

# February Brown Bag Lunch Presentations

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Presentation 1: Project Management-Roles

Presentation 2: Project Management-Rate Changes

Presentation 3: Storm Response Update

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Project Management  
Facilities Management  
Supporting Educational and Research Environments



# FM Project Management

## Roles & Responsibilities

February 28, 2017

Provide leadership in advancing the renovation and alteration of facilities and infrastructure in support of the education and research mission of University of California San Diego. Responsibly manage the project's schedule, cost, scope, and quality to meet the customer's needs and achieve a successful project outcome.



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The core function of the PM team is to manage scope, budget, schedule, and quality.

- Annual Construction Execution = \$45M
- Annual Projects Completed = 725
- Average Projects per PM = 35
- 90% of Project Volume is under \$50K
- 7% of Project Volume is between \$50K & \$750K
- 3% of Project Volume is over \$750K





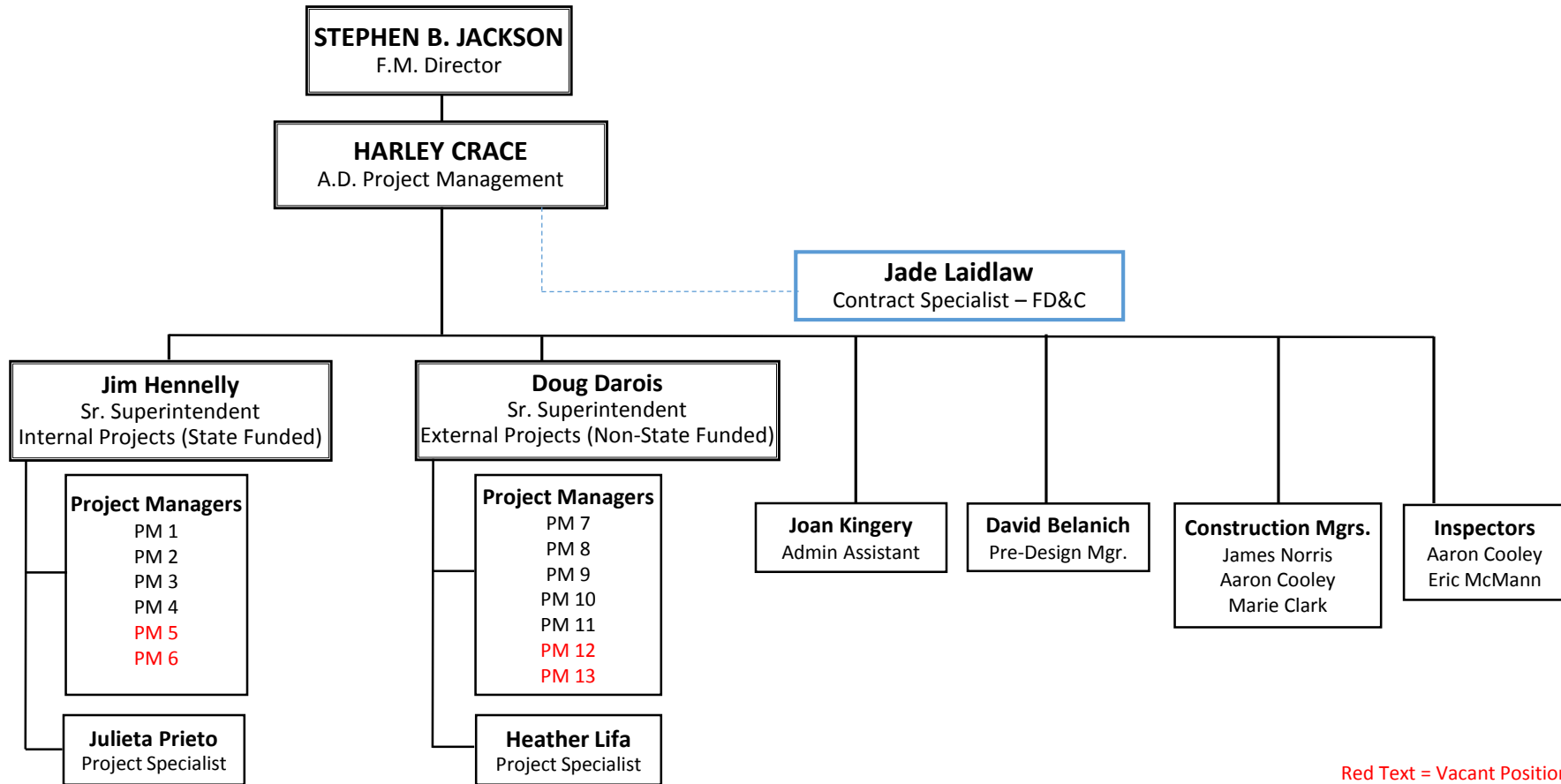
## FM Manages:

- Renovation & Alteration Projects under \$750K
- Deferred Maintenance Projects
- Strategic Energy Projects

## FD&C Manages:

- Renovations over \$750K
- Capital Utility Projects
- New Construction





Red Text = Vacant Position

**Scope:**

- Facilitate scope development
- Manage cost effective design solutions
- Obtain design & agency approvals

**Budget:**

- Provide budget estimates to client for review and approval
- Facilitate project fund transfers with Capitol Planning
- Provide cost forecasts during construction

**Schedule:**

- Provide timely project schedules before and during construction

**Quality:**

- Ensure compliance with federal, state, local and campus codes and building standards

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**Scope:**

- Provide clear project objectives to Project Manager & Design Team
- Facilitate resolution when Faculty expectations and project deliverables don't align
- Manage scope changes

**Budget:**

- Be transparent with budget details (when known)
- Provide budget approval and funding information to Capital Planning
- Communicate budget info with Departmental stakeholders

**Schedule:**

- Allow time in your project schedule to account for Campus approvals
- Relay schedule information from the PM to the appropriate Department personnel
- Coordinate construction activities with adjacent occupants and user groups

**Quality:**

- Communicate Campus standards to Project Stakeholders

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**Scope:**

- Undefined scope

**Budget:**

- Commercial Standards for Materials (Campus)
- Gender Neutral Restrooms (UCOP)
- Engineering and Code Requirements (law, Campus, UCOP)
- Stull Act (law)
- Prevailing Wages (law)
- ADA (law)
- Inspections (law)

**Schedule:**

- Projects that require A/E drawings typically take between 9-18 months (expanded on next slides)
- PM's manage about 35 active projects at all times and each one competes for priority

**Quality:**

- Campus material standards are high quality commercial products which cost more than residential products

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- **Stull Act (California State Constitutional Amendment)** – Precludes University employees from working on projects with labor and materials that exceed \$25K for painting projects and \$50K for other projects.
- **Public Contract Code 10500** – Requires projects with labor and materials that exceed \$50K combined to be competitively bid (there are additional requirements added as the total costs increase above \$300K and \$640K).
- **Public Contract Code 10502** – Requires 60 day public advertising window before bidding projects with a combined labor and material total over \$640K.
- **California Labor Code Section 1770** – Requires contractors on public works projects to pay workers based on the labor rates established by the Department of Industrial Relations.
- **Job Splitting** – Splitting projects into smaller pieces to avoid any of the above requirements is prohibited.
- **Criminal Penalties** – Violating the regulations above is considered a felony offence. If convicted the guilty party can be fined twice the amount of the error.



**The UCOP Facilities Manual is the document from the Office of the President that defines policy for facilities planning, design, and construction.**

- **Construction Contracts vs. Purchase Orders** – Maintenance work can be performed by contractors using purchase orders however maintenance is limited by several factors. If the work is not considered maintenance as defined within the UCOP Facilities Manual construction contracts must be used.
  - Painting is always considered construction
  - Replacement of components for a system is considered maintenance but replacement of components which exceed 50% of the value of a system is considered construction.
- **Design Agreements vs. Purchase Orders** - All design services must be executed using a design agreement, purchase orders are prohibited.

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## P Phase = Preliminary/Planning Phase

- Work Order Received & Client Contacted (1 Week)
  - Schedule Project Scope or Charter Meeting (1 Week)
  - Hold Project Charter or Scope Meeting with Client (1 week)
  - Pre-Design Manager creates Project Charter Draft (Level 1) or PM creates ROM budget (2 Weeks)
  - Issue Final Project Charter (Level 1) or ROM budget (1 Week)
  - Budget Approval Process (Minor Cap Forms, Plant Account, etc.) (4-6 Weeks)
- Total: (10 – 12 Weeks)

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## W Phase = Working Drawings Phase

- Contact A/E (1 Week)
- Meet with A/E (PM and Client) (1 Week)
- A/E Provides Proposal (1-2 Weeks)
- Execute Contract with A/E (4-5 Weeks)
- Provide 85% Design Documents (4-6 Weeks)
- Campus Review for 85% Design (FD&C Engineers, Fire Marshal, Planning, etc.) (2 Weeks)
- Provide 100% Design Documents (2-3 Weeks)
- Campus Review for 100% Design (FD&C Engineers, Fire Marshal, Planning, etc.) (2 Weeks)
- Issue 100% Construction Documents (2 Weeks)
- Bid Project (2-3 Weeks)
- Award Contract and Execute Agreements (2-3 Weeks)

Total: (23 – 30 Weeks)

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**P Phase = 10 – 12 Weeks**

**W Phase = 23 – 30 Weeks**

**C Phase = (contingent upon scope)**

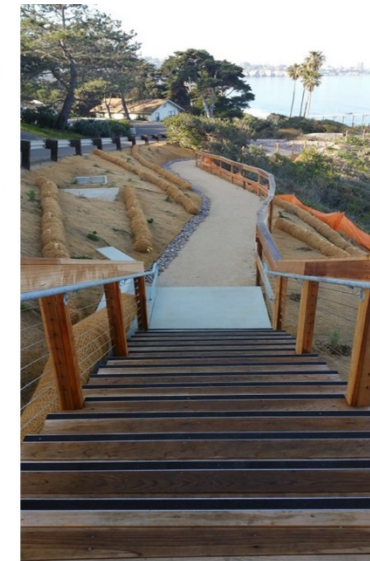
- Total time from when the work order is initiated to the start of construction  
= **33 – 42 weeks (7.5 – 10 months)**

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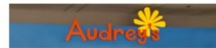


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# UC San Diego Facilities Management



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# Project Management Planned Rate Changes

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# PM Project Workload

## Metrics:

- Annual Construction Execution = \$45M
- Annual Projects Completed = 700
- Average Projects per PM = 35
  
- Workload Breakdown
  - 90% of Project Volume is under \$50K
  - 5% of Project Volume is between \$50K & \$750K
  - 5% of Project Volume is over \$750K

# PM Rate Structure Change

## Current Structure

Projects (construction contracts and design agreements) are currently billed a straight percentage based on the cost of the project:

1. Projects < \$750K are charged 15%
  - a) 95% of workload volume and comprises 33% of revenue.
  
2. Projects > \$750K are charged 5%
  - a) 5% of workload and comprises 66% of revenue.

# PM Rate Structure Change

## FD&C Recharge Structure

FD&C Recharge Rate is based on an Hourly Rate comprised of the following costs:

- Assistant Vice Chancellor: \$210/HR
- Sr. Contracts Director: \$180/HR
- Other Directors: \$180/HR
- Contract Manager: \$118/HR
- ***Project Manager:*** ***\$118/HR***
- Engineers: \$118/HR
- Inspectors: \$118/HR
- Project Admin Staff: \$58/HR
- Contract Admin Staff: \$58/HR



# PM Rate Structure Change

## FM Billing Structure

Aligning FM's PM Recharge Rate to a similar Hourly Rate with the following costs:

- Assistant Director: \$165/HR
- Superintendents: \$148/HR
- ***Project Manager:*** ***\$115/HR***
- Inspectors: \$95/HR
- Project Admin Staff: \$80/HR
- Contract Admin Staff: \$58/HR

- This structure mirrors FD&C's project costs to a breakeven point based on anticipated expenses and income.
- FM Pre-Design Manager (PDM) position to be centrally funded by RMP, same as FD&C PDM position.

# PM Rate Structure Change

## Impact to PM Group

- The PM Group currently charges their time directly to overhead so no detailed timekeeping is required.
- This new recharge structure will require that PM's account for their time based on quarter hour increments (every 15 minutes) which is in line with FD&C.
- Training will be required on this new time keeping system and we anticipate a slight drop in productivity given each PM will need to spend approximately 15-30 minutes daily accounting for their time.

# PM Rate Structure Change

## Next Steps & Communication Strategy

### Next Steps:

- ✓ 1) VC RMP approval.
- 2) Budget & Finance Rate Review Committee.
  - Working with Darryl James and do not anticipate any issues with approval.

Once approved, plan is to switch to this new rate system at the start of FY17/18.

### Communication Strategy:

- FM Notifications
- Communicate at all Brown Bags between now and 01JUL17
- Post this information on our FM Website

# Questions/Comments

# FY16/17 Storm Response Update

Facilities Management

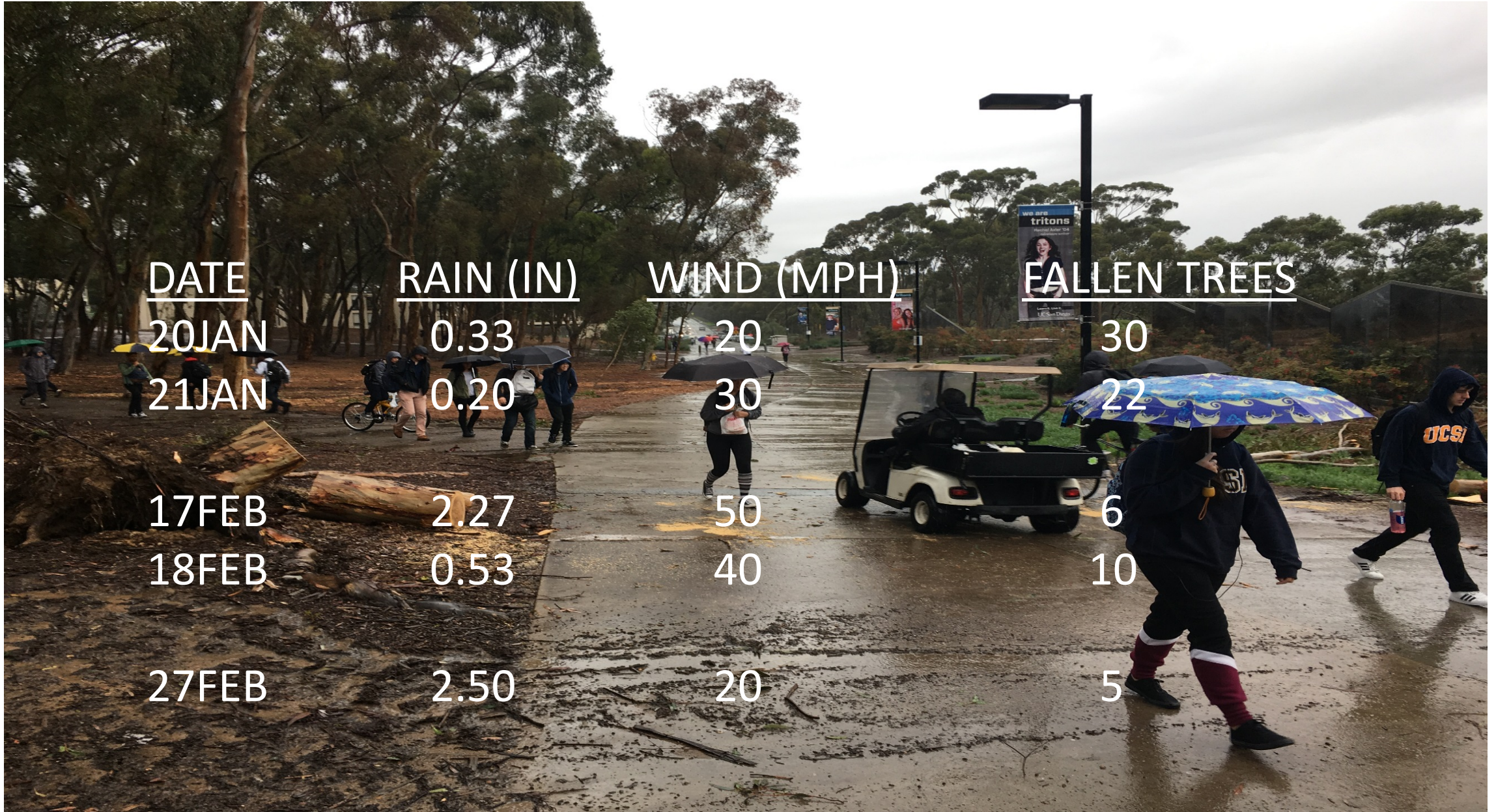


# Agenda

- 1) Storm Magnitudes & Positive Impacts
- 2) Rain Event Game Plan
- 3) Areas that are performing well
- 4) Areas identified for follow-on Work



# Storm Magnitudes

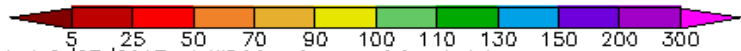
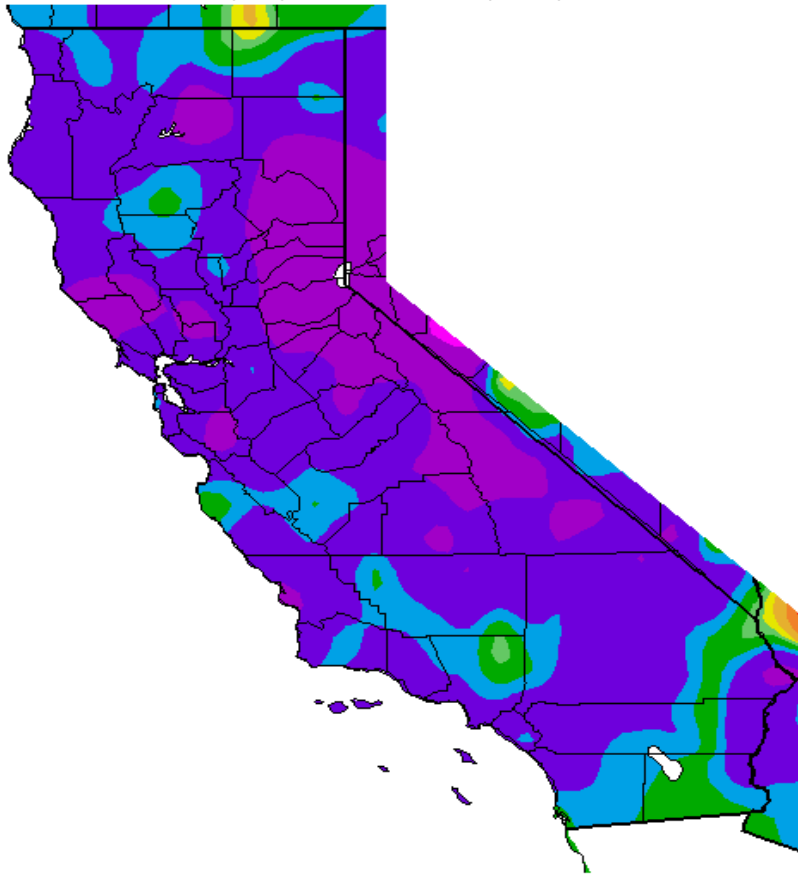


<u>DATE</u>	<u>RAIN (IN)</u>	<u>WIND (MPH)</u>	<u>FALLEN TREES</u>
20JAN	0.33	20	30
21JAN	0.20	30	22
17FEB	2.27	50	6
18FEB	0.53	40	10
27FEB	2.50	20	5

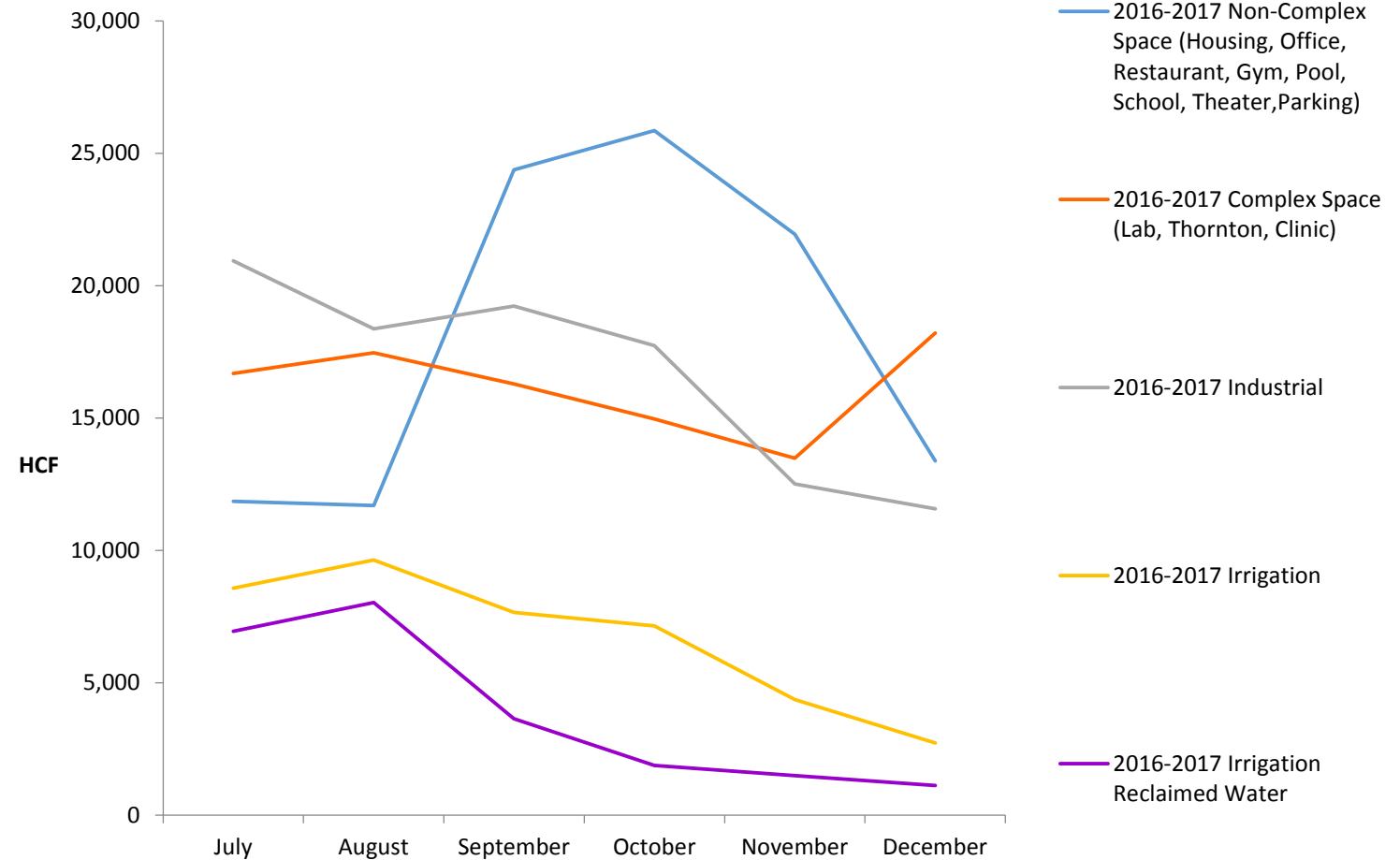


# Positive Impacts Drought & Irrigation Use

Percent of Average Precipitation (%)  
10/1/2016 - 2/26/2017



Generated 2/27/2017 at WRCC using provisional data.  
NOAA Regional Climate Centers



Irrigation has been secured since NOV16



# Rain Event Game Plan

In the event the National Weather Service (NWS) issues a Storm Advisory that is expected to result in sustained heavy rains or severe thunderstorms, FM will execute the following:

## 1. 48 hrs out:

- a) Stockpile/fwd deploy sandbags, check sump pumps & other flood remediation equipment & gear
- b) Solicit FM Volunteer list for storm coverage (Bldg Ops, Landscape, Bldg Svc, PM's, WSC)

## 2. 24 hrs out:

- a) Inspect storm drains/roof drains/waddles
- b) Forward deploy gear (pumps, hoses, wet vacs, mops, extension cords, etc.)
- c) Finalize FM volunteer list
- d) FM Notification – Inform campus of potential storm event, provide Self-Help tips, and provide assistance to those who would like additional material support (sand bags, absorbent rolls, plastic sheets, etc.)



# Rain Event Game Plan

## 3. 1-hr out:

- a) Forward Deploy Teams (Bldg Ops, Landscape, Bldg Svc, PM's)
- b) Set up sand bag barriers in known trouble spots
- c) FM Notification on storm event – Inform campus of forward deployed teams and how best to report flood damage
- d) Notify Flood Remediation Contractors to dispatch crews for support.

## 4. During Rain Event:

- a) WSC to gather, organize, and prioritize incoming Work Requests and dispatch designated crews.
- b) Routine status updates from deployed teams to be directed to Customer Relations Manager and Work Management Manager.

## 5. Follow-Up: Track WR's in format provided by Work Management, Conduct Lesson's Learned sessions to further improve.



# FACILITIES MANAGEMENT NOTIFICATION

February 17, 2017

**Subject: FM Notification-Weather Forecast calling for Storm/Wind Advisory**

A rain and wind storm event has been forecasted for the San Diego area to arrive Friday, February 17<sup>th</sup>, and last into Saturday, February 18<sup>th</sup>, with the potential for rain accumulation of 1 to 2 inches and wind gusts up to 60 mph.

Please be advised that when the soil becomes saturated and during strong wind conditions, all trees, especially tall trees, are subject to broken limbs or complete failure. UC San Diego performs annual tree trimming and inspections throughout the campus and has been progressively identifying and removing suspect trees and limbs as a preventative measure for weather events such as this. However, please be cognizant of your surroundings when traveling outdoors on campus during these conditions.

Please know Facilities Management (FM) will be taking steps to prepare for this event including inspecting and cleaning out our storm drains, roof drains, swales, gutters and culverts to ensure they will flow freely. Inspecting and forward deploying our flood remediation equipment and clean-up gear. And, pro-actively placing sand bags in areas that are prone to flooding which will be in place by close of business Friday, February 17<sup>th</sup>.

If you would like to place any additional sand bags around your own building area, please know that FM has sand bags available for pick up at various locations throughout the campus (please refer to the list below for the nearest site to your location). If you happen to take the last sand bag or there are none left when you arrive, please contact our Customer Relations Help Desk at (858) 534-2930, we'll deliver more. Additionally, if you are aware of any areas within your facility that may require Visqueen/plastic sheeting to cover pertinent equipment and/or window absorbent rolls (pigs), please know these are available to you and can be picked up from our FM Storehouse located in the Campus Service Complex between the hours of 7:00am -3:30pm, Monday-Friday.

**Sand Bag Storage Areas Campus Wide**

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Finally, FM will have additional staff on hand during this rain event to help minimize the possible impact and address any emergencies that should arise. If you have any issues or emergencies, please contact our Customer Relations Help Desk, x42930.

While we hope UCSD experiences minimal impact during this storm event, we believe that by working together we can minimize the impact even more.

Thank you.

Steve Jackson  
Director, Facilities Management

# Areas that are Performing Well: University Extension



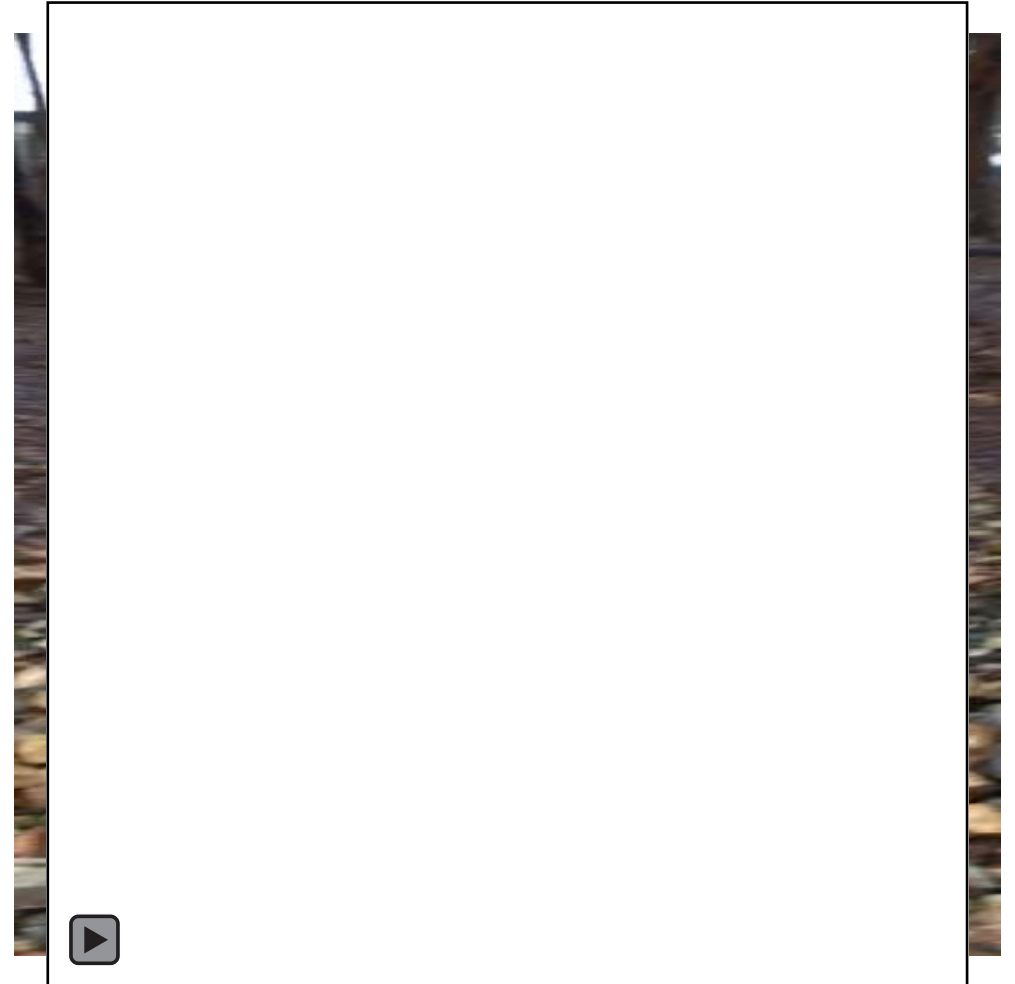
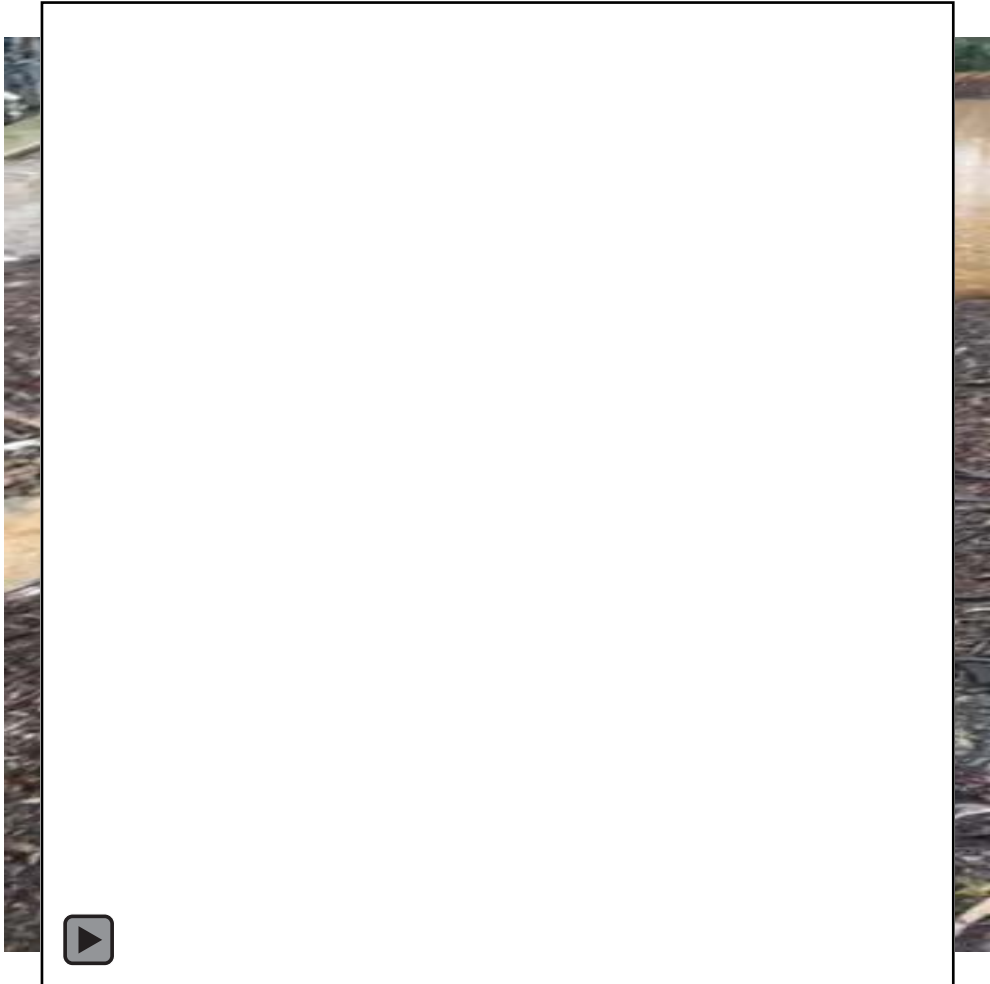


# Areas that are Performing Well: Faculty Club Grove





# Areas that are Performing Well: Faculty Club Grove





# Areas that are Performing Well: Student Health





# Areas that are Performing Well: Library Walk





# Areas Identified for Follow-On Work: Biomedical Library





# Areas Identified for Follow-On Work: Biomedical Library



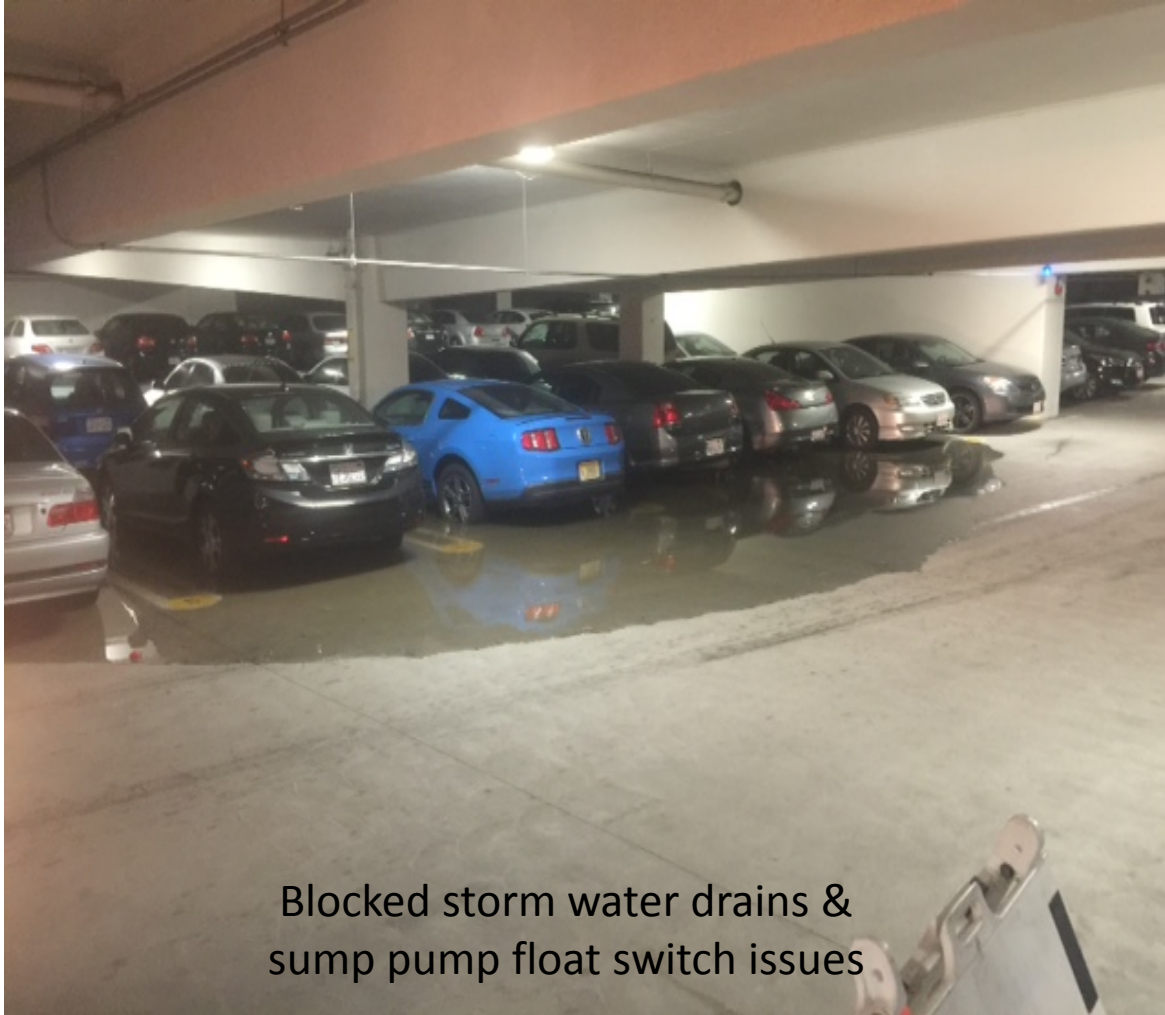
Under sized trench drain



Trench drain expansion



# Areas Identified for Follow-On Work: Hopkins Parking Structure



Blocked storm water drains & sump pump float switch issues



Unclogged the drains, replaced float switches, and increasing capacity of pumps





Questions or Comments