This meeting is not subject to
Brown Act noticing requirements.
The agenda is subject to change.

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

Water Demand Committee Members:
Kristi Markey, Chair
Brenda Lewis
Jeanne Byrne

Alternate:
Andrew Clarke

Staff Contact
Stephanie Locke
Arlene Tavani

After staff reports have been distributed, if additional documents are produced by the District and provided to the Committee regarding any item on the agenda, they will be made available at 5 Harris Court, Building G, Monterey, CA during normal business hours. In addition, such documents may be posted on the District website at www.mpwmd.net. Documents distributed at the meeting will be made available in the same manner.

AGENDA
Water Demand Committee
Of the Monterey Peninsula Water Management District
****
Wednesday, November 4, 2015, 1:30 pm
District Conference Room, 5 Harris Court, Building G, Monterey, CA

Call to Order

Comments from Public
The public may comment on any item within the District's jurisdiction. Please limit your comments to three minutes in length.

Action Items -- Public comment will be received.
1. Consider Adoption of September 23, 2015 Committee Meeting Minutes

2. Consider Lawn Removal Rebate Request from Monterey Peninsula Unified School District for Four School Sites

Discussion Items -- Public comment will be received.
3. Update on State and County Regulations re Use of Residential Greywater

4. Update on Draft Water Conservation and Rationing Plan

Other Items

Set Next Meeting Date

Adjournment

Upon request, MPWMD will make a reasonable effort to provide written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in public meetings. MPWMD will also make a reasonable effort to provide translation services upon request. Please send a description of the requested materials and preferred alternative format or auxiliary aid or service by 5 PM on Monday, November 2, 2015. Requests should be sent to the Board Secretary, MPWMD, P.O. Box 85, Monterey, CA, 93942. You may also fax your request to the Administrative Services Division at 831-644-9560, or call 831-658-5600.

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WATER DEMAND COMMITTEE

ITEM: ACTION ITEM

1. CONSIDER ADOPTION OF SEPTEMBER 23, 2015 COMMITTEE MEETING MINUTES

Meeting Date: November 4, 2015

From: David J. Stoldt,
General Manager

Prepared By: Arlene Tavani

SUMMARY: Attached as **Exhibit 1-A** are draft minutes of the September 23, 2015 Water Demand Committee meeting.

RECOMMENDATION: The Committee should adopt the minutes by motion.

EXHIBIT
1-A Draft Minutes of the September 23, 2015 Water Demand Committee Meeting

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MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

EXHIBIT 1-A

DRAFT MINUTES
Water Demand Committee of the
Monterey Peninsula Water Management District
September 23, 2015

Call to Order
The meeting was called to order at 1:08 pm in the MPWMD conference room.

Committee members present: Kristi Markey, Chair
Jeanne Byrne
Brenda Lewis

Staff members present: Stephanie Locke, Water Demand Division Manager
Arlene Tavani, Executive Assistant

Comments from the Public: No comments.

Action Items

1. Consider Adoption of August 28, 2015 Committee Meeting Minutes
On a motion by Byrne and second of Lewis, the committee approved the August 28, 2015 Committee meeting minutes on a vote of 3 – 0 by Byrne, Lewis and Markey.

2. Continue Review of Proposed Conservation/Permitting Ordinance Terms
Locke stated that three ordinances would be prepared based on discussions at the August 28 and September 23, 2015 committee meetings. She reviewed each enumerated item in the staff note for September 23, 2015, to determine support from the committee. The committee agreed on all items, and commented on those listed here.

1) Auto Sales – A documented water credit would apply, but if there is no documented water credit, the Table 2 Non-Residential Water Use Factor would be used to estimate previous water use.

7) Whirlpool Tubs in Visitor-Serving Facilities - Suggested rebate of $250 but recognized the cost to remove a tub could be very high. Requested that staff review this with hospitality industry representatives to determine the cost for tub removal. The rebate might be raised based on the cost for tub removal.

8) Alluvial Turf Removal – Rebates should not be funded by California-American Water rate payers. Must require replacement of lawn with drought tolerant landscape. A lower rebate for turf removal should be developed.

9) Water Pressure – Advise the public that water pressure should be between 40 and 60 psi, as in some areas the pressure is lower which results in very low faucet flows for the Cal-Am customer.

15) Limit Hotel Room Showers to One Showerhead - If there are two shower heads, each one should be on a separate valve system.

16) Factor for RV Hookups - Agreed with staff recommendation to calculate water factor at ¼ of the factor for a hotel room.

Other Items: Locke presented the issue of projects that have special circumstances. For example, the proposed Bella Hotel in Pacific Grove will be designed to utilize greywater for toilet flushing. The plan is to treat water to drinking water standards before it is piped to the toilets. Rules must be developed that would specify a reduced water factor or authorize a study to determine the water reduction that would be achieved. The committee noted that the Monterey County Health Department should be encouraged to modify its regulations to allow the use of greywater for residential use. Staff was asked to contact Monterey County regarding current regulations.

Locke stated that another example of special circumstances is when a property owner agrees to a 5-year period in which a project's water use is monitored, and if water use is exceeded at any time during that 5-year period the jurisdiction's allocation will be debited for the overage. Because jurisdictions may have no remaining allocation, our rules do allow retrofits at another site to compensate for the increased water use. Staff will present to the committee in the future modifications to the rule that allows the off-site retrofits, and also a request to monitor water use for the full 5-year period before requiring an offset for exceeding the water use estimates.

Set Next Meeting Date: The meeting was scheduled for November 4, 2015 at 1:30 pm.

Adjournment
The meeting was adjourned at 2 pm.

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WATER DEMAND COMMITTEE

ITEM: ACTION ITEM

2. CONSIDER LAWN REMOVAL REBATE REQUEST FROM MONTEREY PENINSULA UNIFED SCHOOL DISTRICT FOR FOUR SCHOOL SITES

Meeting Date:	**November 4, 2015**	**Budgeted:**	**No**
From:	**David J. Stoldt, General Manager**	**Program/ Line Item No.:**	**26-05-781412 & 781499**
Prepared By:	**Stephanie Locke**	**Cost Estimate:**	**$123,048**

General Counsel Review: N/A
Committee Recommendation: N/A
CEQA Compliance: N/A

SUMMARY: Monterey Peninsula Unified School District (MPUSD) is requesting rebates for large areas of turf removal pursuant to the District's Rule 141-A, which allows for rebates above the 2,500 square-foot limit for lawn removal at a public facility subject to Board approval (**Exhibit 2-A**). Rebates are being requested in both the California American Water (Cal-Am) system and in the Seaside Municipal Water Distribution System. The total requested for two Cal-Am schools is $56,642. The estimated savings is more than 1.65 million gallons/year or 5 acre-feet. The total requested for two Seaside Muni schools is $66,406. The estimated savings is more than 4 million gallons/year or 12 acre-feet. Rebate funding for Cal-Am customers during FY 2015-2016 is $700,000, although the total available for rebates for 2015-2017 is $1.6 million (reimbursable by Cal-Am). To date, $453,368 has been used. Budgeted funding for non-Cal-Am customers for FY 2015-2016 is only $20,000, of which $11,727 has been used to date.

MPUSD has enacted a District Wide Master Water Conservation Plan which includes the removal of large quantities of irrigated turf area across the District. In 2015-2016 MPUSD is implementing a 5th grade Eco-Ambassador program in partnership with Return of the Natives, Pacific Grove Museum and the Monterey Art Council. The goals of the program include educating the students about water conservation, create a native plant garden, and install active rainwater catchment. The Eco-Ambassador program is tied into the lawn conversion project. The designs for the new gardens were inspired by the professional landscape designs created for Ord Terrace Elementary who received a grant from MPWMD in 2014. MPUSD's goal is to reduce ornamental turf by 65% and to retrofit every field with water efficient irrigation systems by 2021.

Seaside Muni Properties:

- Martin Luther King Elementary - FIELD IMPROVEMENTS
  - $58,806 requested for the removal of 58,806 sf of turf
  - They will remove 24% of the turf and install a new irrigation system to improve efficiency on the remaining sports fields
  - Estimated water savings is 3,978,630 gallons/year
  - MPUSD's proposed portion of the cost is $73,194

- Martin Luther King Elementary - READING GARDEN
    - $4,800 requested for the removal of 4,800 sf of turf
    - The replacement will include a meeting area with permeable surfaces, a cistern, drought tolerant plants and a rain garden
    - Estimated water savings is 110,030 gallons/year
    - MPUSD's proposed portion of the cost is $9,600
- Highland Elementary – SOLAR GARDEN
    - $2,800 requested for the removal of 2,800 sf of turf
    - The replacement will include a cistern, drought tolerant plants and a rain garden
    - MPUSD's proposed portion of the cost is $5,616

Cal-Am Properties:

- Del Rey Woods Elementary
    - $53,142 requested for the removal of 53,142 sf of turf from 5 areas
    - The replacement will include bio swales, cisterns, vegetable planters, benches, a class amphitheater, and drought tolerant plants
    - The turf removal will save an estimated 1,547,711 gallons/year
    - MPUSD's proposed portion of the cost is $0
- Monte Vista Elementary
    - $3,500 requested for the removal of 3,500 sf of turf
    - The replacement will include a bio swales, cisterns, benches, a class amphitheater, and drought tolerant plants
    - The turf removal will save an estimated 101,419 gallons/year
    - MPUSD's proposed portion of the cost is $7,000

R**ECOMMENDATION:** The Committee should discuss the MPUSD request and make a recommendation to the Board. Staff recommends consideration of the Cal-Am system rebate as it will result in immediate savings at a reasonable cost per acre-foot, helping the community achieve both the local regulatory reductions as well as the State's conservation goal. Unfortunately, there is not sufficient funding to fund the non-Cal-Am turf removal at this time without jeopardizing potential retrofits in the Seaside Municipal Water system. Staff recommends that a decision on Seaside Municipal turf removal be deferred until May (close to the end of the fiscal year) to determine the amount of funding available in this year's budget.

EXHIBIT

2-A MPUSD Request

Monterey Peninsula Water Management District
GRANT PROPOSAL
For
Monterey Peninsula Unified School District

The Reading Garden

Name of Applicant:	Monterey Peninsula Unified School District
Invoicing & Contract Name & Contact Information:	Dan Albert, Associate Superintendent of Business Services (831) 645-1269 dalbert@mpusd.k12.ca.us 700 Pacific St, Monterey, CA 93940 or PO BOX 1031 Monterey CA 93942
Project Manager Name & Contact Information:	David Chandler, Energy Specialist (831) 901-7376 dchandler@mpusd.k12.ca.us
Project Site Addresses:	1.. Martin Luther King School 1713 Broadway Ave, Seaside, CA 93955
Account:	City of Seaside Water: 04-7590-00
Proposed turf removal:	**Turf removal 4800 square feet** **Turf removal funds $1 per square foot: $4800**
Proposed Projects:	Proposal will partially fund the turf removal and water conservation garden at Martin Luther King Jr. School. The proposal will also set a standard and model for the larger District Wide Master Water Conservation plan. The proposal will partially fund the implementation of an educational water conservation model that we are calling the Reading Garden. The Reading Garden will teach the students and community about water conservation, ground water quality and preventing storm water pollution. This part of the master plan will include active and passive rain water collection, cisterns, bio swale, rain gardens, outdoor classrooms, native arboretums and turf removal. The Reading Garden will remove 4800 square feet of turf

Preliminary to proposed project

In Spring 2014 MPUSD received a grant from MPWMD to install Hydro-point weather trak ET Pro controllers at the Cal Am serviced sites. The grant proposal was met and exceeded by installing all the controllers, as well as eliminating manual and battery operated zones.

In 2014 MPWMD funded a field retrofit and master water conservation Plan for Ord Terrace Elementary. This project has inspired MPUSD to commit to water conservation landscapes. Ord terrace eliminated 100% of the ornamental turf and replaced it with drought tolerant landscape. Water use has been reduced at Ord Terrace by 63%.

In Summer of 2015 MPUSD funded and installed 27 Hydro-point weather trak ET controllers at the City of Seaside and Marina Coast water serviced sites. Making the districts irrigation fully controlled by Smart weather based irrigation controllers

In Summer of 2015 MPUSD administration and board approved the use of water utility savings to be used to retrofit our fields irrigation, implement a turf removal plan and set up a turf maintenance program. The MPUSD Energy Program in collaboration with the facilities department has created a six year field retrofit plan and a six year Ornamental Turf removal plan.

In the 2015-16 school year MPUSD is implementing a 5th grade Eco- Ambassador program. Throughout the school year all 5th grade students will take classes from Return of the Native, Pacific Grove Museum and Monterey Art Council. Part of the goal of this program is to educate the students about water conservation and to create a Native garden with passive and active storm water catchment. The designs for these gardens are inspired by the professional designs funded by the Ord Terrace grant.

As the Coordinator of Renewable Energy and Conservation I am working diligently to conserve water across the whole school district. The momentum of the MPUSD water conservation plan is growing. MPUSD is committed to reduce the need for water across the district. By 2021 we have the goal of reducing ornamental turf by 65% and to retrofit every field with efficient irrigation systems including flow sensors and master valves. MPUSD has been asked to speak at a state level as a leader in school districts water conservation. MPUSD has reduced its water use by 45% compared to the base year of 2013.

I look forward to working with MPWMD for many years.

Thank you

David Chandler

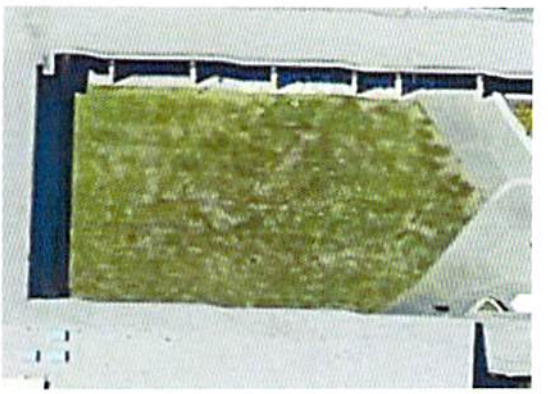
Coordinator of Renewable Energy and Conservation

Monterey Peninsula Unified School District
Monterey Peninsula Water Management District
Water Conservation Grant Proposal

APPLICATION ATTACHMENTS

ATTACHMENT 1

SITE Photo



Reading garden site 4800 square feet of turf removal. Proposed plan will include a meeting area, made up of porous material and park benches, for parents and students connected to the office, cafeteria and Library. In between the walk ways will be drought tolerant landscape. One section will be the 5th grade Eco Ambassador Garden with a native habitat, passive and active storm water collection.

ATTACHMENT 2

PROPOSED PLAN (Phase 1)

There are 2 projects being proposed to Monterey Peninsula Unified School District for consideration.

Site	Project	
1. Martin Luther King Jr. School	Reading Garden	Turf removal and water conservation landscape de. Calculations show a 95%% reduction in water use. • MPWMD turf removal grant funds will be used to purchase a cistern and fund the 5th grade Eco Garden which will include a LID bioswale design and native habitat. MPUSD fund the staff and the remaining costs to implement the Reading Garden Water conservation model.

ATTACHMENT 3

ESTIMATED BUDGET

Monterey Peninsula Water Management District
LANDSCAPE GRANT PROPOSAL
MONTEREY PENINSULA UNIFIED SCHOOL DISTRICT
ESTIMATED BUDGET

Turf removal 4800 square feet

Turf removal funds $1 per square foot: $4800

Estimated cost for Reading Garden $14,400
$4800 MPWMD turf removal
$9600 MPUSD Water Conservation fund

Total Grant Requested $4800

ATTACHMENT 4

PROJECT TIMELINE

Upon MPWMD award of proposal it is estimated the project could potentially take up to 2-3 months to complete. The design is currently in progress with a collaboration between MPUSD's Energy Program and the Grounds Department The MPUSD Staff are prepping the area for the Reading Garden September 19th- October 1st . the 5th grade Eco Ambassador students will be prepping the garden on October 2nd. The intent of MPUSD is to complete the proposal implementation during the 2015-16 school year.

ATTACHMENT 5

MAINTENANCE PLAN

The MPUSD maintenance department in collaboration with the school community will maintain the Reading Garden Landscape. The 5th grade Eco Ambassadors will be responsible for watering and maintenance schedules.

David Chandler, the MPUSD Coordinator of Renewable Energy and Conservation, will oversee implementation of proposed irrigation projects.

ATTACHMENT 6

WATER SAVINGS

The Reading Garden has 4800 square feet of irrigated Ornamental turf. MPUSD has already completed water conservation with MP Rotor install. With the current size and irrigation efficiency it uses 115,822 gallons of water. The proposal will reduce the irrigation by removing turf, planting landscape with low plant water factor and supplement watering with rain water catchment. The proposal when fully implemented has the potential to reduce water use 110,030 gallons, a 95% reduction in water.

ATTACHMENT 7

CURRENT LANDSCAPING INFORMATION

	H20 Requirement	Current Irrigation
Reading Garden	Turf (High) 4800sq. ft.	MP Rotors Smart ET controller

Monterey Peninsula Water Management District
GRANT PROPOSAL
For
Monterey Peninsula Unified School District

MLK Sports Complex

Name of Applicant:	Monterey Peninsula Unified School District
Invoicing & Contract Name & Contact Information:	Dan Albert, Associate Superintendent of Business Services (831) 645-1269 dalbert@mpusd.k12.ca.us 700 Pacific St, Monterey, CA 93940 or PO BOX 1031 Monterey CA 93942
Project Manager Name & Contact Information:	David Chandler, Energy Specialist (831) 901-7376 dchandler@mpusd.k12.ca.us
Project Site Addresses:	1.. Martin Luther King School 1713 Broadway Ave, Seaside, CA 93955
Account:	City of Seaside Water: 04-7590-00
Proposed turf removal:	**Turf removal 58,806 square feet** **Turf removal funds $1 per square foot: $58,806**
Proposed Projects:	Proposal will partially fund the turf removal and field Retrofit at Martin Luther King Jr. School. The proposal will also set a standard and model for the larger District Wide Master Water Conservation plan. This new field design will reduce turf area of the field by 24%, improve field quality and reduce water use by 52%. The new field design will include a backflow, master valve and flow sensor as well as focused efficient irrigation. . This new equipment will allow the Smart controller to manage water budgets as well as detect irrigation issues on the Districts largest field.

Preliminary to proposed project

In Spring 2014 MPUSD received a grant from MPWMD to install Hydro-point weather trak ET Pro controllers at the Cal Am serviced sites. The grant proposal was met and exceeded by installing all the controllers, as well as eliminating manual and battery operated zones.

In 2014 MPWMD funded a field retrofit and master water conservation Plan for Ord Terrace Elementary. This project has inspired MPUSD to commit to water conservation landscapes. Ord terrace eliminated 100% of the ornamental turf and replaced it with drought tolerant landscape. Water use has been reduced at Ord Terrace by 63%.

In Summer of 2015 MPUSD funded and installed 27 Hydro-point weather trak ET controllers at the City of Seaside and Marina Coast water serviced sites. Making the districts irrigation fully controlled by Smart weather based irrigation controllers

In Summer of 2015 MPUSD administration and board approved the use of water utility savings to be used to retrofit our fields irrigation, implement a turf removal plan and set up a turf maintenance program. The MPUSD Energy Program in collaboration with the facilities department has created a six year field retrofit plan and a six year Ornamental Turf removal plan.

In the 2015-16 school year MPUSD is implementing a 5th grade Eco- Ambassador program. Throughout the school year all 5th grade students will take classes from Return of the Native, Pacific Grove Museum and Monterey Art Council. Part of the goal of this program is to educate the students about water conservation and to create a Native garden with passive and active storm water catchment. The designs for these gardens are inspired by the professional designs funded by the Ord Terrace grant.

As the Coordinator of Renewable Energy and Conservation I am working diligently to conserve water across the whole school district. The momentum of the MPUSD water conservation plan is growing. MPUSD is committed to reduce the need for water across the district. By 2021 we have the goal of reducing ornamental turf by 65% and to retrofit every field with efficient irrigation systems including flow sensors and master valves. MPUSD has been asked to speak at a state level as a leader in school districts water conservation. MPUSD has reduced its water use by 45% compared to the base year of 2013.

I look forward to working with MPWMD for many years.

Thank you

David Chandler

Coordinator of Renewable Energy and Conservation

APPLICATION ATTACHMENTS

ATTACHMENT 1

SITE Photo

3.78 acres 164,656 square feet

Estimated cost of water annually* $54,469

Extreme risk of leaks

No Back Flow

Black pipe- obsolete sizing

1.84 acres / 80150 sq ft

Estimated cost of water annually* $26,514

Extreme risk of leaks

No Backflow

Black pipe- obsolete sizing

ATTACHMENT 2

PROPOSED PLAN (Phase 1)

There are 2 projects being proposed to Monterey Peninsula Unified School District for consideration.

Site	Project	
1. Martin Luther King Jr. School	Sports Complex	Turf removal and water conservation landscape de. Calculations show a 52% reduction in water use. • MPWMD turf removal grant funds will be used to the turf removal projects involved in the design: • Decomposed granite the two baseball diamonds. • Decomposed Granite track around field areas to focus activity based irrigation • Track and Field area in end zones and sidelines restored. MPUSD fund the staff and the remaining costs to implement the Reading Garden Water conservation model.

ATTACHMENT 3

ESTIMATED BUDGET

Monterey Peninsula Water Management District
LANDSCAPE GRANT PROPOSAL
MONTEREY PENINSULA UNIFIED SCHOOL DISTRICT
ESTIMATED BUDGET

Turf removal 58,806 square feet

Turf removal funds $1 per square foot: $58,806

Estimated cost for Field Retrofit/ Sports Complex $132,000
$58,806 MPWMD turf removal
$73,194 MPUSD Water Conservation fund

Total Grant Requested $58,806

ATTACHMENT 4

PROJECT TIMELINE

Upon MPWMD award of proposal it is estimated the project could potentially take up to 2-3 months to complete. The design is currently in progress with a collaboration between MPUSD's Energy Program and the Grounds Department The intent of MPUSD is to complete the proposal implementation during the 2015-16 school year.

ATTACHMENT 5

MAINTENANCE PLAN

The MPUSD maintenance department will maintain the Sports complex as there scheduled maintenance. A aeration, fertilization and seeding standard has been set for all new field retrofits. This maintenance will be scheduled annually

David Chandler, the MPUSD Coordinator of Renewable Energy and Conservation, will oversee implementation of proposed irrigation projects.

ATTACHMENT 6

WATER SAVINGS

Currently Martin Luther King Jr. school has 244,806 feet of irrigated field. With the current size and irrigation efficiency it used 7,668,870 gallons of water annually. The proposal will reduce the field to 186,000 square feet, a 24% reduction in size. The proposal will also increase the irrigation efficiency. This proposal will reduce water use 3,978,630, a 52% reduction in water use.

In addition the flow sensor and master valve will eliminate excessive leaks that this site. In 2013 a leak at this site cost the school district $45,000 in water cost.

ATTACHMENT 7

CURRENT LANDSCAPING INFORMATION

	H20 Requirement	Current Irrigation
Field	Turf (High) 244,806 sq. ft.	Gear Rotors Smart ET controller

Monterey Peninsula Water Management District
GRANT PROPOSAL
For
Monterey Peninsula Unified School District

Solar Garden

Name of Applicant:	Monterey Peninsula Unified School District
Invoicing & Contract Name & Contact Information:	Dan Albert, Associate Superintendent of Business Services (831) 645-1269 dalbert@mpusd.k12.ca.us 700 Pacific St, Monterey, CA 93940 or PO BOX 1031 Monterey CA 93942
Project Manager Name & Contact Information:	David Chandler, Energy Specialist (831) 901-7376 dchandler@mpusd.k12.ca.us
Project Site Addresses:	1.. Highland Elementary School 1650 Sonoma Ave, Seaside, CA 93955
Account:	City of Seaside Water: 04-7600-00
Proposed turf removal:	**Turf removal 2808 square feet** **Turf removal funds $1 per square foot: $2808**
Proposed Projects:	Proposal will partially fund the turf removal and water conservation garden at Highland Elementary School. The proposal will meet set a standard for the larger District Wide Master Water Conservation plan. The Solar Garden will model and teach the students and community about renewable energy, water conservation, ground water quality and preventing storm water pollution. The 5th grade Eco Ambassador garden will be a part of this proposal. This proposal will include active and passive rain water collection, cisterns, bioswale, rain gardens, outdoor classrooms, native arboretums and turf removal. The Solar Garden will remove 2808 square feet of turf .

Preliminary to proposed project

In Spring 2014 MPUSD received a grant from MPWMD to install Hydro-point weather trak ET Pro controllers at the Cal Am serviced sites. The grant proposal was met and exceeded by installing all the controllers, as well as eliminating manual and battery operated zones.

In 2014 MPWMD funded a field retrofit and master water conservation Plan for Ord Terrace Elementary. This project has inspired MPUSD to commit to water conservation landscapes. Ord terrace eliminated 100% of the ornamental turf and replaced it with drought tolerant landscape. Water use has been reduced at Ord Terrace by 63%.

In Summer of 2015 MPUSD funded and installed 27 Hydro-point weather trak ET controllers at the City of Seaside and Marina Coast water serviced sites. Making the districts irrigation fully controlled by Smart weather based irrigation controllers

In Summer of 2015 MPUSD administration and board approved the use of water utility savings to be used to retrofit our fields irrigation, implement a turf removal plan and set up a turf maintenance program. The MPUSD Energy Program in collaboration with the facilities department has created a six year field retrofit plan and a six year Ornamental Turf removal plan.

In the 2015-16 school year MPUSD is implementing a 5th grade Eco- Ambassador program. Throughout the school year all 5th grade students will take classes from Return of the Native, Pacific Grove Museum and Monterey Art Council. Part of the goal of this program is to educate the students about water conservation and to create a Native garden with passive and active storm water catchment. The designs for these gardens are inspired by the professional designs funded by the Ord Terrace grant.

As the Coordinator of Renewable Energy and Conservation I am working diligently to conserve water across the whole school district. The momentum of the MPUSD water conservation plan is growing. MPUSD is committed to reduce the need for water across the district. By 2021 we have the goal of reducing ornamental turf by 65% and to retrofit every field with efficient irrigation systems including flow sensors and master valves. MPUSD has been asked to speak at a state level as a leader in school districts water conservation. MPUSD has reduced its water use by 45% compared to the base year of 2013.

I look forward to working with MPWMD for many years.

Thank you

David Chandler

Coordinator of Renewable Energy and Conservation

APPLICATION ATTACHMENTS

ATTACHMENT 1

SITE Photo

Solar garden site 2808 square feet of turf removal. Proposed plan will include a meeting area, made up of porous material and park benches, for parents and students connected to the office, cafeteria and Library. In between the walk ways will be drought tolerant landscape. One section surrounding the solar panel will be the 5th grade Eco Ambassador Garden with a native habitat. The design will have a LID component including passive and active storm water collection.

ATTACHMENT 2

PROPOSED PLAN

Site	Project	
1. Highland School	Solar Garden	Turf removal and water conservation landscape de. Calculations show a 95% reduction in water use. • MPWMD turf removal grant funds will be used to purchase a cistern and fund the 5th grade Eco Garden which will include a LID bioswale design and native habitat. MPUSD fund the staff and the remaining costs to implement the Reading Garden Water conservation model.

ATTACHMENT 3

ESTIMATED BUDGET

Monterey Peninsula Water Management District
LANDSCAPE GRANT PROPOSAL
MONTEREY PENINSULA UNIFIED SCHOOL DISTRICT
ESTIMATED BUDGET

Turf removal 2808 square feet

Turf removal funds $1 per square foot: $2808

Estimated cost for Reading Garden $8424
$2808 MPWMD turf removal
$5616 MPUSD Water Conservation fund

Total Grant Requested $2808

ATTACHMENT 4

PROJECT TIMELINE

Upon MPWMD award of proposal it is estimated the project could potentially take up to 2-3 months to complete. The MPUSD grounds department is currently working on a Landscape Design. The MPUSD Staff are prepping the area for the Solar Garden September 19th- October 1st , 2015. 5th grade Eco- Ambassador class is prepping the garden on October 1st. The intent of MPUSD is to complete the proposal implementation during the 2015-16 school year.

ATTACHMENT 5

MAINTENANCE PLAN

The MPUSD maintenance department in collaboration with the school community will maintain the Reading Garden Landscape. The 5th grade Eco Ambassadors will be responsible for watering and maintenance schedules.

David Chandler, the MPUSD Coordinator of Renewable Energy and Conservation, will oversee implementation of proposed irrigation projects.

ATTACHMENT 6

WATER SAVINGS

Currently Highland school has square feet of irrigated Turf. With the current size and irrigation efficiency it uses 87,964 gallons of water. The proposal will reduce the irrigation by removing turf, planting landscape with low plant water factor and supplement watering with rain water catchment. The proposal when fully implemented has the potential to reduce water use 81,367 gallons, a 95% reduction in water.

ATTACHMENT 7

CURRENT LANDSCAPING INFORMATION

Project 1.

	H20 Requirement	Current Irrigation
Solar Garden	Turf sq. ft.	Spray/ manual valve

Monterey Peninsula Water Management District
GRANT PROPOSAL
For
Monterey Peninsula Unified School District

Master Water Conservation Plan: Del Rey Woods Campus

Name of Applicant:	Monterey Peninsula Unified School District
Invoicing & Contract Name & Contact Information:	Dan Albert, Associate Superintendent of Business Services (831) 645-1269 dalbert@mpusd.k12.ca.us 700 Pacific St, Monterey, CA 93940 or PO BOX 1031 Monterey CA 93942
Project Manager Name & Contact Information:	David Chandler, Energy Specialist (831) 901-7376 dchandler@mpusd.k12.ca.us
Project Site Addresses:	Del Rey woods Elementary School 1281 Plumas Ave. Seaside, CA 93940
Account:	California American Water: 1015-210019785942
Proposed turf removal:	**Turf removal 53,142 square feet** **Turf removal funds $1 per square foot: $53,142**
Proposed Projects:	Proposal will fund the turf removal and water conservation gardens at Del Rey Oaks Elementary School. The goal is to Educate the community about water conservation and demonstrate to the community how a turf removal project can fund itself through rebates and create a sustainable fund for maintenance. The proposal will meet set a standard for the larger District Wide Master Water Conservation plan. This proposal also helps preserve the Sites Native Heritage Oak trees. The Water Conservation plan will remove 100% of the Ornamental Grass on the campus. Each area will have an water conservation and environmental education focus and will model and teach the students and community about renewable energy, water conservation, ground water quality and preventing storm water pollution. The 5th grade Eco Ambassador garden will be a part of this proposal. This proposal will include active and passive rain water collection, cisterns, bio swale, rain gardens, outdoor classrooms, native arboretums , Native meadows, outdoor classrooms, plant propagation and turf removal. The Water Conservation Amphitheater will remove 50,065 square feet of turf .

Preliminary to proposed project

In Spring 2014 MPUSD received a grant from MPWMD to install Hydro-point weather trak ET Pro controllers at the Cal Am serviced sites. The grant proposal was met and exceeded by installing all the controllers, as well as eliminating manual and battery operated zones.

In 2014 MPWMD funded a field retrofit and master water conservation Plan for Ord Terrace Elementary. This project has inspired MPUSD to commit to water conservation landscapes. Ord terrace eliminated 100% of the ornamental turf and replaced it with drought tolerant landscape. Water use has been reduced at Ord Terrace by 63%.

In Summer of 2015 MPUSD funded and installed 27 Hydro-point weather trak ET controllers at the City of Seaside and Marina Coast water serviced sites. Making the districts irrigation fully controlled by Smart weather based irrigation controllers

In Summer of 2015 MPUSD administration and board approved the use of water utility savings to be used to retrofit our fields irrigation, implement a turf removal plan and set up a turf maintenance program. The MPUSD Energy Program in collaboration with the facilities department has created a six year field retrofit plan and a six year Ornamental Turf removal plan.

In the 2015-16 school year MPUSD is implementing a 5th grade Eco- Ambassador program. Throughout the school year all 5th grade students will take classes from Return of the Native, Pacific Grove Museum and Monterey Art Council. Part of the goal of this program is to educate the students about water conservation and to create a Native garden with passive and active storm water catchment. The designs for these gardens are inspired by the professional designs funded by the Ord Terrace grant.

Currently all the Ornamental Grass is turned off at Del Rey Oaks. The maintenance department followed the recommendation of the Energy program and Return of the Natives to protect the native oak trees by not irrigating. The campus is very dry at this time and a drought tolerant landscape is needed to avoid increased maintenance costs from erosion and storm run-off. Del Rey Oaks campus had the number 1 highest water bills in the district. This campus has lead the water conservation efforts and has guided the districts Water Conservation Master Plan.

Currently the Del Rey Woods field is off. Current Drought restrictions did not warrant continued irrigation. The field at DRW is the Key to the Master Water Plan funding with the plan to use response to the drought savings to fund water conservation projects. DRW field is scheduled to be retrofitted in 2021.

As the Coordinator of Renewable Energy and Conservation I am working diligently to conserve water across the whole school district. The momentum of the MPUSD water conservation plan is growing. MPUSD is committed to reduce the need for water across the district. By 2021 we have the goal of reducing ornamental turf by 65% and to retrofit every field with efficient irrigation systems including flow sensors and master valves. MPUSD has been asked to speak at a state level as a leader in school districts water conservation. MPUSD has reduced its water use by 45% compared to the base year of 2013.

Thank you

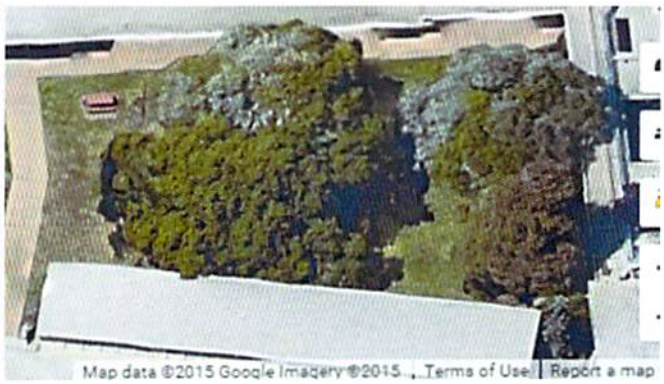
David Chandler

Coordinator of Renewable Energy and Conservation

APPLICATION ATTACHMENTS

ATTACHMENT 1

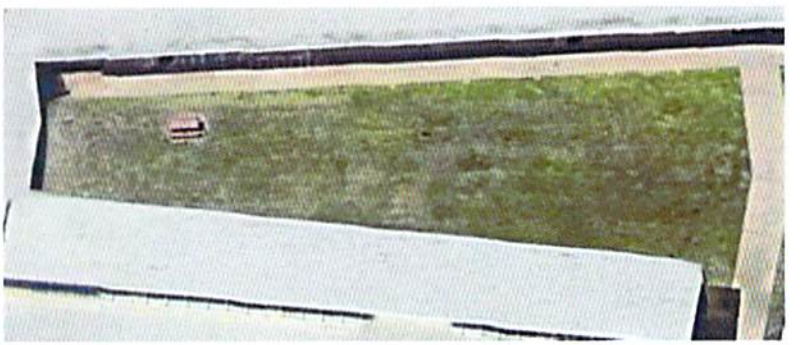
SITE Photo



Area #1 **Oak Park** with LID bio swale flowing to the storm drain . Mature Native Oak Trees and Redwood wood with wood chip and duff substate. Bench area for parents and classes to meet with DG. . Located near office and library
10,454 sq. ft.

Area #2 **Native Oak Meadow**: Rustic fenced meadow with native grasses and flowers. LID off of roof. DG pathway guiding school community to peaceful benches and a class amphitheater overlooking the Monterey Bay Marine Sanctuary.
21,344 sq. ft.

Monterey Peninsula Unified School District
Monterey Peninsula Water Management District
Water Conservation Grant Proposal



Area #3 **The Farm**: A rustic fence surrounding an outdoor classroom. Greenhouse, Cistern irrigation, vegetable planters, compost and Orchard With picnic benches for class activities. 8276 sq ft.

Area #4 **Heritage Oak Curb Appeal**: The front of the school. Woodchip and Duff substrate to help restore native soil. Drought Tolerant landscape garden highlighting the schools sign. 8712 square feet

Native Creek Habitat: (Ord Terrace design) 5th grade Eco Ambassador Garden

Cisterns and Bio swales with overflow to existing storm drain. Creek habitat surrounded by a Native plant Arboretum.

4356 square feet (phase one: 1742sq ft. Phase Two: 2614 sq ft

ATTACHMENT 2

PROPOSED PLAN

Site	Project	
1. Del Rey Woods Elementary School	Area #1 Oak Park	Turf removal (10,454 sq. ft.) and water conservation landscape. Calculations show a 95%-100% reduction in water use. MPWMD funds will purchase supplies and materials: (Plants, LID materials, fencing material, DG and benches).
	Area #2 Oak meadow	Turf removal (21,344 sq. ft.) and water conservation landscape. Calculations show a 95%-100% reduction in water use. MPWMD funds will purchase supplies and materials: (Plants, LID materials, fencing material, DG and benches)
	Area #3 The Farm	Turf removal (8276 sq. ft.) and water conservation landscape. Calculations show a 95%- 100% reduction in water use. MPWMD funds will purchase supplies and materials: (Plants, Substate, fencing material, greenhouse, compost, Cistern and benches)

Area #4 Heritage Oak Curb Appeal	Turf removal (8712 sq. ft) and water conservation landscape. Calculations show a 95%- 100% reduction in water use. MPWMD funds will purchase supplies and materials: (Plants, substrate)
Area #5 Creek Habitat	Turf removal (4356 sq. ft.) and water conservation landscape. Calculations show a 95%- 100% reduction in water use. MPWMD funds will purchase supplies and materials: (Plants, LID material, Cistern) MPUSD staff will design and implement the proposal. If specific jobs need to be contracted out the contractor fees will be out of the proposed budget.

ATTACHMENT 3

ESTIMATED BUDGET

Monterey Peninsula Water Management District
LANDSCAPE GRANT PROPOSAL
MONTEREY PENINSULA UNIFIED SCHOOL DISTRICT
ESTIMATED BUDGET

Turf removal 53,142 square feet

Turf removal funds $1 per square foot: $53,142

Estimated cost for Water conservation Plan $53142

Area #1 $10,454
Area #2 $21,344
Area #3 $8276
Area #4 $8712
Area #5 $4356

Total Grant Requested $53,142

The budget will be treated as a whole and funds from one area may be used in another for the success of the full implementation. MPUSD staff will design and implement the proposal. If specific jobs need to be contracted out the contractor fees will be out of the proposed budget.

ATTACHMENT 4

PROJECT TIMELINE

Upon MPWMD award of proposal it is estimated the project could potentially take up to 6-10 months to complete. The MPUSD Staff are prepping the area for the Native creek garden October 1st- - October 14th, 2015. 5th grade Eco- Ambassador class is prepping the garden on October 15st. The intent of MPUSD is to complete the proposal implementation during the 2015-16 school year.

ATTACHMENT 5

MAINTENANCE PLAN

The MPUSD maintenance department in collaboration with the school community will maintain the Drought Tolerant Landscape. The 5th grade Eco Ambassadors will be responsible for watering and maintenance schedules.

MPUSD admin and Board have approved the use of Water conservation savings to create a Grounds Improvement/maintenance fund

David Chandler, the MPUSD Coordinator of Renewable Energy and Conservation, will oversee implementation of proposed irrigation projects.

ATTACHMENT 6

WATER SAVINGS

The proposed area for turf removal is 53,142 square feet. With the current size and irrigation efficiency it uses 1,673,201 gallons of water. The proposal will reduce the irrigation by removing turf, planting landscape with low plant water factor and supplement watering with rain water catchment. The proposal when fully implemented has the potential to reduce water use 1,547,711 gallons, a 95% reduction in water.

ATTACHMENT 7

CURRENT LANDSCAPING INFORMATION

Project 1.

	H20 Requirement	Current Irrigation
DRW campus	Turf 53,142 sq. ft.	Spray/ Smart controller

Monterey Peninsula Water Management District
GRANT PROPOSAL
For
Monterey Peninsula Unified School District

Water Conservation Amphitheater

Name of Applicant:	Monterey Peninsula Unified School District
Invoicing & Contract Name & Contact Information:	Dan Albert, Associate Superintendent of Business Services (831) 645-1269 dalbert@mpusd.k12.ca.us 700 Pacific St, Monterey, CA 93940 or PO BOX 1031 Monterey CA 93942
Project Manager Name & Contact Information:	David Chandler, Energy Specialist (831) 901-7376 dchandler@mpusd.k12.ca.us
Project Site Addresses:	1.. Monta Vista Elementary School 251 Soledad Dr, Monterey, CA 93940
Account:	California American Water: 1015-210018805362
Proposed turf removal:	**Turf removal 3500 square feet** **Turf removal funds $1 per square foot: $3500**
Proposed Projects:	Proposal will partially fund the turf removal and water conservation garden at Monta Vista Elementary School. The proposal will meet set a standard for the larger District Wide Master Water Conservation plan. The Water Conservation amphitheater will model and teach the students and community about renewable energy, water conservation, ground water quality and preventing storm water pollution. The 5th grade Eco Ambassador garden will be a part of this proposal. This proposal will include active and passive rain water collection, cisterns, bio swale, rain gardens, outdoor classrooms, native arboretums and turf removal. The Water Conservation Amphitheater will remove 3500 square feet of turf .

Preliminary to proposed project

In Spring 2014 MPUSD received a grant from MPWMD to install Hydro-point weather trak ET Pro controllers at the Cal Am serviced sites. The grant proposal was met and exceeded by installing all the controllers, as well as eliminating manual and battery operated zones.

In 2014 MPWMD funded a field retrofit and master water conservation Plan for Ord Terrace Elementary. This project has inspired MPUSD to commit to water conservation landscapes. Ord terrace eliminated 100% of the ornamental turf and replaced it with drought tolerant landscape. Water use has been reduced at Ord Terrace by 63%.

In Summer of 2015 MPUSD funded and installed 27 Hydro-point weather trak ET controllers at the City of Seaside and Marina Coast water serviced sites. Making the districts irrigation fully controlled by Smart weather based irrigation controllers

In Summer of 2015 MPUSD administration and board approved the use of water utility savings to be used to retrofit our fields irrigation, implement a turf removal plan and set up a turf maintenance program. The MPUSD Energy Program in collaboration with the facilities department has created a six year field retrofit plan and a six year Ornamental Turf removal plan.

In the 2015-16 school year MPUSD is implementing a 5th grade Eco- Ambassador program. Throughout the school year all 5th grade students will take classes from Return of the Native, Pacific Grove Museum and Monterey Art Council. Part of the goal of this program is to educate the students about water conservation and to create a Native garden with passive and active storm water catchment. The designs for these gardens are inspired by the professional designs funded by the Ord Terrace grant.

As the Coordinator of Renewable Energy and Conservation I am working diligently to conserve water across the whole school district. The momentum of the MPUSD water conservation plan is growing. MPUSD is committed to reduce the need for water across the district. By 2021 we have the goal of reducing ornamental turf by 65% and to retrofit every field with efficient irrigation systems including flow sensors and master valves. MPUSD has been asked to speak at a state level as a leader in school districts water conservation. MPUSD has reduced its water use by 45% compared to the base year of 2013.

I look forward to working with MPWMD for many years.

Thank you

David Chandler

Coordinator of Renewable Energy and Conservation

APPLICATION ATTACHMENTS

ATTACHMENT 1

SITE Photo

Monterey Peninsula Unified School District
Monterey Peninsula Water Management District
Water Conservation Grant Proposal

Water conservation Amphitheater garden plan will include 3500 square feet of turf removal. Proposed plan will include a pathway and meeting area made up of porous material and park benches, for parents and students. The garden will be connected to the 5th grade classes, amphitheater and Library. In between the walk ways will be drought tolerant landscape. The design will have a LID component including passive and active storm water collection.

ATTACHMENT 2

PROPOSED PLAN

Site	Project	
1. Monta Vista Elementary School	Water conservation ampitheather Garden	Turf removal and water conservation landscape de. Calculations show a 95% reduction in water use. • MPWMD turf removal grant funds will be used to purchase a cistern and fund the 5th grade Eco Garden which will include a LID bioswale design and native habitat. MPUSD fund the staff and the remaining costs to implement the Reading Garden Water conservation model.

ATTACHMENT 3

ESTIMATED BUDGET

Monterey Peninsula Water Management District
LANDSCAPE GRANT PROPOSAL
MONTEREY PENINSULA UNIFIED SCHOOL DISTRICT
ESTIMATED BUDGET

Turf removal 3500 square feet

Turf removal funds $1 per square foot: $3500

Estimated cost for Reading Garden $10,500
$3500 MPWMD turf removal
$7000 MPUSD Water Conservation fund

Total Grant Requested $3500

ATTACHMENT 4

PROJECT TIMELINE

Upon MPWMD award of proposal it is estimated the project could potentially take up to 2-3 months to complete. The MPUSD grounds department is currently working on a Landscape Design. The MPUSD Staff are prepping the area for the garden October 1st- October 18th, 2015. 5th grade Eco- Ambassador class is prepping the garden on October 19st. The intent of MPUSD is to complete the proposal implementation during the 2015-16 school year.

ATTACHMENT 5

MAINTENANCE PLAN

The MPUSD maintenance department in collaboration with the school community will maintain the Reading Garden Landscape. The 5th grade Eco Ambassadors will be responsible for watering and maintenance schedules.

David Chandler, the MPUSD Coordinator of Renewable Energy and Conservation, will oversee implementation of proposed irrigation projects.

ATTACHMENT 6

WATER SAVINGS

The proposed area for turf removal is 3500 square feet. With the current size and irrigation efficiency it uses 109,642 gallons of water. The proposal will reduce the irrigation by removing turf, planting landscape with low plant water factor and supplement watering with rain water catchment. The proposal when fully implemented has the potential to reduce water use 101,419 gallons, a 95% reduction in water.

ATTACHMENT 7

CURRENT LANDSCAPING INFORMATION

Project 1.

	H20 Requirement	Current Irrigation
Amphitheater area	Turf 3500sq. ft.	Spray/ Smart controller