CALIFORNIA COASTAL COMMISSION
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F20a

6-19-1007 (City of San Diego, Torrey Pines outfall)

October 2020

EXHIBITS

EXHIBIT NO. 1

APPLICATION NO.
6-19-1007

Vicinity Map

California Coastal Commission

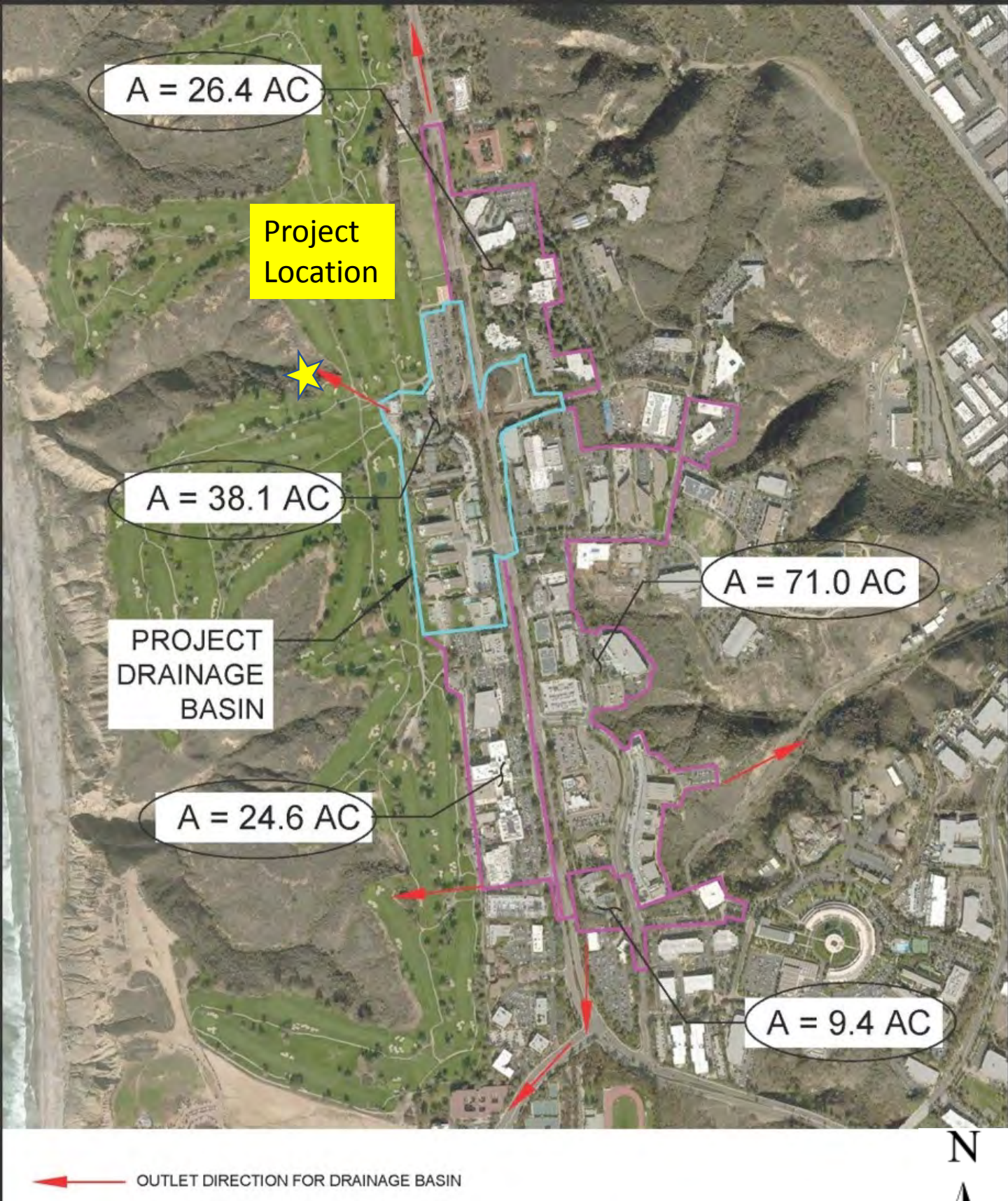


EXHIBIT NO. 2
APPLICATION NO.
6-19-1007
Drainage Basin Boundaries
California Coastal Commission

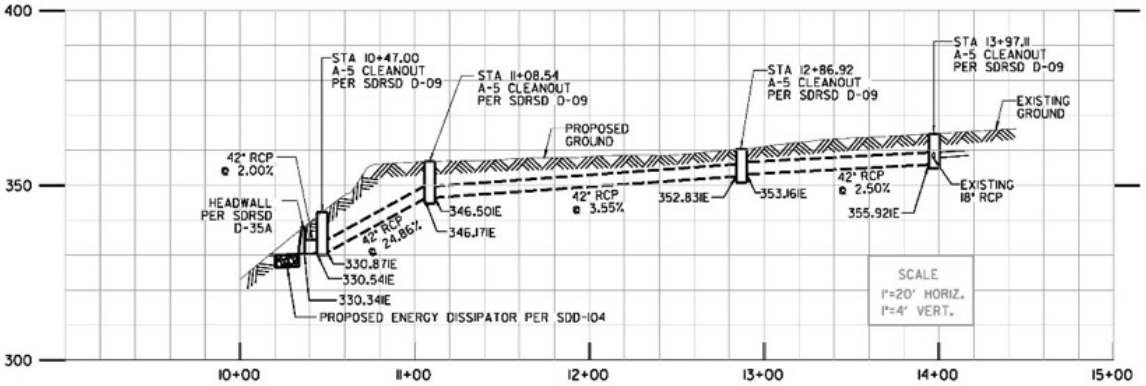
LEGEND

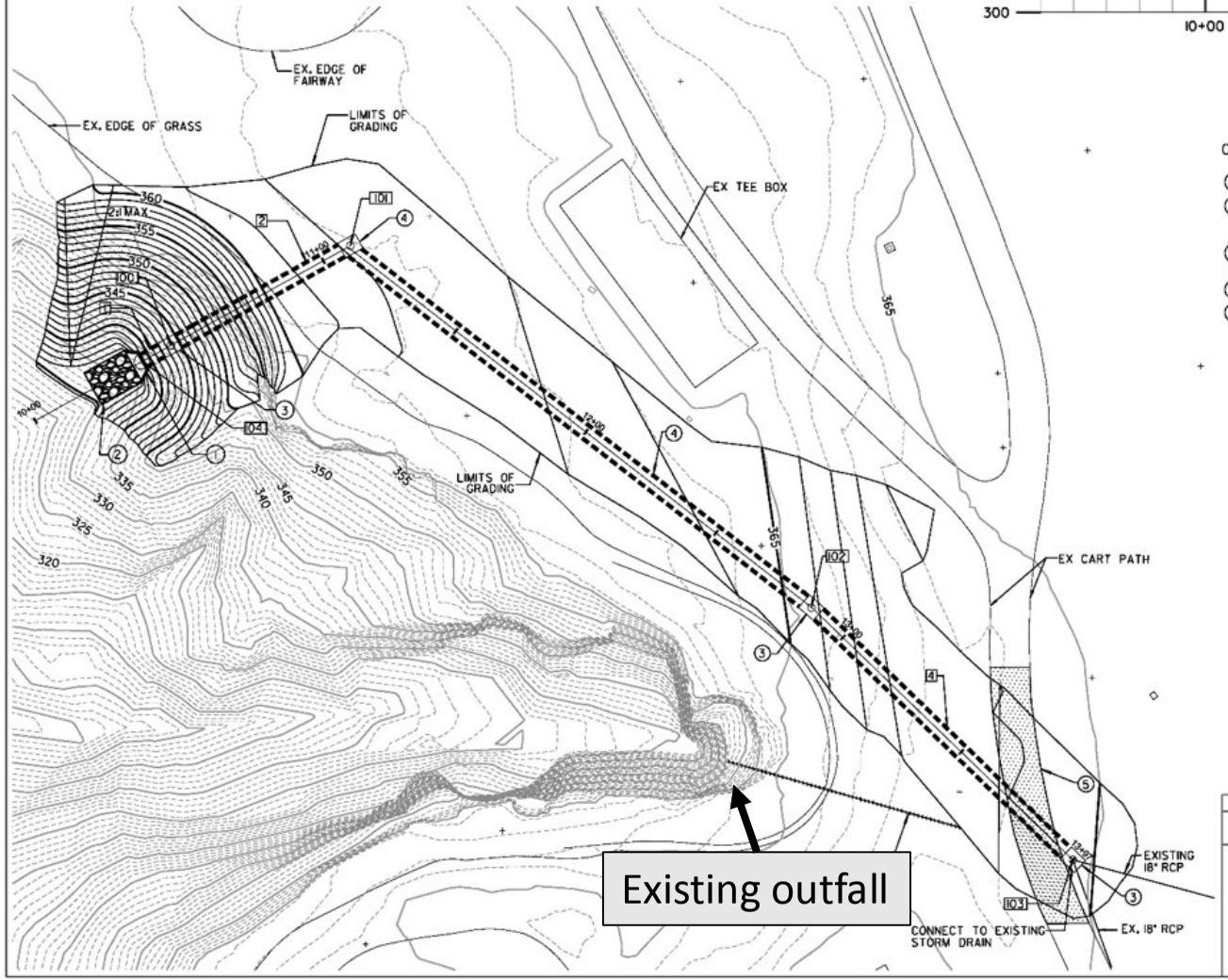
- 10 — NODE NUMBER
- 1.5 AC — DRAINAGE BASIN AREA
- D — EXISTING STORM DRAIN
- DRAINAGE BASIN BOUNDARY
- DRAINAGE SUB-BASIN BOUNDARY

N

0 200 400 600

SCALE: 1" = 200' SCALE IN FEET





CONSTRUCTION NOTES:

1. WINGWALL PER D-35A.
2. RIP RAP ENERGY DISSIPATOR PER SDD-104, TYPE I, W=11', L=14', 2 TON ROCK CLASS, T=5.4' WITH OPTION I UPPER FILTER BLANKET, AND LOWER FILTER BLANKET.
3. TYPE A5 CLEANOUT @ STA 10+47.00, 12+86.92, AND 13+91.11 PER D-09.
4. TYPE A5 CLEANOUT @ STA 11+08.54 PER D-09, Y=5'.
5. CART PATH, MATCH EX WIDTH AND PAVEMENT THICKNESS. CONCRETE PER SDG-155.

COORDINATE TABLE			
NO.	NORTHING	EASTING	DESCRIPTION
100	1910700.98	6255599.91	PROPOSED A-5 CLEANOUT
101	1910730.85	6255653.72	PROPOSED A-5 CLEANOUT
102	1910621.41	6255794.58	PROPOSED A-5 CLEANOUT
103	1910544.84	6255873.82	PROPOSED A-5 CLEANOUT
104	1910696.13	6255591.17	PROPOSED D35A HEADWALL

STORM DRAIN DATA TABLE				
NO.	△/BEARING	RADIUS	LENGTH	REMARKS
1	N60° 57'45"E	-	10'	42" RCP
2	N60° 57'45"E	-	61.54'	42" RCP
3	S52° 09'22"E	-	178.38'	42" RCP
4	S45° 58'37"E	-	110.19'	42" RCP

SCALE 1"=20' SCALE IN FEET

C-2

TORREY PINES GOLF COURSE
STORM DRAIN REPAIR PROJECT
STORM DRAIN PLAN AND PROFILE, FINAL GRADING

CONSULTANT

KLEINFELDER
Bright people. Right Solutions.

550 WEST C STREET, SUITE 1200, SAN DIEGO, CA 92101

SPEC NO.

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 4 OF 6 SHEETS

WBS B-17152

FOR CITY ENGINEER DATE
PRINT JOB NAME: ROS#

DESCRIPTION	BY	APPROVED	DATE	FILMED

PROJECT MANAGER
PROJECT ENGINEER
CCSDT COORDINATE
CCSMI COORDINATE

CONTRACTOR
INSPECTOR
DATE STARTED
DATE COMPLETED

4-D

EXHIBIT NO. 3
APPLICATION NO.
6-19-1007
Project Plan

California Coastal Commission

EXHIBIT NO. 4

APPLICATION NO.
6-19-1007

Site Photos

California Coastal Commission


Existing outfall
(not visible)
Eroded Canyon
Walls


Eroded Canyon Walls


Looking west down
canyon from north rim


Eroded Canyon Walls
Existing outfall's discharge during 0.25" storm

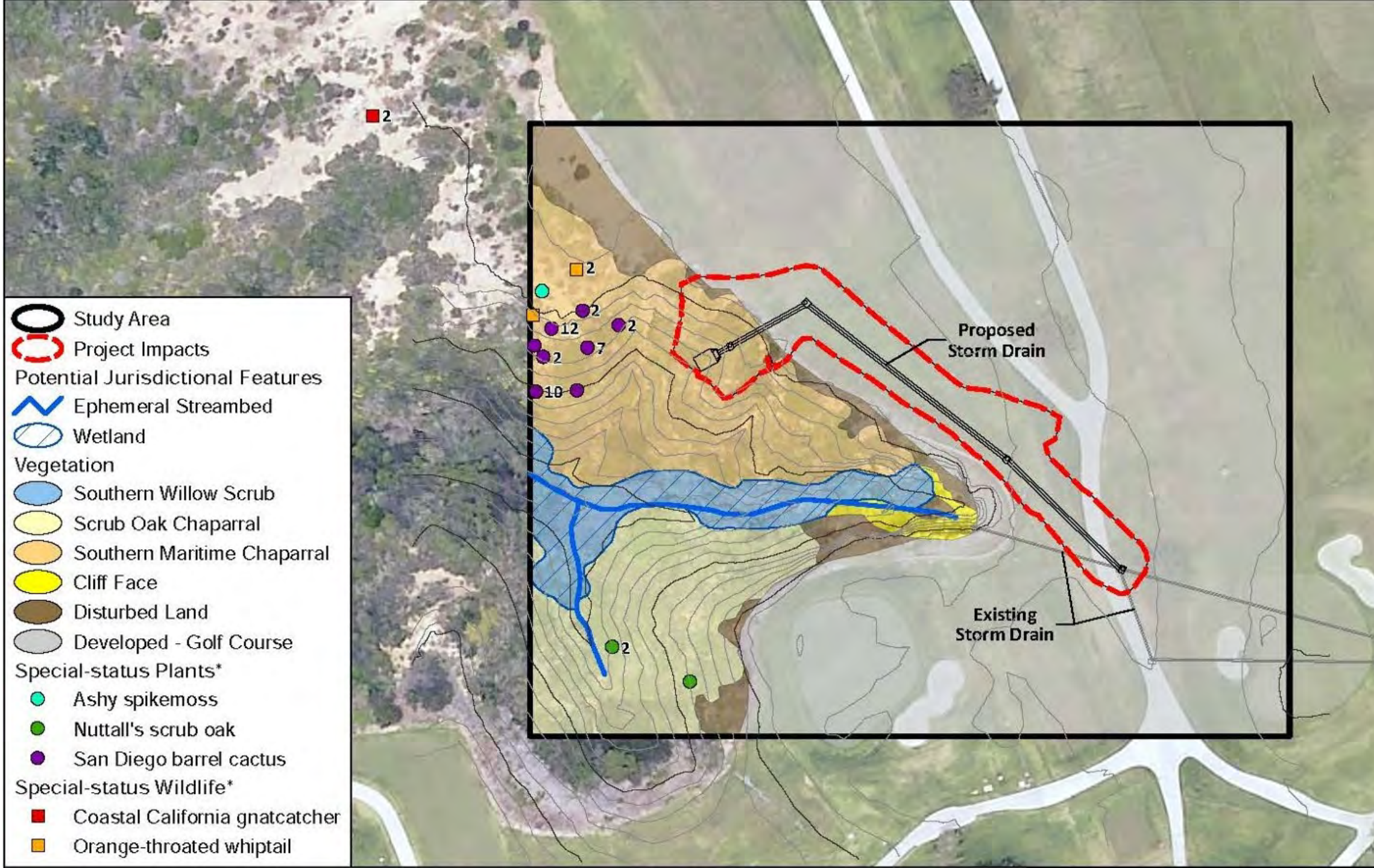


EXHIBIT NO. 5
APPLICATION NO.
6-19-1007
Biological Resource Map

California Coastal Commission

CALIFORNIA COASTAL COMMISSION

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MEMORANDUM

TO: Alex Llerandi, Coastal Program Analyst

FROM: Laurie Koteen, Ph.D., Ecologist

RE: Natural Resource Impact Analysis, Torrey Pines Golf Course, San Diego, CA

DATE: September 17, 2020

Documents Reviewed:

City of San Diego, *San Diego Municipal Code, Land Development Code: Biology Guidelines*, last amended February 1, 2018.

Chapin III, F. S., Matson, P. A., & Vitousek, P. M. (2011). *Principles of Terrestrial Ecosystem Ecology*. New York: Springer Nature.

Mason, Greg, Principle Investigator Alden Environmental, Inc., *Biological Technical Report for the Torrey Pines Golf Course Storm Drain Repair Project,* Prepared for: the City of San Diego, July 23, 2019.

Sproul, F., Keeler-Wolf, T., Gordon-Reedy, P., Dunn, J., Klein, A., & Harper, K. (2011). *Vegetation Classification Manual for Western San Diego County*. Retrieved from San Diego.

The City of San Diego proposes to shift the location of an existing storm water drainage outfall, that currently drains developed areas east of the Torrey Pine Golf Course, to an alternative location within the golf course grounds. In addition, a range of changes to the drainage apparatus are proposed to increase the capacity of the current system, to allow for system clean-out in a new location, and to reduce the potential for erosion associated with storm water flow. As the Coastal Commission ecologist for this region, I have been asked to evaluate potential impacts to sensitive resources associated with the outfall's relocation and expansion, and to ascertain the conformance of these impacts with San Diego's local coastal plan. I visited the Torrey Pines Golf Course on October 2nd of 2019 and was able to assess the resources on site.

The proposed project consists of the portion of the drainage system that approaches the outfall, which drains into a steep coastal canyon and ultimately the ocean, at the western margin of the Torrey Pines Golf Course, **Figures 1 and 2**. The current system consists of an 18 inch underground pipe that daylights at the canyon, with storm water exiting into a steep ravine. A system clean-out associated with the terminal pipe is present for removing debris that accumulates with the storm water. This system was installed prior to passage of the Coastal Act, and therefore, has not previously undergone coastal review. The changes proposed would increase the system drainage capacity by installing a 42 inch reinforced concrete pipe and by removing from use the existing 18 inch pipe, but allowing it to remain in place. In addition, a new drainage clean-out would be installed, and the new pipe extended to a location north of the existing outfall. Grading would occur along the top of the canyon slope, and an energy dissipater would be installed in this location to reduce the erosive capacity of the storm water as it enters the canyon. At its current location, erosion is evident below the outfall, and several invasive plants have established following prior disturbance, **Figures 3a and b**.

To install the new pipe and drainage infrastructure, the ground would be excavated and restored where it lies within the golf course greenways. As this is manicured, developed land where golfing occurs, these impacts would not impact sensitive resources. However, at the location of the cliff face, where native vegetation remains, and along the top of the canyon wall, the new construction would create both direct and indirect impacts to sensitive resources.

Sensitive Resources on Site:

Upon visiting the Torrey Pine Golf Course last October, I was able to directly observe several of the previously surveyed sensitive resources on site. These include the sensitive plant species, Ashy spikemoss, *Selaginella cinerascens*, which has a CNPS rare plant ranking of 4.1. Plants of limited distribution or that are infrequent throughout a broader area in California receive this ranking. Also present was Nuttall's scrub oak, *Quercus dumosa*, which has a CNPS rare plant ranking of 1B.1 and the San Diego barrel cactus, *Rerocactus viridescens*, which has a CNPS rare plant ranking of 2B.1. The 1B ranking indicates that Nuttall's scrub oak is rare throughout its range, and that its population has declined significantly over the past century. The .1 that accompanies the 1B ranking further describes its current state of endangerment, which remains high, with sustained immediate threats to this species' continuance. Plants of Rank 2B are rare, threatened or endangered in California, but more common elsewhere. However, in the case of the San Diego barrel cactus, the .1 describes that this species is similarly threatened throughout its range in California[1].

In addition to sensitive plant species, two sensitive wildlife species were located in recent surveys. These include the coastal California gnatcatcher, *Polioptila californica californica*, and the Orange-throated whiptail lizard, *Aspidoscelis hyperythra*. Two coastal California gnatcatchers were observed on site in a 2018 survey. This species is federally threatened. The orange-throated whiptail is on the state watch list for species of special concern. It is also listed as having protected status in the

[1] The CNPS Rare Plant Ranking system ranges from presumed extinct species, California Rare Plant Rank (CRPR) 1A, to limited distribution species now on a watch list CRPR 4. https://www.cnps.org/rare-plants/cnps-rare-plant-ranks.

Multiple Species Conservation Program, MSCP, in the city of San Diego Land Development Manual[2]. In addition to these two species, which were directly located on site, other special status species were deemed to have a moderate likelihood to reside on site, due to suitable habitat availability and documentation of their presence within a one mile radius on the California Natural Diversity Database, (CNDDB). These include the reptilian Southern California legless lizard, *Anniella stebbinsi*, and the Coast horned lizard, *Phrynosoma blainvillii*; a species of special concern and a MSCP covered species, respectively. Other wildlife species may also be present, however, the biologists who completed the wildlife surveys on site confined their investigations to daytime hours and did not seek out secretive or migratory species.

Also on site are a number of sensitive habitat types, and these habitats occur directly in the canyon area that will be affected by the relocation of the storm drain pipe and associated infrastructure. They include southern willow scrub, (SWS), a wetland riparian community, scrub oak chaparral, (SOC), and southern maritime chaparral, (SMC). The latter two vegetation communities are classified as Tier 1 communities based on their rarity and ecological importance under the San Diego Land Code. Tier 1 communities are among the most sensitive, and require both greater protection than more widespread communities, and have higher mitigation ratios if impacted. The southern willow scrub community is protected under the wetland provisions of the same document.

Under the Land Development Code of San Diego and the MSCP, the special status species listed here shall be conserved. Under the Coastal Act, these species and the Tier 1 and wetland habitats rise to the level of ESHA, which in many ways is equivalent to the Code's environmentally sensitive lands designation. Coastal Act Section 30107.5 defines ESHAas:

> *…any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*

The Land Development Code, which is the standard of review for this projected defines Environmentally Sensitive Lands, which is their ESHA equivalent as:

> *as those lands included within the Multi-Habitat Planning Area (MHPA) as identified in the City of San Diego's Multiple Species Conservation Program (MSCP) Subarea Plan (City of San Diego 1995) the Vernal Pool Habitat Conservation Plan (VPHCP)(City of San Diego 2018), and other lands outside of the MHPA that contain wetlands; vegetation communities classifiable as Tier I, II, IIIA or IIIB; habitat for rare, endangered or threatened species; or narrow endemic species.*

[2] City of San Diego, San Diego Municipal Code, Land Development Code: Biology Guidelines, last amended February 1, 2018, Attachment A, pg. 61 – 63.

Further, regulations governing allowable activities in ESHAs under Coastal Act Section 30240 state:

> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*
>
> *(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.*

Given the numerous sensitive resources on site, including the special status plant and wildlife species, and the Tier 1 rare habitats, I conclude that all the vegetation along the canyon walls, both north and south-facing, is ESHA, and would meet the definition of Environmentally Sensitive Lands under the San Diego Land Development Code.

Habitat Loss and Mitigation Requirement

The San Diego Land Development Code does allow impacts to areas designated as environmentally sensitive lands, which includes all wetland habitats and sensitive upland communities. However, it requires impacts to these areas to be mitigated at ratios outlined in Tables 2A and 3 of the manual[3]. In the Biological Technical Report for the proposed project, projected impacts are described as direct and indirect, but only direct impacts are evaluated as requiring mitigation. Specifically, the proposed project is projected to directly impact 0.09 acres of southern maritime chaparral, a Tier 1 vegetation community, as a result of grading and installation of the outflow pipe and the energy dissipater. Aside from disturbance to the golf course greenway, this is the only land area for which impacts are considered. The report goes on to state that no mitigation is required due to the ESL provisions in the Land Development Manual that allows impacts to ESLs to go unmitigated if the impacts total less than 0.1 acres. While it may be true that impacts of this magnitude do not require mitigation, I disagree with the conclusion that impacts will be confined to 0.09 acres, and thus fall outside of the mitigation requirement.

I conclude that impacts will exceed 0.09 acres due to relocation of the outfall. In the current outfall configuration, the outfall has created southern willow scrub wetland habitat through concentrating drainage into a stream that exists through the outfall pipe. Once the drainage is relocated, the water supply that supports the southern willow scrub community will be reduced, thereby impacting this habitat, as water is one of the fundamental drivers of plant community composition[4]. Some water will continue to reach the area because the location of the outfall is a natural

[3] City of San Diego, San Diego Municipal Code, Land Development Code: Biology Guidelines, last amended February 1, 2018, Attachment A, pgs. 37 and 42-43.

[4] Chapin III, F. S., Matson, P. A., & Vitousek, P. M. (2011). *Principles of Terrestrial Ecosystem Ecology*. New York: Springer Nature.

drainage. As a result, over time, the southern willow scrub community will contract. However, the amount of contraction and the time period over which it will occur, cannot be predicted. Because of the loss of habitat; both the southern maritime chaparral (direct impact), and the contraction of southern willow scrub, (indirect impact), the total impact is very likely to exceed 0.10 acres, and mitigation for this loss is required. However, because the total quantity of impacts cannot be determined ahead of project completion, the Coastal Commission believes a 2:1 mitigation ratio for the 0.9 acres of southern maritime chaparral is appropriate, as outlined in the Land Development for Tier 1 habitats for on-site habitat creation. However, if the mitigation is to be completed far outside the vicinity of impacts, a ratio of 3:1 shall be applied. I also note that creation of additional wetland habitat at the new outfall location to compensate for wetland loss is not expected. With the original outfall, high energy flows caused erosion that also allowed water to pool and thereby create wetlands. Because of the energy dissipater at the new outfall location, and the much larger size of the new outfall pipe, much of the water stream energy will be reduced, and water is unlikely to pool at the new location, which is the pre-condition for wetland creation.

Temporal View of Impacts Supports Relocation of Drainage Outfall

Despite the loss of the southern maritime chaparral habitat at the new outfall location, I see relocation of the outfall as the superior alternative to maintaining, or potentially repairing the current outfall. The reasons are threefold. First, the positioning of the current outfall has facilitated the introduction of invasive species into the canyon, as noted above, and is evident in **Figures 3a and 3b**. The species pictured there are invasive fennel, *Foeniculum vulgare* and pampas grass, *Cortaderia selloana*. Also present in the canyon below the outfall were ice plant, *Carpobrotus edulis,* and tree tobacco, *Nicotiana glauca,* among others. Of these four species, three are listed by the California Invasive Plant Council, as being highly invasive. Tree tobacco is listed as moderately invasive[5], but remains a substantial problem species in San Diego County. The presence of these species in the canyon means they are available to spread further, and displace native habitat when opportunities open-up. Second, erosion at the outfall location has progressed laterally over time as vegetation loss or erosion of the rock face along the bluff top pulls adjacent vegetation with it, or causes the loss of the underlying substrate, leading to a cascading effect of vegetation loss and bluff failure. This phenomenon has almost certainly occurred at the current location, and has grown quite extensively over time, as is evident in **Figures 4a** and **4b.** Third, the high energy impact of the water stream during high storm flow events has created a situation of geologic instability where larger bluff catastrophic failure is highly likely in the future. Under the current configuration, continuing erosion at the base of the gully would be expected to maintain the steep escarpment that has developed over time, increasing the susceptibility to block fall failures. Continuance of this situation is likely to prevent the "lay back" of the slope to a more stable inclination that would otherwise be expected to occur. The collapse of the old headwall, the existence of the erosion depression at the bottom of the gully, the very steep scarp, and observable landward erosion at the head of the gully are all strong evidence supporting the instability of the current configuration[6].

[5] https://www.cal-ipc.org/plants/profiles/

[6] Personal communication, 8/24/2020, Joseph Street, Ph.D., Coastal Commission geologist.

Considering the past and future impacts discussed above, invasive species colonization and lateral erosion have both occurred over the time period that the current outfall has been in place, as has the steepening of the canyon slope that creates the conditions for catastrophic slope failure. Yet, these past impacts, although quite real and substantial are not accounted for in the context of the current project. Also not accounted for are potential future impacts that would result from catastrophic failure of the slope. In the event of a large block failure, ESHA habitat loss is likely to occur on a larger scale than the habitat removal that is proposed for reseating the outfall to the north. Thus, in considering impacts that have already occurred because the current outfall is undersized and the streamflow during high storm events is highly erosive, relocation appears to be the less impactful alternative. Further, the increased risk of catastrophic, or block failure, due to progressive erosion at the base of the gully, makes further impacts to sensitive habitat highly likely in the future.

In all, although concerns about the loss of ESHA are valid due to the relocation and re-sizing of the outfall, a full accounting of the impacts that have already occurred at the site, and which have a high risk of occurring, make the proposed project the preferable alternative. When viewed from a temporal perspective the greatly reduced erosive potential of the proposed project will allow the stability to the valley slopes to naturally restore over time, and result in less habitat loss overall. Lastly, if the loss of the southern maritime chaparral ESHA is fully mitigated at a ratio of 2:1, (or 3:1 if off-site), the impacts precipitated by the project will be compensated.

Figure 1: Torrey Pines Golf Course Location within the City of San Diego, and the location of the proposed project.

Figure 2: Location of current and proposed outfalls and drainage pathway

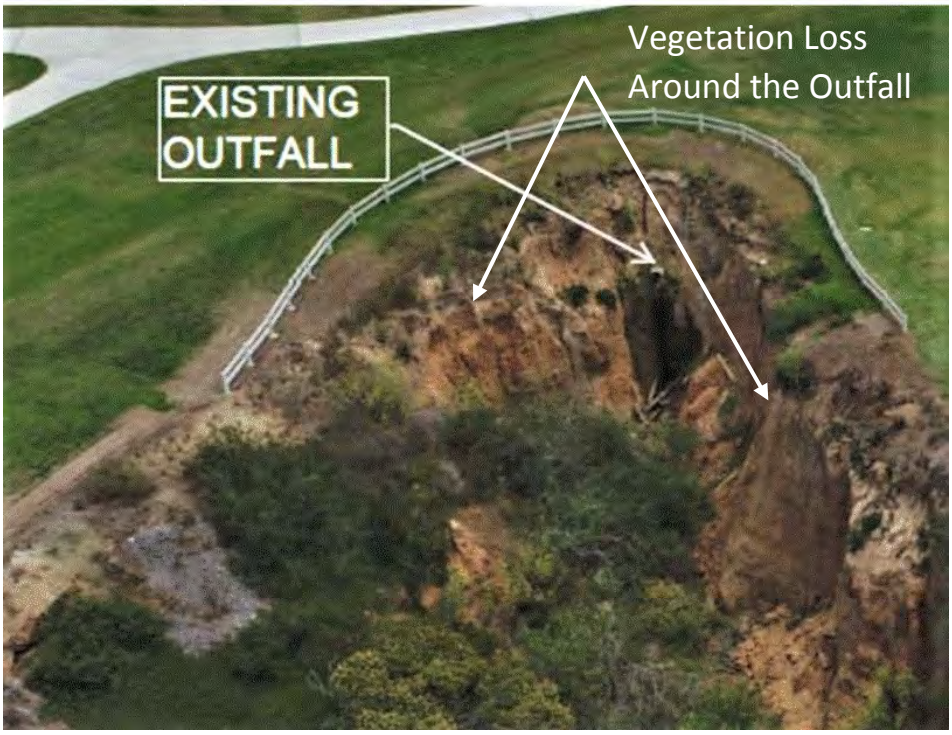
Sweet Fennel,
Foeniculum vulgare,
(highly invasive)

(a)

Pampas grass
Cortadairia selloana,
(highly invasive)

(b)

Figure 3: Examples of non-native, invasive plants that have colonized canyon areas where erosion has occurred due to storm water disturbance.



(a)

(b)

Figure 4: Examples of creeping habitat loss in the vicinity of the original outflow (a) on both sides of the outfall (b) Extending to the northwes. In the lower photo, outflow pipe is just to the right of the photo edge.