

Advantages of Low Impact Development (LID)

- **Reduces stormwater runoff**
- **Provides superior groundwater recharge – good for aquifers**
- **Reduces pollutant loading to our marine waters – good for shellfish, forage fish, and salmon**
- **Often eliminates the need for large detention ponds**
- **Typically costs less than conventional techniques**

IC Planned Stormwater Management Projects Using CWU funds

Year	# of Projects	Cost
2017	2	190K
2018	3	605K
2019	3	1,215K
2020	1	170K
2021	2	355K
2022	2	380K

Total	2,915K
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Current CWU reserve 560K


What If

- **LID could provide drainage solutions to these projects**
 - **Eliminate/ reduce pipes delivering polluted stormwater onto beaches**
 - **Transfer cost of drainage from county to developers**

The LID Equation

$$\text{Runoff} = \text{Precipitation} - \text{Intercept} - \text{Transpiration} - \text{Soil Moisture Change} - \text{Recharge}$$

Plants



- The LID challenge is to reduce runoff to zero
- Not easy in the winter
 - Need plants that intercept precip in rainy season - evergreens
 - Plant transpiration very small in rainy season - dormancy
 - Many IC soils cannot absorb much moisture
- Developments present a challenge – impervious driveways and streets
 - Must rely on pervious concrete and soil properties
- Suggest forming an LID group (Public Works, Hydrogeologist, Planning, Biologist, LID engineer)