City of Torrance

proposed

STORMWATER BASIN ENHANCEMENT PROGRAM

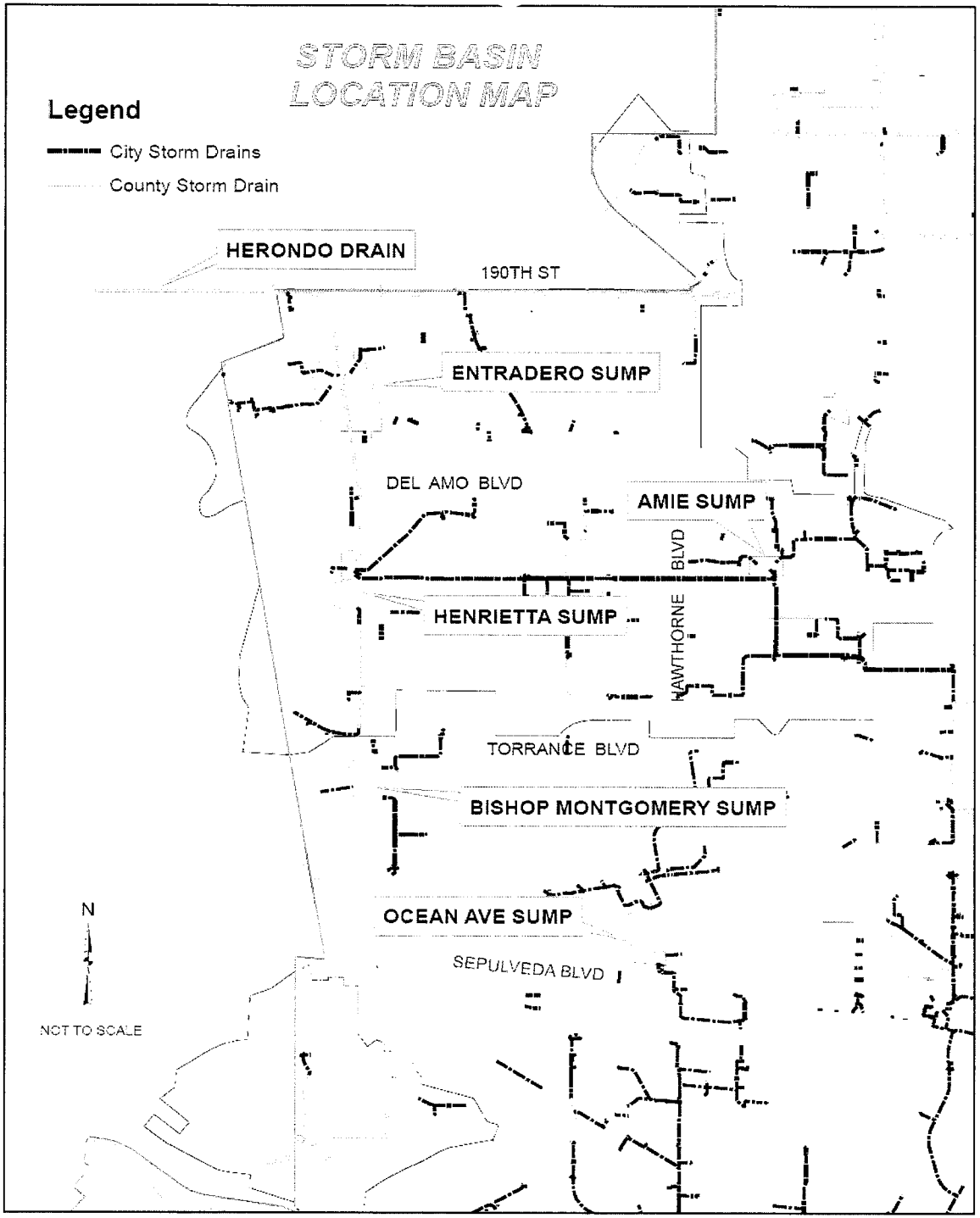
March 18, 2008

BACKGROUND

- South Bay cities required by Los Angeles Regional Water Quality Control Board to prevent stormwater with bacteria from being discharged to Santa Monica Bay.
- Dry Weather compliance (April 1 to Oct. 31) of zero bacteria exceedences achieved by pumping urban runoff to sewer
- Los Angeles County owns and operates those "Diversion Pump Stations"

BACKGROUND

- Most of West Torrance drains to Santa Monica Bay via the County's Herondo Drain (190th St.)
- Herondo Drain is only storm drain from Torrance that requires Wet Weather treatment for bacteria
- Herondo Drain drainage area is 2745 acres, 57% is Torrance, 40% Redondo Beach, 2% Manhattan Beach and 1% Hermosa Beach
- Most of drainage area from Torrance to Herondo Drain flows through Amie, Henrietta or Entradero Basin


STORM BASIN
LOCATION MAP
Legend
City Storm Drains
County Storm Drain
HERONDO DRAIN
190TH ST
ENTRADERO SUMP
DEL AMO BLVD
AMIE SUMP
HAWTHORNE BLVD
HENRIETTA SUMP
TORRANCE BLVD
BISHOP MONTGOMERY SUMP
OCEAN AVE SUMP
SEPULVEDA BLVD
N
NOT TO SCALE

OPTIONS

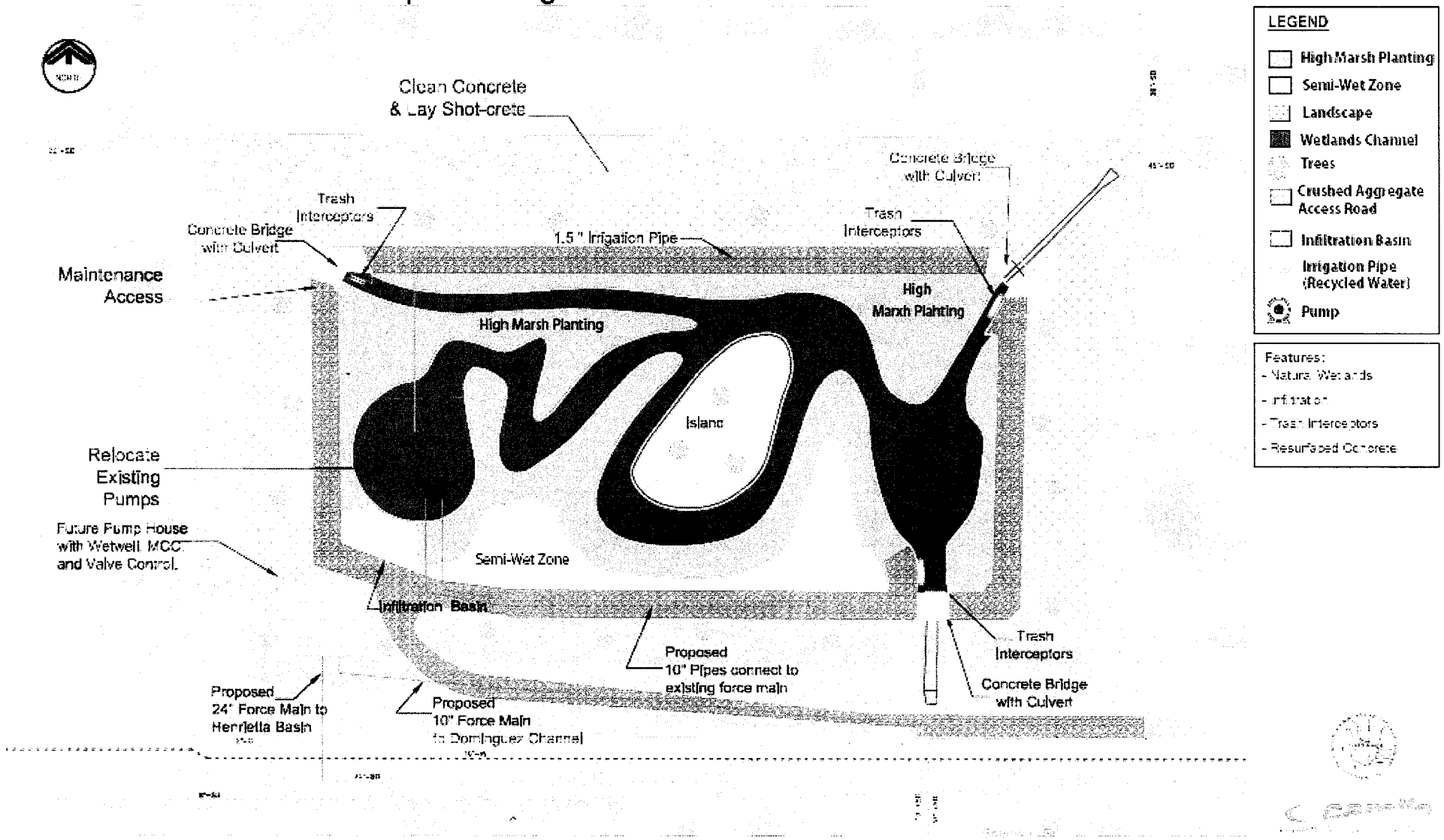
- Los Angeles Regional Water Quality Control Board requires South Bay cities to treat and/or infiltrate Wet Weather stormwater flows by 2021
- Option 1 is to build a regional stormwater treatment plant for Herondo Drain, located on beach and costs estimates of $134,000,000 to treat peak flow of 73,000 gpm from Torrance
- Option 2 is to build distributed treatment systems using Amie, Henrietta and Entradero Basins at cost estimate of $4,500,000

AMIE BASIN ENHANCEMENTS

- Treat stormwater using trash screens, wetlands treatment & infiltration basins
- Habitat restoration using detention basin water for irrigation
- Increased infiltration adds to groundwater recharge

■ AMIE BASIN

Amie Detention Basin - Conceptual Design

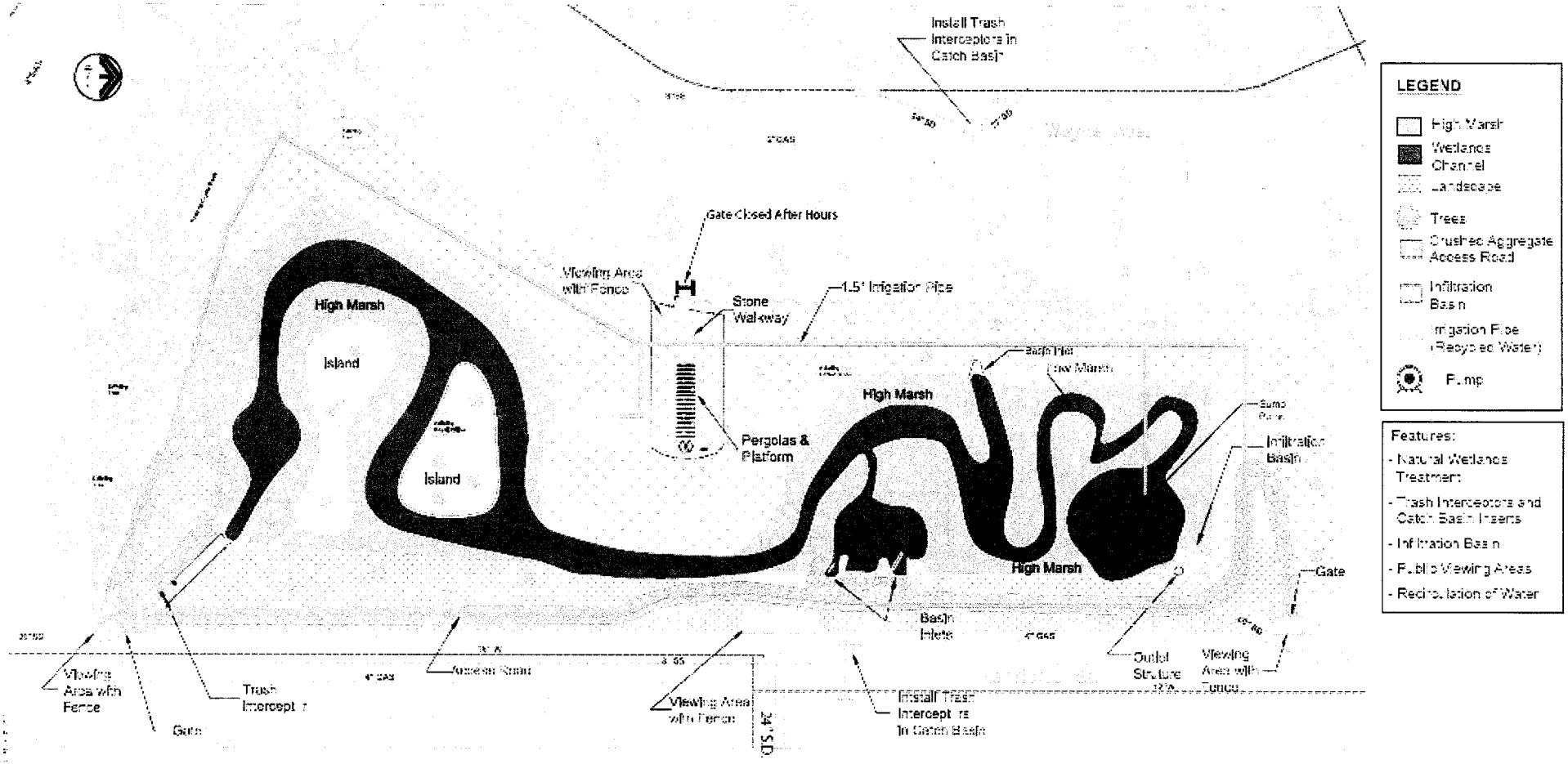


HENRIETTA BASIN ENHANCEMENTS

- Treat stormwater using trash screens, wetlands treatment & infiltration basins
- Habitat restoration using basin water for irrigation
- Groundwater recharge from increased infiltration
- Improved wildlife viewing with four areas proposed (gates closed at dusk)

■ HENRIETTA BASIN

Henrietta Detention Basin - Conceptual Design

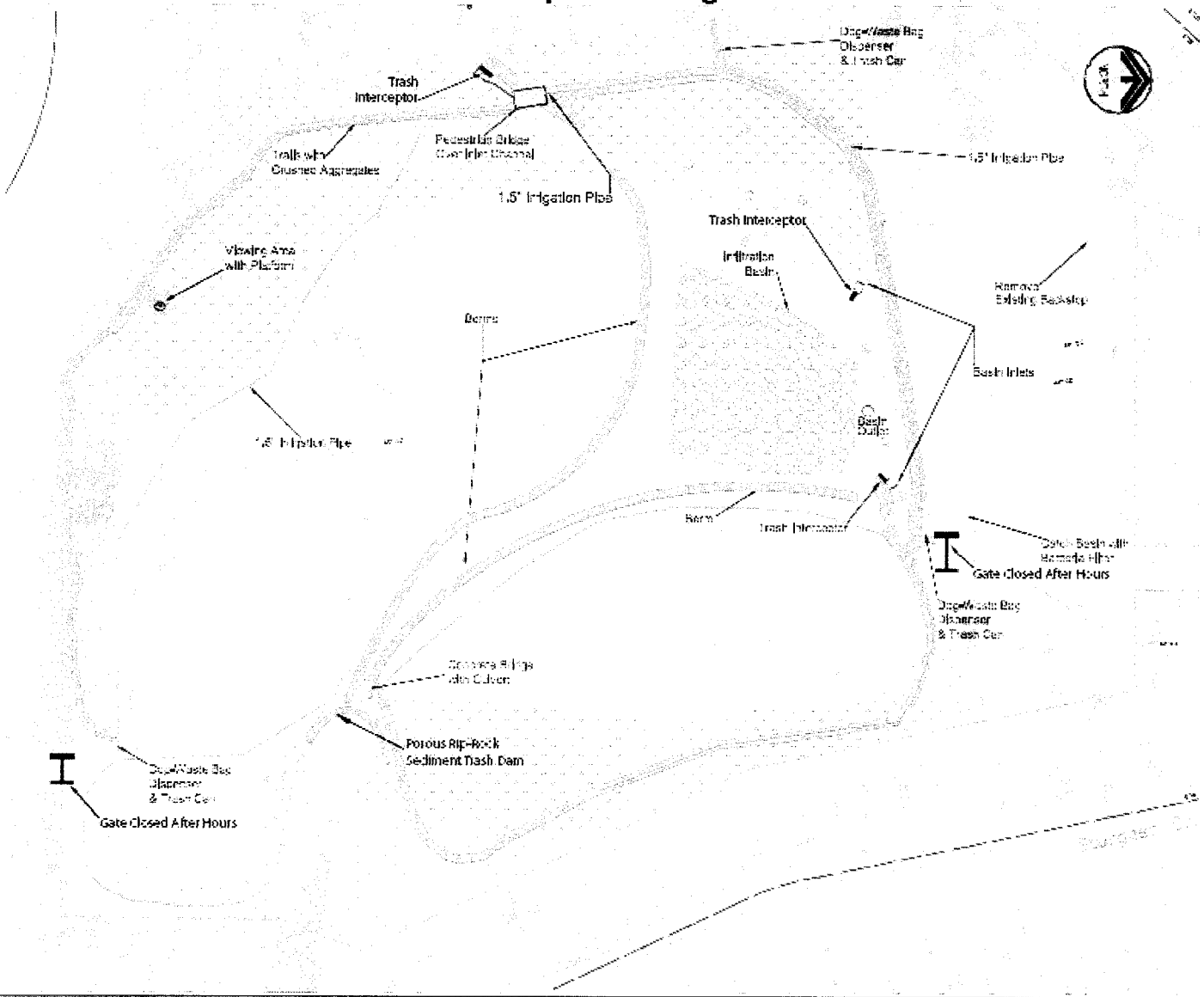


ENTRADERO BASIN ENHANCEMENTS

- Treat stormwater using trash screens & large infiltration basin
- Habitat restoration using recycled water
- Groundwater recharge from increased infiltration
- Maintain or improve recreational areas
- Water conservation by using recycled water for baseball fields
- Improved walking trails & wildlife viewing (gates closed at dusk)

■ ENTRADERO BASIN

Entradero Detention Basin - Conceptual Design



LEGEND

- Landscape
- Trees
- Crushed Aggregate Trail
- Infiltration Basin
- Irrigation Pipe (Recycled Water)
- Pump
- Berm

Features:

- Sedimentation/Trash Dam
- Infiltration Basin
- Trash Interceptors
- Improved Walking Trails
- Public Viewing Area
- Enlarged Field Space
- Use of Recycled Water
- Landscape Improvements

ADDITIONAL OPPORTUNITIES USING RETENTION BASINS

- Staff has identified additional opportunities to use retention basins for 19 acres open space
- Retention basins have no outlets
- John Jones, Community Services Director to discuss recreational opportunities using retention basins

OCEAN BASIN ENHANCEMENTS

- 9 more acres of open space
- Infiltration Basins to help meet stormwater permit and capacity requirements
- Habitat restoration using recycled water
- Naturalized Walking trails (gates closed at dusk)

■ OCEAN BASIN

OCEAN BASIN

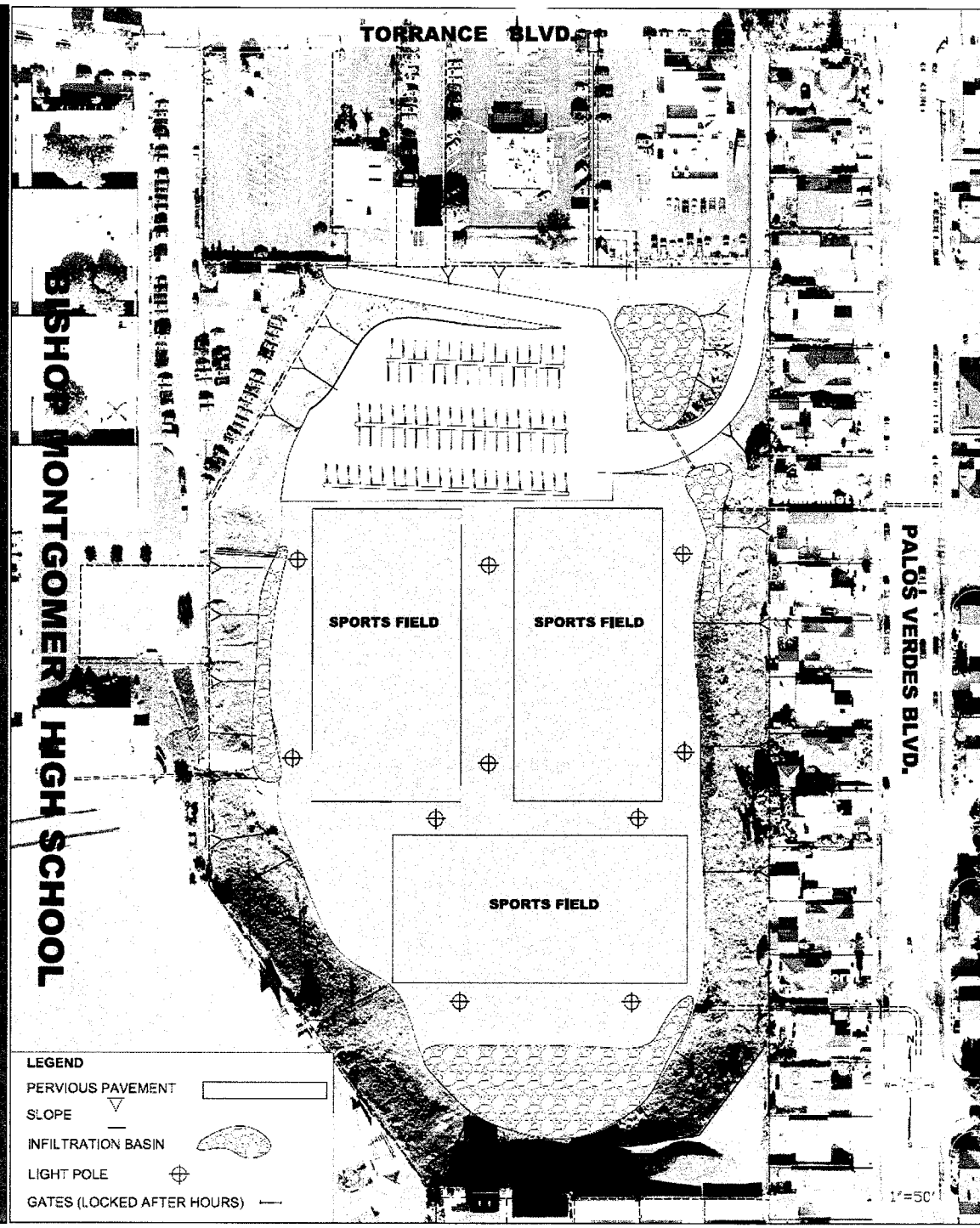
CONCEPTUAL PLAN

BISHOP MONTGOMERY BASIN ENHANCEMENTS

- 11 more acres open space
- Infiltration Basins to help meet stormwater permit and capacity requirements
- Provides opportunity for 3 City lighted sports fields (gates locked after hours)
- New light pole technology have minimal impact
- Recycled water proposed for field irrigation
- Joint use with Bishop Montgomery HS

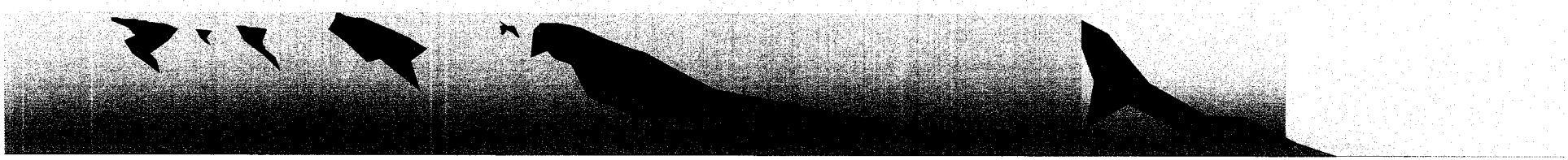
■ BISHOP BASIN

BISHOP BASIN



CONCEPTUA PLAN

DISCUSSION



WHAT'S NEXT

- Timing is good for grant funding for Stormwater Basin Enhancement Program
- Additional Public meetings
- Meetings with community groups and environmental groups to seek input and support
- Meetings with Regional Board to seek input & support
- Depending on input move to pre-designs, costs estimates & CEQA process, then
- Seek Council authorization to apply for water quality and park grants