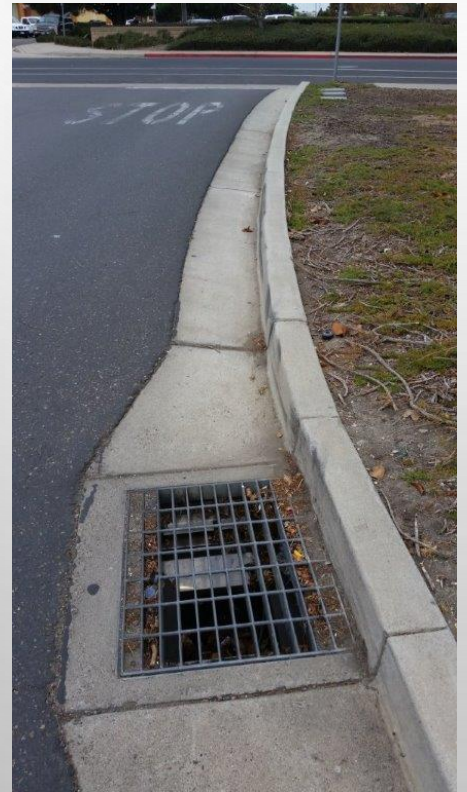
STORM WATER POST-CONSTRUCTION REQUIREMENTS (PCRS) FOR NEW DEVELOPMENT AND REDEVELOPMENT IN LOMPOC

REGULATORY FRAMEWORK

- THE FEDERAL CLEAN WATER ACT (CWA) REGULATES STORM WATER QUALITY IN THE US.
- THE US EPA HAS AUTHORIZED THE STATE OF CALIFORNIA, STATE WATER RESOURCES CONTROL BOARD (SWRCB) TO IMPLEMENT THE CWA'S PROVISIONS IN CA.
- THE LOCAL ARM OF THE SWRCB IS THE CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD (CCRWQCB) OR REGION 3'S REGIONAL BOARD.
- ON FEBRUARY 15, 2008, THE REGIONAL BOARD NOTIFIED SMALL MUNICIPALITIES IN ITS JURISDICTION (SANTA CLARA CO. TO SANTA BARBARA CO.) THEY WERE IMPOSING NEW STORM WATER REQUIREMENTS.

Prior to the Post-Construction Requirements of the State, properties were graded to drain to streets, where water ran through the gutters until it reached a storm drain inlet. Once in the storm drain, the water traveled out to the Santa Ynez River and the Pacific Ocean, without any treatment.



Lompoc was the first local jurisdiction required to comply.

- In October 2008, Lompoc's preliminary storm water requirements for new and re-development took effect.
  - Downspouts must drain to landscaping
  - Storm water flowing from paved areas must be filtered
  - Filters must be properly maintained and maintenance assured
  - Landscaping must be drought tolerant
  - Drain inlets must be stenciled or marked
    "NO DUMPING DRAINS TO RIVER"

- In October 2009, Lompoc's complete, Regional Board approved Post-construction Requirements (PCRs) took effect. Both the 2008 and 2009 storm water requirements have the force of local, state and federal law.

- These requirements are intended to improve water quality, reduce channel erosion and recharge water tables.

PCR Requirements in General

- Projects proposing new or replaced impervious area of 5,000 square feet or more:

- Must collect and infiltrate ¾ of an inch of rain over the entire impervious area of the property.

- Apply the 2008 requirements

- Projects with new or replaced impervious area of less than 5,000 square feet:

- Apply the 2008 requirements.

PCR Nuances

- Up to .05% of the impervious area of a site can be drained to the street to accommodate driveways, trash enclosures and walkways.
- First-time development of a property can improve that vacant property up to 9,999 square feet before having to infiltrate ¾ inch over the whole site's impervious area.
- Single family residential development (1 dwelling unit) of up to 9,999 square feet of impervious area is exempt from PCRs.

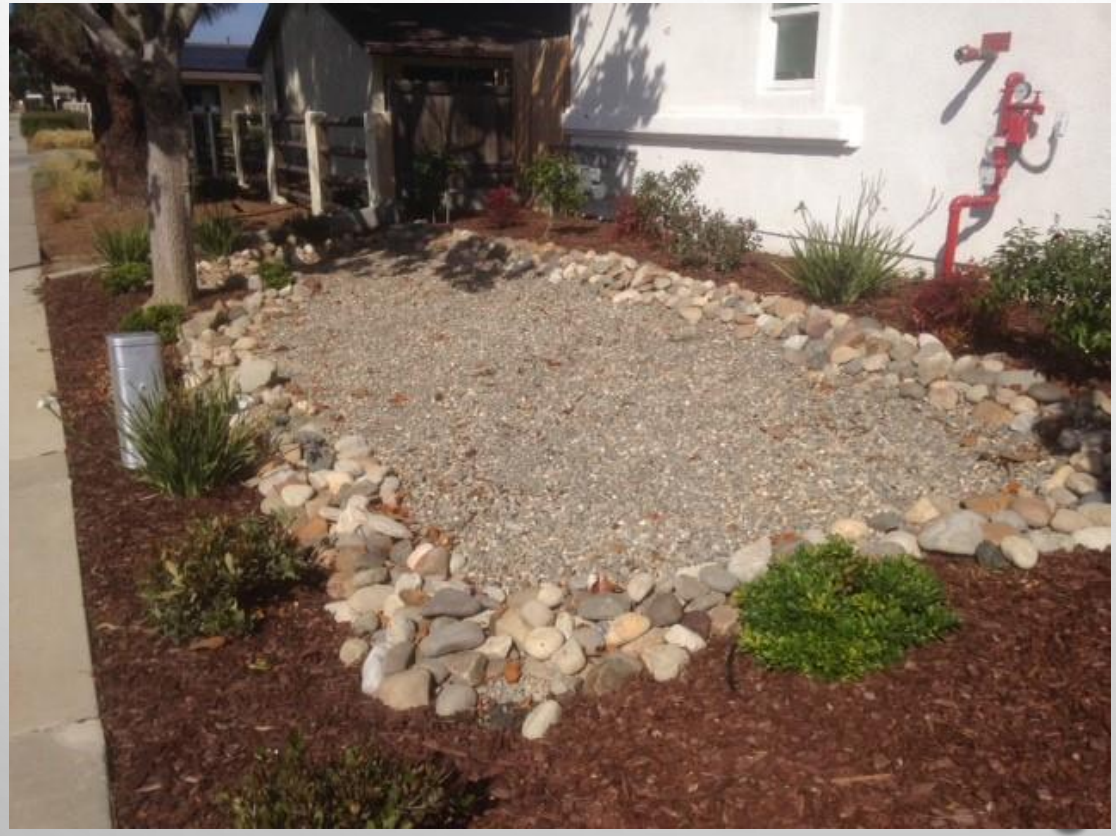
Lompoc's requirements differ from those of surrounding cities and counties.

- Since we were first, we chose to adopt requirements similar to those of Ventura County.

- Lompoc's approved PCRS require infiltration of less water than the Regional Board would have required if we had not been first and chosen to follow Ventura County's lead.

Methods of Infiltration

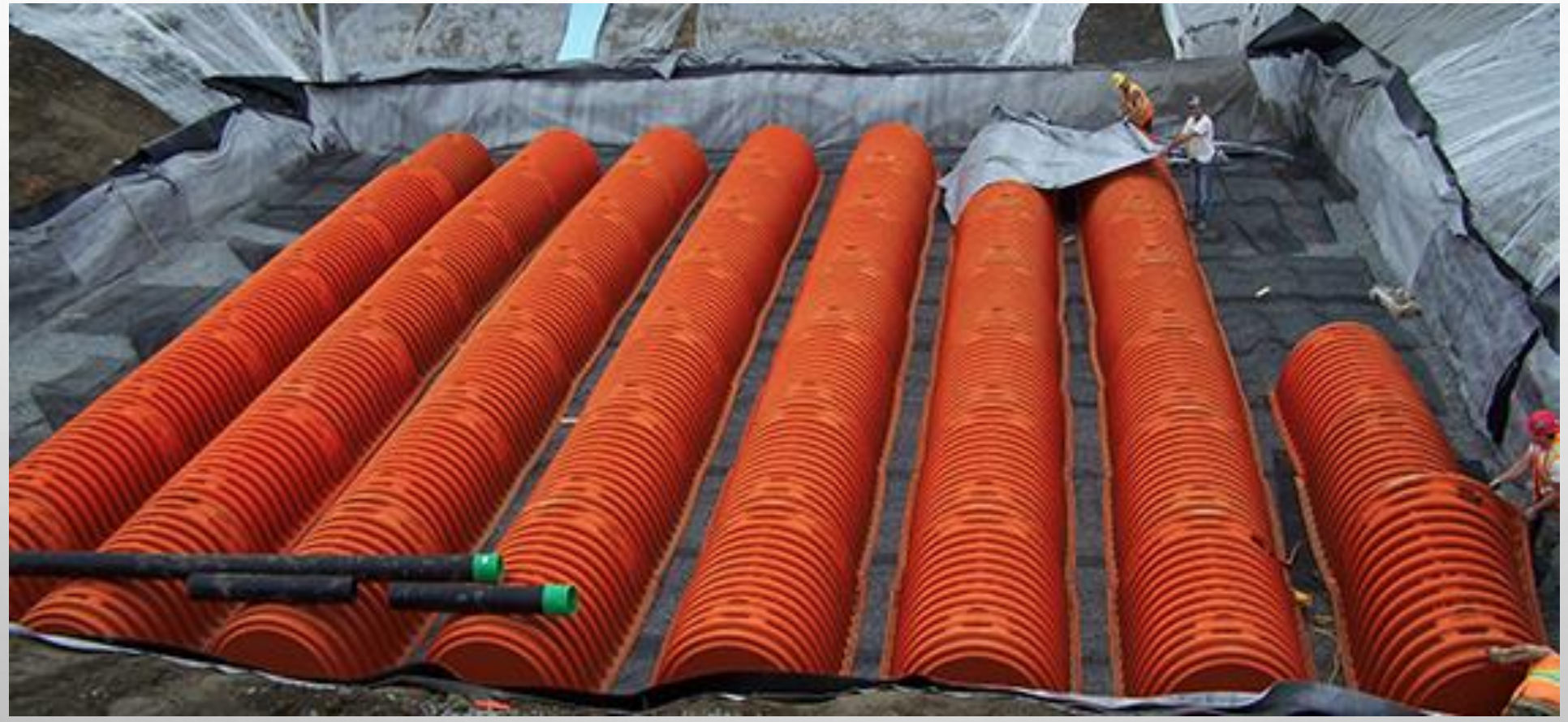
In the past in Lompoc, a simple underground pile of sized rock was used to store the required volume and infiltrate storm water over time.



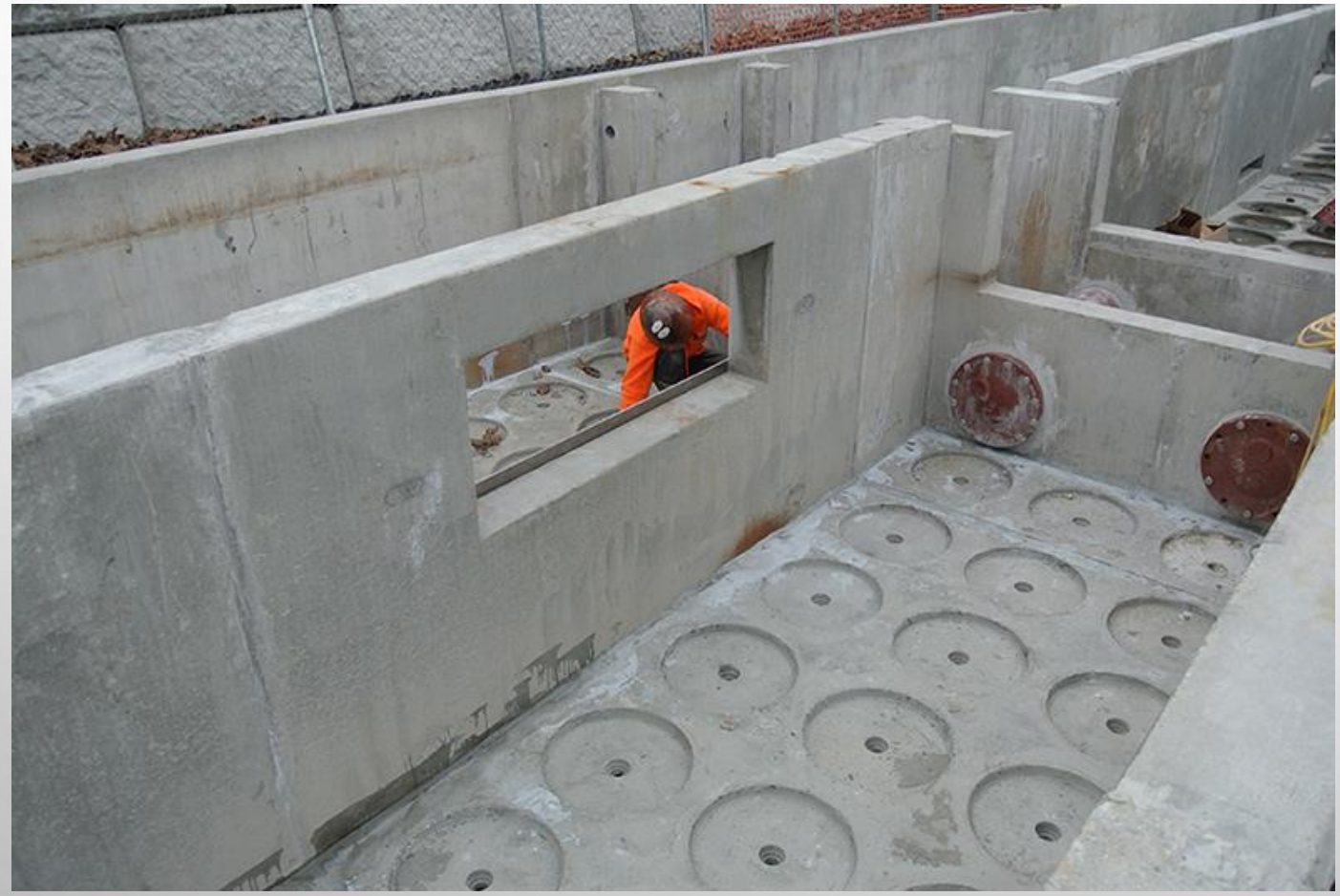
The Regional Board no longer accepts this simple method of infiltration, so the following methods are used:

- Storm Water Chambers
- Storm Water Concrete Vaults
- Engineered Bio-swales
- Pervious Pavement

Storm Water Chambers



Storm Water Vaults



Engineered Rain Gardens and Bio Swales

Engineered Pervious Pavement

Method	Storm Water Chambers	Storm Water Vaults	Engineered Bioswales	Engineered Pervious Pavement
Description	Colorful Plastic Domes installed over graded rock to hold required volume of storm water and infiltrate the water.	Square or rectangular concrete vaults installed over rock to hold required volume and infiltrate the water.	Open air depressions constructed of graded rock under specialized infiltration media and mulch, then planted with water-loving plants.	Pavers placed over graded rock with open space between them, or engineered pavement deigned to infiltrate water.
Pros	Can be installed under drive aisles. Has a clean-out and viewing port to assist in maintenance. Holds required volume using a minimum of space on-site.	Can be installed under drive aisles. Has a clean-out and viewing port to assist in maintenance. Holds required volume using a minimum of space on-site.	These above-ground features act more like a natural system. It is easy to identify maintenance issues such as trash, dead plants, infiltration malfunction or mosquitos	Can be used as a surface for parking areas.
Cons			Requires regular irrigation, regular trash removal, plant replacement and can require mulch and soil media replacement. Volume area needed can reduce or constrain developable site area.	Maintenance involves regular vacuum sweeping to keep the void spaces needed for infiltration from filling up with silt.