

# Operation & Maintenance Plan for Urban Low Impact Development (LID) Retrofit at Meiners Oaks Project

Title: Urban Low Impact Development (LID) Retrofit at Meiners Oaks Project

Agreement No. 14-442-550 (Amendment No. 1)

Date: May 31, 2016

Project Type: Stormwater Contamination Reduction and Prevention

Funding Source: Proposition 84 Stormwater Grant Program, Round 2

Total Project Cost: \$955,663

The purpose of this Operation and Maintenance Plan is to document future Operations and Maintenance (O&M) of the Happy Valley Bioswale, an urban Low Impact Development (LID) Retrofit at "Ojai Meadows Preserve" located at 380 South Lomita Avenue, Meiners Oaks, CA (see [Exhibit A](#)). In accordance with State Water Resources Control Board Grant Agreement No.14-442-550 amended in January 2016, O&M of the installed swale must be continued to ensure that project is functional to meet its design goals for not less than 20 years from the date of completion of construction. Construction of the Happy Valley Bioswale was completed in February 2016. Project O&M consists of two separate parts; cleanout of water quality vaults and landscape maintenance.

The County of Ventura (County) and the Ojai Valley Land Conservancy (OVLC) executed a Memorandum of Agreement (MOA) on October 30<sup>th</sup>, 2014, (see [Exhibit B](#)) that formalized ongoing O&M to be completed by each agency for the duration of the Grant O&M requirements. The MOA identifies the County as responsible for O&M procedures related to proprietary treatment systems (i.e., water quality vaults). The MOA identifies OVLC as responsible for O&M procedures related to irrigation and maintaining vegetation within the project area (i.e., landscape maintenance).

## **LANDSCAPE MAINTENANCE**

Revegetation and irrigation installation for the project's disturbed area was completed as part of construction. Post-construction O&M activities will maintain vegetative health to ensure appropriate filtration and adsorption of stormwater pollutants in accordance with design principals. This includes irrigation, planting, seeding, landscape upkeep, and trash and litter removal. The supply of water and applicable appurtenances for plant irrigation shall be supplied to sustain plant vigor. To maintain effective vegetative coverage, sparse or bare/eroded patches occurring in the swale bottom shall be planted with new vegetation. Nuisance weeds and other vegetative cover which threaten effective plant biodiversity shall be removed. Vegetation

removed or cut will be collected and disposed of off-site so to not add to the nutrient impairments of the watershed. The Bioswale inlet and outlet must be kept free of debris and accumulated sediment that could impede stormwater entry or exit from the project site. Repairs to the slopes and bottom of the Bioswale will be performed if erosion or scouring has occurred from flow channelization. If standing water is present in the Bioswale three days after a rain event, minor maintenance shall be performed to restore proper drainage in order to avoid vector issues.

Visual landscape inspections will occur monthly followed by appropriate O&M activities. Revegetation needs and irrigation allotments will be established and/or tweaked during these inspections. Inspections and O&M activities will occur throughout the rainy season following rain events, as needed. Particular focus will be directed towards maintaining vegetation on the slopes and bottom of the Bioswale prior to each rainy season.

#### Key Requirements:

- ✓ Frequency: Monthly visual inspections followed by appropriate O&M activities. As-needed wet season inspections following rain events.
- ✓ Replant/irrigate as needed to maintain healthy swale vegetation for stormwater filtration
- ✓ Remove Trash/Debris/Sediment
- ✓ Repair Erosion/Scouring and clear inlet/outlet blockages, and
- ✓ If standing water is present 4 days after rain event, restore proper drainage.

#### **WATER QUALITY VAULTS**

Three water quality vaults including storm drain diversion structure, trash/nutrient/sediment removal baffle box (3 chambers), and vault for future bacteria treatment, will be cleaned two times annually. The vault cleanings shall be completed once between January 1<sup>st</sup> and February 28<sup>th</sup> (*Wet Season*), and a second time between May 1<sup>st</sup> and June 30<sup>th</sup> (*Post Wet Season*).

The cleanings will be completed with a pressure washer to clean off vault screens as well as break-up minor debris. All captured stormwater, pressure washer water, accumulated sediment and debris will be collected by a vacuum truck and disposed of off-site appropriately. Vault hatches will be closed and locked after cleanings. Entry into the vaults is not required for work completion. Therefore, confined space entry certification is not required.

#### Water Quality Vault Cleaning Key Requirements:

- ✓ Frequency: (2) times a year:
  - Between January 1<sup>st</sup> and February 28<sup>th</sup> (*Wet-Season*), and
  - Between May 1<sup>st</sup> and June 30<sup>th</sup> (*Post Wet-Season*).
- ✓ Utilize a vacuum truck to remove sediment, water, trash and debris.
- ✓ Break up accumulated debris and wash screens with a pressure washer.
- ✓ No wash water can be discharged into the storm drain system.

As-needed visual inspection of the water quality vaults following cleanings will determine acceptability. If unacceptable amounts of water, sediment and/or trash and debris remain then re-cleaning of the vaults will be completed within one month.

### **Training**

The O&M designated staff will be given training on implementation of this O&M plan. The training will be provided at least annually due by June 30<sup>th</sup> in accordance with the Ventura Countywide Municipal Stormwater Permit Order No. R4-2010-0108 as amended from time to time.

### Legend

- Inlets
- Storm Drains
- Channels
- Project Drainage Area



Diversion of Flows from Existing 24" Storm Drain to Swale

Happy Valley Drain

Enhanced Vegetated Swale

36.8 ac



0 250 500 Feet

### Urban LID Retrofit at Meiners Oaks

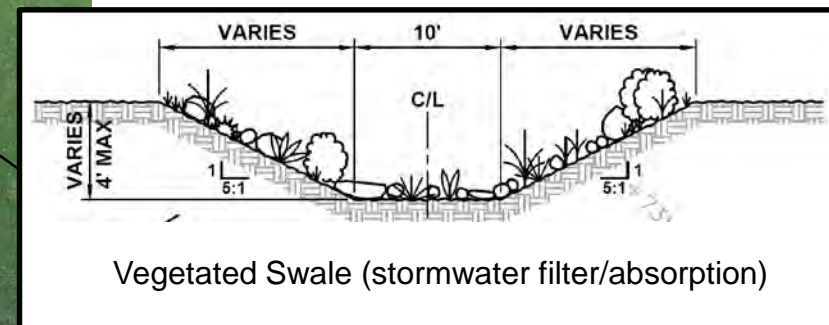
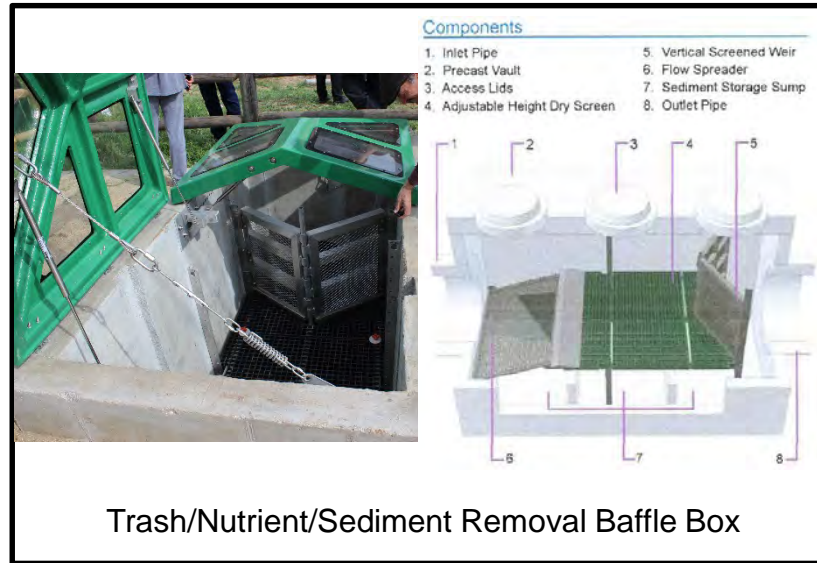
380 South Lomita Avenue  
Ojai Valley Land Conservancy

# Happy Valley Bioswale

Vault for Future Bacteria Treatment

Existing Storm Drain

OVLC Maintenance Access Road



**MEMORANDUM OF AGREEMENT  
BETWEEN COUNTY OF VENTURA AND OJAI VALLEY LAND CONSERVANCY  
  
FOR ACTIVITIES RELATED TO  
URBAN LOW IMPACT DEVELOPMENT (LID) RETROFIT PROJECT  
AT MEINERS OAKS**

This Memorandum of Agreement (“MOA”) is made this 30<sup>th</sup> day of October, 2014, and entered into by and between the County of Ventura (hereinafter referred to as “County”), and the Ojai Valley Land Conservancy (hereinafter referred to as “OVLC”).

**RECITALS**

WHEREAS, the County and OVLC agreed to collaborate on the performance of certain tasks that were included in the grant project; and

WHEREAS, the State Water Resources Control Board (State Water Board) announced in May 2014 that County’s application for the Proposition 84 Storm Water Grant Program (SWGP) funding for the Meiners Oaks Urban Low Impact Development (LID) Retrofit Project was successful and that the grant project would be funded; and

WHEREAS, the County signed the Grant Agreement with the State Water Board on August 1, 2014 initiating the grant process; and

WHEREAS, the County and OVLC committed during the application period to perform certain tasks that were included in the grant project;

NOW, THEREFORE, the County and OVLC desire to enter into this MOA in order to memorialize the tasks each organization is to perform in order to successfully complete the grant funded project as approved by the State Water Board.

**ARTICLE 1  
DEFINITIONS**

- 1.1 AUTHORIZED AUTHORITY shall mean the individual authorized by each MEMBER to sign this MOA.
- 1.2 PARTY shall mean the County or OVLC.
- 1.3 PARTIES shall mean the County and OVLC.

- 1.4 PROJECT shall mean Meiners Oaks Urban Low Impact Development (LID) Retrofit Project.
- 1.5 PROPERTY shall mean OVLC's property located at 409 South Lomita Avenue in Meiners Oaks, California (Assessor Parcel Number 017-0-330-30), which is commonly referred to as the Ojai Meadows Preserve.

## **ARTICLE 2 PURPOSE, TERM, TERMINATION AND AMENDMENTS**

- 2.1 The purpose of the MOA is to establish a working agreement between the PARTIES with regard to successfully completing the Proposition 84 SWGP funded PROJECT.
- 2.2 The term of this MOA shall commence on the day and date written above and shall be effective for the useful life of the PROJECT as defined by the Grant Agreement, estimated at twenty (20) years after completion of construction of the PROJECT.
- 2.3 Any substantive amendment, modification, extension, or variation of terms of the MOA shall be in writing and shall be effective only upon written approval by the AUTHORIZED AUTHORITIES of both PARTIES.

## **ARTICLE 3 RESPONSIBILITIES OF THE PARTIES**

- 3.1 As approved by the State Water Board, the County shall act as grantee and shall, as an eligible grant recipient, enter into the grant agreement with the State Water Board to implement the approved PROJECT and to administer grant requirements.
- 3.2 In accordance with the agreement among the PARTIES during the preparation of the application described in the above-referenced Letter of Intent, the County and OVLC commit to the following:
- 3.3 The County will:
  - A) Design and construct the stormwater treatment PROJECT at the PROPERTY as proposed in the PROJECT conceptual design dated February 2014 and in accordance with the State Water Board's Grant Agreement for PROJECT implementation.
  - B) Provide all grant administrative functions and implementation of the PROJECT.

- C) Conduct all operation and maintenance (O&M) procedures related to the PROJECT within County's Right of Way (South Lomita Avenue) including, but not limited to, O&M activities requiring heavy and/or specialized equipment, or proprietary treatment systems, or not related to plants and vegetation upkeep for the lifetime of the PROJECT designed to operate at least twenty (20) years after construction is complete. All O&M activities will be conducted in accordance with the approved O&M Plan for the PROJECT.

3.4 The OVLC will:

- A) Allow access to the PROPERTY to the County staff and County's contractors and consultants during PROJECT construction and any PROJECT-related activities including O&M.
- B) Provide consultation for plant selection for the PROJECT including participation in the development and review of the landscape architecture plans.
- C) Assist with available plant and seed supply per approved landscape architecture plans.
- D) Supply water and applicable appurtenances for plant irrigation.
- E) Provide oversight during irrigation system design, installation and planting scheduled to be completed not later than October 2015.
- F) Provide for site restoration once construction is complete.
- G) Participate in development and review of PROJECT O&M Plan.
- H) Conduct O&M activities for the lifetime of the PROJECT, estimated to be at least twenty (20) years after construction of the PROJECT is completed, in accordance with approved O&M Plan except for County's right-of-way, any proprietary treatment system and its elements, and any O&M activities that require heavy and/or specialized equipment. O&M activities include, but are not limited, to watering, planting, seeding, landscape upkeep, and trash and litter removal within the PROJECT area.
- I) Provide in-kind staff services for educational outreach related to the PROJECT.
- J) Provide appropriate documentation of completed in-kind staff services for the County to submit to the State Water Board towards meeting the grant match requirements. No cost reimbursement for OVLC's in-kind services will be provided.



## **ARTICLE 4 GENERAL TERMS AND CONDITIONS**

4.1 **APPROVAL BY PARTIES:** This MOA and any amendments thereto shall not be binding on the PARTIES unless approved by their AUTHORIZED AUTHORITY.

4.2 **COMPLETE AGREEMENT:** This MOA constitutes the entire agreement between the PARTIES and the County with respect to the subject matter of this MOA. No prior oral or written understandings or agreements between the PARTIES with respect to the subject matter of this MOA are incorporated herein and any such understandings or agreements are entirely superseded by this MOA.

4.3 **AMENDMENTS:** This MOA may not be amended without a written amendment approved by the PARTIES, as evidenced by the signature of their AUTHORIZED AUTHORITY.

4.4 **INTERPRETATION:** This MOA shall be interpreted and construed reasonably and neither for nor against any of the PARTIES, regardless of the degree to which any of the PARTIES participated in its drafting.

4.5 **SEVERABILITY:** If any term, provision, covenant, or condition of this MOA is determined by a court of competent jurisdiction to be invalid, void or unenforceable, the rest of the MOA shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

4.6 **INDEPENDENT CONTRACTORS:** The PARTIES agree that they are, and at all times shall be, independent contractors of, and not the agent of the other.

4.7 **GOVERNING LAW:** This MOA shall be governed by and construed in accordance with the laws of the State of California.

4.8 **INTELLECTUAL PROPERTY:** By entering into this MOA no PARTY is deemed to be transferring any intellectual property rights, including but not limited to proprietary information, patents and trademarks. Each PARTY shall respect the intellectual property rights of the others, and shall not disclose any confidential information without prior written consent of the PARTY that has developed the confidential information.

4.9 **NOTICES:** All notices or correspondence under this MOA shall be given to the following addresses and shall be deemed delivered on the date of actual delivery or on the third business day after the date of mailing.

**OJAI VALLEY LAND CONSERVANCY:**

Brian Stark  
Executive Director, Ojai Valley Land Conservancy  
P.O. Box 1092  
Ojai, CA 93024

COUNTY OF VENTURA:

Jeff Pratt  
Director, Ventura County Public Works Agency  
800 South Victoria Avenue  
Ventura, CA 93009-1600

IN WITNESS WHEREOF, the PARTIES have executed this MOA on the dates indicated below.

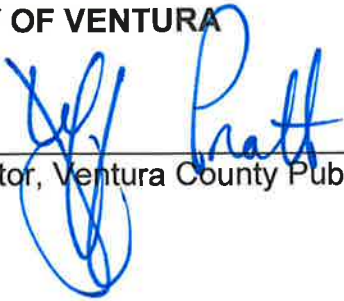
**OJAI VALLEY LAND CONSERVANCY**



\_\_\_\_\_  
By: Executive Director, Ojai Valley Land Conservancy

Date 10/28/14

COUNTY OF VENTURA



\_\_\_\_\_  
By: Director, Ventura County Public Works Agency

Date 10/29/14