIMIT	SOUTH CITY LIMIT	R	RECONSTRUCT	68389		8	D	0.08	7	17	
2015	CHANNING WAY	SHATTUCK AVE	FULTON ST	R	RECONSTRUCT	142092		4	A	0.11	8	51	1991 O
2015	CHANNING WAY	FULTON ST	DANA ST	R	OVERLAY	81955		47	A	0.25		35	1991 O
2015	CHANNING WAY	DANA ST	BOWDITCH ST	R	OVERLAY	92241		7	A	0.25		30	1993 O
2015	CHANNING WAY	BOWDITCH ST	COLLEGE AVE	R	OVERLAY	42116		7	A	0.13		38	1993 O
2015	CHANNING WAY	COLLEGE AVE	PIEDMONT AVE	R	SLURRY	7034		8	A	0.12		38	1993 O
2015	COLUMBIA CIRCLE	COLUMBIA PATH	FAIRLAWN DR	R	RECONSTRUCT	36896		6	D	0.04		5	
2015	COMSTOCK CT	JAYNES ST	CEDAR ST	R	OVERLAY	8848		1	D	0.06		17	
2015	ELMWOOD CT	ASHBY AVE	DEAD END	R	SLURRY	3015		8	D	0.05		55	
2015	FOLGER AVE	3RD ST	HOLLIS ST	R	OVERLAY	36712		2	D	0.12		17	
2015	FOLGER AVE	7TH ST	SAN PABLO AVE	R	RECONSTRUCT	351250		2	D	0.20	7	12	
2015	GLEN AVE	OAK ST	EUNICE ST	R	RECONSTRUCT	89425		6	D	0.10	9	18	
2015	JAYNES ST	CALIFORNIA ST	EDITH ST	R	OVERLAY	43798		1	D	0.19		26	
2015	KEELER AVE	GRIZZLY PEAK BLVD	MARIN AVE	R	RECONSTRUCT	169080		6	D	0.26	9	3	1991 O
2015	LE CONTE AVE	ARCH ST & HEARST AVE	SCENIC AVE	R	RECONSTRUCT	153977		6	D	0.14	13	33	1995 O
2015	LE CONTE AVE	SCENIC AVE	HIGHLAND PL	R	OVERLAY	124097		6	B	0.41		60	1995 R
2015	MILVIA ST	EUNICE ST	BERRYMAN ST	R	SLURRY	6271		5	A	0.13		34	
2015	MURRAY ST	7TH ST	SAN PABLO AVE	R	RECONSTRUCT	153773		2	D	0.25	7	9	
2015	NORTH ST	NORTH DEAD END	JAYNES ST	R	RECONSTRUCT	16642		1	D	0.03	12	3	
2015	PARKER ST	7TH ST	SAN PABLO AVE	R	SLURRY	18529	*	2	D	0.26		63	2008 R
2015	PARKER ST	MARTIN LUTHER KING JR WY	MILVIA WAY	R	SLURRY	10055		3	B	0.13		29	1993 O
2015	PARKER ST	MILVIA ST	SHATTUCK AVE	R	SLURRY	10856		3	B	0.14		50	1993 O
2015	POTTER ST	I-80	BAY ST		RECONSTRUCT	307911		2	D	0.13		15	
2015	ROSLYN CT	THE SOUTH CROSSWAYS	CHABOLYN TERRACE	R	RECONSTRUCT	13422		8	D	0.03	7	18	
2015	RUSSELL ST	SACRAMENTO ST	MARTIN LUTHER KING JR WAY	R	OVERLAY	145255		3	A	0.45		35	1993 O
2015	RUSSELL ST	MARTIN LUTHER KING JR WAY	MILVIA ST	R	OVERLAY	43730		3	A	0.14		52	1993 O
2015	RUSSELL ST	MILVIA ST	ADELIN ST	R	OVERLAY	7877		3	A	0.02		63	1993 O
2015	RUSSELL ST	TELEGRAPH AVE	HILLEGASS AVE	R	OVERLAY	66894		7	A	0.21		59	1998 O
2015	RUSSELL ST	HILLEGASS AVE	COLLEGE AVE	R	OVERLAY	42812		78	A	0.14		63	1998 O

NOTE: COLUMN P DENOTES PRESENCE OF (A) BICYCLE BOULEVARD, (B) BICYCLE ROUTE, (C) BUS ROUTE, OR (D) NONE

**5-YEAR STREET PAVING PLAN
APRIL 2014**

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST	GREEN INFRA	DISTRICT	P	MILEAGE	SCORECARD	PCI	LAST PAVED	LAST TYPE
2015	SPRUCE ST	VINE ST	CEDAR ST	R	OVERLAY	40366		46	B	0.13		40	1995	O
2015	SPRUCE ST	CEDAR ST	VIRGINIA ST	R	OVERLAY	40978		4	B	0.13		37	1995	O
2015	SPRUCE ST	VIRGINIA ST	HEARST AVE	R	RECONSTRUCT	256199		46	D	0.20	13	36	1995	O
2015	STANTON ST	RUSSELL ST	ASHBY AVE	R	RECONSTRUCT	89317		2	D	0.11	12	24		
2015	THE SPIRAL	DEAD END	WILDCAT CANYON RD	R	RECONSTRUCT	58247		6	D	0.06		18	1991	O
2015	VINE ST	MCGEE AVE	EDITH ST	R	RECONSTRUCT	66884		1	D	0.11	12	25		
2015	YOLO AVE	MILVIA AVE	SUTTER ST	R	SLURRY	4997		5	D	0.11		20		

FISCAL YEAR 2015 TOTALS

Total Estimated Cost and Miles

\$9,911,141

17.79 miles

	MILEAGE	ESTIMATED COST	% COST	% MILEAGE
ARTERIALS	2.39	\$3,431,319	35%	13%
COLLECTORS	6.72	\$2,516,826	25%	38%
RESIDENTIALS	8.68	\$3,962,996	40%	49%
SLURRY SEALS	5.69	\$381,371		
OVERLAYS	7.24	\$2,461,951		
RECONSTRUCTS	4.86	\$7,067,819		
PCC STREETS	0.00	\$0		
BIKE ROUTES	8.33	\$2,445,731	25%	

NOTE: COLUMN P DENOTES PRESENCE OF (A) BICYCLE BOULEVARD, (B) BICYCLE ROUTE, (C) BUS ROUTE, OR (D) NONE

5-YEAR STREET PAVING PLAN
APRIL 2014

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST	GREEN INFRA	DISTRICT	P	MILEAGE SCORECARD	PCI	LAST PAVED	LAST TYPE	
2016	ADELINE ST	DERBY ST	STUART ST	A	OVERLAY	130499		3	B	0.14	51	1994	O	
2016	ADELINE ST	STUART ST	ASHBY AVE	A	RECONSTRUCT	1218888		3	B	0.28	6	42	1988	O
2016	DERBY ST	WARRING ST	BELROSE & TANGLEWOOD	A	RECONSTRUCT	370803		8	B	0.23	6	12	1996	O
2016	OXFORD ST	CEDAR ST	161' N/O HEARST AVE	A	OVERLAY	252		4	C	0.25		74		
2016	OXFORD ST	161' N/O HEARST AVE	HEARST AVE	A	OVERLAY	13074		4	C	0.03		49		
2016	SHATTUCK AVE	ROSE ST	VINE ST	A	RECONSTRUCT	315926		5	C	0.13	11	23	1996	R
2016	SHATTUCK AVE	VINE ST	CEDAR ST	A	RECONSTRUCT	389323		4	C	0.13	11	21	1996	O
2016	SHATTUCK PL	HENRY ST & ROSE ST	SHATTUCK AVE	A	RECONSTRUCT	273743		5	C	0.10	11	27	1996	R
2016	SHATTUCK AVE	CEDAR ST	HEARST AVE	A	RECONSTRUCT	873514		4	C	0.32	6	30	1996	O
2016	SHATTUCK AVE	HEARST AVE	UNIVERSITY AVE	A	OVERLAY	61802		4	C	0.12		41	1996	R
2016	THE ALAMEDA	SOLANO AVE	MARIN AVE	A	SLURRY	21381		5	B	0.18		59	1996	R
2016	THE ALAMEDA	MARIN AVE	HOPKINS ST	A	OVERLAY	156555		5	B	0.26		44	1995	O
2016	THE ALAMEDA	HOPKINS ST	YOLO AVE	A	SLURRY	5283		5	C	0.04		53	1995	O
2016	THE CIRCLE	INTERSECTION MARIN AVE, ETC	INTERSECTION ARLINGTON AVE	A	SLURRY	1235		5	C	0.01		77	1992	R
2016	BANCROFT WAY	MILVIA WAY	SHATTUCK AVE	C	OVERLAY	49871		4	D	0.13		63	1989	O
2016	BELROSE AVE	DERBY ST	CLAREMONT BLVD	C	RECONSTRUCT	207914		8	C	0.12	5	22	1996	O
2016	CLAREMONT BLVD	BELROSE AVE	CLAREMONT AVE	C	RECONSTRUCT	266659		8	C	0.17	11	35	1996	O
2016	DELAWARE ST	6TH ST	SAN PABLO AVE	C	SLURRY	29304		1	B	0.31		71	1992	R
2016	SOLANO AVE	THE ALAMEDA	CONTRA COSTA AVE	C	SLURRY	6982		5	C	0.10		89	2005	O
2016	NORTHBRAE TUNNEL	CONTRA COSTA AVE	DEL NORTE ST	C	SLURRY	12521		5	C	0.27		80	1988	O
2016	PIEDMONT CRESCENT	DWIGHT WAY	WARRING ST	C	RECONSTRUCT	139462		8	B	0.05	6	32	1996	O
2016	WARRING ST	DWIGHT WAY	DERBY ST	C	RECONSTRUCT	531259		8	B	0.29	6	18	1996	O
2016	2ND ST	DELAWARE ST	HEARST AVE	R	RECONSTRUCT	124932		1	D	0.09	12	6		
2016	2ND ST	HEARST AVE	UNIVERSITY AVE	R	OVERLAY	31469		1	D	0.09		37		
2016	2ND ST	UNIVERSITY AVE	ADDISON ST	R	OVERLAY	24464		2	D	0.09		47	1997	O
2016	8TH ST	NORTH CITY LIMIT	GILMAN ST	R	OVERLAY	49512		1	B	0.22		78	2001	R
2016	9TH ST	JOG JUST NORTH OF ANTHONY	POTTER ST	R	OVERLAY	19652		2	B	0.06		36		
2016	9TH ST	POTTER ST	MURRAY ST	R	OVERLAY	22061		2	B	0.06		43		
2016	ALLSTON WAY	STRAWBERRY CK PARK	ACTON ST	R	OVERLAY	32415		2	B	0.10		77	1997	O
2016	ALLSTON WAY	ACTON ST	SACRAMENTO ST	R	RECONSTRUCT	162391		23	B	0.12	8	65	1997	O
2016	ARCADE AVE	GRIZZLY PEAK BLVD	FAIRLAWN DR	R	RECONSTRUCT	54466		6	D	0.06		15	1995	O
2016	AVENIDA DR	CAMPUS DR	OLYMPUS AVE	R	RECONSTRUCT	47217		6	C	0.06	13	19	1993	O
2016	AVENIDA DR	OLYMPUS AVE	QUEENS RD	R	SLURRY	1012		6	C	0.03		72	1993	O
2016	AVENIDA DR	QUEENS RD	GRIZZLY PEAK BLVD	R	RECONSTRUCT	171836		6	C	0.25	13	63	1993	R
2016	BERRYMAN ST	MARTIN LUTHER KING JR HI SCH	MARTIN LUTHER KING JR WAY	R	SLURRY	2010		5	B	0.03		69	1989	O
2016	BERRYMAN ST	MARTIN LUTHER KING JR WAY	MILVIA ST	R	SLURRY	12560		5	B	0.19		71	1989	O
2016	BONAR ST	UNIVERSITY AVE	ADDISON ST	R	OVERLAY	19205		2	B	0.06		23	1992	O
2016	BONAR ST	ALLSTON WAY	DWIGHT WAY	R	OVERLAY	121220		2	B	0.38		37	1991	O
2016	BRET HARTE RD	KEITH AVE	CRAGMONT AVE	R	OVERLAY	10115		6	D	0.06		44	1996	R
2016	BRET HARTE RD	CRAGMONT AVE	KEELER RD	R	SLURRY	4449		6	D	0.14		65	1996	R
2016	CAMPUS DR	GLENDALE AVE	DELMAR AVE	R	OVERLAY	41962		6	C	0.21		49	1991	O
2016	CAMPUS DR	DELMAR AVE	AVENIDA DRIVE	R	SLURRY	3847		6	C	0.10		59	1994	R
2016	CAMPUS DR	AVENIDA DR	PARNASSUS RD	R	RECONSTRUCT	74396		6	D	0.10	13	12		
2016	CAMPUS DR	PARNASSUS RD	DEAD END, UC PLOT	R	RECONSTRUCT	90427		6	D	0.14		0		
2016	CONTRA COSTA AVE	SOLANO AVE	LOS ANGELES AVE	R	OVERLAY	7460		5	D	0.03		40		
2016	CORNELL AVE	GILMAN ST	PAGE ST	R	SLURRY	10467		1	B	0.19		68	1988	O
2016	CORNELL AVE	PAGE ST	HOPKINS ST	R	SLURRY	7275		1	B	0.13		58	1995	O
2016	CORNELL AVE	HOPKINS ST	CEDAR ST	R	SLURRY	3491		1	B	0.07		39	1992	O
2016	CORNELL AVE	CEDAR ST	VIRGINIA ST	R	OVERLAY	33638		1	B	0.13		25	1992	O
2016	CRAGMONT AVE	MARIN AVE	SANTA BARBARA RD	R	OVERLAY	40990		6	D	0.21		40	1992	R
2016	CRAGMONT AVE	SANTA BARBARA RD	EUCLID AVE	R	SLURRY	6371		6	D	0.16		74	1996	R
2016	CRAGMONT AVE	EUCLID AVE	BRET HARTE RD	R	SLURRY	9909		6	B	0.27		64	1996	R
2016	CRAGMONT AVE	BRET HARTE RD	SHASTA RD	R	SLURRY	11906		6	B	0.31		71	1996	R

NOTE: COLUMN P DENOTES PRESENCE OF (A) BICYCLE BOULEVARD, (B) BICYCLE ROUTE, (C) BUS ROUTE, OR (D) NONE

**5-YEAR STREET PAVING PLAN
APRIL 2014**

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST	GREEN INFRA	DISTRICT	P	MILEAGE SCORECARD	PCI	LAST PAVED	LAST TYPE
2016	EAST PARNASSUS CT	PARNASSUS RD	DEAD END	R	RECONSTRUCT	35292		6	D	0.04			
2016	EL DORADO AVE	THE ALAMEDA	SUTTER ST	R	OVERLAY	66278		5	D	0.24		39	1996 O
2016	EUCLID AVE	CRAGMONT AVE	BEG OF DIVIDED ROAD	R	SLURRY	9298		6	B	0.12		80	2001 R
2016	EUCLID AVE (NB)	BEG OF DIVIDED ROAD	END OF DIVIDED ROAD	R	SLURRY	5499		6	B	0.16		73	2001 O
2016	EUCLID AVE (SB)	BEG OF DIVIDED ROAD	END OF DIVIDED ROAD	R	SLURRY	9140		6	B	0.16		80	2001 O
2016	EUCLID AVE	END OF DIVIDED ROAD	EUNICE ST	R	OVERLAY	65025		6	B	0.17		85	2001 R
2016	FAIRLAWN DR	AVENIDA DR	OLYMPUS DR	R	OVERLAY	19749		6	C	0.12		64	1993 O
2016	FLORIDA AVE	SANTA BARBARA RD	BOYNTON AVE	R	OVERLAY	10437		5	D	0.05		79	1993 R
2016	FLORIDA AVE	BOYNTON AVE	DEAD END (FLORIDA WALK)	R	RECONSTRUCT	28313		5	D	0.03	13	40	1993 O
2016	HARVARD CIRCLE	FAIRLAWN DR & SENIOR AVE	FAIRLAWN DR	R	RECONSTRUCT	24313		6	D	0.02		31	
2016	HENRY ST	ROSE ST	VINE ST	R	OVERLAY	40366		5	C	0.13		19	1995 O
2016	HENRY ST	VINE ST	CEDAR ST	R	OVERLAY	41262		4	D	0.12		23	1992 O
2016	HILGARD AVE	LA VEREDA RD	DEAD END	R	OVERLAY	13495		6	D	0.06		39	1999 R
2016	JONES ST	EASTSHORE HWY	2ND ST	R	SLURRY	3615		1	D	0.05		54	
2016	JONES ST	4TH ST	6TH ST	R	OVERLAY	39593		1	D	0.13		12	
2016	JONES ST	6TH ST	SAN PABLO AVE	R	OVERLAY	100914		1	D	0.31		48	1995 O
2016	JONES ST	SAN PABLO AVE	STANNAGE AVE	R	OVERLAY	30886		1	D	0.10		50	1986 O
2016	JOSEPHINE ST	THE ALAMEDA	HOPKINS ST	R	SLURRY	7222		5	D	0.11		33	1997 O
2016	JOSEPHINE ST	HOPKINS ST	ROSE ST	R	SLURRY	16203		5	B	0.24		64	1997 O
2016	LA VEREDA RD	LA LOMA AVE	CEDAR ST	R	RECONSTRUCT	51664		6	D	0.10	9	17	
2016	LA VEREDA RD	CEDAR ST	DEAD END ABOVE VIRGINIA ST	R	RECONSTRUCT	77026		6	D	0.16	9	0	
2016	MICHIGAN AVE	MARYLAND AVE	SPRUCE ST	R	OVERLAY	57030		5	D	0.28		49	1988 O
2016	MODOC ST	SOLANO AVE	MARIN AVE	R	OVERLAY	32368		5	D	0.11		54	1995 R
2016	PAGE ST	EAST FRONTAGE RD	2ND ST	R	OVERLAY	15606		1	D	0.05		39	
2016	PAGE ST	3RD ST	6TH ST	R	SLURRY	10122		1	D	0.18		69	1989 O
2016	PAGE ST	6TH ST	10TH ST	R	SLURRY	13973		1	D	0.25		73	1989 O
2016	PARKER ST	SACRAMENTO ST	MARTIN LUTHER KING JR WAY	R	SLURRY	32154		3	B	0.48		78	1989 O
2016	PARKER ST	COLLEGE AVE	ETNA ST	R	OVERLAY	19877		8	B	0.06		43	1996 O
2016	PARKER ST	ETNA ST	WARRING ST	R	OVERLAY	40672		8	B	0.13		36	1996 O
2016	PARNASSUS RD	DEL MAR AVE	CAMPUS RD	R	RECONSTRUCT	209917		6	D	0.22		19	
2016	PIEDMONT AVE	DWIGHT WAY	DERBY ST	R	OVERLAY	76874		8	B	0.25		37	2006 O
2016	POE ST	BONAR ST	DEAD END (BONAR ST)	R	RECONSTRUCT	40105		2	D	0.03		22	1995 O
2016	PRINCE ST	TREMONT ST	TELEGRAPH AVE	R	OVERLAY	105513		37	B	0.45		58	2002 O
2016	ROSE ST	HOPKINS ST	CHESTNUT ST	R	SLURRY	8830		1	B	0.13		52	1992 O
2016	ROSE ST	CHESTNUT ST	SACRAMENTO ST	R	OVERLAY	115472		1	B	0.34		62	1992 R
2016	RUGBY AVE	NORTH CITY LIMIT	VERMONT AVE	R	RECONSTRUCT	40105		5	D	0.04		15	1994 O
2016	SAN PEDRO AVE	COLUSA AVE	THE ALAMEDA	R	OVERLAY	43832		5	D	0.20		17	1993 O
2016	SENIOR AVE	FAIRLAWN DR	GRIZZLY PEAK BLVD	R	SLURRY	5862		6	C	0.13		35	1995 O
2016	SOMERSET PL	SOUTHAMPTON AVE	DEAD END (JOHN HINKEL PARK)	R	OVERLAY	15012		5	D	0.08		23	2000 O
2016	SONOMA AVE	WEST CITY LIMIT (TULARE AVE)	JOSEPHINE ST	R	SLURRY	24806		5	B	0.37		60	1990 O
2016	SOUTHAMPTON AVE	ARLINGTON AVE	SAN LUIS RD	R	OVERLAY	62276		5	D	0.39		75	2000 O
2016	SPINNAKER WAY	BREAKWATER DR	MARINA BLVD	R	OVERLAY	101934		1	B	0.28		46	1991 O
2016	SPRUCE ST	ROSE ST	VINE ST	R	RECONSTRUCT	163820		56	B	0.13	10	36	1995 O
2016	THE ALAMEDA	CAPISTRANO AVE	TACOMA AVE	R	SLURRY	3078		5	B	0.05		65	2002 O
2016	THE ALAMEDA	TACOMA AVE	SOLANO AVE	R	OVERLAY	83539		5	B	0.24		48	1996 O
2016	THE UPLANDS	HILLCREST RD	EL CAMINO REAL	R	SLURRY	6963		8	B	0.12		60	1994 O
2016	THE UPLANDS	EL CAMINO REAL	TUNNEL RD	R	SLURRY	9141		8	B	0.20		79	1994 R
2016	TULARE AVE	SOLANO AVE	SONOMA AVE	R	OVERLAY	99127		5	D	0.32		48	1994 O
2016	VASSAR AVE	NORTH CITY LIMIT (KENTUCKY)	KENTUCKY AVE	R	RECONSTRUCT	60791		5	D	0.07	13	38	1999 R
2016	VASSAR AVE	KENTUCKY AVE	SPRUCE ST	R	OVERLAY	44699		5	D	0.22		53	1999 R
2016	VERMONT AVE	DEAD END	MARYLAND AVE	R	RECONSTRUCT	135285		5	D	0.15		4	1994 O
2016	VINCENTE AVE	NORTH END (VINCENTE WALK)	THOUSAND OAKS BLVD	R	OVERLAY	57233		5	D	0.27		59	1999 R
2016	VINCENTE AVE	THOUSAND OAKS BLVD	COLUSA AVE	R	SLURRY	9755		5	D	0.22		57	1999 R
2016	VINCENTE AVE	COLUSA AVE	PERALTA AVE	R	OVERLAY	38534		5	D	0.19		63	1999 R

NOTE: COLUMN P DENOTES PRESENCE OF (A) BICYCLE BOULEVARD, (B) BICYCLE ROUTE, (C) BUS ROUTE, OR (D) NONE

**5-YEAR STREET PAVING PLAN
APRIL 2014**

FISCAL YEAR	STREET NAME	FROM	TO	CLASS	TREATMENT	ESTIMATED COST	GREEN INFRA	DISTRICT	P	MILEAGE	SCORECARD	PCI	LAST PAVED	LAST TYPE
2016	WEST PARNASSUS CT	PARNASSUS RD	DEAD END	R	RECONSTRUCT	38653		6	D	0.04		13		
2016	WHITNEY ST	WOOLSEY ST	SOUTH CITY LIMIT	R	OVERLAY	7015		3	D	0.02		62		
2016	WOOLSEY ST	ADELINE ST	TREMONT ST	R	SLURRY	8792	*	3	B	0.11		64	1995	O
2016	WOOLSEY ST	TREMONT ST	TELEGRAPH AVE	R	OVERLAY	157979	*	37	B	0.43		62	1995	O

FISCAL YEAR 2016 TOTALS

Total Estimated Cost and Miles

\$9,021,709

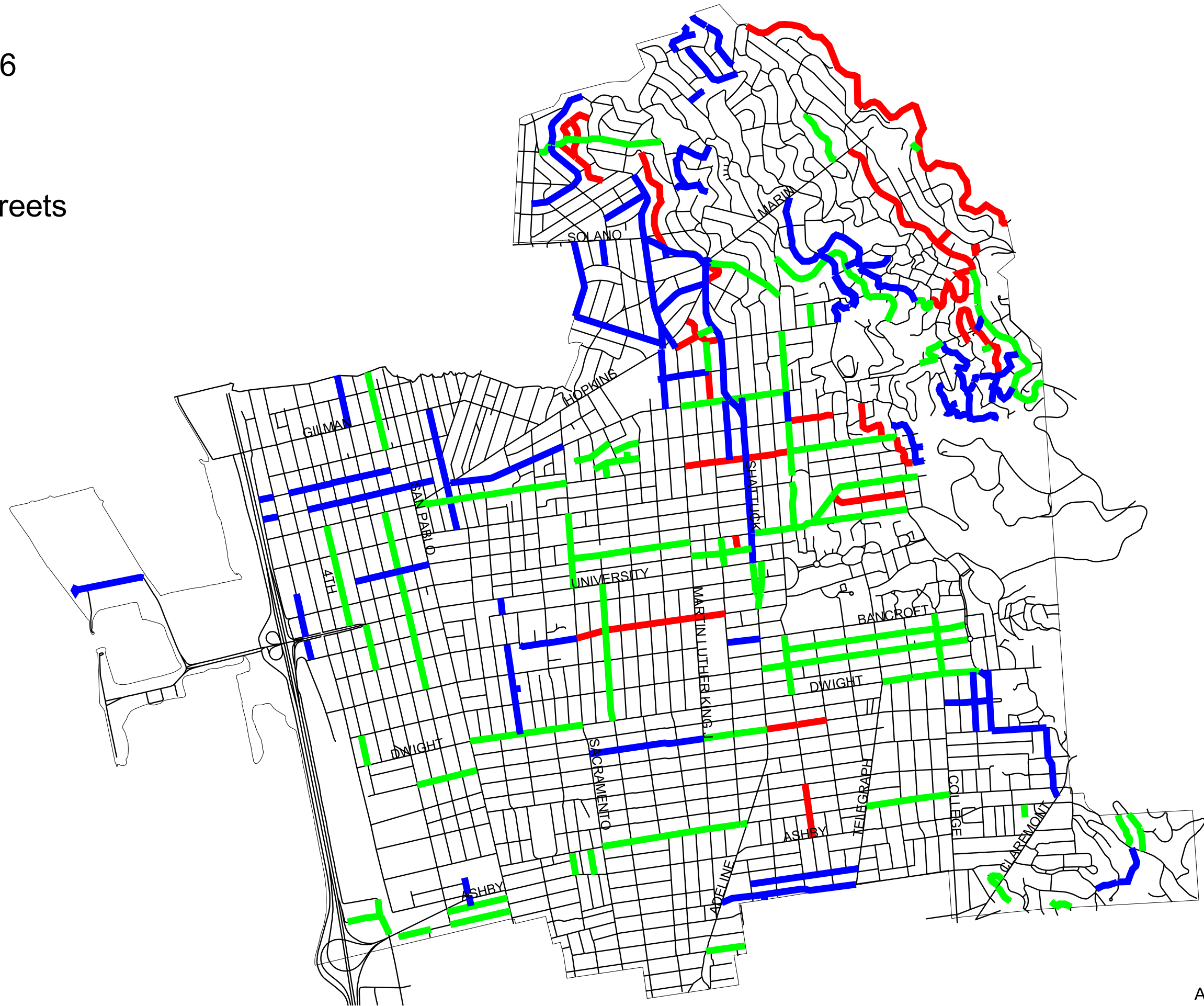
17.64 miles

	MILEAGE	ESTIMATED COST	% COST	% MILEAGE
ARTERIALS	2.20	\$3,832,278	42%	13%
COLLECTORS	1.44	\$1,243,972	14%	8%
RESIDENTIALS	13.99	\$3,945,459	44%	79%
SLURRY SEALS	5.62	\$334,456		
OVERLAYS	8.37	\$2,468,813		
RECONSTRUCTS	3.65	\$6,218,440		
PCC STREETS	0.00	\$0		
BIKE ROUTES	8.70	\$4,180,472	46%	

NOTE: COLUMN P DENOTES PRESENCE OF (A) BICYCLE BOULEVARD, (B) BICYCLE ROUTE, (C) BUS ROUTE, OR (D) NONE

FY 2014 - 2016

- 2014
- 2015
- 2016
- Major Streets





Jesse Arreguín
Councilmember, District 4

CONSENT CALENDAR
February 25, 2014

To: Honorable Mayor and Members of the City Council
From: Councilmembers Jesse Arreguín and Gordon Wozniak
Subject: Water Conservation Measures

RECOMMENDATION

1) Refer to the Public Works and Environmental Advisory Commissions the issue of California’s historic drought to explore possible voluntary and/or mandatory water conservation measures along with public education and outreach, and to return to Council with a recommendation.

2) Request that the City Manager provide a report to Council on the measures proposed and already undertaken by the City to address the drought.

FISCAL IMPACTS OF RECOMMENDATION

Unknown. Some staff time involved in the study and possible execution of water conservation measures, as well as possible savings from such measures.

BACKGROUND:

California is experiencing one of the driest winters on record that, coupled with dry years that have nearly depleted reservoirs the last two years, has led to Governor Jerry Brown to declare a drought emergency and directed State officials to take all necessary actions to prepare for the drought conditions. In addition, Governor Brown has called on all residents to reduce water consumption by 20 percent.

While the recent tropical storm dubbed “pineapple express” brought much needed rain, it is not enough to offset years of diminished rainfall. The City of Berkeley has already taken measures to reduce water consumption as a part of the City’s Climate Action Plan. However, due to the drought, there is a critical need for additional water conservation measures to ensure the continuity of the Berkeley’s severely impacted water source, the Sierra Nevada.

Berkeley’s largest source of water consumption is single-family homes, accounting for 34% of water use in 2011. Through public education there can be greater awareness of the need to conserve water and the simple, free methods to do so. East Bay Municipal Utility District offers free water conserving showerheads, faucet aerators, and hose

nozzles upon the completion of a home water use survey as well as rebates on high-efficiency toilets, clothes washers, and irrigation systems. Dissemination of this information and the promotion of voluntary water conservation methods such as checking for and repairing leaks, watering plants only as needed, restricting water use of non-essential activities, can greatly enhance conservation efforts.

Meanwhile, other Bay Area cities have explored a variety of voluntary and mandatory measures, including the City of Healdsburg, which has requested evening-and morning-only watering, a 20% decrease in water usage at car washes, and prohibiting a variety of non-essential uses of water during the drought, etc.

Additionally, the City may want to consider a decrease in its water usage to “stress levels” for turf in medians, and/or eventually phase out turf in the medians for drought resistant foliage and woodchip groundcover.

CONTACT PERSON:


Jesse Arreguin, Councilmember, District 4

981-7140



Office of the City Manager

February 28, 2014

To: Honorable Mayor and Members of the City Council
From: Christine Daniel, City Manager 
Subject: Drought Response; Water Conservation Measures

At its February 25, 2014 meeting the City Council requested that the City Manager provide a report on the measures proposed and already undertaken by the City to address the drought. The City has already implemented plans to scale back water use, curb leaks, and explore alternative sources of water. Additionally, City staff will be promoting water conservation measures to the general public, including advertising various policies and programs available to the community through the City or other agencies such as EBMUD. A summary of ongoing activity is detailed below.

BACKGROUND

The City of Berkeley will reduce water consumption in its operations by 10 percent to minimize the impact of the ongoing drought. Areas of certain parks and medians will get less water, pipes are being checked for leaks, and the City is exploring the use of reclaimed water for street sweeping and the watering of medians.

The 10 percent reduction mirrors the goal set by EBMUD, which controls water distribution for much of the East Bay, including Berkeley. The City's goals are in addition to the existing community-wide water reductions in Berkeley, where water consumption has [dropped by 20 percent since 2000 and 36 percent since 1975.](#)

Reducing water waste, which residents and businesses can also do, is a priority for the City's water conservation. The City is assessing each building for leaks and looking into cost-effective fixes for some of the more aging infrastructure. One project coinciding with our conservation effort is the replacement of a cooling tower at 1947 Center Street, one of the City's largest buildings. This work will eliminate a leak in that system.

The Parks Recreation and Waterfront Department has surveyed each of the 273 water meters that gauge that department's water use. The department has prioritized water use so that parks and athletic fields will continue to receive water, while still reducing consumption by the 10% target. That reduction has already begun.

The City's Public Works Department is exploring the use of reclaimed water for various uses, such as median watering, and for vector trucks which unclog storm drains. The department is looking into the most feasible ways to bring reclaimed water into the City. Such efforts will be easier in the future thanks to a recently announced grant given to EBMUD. The project, which EBMUD says will be completed in 2015, will pipe reclaimed water directly into Berkeley. The impact could be substantial. For example, the City's three vector trucks, which operate an average of six days a week all year long, each use at least 1,600 gallons a day.

City policies and programs encourage community-wide water conservation, including irrigation by way of bathtub, shower and washing machine [graywater](#). The City also enforces new State standards for [high efficiency plumbing fixtures for new construction and alterations](#). The City also encourages people to install [rainwater harvesting](#) systems, which can reduce the impact of the drought for individual households.

EBMUD also provides a variety of water conservation tips and resources at this link: <http://www.ebmud.com/resource-center/water-conservation-resources>. The agency reports that 14 percent of household water use comes from leaks, something households can address for free with the agency's free [Home Survey Kit](#).

Resources:

City of Berkeley Climate Action Plan Water Consumption Analysis

http://www.ci.berkeley.ca.us/uploadedFiles/Planning_and_Development/Level_3_-_Energy_and_Sustainable_Development/Water%20CAP.pdf

City of Berkeley Graywater Guidelines

http://www.cityofberkeley.info/Planning_and_Development/Energy_and_Sustainable_Development/Graywater_Collection_Systems.aspx

City of Berkeley Plumbing Fixture Replacement Guidelines (PDF)

http://www.ci.berkeley.ca.us/uploadedFiles/Online_Service_Center/Planning/SB%20407%20COB%20Guideline.pdf

City of Berkeley Rainwater Harvesting Guidelines

http://www.cityofberkeley.info/Planning_and_Development/Energy_and_Sustainable_Development/Rainwater_Harvesting.aspx

EBMUD Water Conservation Resources

<http://www.ebmud.com/resource-center/water-conservation-resources>

EBMUD Home Survey Kit

<http://www.ebmud.com/environment/conservation-and-recycling/watersmart-center/watersmart-home-survey-kit>

Page 3

February 28, 2014

Re: Drought Response; Water Conservation Measures

Free home improvement services for low-income residents:

Community Energy Services Corporation: <http://ebenergy.org/home-repair-program/>

Rebuilding Together: <http://rtebn.org/our-work/>

cc: William Rogers, Deputy City Manager
Andrew Clough, Public Works Director
Eric Angstadt, Planning Director
Ann-Marie Hogan, City Auditor
Mark Numainville, City Clerk
Matthai Chakko, Assistant to the City Manager