US Army Corps of Engineers ®
Fort Worth District

Public Notice

Applicant: **WC Paradise Cove Marina LP**

Project No.: **SWF-2011-00168**

Date: **September 10, 2013**

The purpose of this public notice is to inform you of a proposal for work in which you might be interested. It is also to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.

Regulatory Program

Since its early history, the U.S. Army Corps of Engineers has played an important role in the development of the nation's water resources. Originally, this involved construction of harbor fortifications and coastal defenses. Later duties included the improvement of waterways to provide avenues of commerce. An important part of our mission today is the protection of the nation's waterways through the administration of the U.S. Army Corps of Engineers Regulatory Program.

Section 10

The U.S. Army Corps of Engineers is directed by Congress under Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) to regulate *all work or structures in or affecting the course, condition or capacity of navigable waters of the United States*. The intent of this law is to protect the navigable capacity of waters important to interstate commerce.

Section 404

The U.S. Army Corps of Engineers is directed by Congress under Section 404 of the Clean Water Act (33 USC 1344) to regulate the *discharge of dredged and fill material into all waters of the United States, including wetlands*. The intent of the law is to protect the nation's waters from the indiscriminate discharge of material capable of causing pollution and to restore and maintain their chemical, physical and biological integrity.

Contact

Name: Ms. Lisa Gomez

Phone Number: 817-886-1735

JOINT PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS, FORT WORTH DISTRICT

AND

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUBJECT: Application for an After-the-Fact Department of the Army Permit under Section 404 of the Clean Water Act (CWA) and for water quality certification under Section 401 of the CWA to discharge dredged and fill material into waters of the United States associated with the widening of an existing access road and erosion protection measures at Paradise Cove Marina, Lake Travis, Travis County, Texas.

APPLICANT: WC Paradise Cove Marina LP
c/o Dr. Love Paul, Project Manager
1122 S. Capital of Texas Highway, Suite 300
Austin, Texas 78746

AGENT: Ms. Valerie Learman
Goshawk Environmental Consulting, Inc.
Post Office Box 151525
Austin, Texas 78715

APPLICATION NUMBER: SWF-2011-00168

DATE ISSUED: September 10, 2013

LOCATION: The road widening and erosion control projects are located at Paradise Cove Marina, 17141 Rocky Ridge Road, Lake Travis, Texas 78734. The project location is approximately at UTM coordinates 601180.730 East and 3366218.448 North (Zone 14) on the TX-Mansfield Dam 7.5-minute USGS quadrangle map in the USGS Hydrologic Unit 12090205. (*See Vicinity Map, Sheet 1 of 17)*

OTHER AGENCY AUTHORIZATIONS: State Water Quality Certification

PROJECT DESCRIPTION: The applicant has excavated and/or discharged approximately 2,106 cubic yards (CY) of native soil, limestone boulders and caliche over an area of approximately 1.48 acres of Waters of the United States (WOUS) in conjunction with widening the existing marina access road and providing erosion protection from wave activity on Lake Travis. This work was done without the requisite permit. The applicant proposes to discharge an additional 122 CY into approximately 0.01 acre of WOUS for bank stabilization and erosion protection. Total permanent impacts to WOUS would be 0.35 acre via fill material discharged below the normal pool elevation which is 681 feet above mean sea level (MSL). Under Section 404 of the Clean Water Act the U.S. Army Corps of Engineers (USACE) exerts regulatory authority over areas of Lake Travis that are at or below 681 feet MSL, as well as any adjacent wetlands and streams (*See Sheets 3 & 4 of 17*).

The project site is the 267-acre Paradise Cove Marina, located on the south shore of Lake Travis in Hudson Bend, Texas. The property is comprised of three adjacent lots, the vast majority of which are submerged (even at low lake levels). (*See Sheet 2 of 17)* The 17.21-acre portion of the site above normal pool elevation surrounds the southeastern portion of the property. The marina occupies the portion of the site southwest of the cove while the majority of uplands occupy the east side of the cove and are largely undeveloped. The marina consists of an office; paved access drive; parking; and the on-water components of the marina which include floating docks, a boat ramp, and access ramps.

Access to the marina is provided by a single paved drive that parallels the inlet and is approximately 18 feet wide with no improved shoulder. Fill was placed along the east side of the marina's access drive for the purpose of widening the road right-of-way for safety and to provide erosion protection from wave activity on Lake Travis.

The applicant desires to leave the fill in place for the purposes of: 1) safety concerns along the access drive; 2) providing erosion protection on the banks; and 3) insuring emergency vehicle access. The applicant proposes to place additional riprap, approximately 122 CY of fill, to achieve better long-term stabilization.

IMPACTS: This proposed permit is for impacts to Waters of the U.S. (WOUS) that occurred beginning about 10 years ago and up to the present, as well as including some proposed future impacts. WOUS on the property are limited to Lake Travis at and below the 681 feet MSL elevation. No other WOUS, including wetlands, are found at the project site. (*See Historical Aerial Photographs, Sheets 7-11 of 17)*

The impacts can be described as four distinct actions:

Impact #1, which occurred around 2003, involved the placement of approximately 155 CY of fill material to construct a boat ramp, covering approximately 0.16 acre of lake bottom substrate.

Impact #2 refers to the dredging of materials from below the 681 feet MSL from the base of the southeastern inlet of Paradise Cove which occurred in February of 2007. At the time of this activity the water level in Lake Travis was reported to be approximately 647 feet MSL. The estimated amount of materials dredged from the inlet is approximately 474 CY over an area of 0.98 acre. The dredged material was placed in an adjacent upland in an area of about 1.7 acres and was seeded to reduce deposition back into the cove.

Impact #3 refers to the dredging of materials from below the 681 feet MSL and the subsequent filling activities relative to widening the access road. These activities occurred during September and October of 2009 when lake levels were at or about 629 feet MSL. Approximately 712 CY of fill material was excavated from two existing stockpiles of boulders located below the 681 MSL at Paradise Cove while an additional 850 CY (765 CY below 681 MSL, 85 CY above 681 MSL) was hauled in from off-site (the adjacent Sail & Ski Marina). This fill, consisting of native soil, limestone boulders and caliche, was placed along the east side of the existing access road to extend a level area and create parking space on the right side of the entrance road. The fill placed below the 681 feet MSL covered an area of approximately 0.34 acre.

Impact #4 involves proposed activities related to the stabilization of the unauthorized fill materials which were deposited during the access road widening in 2009 (see Impact #3). MLAW Consultants & Engineers (MLAW) investigated the current post-fill site conditions to evaluate the slope and stability of the fill. Their report, based on a geotechnical engineering perspective, makes the following recommendations:

1. The fill slope should be shaped to achieve a maximum slope of 2: 1 (horizontal to vertical).
2. A layer of riprap should be installed on the sculpted slope face to protect it from wave attack and erosion.
3. The fill may need additional treatment to avoid settlement issues if a non-flexible pavement system or structure will be constructed on it.

The applicant would improve the long-term stability for the side slopes and consequently for the adjacent access drive by sculpting the fill to the recommended slope and armoring with a layer of riprap (*See Sheet 5 of 17*), encompassing the first two recommendations. In lieu of the third recommendation, the applicant would follow the sculpting and armoring activities with the placement of approximately 6 inches of top soil on the flat surface of the fill and seed with a native grass seed mixture adhering to the City of Austin's Standard Specifications for 609S Native Vegetation. This vegetative filter strip (VFS) would provide stability and filtering of pollutants from surface water runoff. In addition to the above, the applicant would utilize Best Management Practices such as: installation of silt fences or mulch socks/tubes along the perimeter of the topsoil to prevent erosion into jurisdictional areas; and, the placement of boulders or a low fence (with gaps for emergency vehicle access) along the edge of the drive to protect the VFS. Also, to address public safety concerns, the applicant would construct a split rail fence or similar barrier along the upper edge of the side slopes. (*See Sheets 13-15 of 17)*

Figure 1: IMPACTS TO WATERS OF THE U.S. (Lake Travis)

Impact Number	Impact Type	Linear Feet of Impact	Acres of Impact	Cubic Yards of Impact
Impact #1	Boat Ramp Fill	175	0.16	155
Impact #2	Dredging	n/a	0.98	474
Impact #3	Dredging & Filling	n/a	0.34	1,477
Impact #4	Stabilization Fill	550	0.01	122
Totals	**-**	**725**	**1.49**	**2,228**

The first three impacts listed above already exist and occurred without the requisite permit. Issuance of the permit described in this notice would resolve these unauthorized activities, provided the permittee complies with all terms and conditions of the permit.
The fourth impact listed above is proposed.

ALTERNATIVES: Several alternatives have been considered for this project. The four that were found to be the most practicable alternatives identified are:

Alternative 1 (Proposed Alternative) involves re-shaping/re-grading the existing fill to stabilize the fill to prevent or limit erosion and sedimentation into Lake Travis while minimizing overall disturbance within the jurisdictional limits of the lake. Adverse impacts may include short-term disturbance of the existing fill within Lake Travis and a negligible increase of permanent fill within WOUS attributed to armoring material. Short-term disturbances would be minimized by performing the work when lake elevation is below 670 feet MSL. Silt curtains and other erosion control devices would be maintained on-site should an unanticipated rainfall event bring the water to elevations affected by the re-shaping activities.

Alternative 2 (Terraced Side Slope) also involves re-shaping and stabilizing the existing fill but by using terraces. While providing additional planting substrate, terraces could introduce safety issues related to ingress and egress, particularly with staging and boarding activities occurring along the shoreline at various lake levels. This alternative would require re-engineering the project which may result in additional costs.

Alternative 3 (Fill Removal) would utilize a large backhoe or similar dredge equipment to remove all unauthorized fill that was placed in WOUS along the access drive. The excavated material would be hauled off-site to an upland location for appropriate disposal. The primary environmental benefit would be to increase the capacity of Lake Travis assuming that as reported most of the fill (on-site and off-site) originated from below 681 feet MSL. Possible adverse impacts include significant site disturbance and the potential for increased sedimentation into the lake. This option would fail to meet the project's goals of increasing safety and access and addressing erosion problems.

Alternative 4 (No Build Option) would leave the existing fill in place "as is" without any additional reshaping or stabilization. However, long-term adverse environmental impacts could occur as the unstabilized fill subsides or erodes into Lake Travis requiring corrective actions with unpredictable costs. This alternative also fails to satisfactorily address public safety and site erosion concerns.

In evaluating these four alternatives, multiple factors were taken into consideration which included environmental impacts, practicability, safety, and costs. After thorough analysis of the data, the first option was deemed to be the preferred alternative as it meets the project's goals of providing a wider, safer access right-of-way and protecting the access road from future erosion, all while limiting impacts to the aquatic environment. This option will be the least environmentally damaging practicable alternative and is therefore the proposed alternative for this permit.

MITIGATION: Applicant proposes to mitigate on-site for impacts to WOUS. (*See Sheets 16-17 of 17*) The mitigation can be described as two actions:

On-Site 1 - Restoration via Boat Ramp Removal

On-Site 2 - Creation of Vegetated Filter Strip

Figure 2: PROPOSED MITIGATION/RESTORATION ACTIVITIES

Mitigation Site Type & Number	Habitat Type	Created	Restored	Enhanced	Preserved
On-Site 1	Waters of the US		0.16 acre		
On-Site 2	Vegetated filter strip	0.37 acre			
Totals	**-**	**0.37 acre**	**0.16 acre**		

On-Site Restoration - The permittee proposes to remove the unauthorized boat ramp, which is located immediately north of the unauthorized fill. The approximate dimensions are 175 feet in length with an average width of around 40 feet. The boat ramp will be removed using a dredge or other bucketed equipment and the fill material will be moved and deposited in an upland location for processing as armoring material for the side slopes. After removal, the fill area will be returned to grade. If the bank is deemed unstable it will be faced with the same material, using the same methods as the proposed stabilization methods utilized for the unauthorized fill placed along the access road. To minimize impacts to water quality in Lake Travis, the work will only be performed when the lake level is below the lowest contour of the boat ramp (approximately 670 feet MSL).

On-Site Stabilization and Creation of Vegetated Filter Strip - Once the boat ramp has been removed and side slopes have been reshaped and armored, erosion control measures (silt fence or mulch tubes) will be installed at the top of the bank of the side slopes. Then 6 inches of top soil will be placed on the flat surface created by the fill. A native seed mixture will be applied per City of Austin 609s Standard Specifications and the area will be irrigated until the seed is established. The goal of this top dressing and seeding is to create a vegetated "filter strip" that will capture pollutants in the surface water runoff from the paved access drive. The vegetated filter strip will occupy 16,153 square feet (0.37 acres) and treat runoff from approximately 575 linear feet of the access drive.

To maintain this area as pervious cover and to prevent future subsidence, boulders or a low fence will be placed along the edge of the drive to delineate it so daily traffic will not have access to it. Gates or gaps will be left at both ends of the fence to allow emergency vehicle access. For public safety adjacent to the 2:1 side slopes, a split rail fence or similar will be constructed at the upper edge of the side slopes. A few gaps or gates will be placed along the fence so as not to restrict adjacent landowner access (per previously granted rights). The gates will also provide important marina access during flood stage.

PUBLIC INTEREST REVIEW FACTORS: This application will be reviewed in accordance with 33 CFR 320-332, the Regulatory Program of the U. S. Army Corps of Engineers (USACE), and other pertinent laws, regulations, and executive orders. Our evaluation will also follow the guidelines published by the U. S. Environmental Protection Agency pursuant to Section 404(b)(1) of the CWA. The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impact, of the proposed activity on the public interest. That decision will reflect the national concerns for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its

reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including its cumulative effects. Among the factors addressed are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The USACE is soliciting comments from the public; federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the USACE in determining whether to issue, issue with modifications, or conditions, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

STATE WATER QUALITY CERTIFICATION: This project is submitted after-the-fact and as such would not fulfill Tier I criteria. Therefore, Texas Commission on Environmental Quality (TCEQ) certification is required. Concurrent with USACE processing of this Department of the Army application, the TCEQ is reviewing this application under Section 401 of the Clean Water Act, and Title 30, Texas Administrative Code Section 279.1-13 to determine if the work would comply with State water quality standards. By virtue of an agreement between the USACE and the TCEQ, this public notice is also issued for the purpose of advising all known interested persons that there is pending before the TCEQ a decision on water quality certification under such act. **Any comments concerning this application may be submitted to the Texas Commission on Environmental Quality, 401 Coordinator, MSC-150, P.O. Box 13087, Austin, Texas 78711-3087.** The public comment period extends 30 days from the date of publication of this notice. A copy of the public notice with a description of the work is made available for review in the TCEQ's Austin Office. The complete application may be reviewed in the USACE's office. The TCEQ may conduct a public hearing to consider all comments concerning water quality if requested in writing. A request for a public hearing must contain the following information: the name, mailing address, application number, or other recognizable reference to the application; a brief description of the interest of the requestor, or of persons represented by the requestor; and a brief description of how the application, if granted, would adversely affect such interest.

ENDANGERED AND THREATENED SPECIES: The USACE has reviewed the U.S. Fish and Wildlife Service's latest published version of endangered and threatened species to determine if any may occur in the project area. The proposed project would be located in Travis County where ten endangered species are known to occur or may occur as migrants. These are the Barton Springs salamander (*Eurycea sosorum*), Bee Creek Cave harvestman (*Texella reddelli*), Bone Cave

harvestman (*Texella reyesi*), Tooth Cave pseudoscorpion (*Tartarocreagris texana*), Tooth Cave Spider (*Leptoneta myopica*), Whooping crane (*Grus americana*), Black-capped Vireo (*Vireo atricapilla*), Golden-cheeked warbler (*Dendroica chrysoparia*), Kretschmarr Cave mold beetle (*Texamaurops reddelli*), and Tooth Cave ground beetle (*Rhadine persephone*). There are no threatened species listed. According to the Texas Parks and Wildlife Department's Natural Diversity Database, there were no records documenting sightings of threatened or endangered species or indicating known threatened or endangered species habitat in the immediate vicinity of the project site. Overall, the initial review indicates that no potential habitat is present on the site; therefore the work already completed and the work proposed would have no effect on federally-listed endangered or threatened species.

NATIONAL REGISTER OF HISTORIC PLACES: Archival research conducted using the Texas Historical Commission's (THC) website Archeological Sites Atlas resulted in the identification of six previously recorded archeological sites situated within a 1.0-mile radius of the project site (THC 2012Aa). All of the referenced sites were located entirely within the Mansfield Dam, Texas USGS topographic quadrangle. (*See Sheet 6 of 17*) The nearest site was located 0.3 mile east of the project site. Four of the six sites were listed in 1938 as part of the Archaeological Site Survey Report - Basin of Marshal Ford Lake. There was no information as to the eligibility for designation as a State Archeological Landmark or listing on the National Register of Historic Places for these four sites.

The results of the archival research indicate that it is likely that prehistoric people utilized the site; however, due to the underlying geology (Glen Rose Limestone), shallow soils, and fluctuating water table of Lake Travis (especially for areas below 720 feet MSL) it is highly unlikely that any significant resources were present on site and subsequently affected by the unauthorized placement of fill along the access drive. However, considering the additional proposed activities, the potential remains for buried prehistoric sites to be identified or potentially affected by this action.

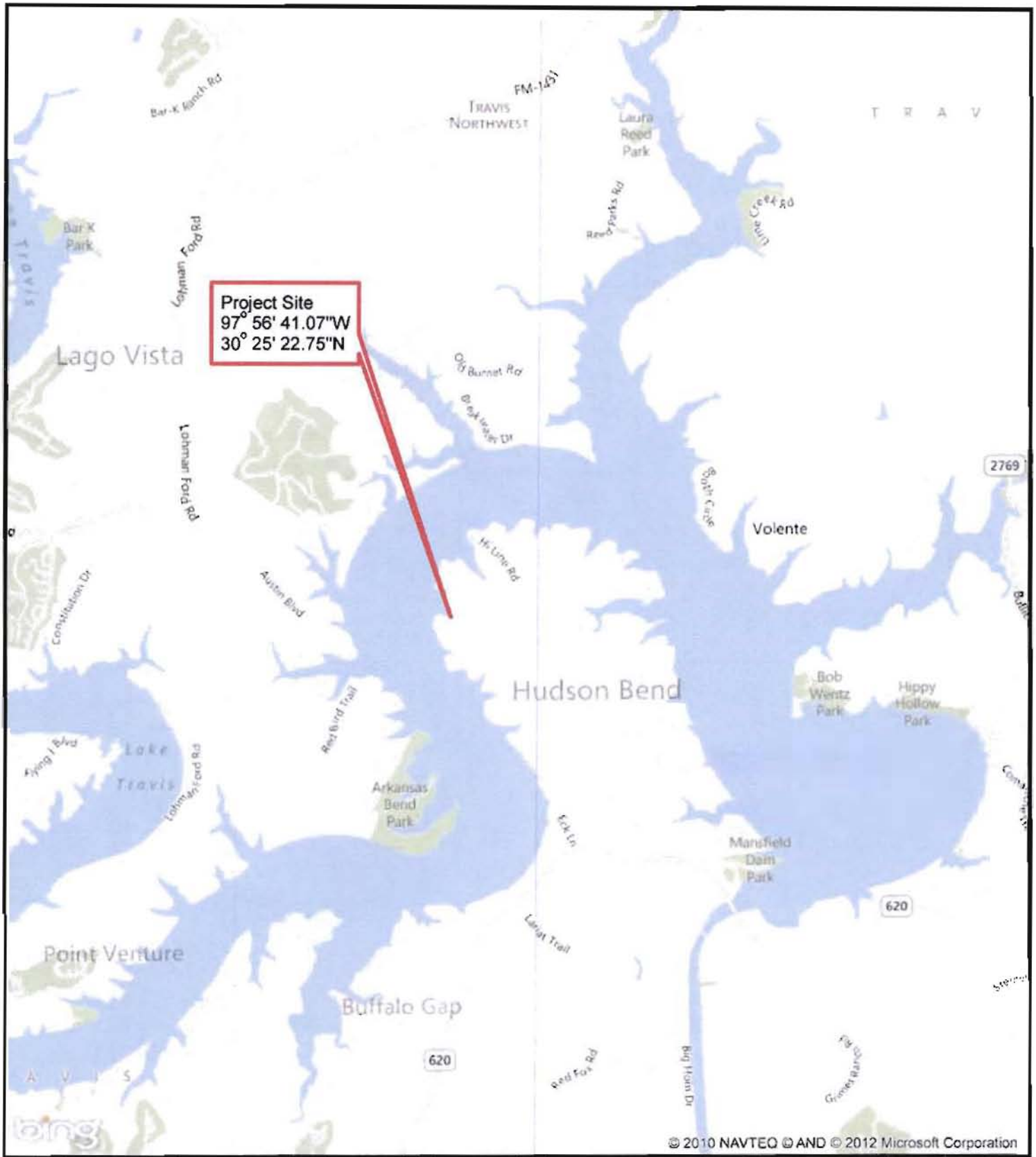
FLOODPLAIN MANAGEMENT: The USACE is sending a copy of this public notice to the local floodplain administrator. In accordance with 44 CFR part 60 (Flood Plain Management Regulations Criteria for Land Management and Use), the floodplain administrators of participating communities are required to review all proposed development to determine if a floodplain development permit is required and maintain records of such review. (*See FEMA Map, Sheet 12 of 17*)

SOLICITATION OF COMMENTS: The public notice is being distributed to all known interested persons in order to assist in developing fact upon which a decision by the USACE may be based. For accuracy and completeness of the record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

PUBLIC HEARING: Prior to the close of the comment period any person may make a written request for a public hearing setting forth the particular reasons for the request. The District Engineer will determine whether the issues raised are substantial and should be considered in his permit decision. If a public hearing is warranted, all known interested persons will be notified of the time, date, and location.

CLOSE OF COMMENT PERIOD: All comments pertaining to this Public Notice must reach this office on or before October 10, 2013, which is the close of the comment period. Extensions of the comment period may be granted for valid reasons provided a written request is received by the limiting date. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to ; Regulatory Branch, CESWF-PER-R; U. S. Army Corps of Engineers; Post Office Box 17300; Fort Worth, Texas 76102-0300. You may visit the Regulatory Branch in Room 3A37 of the Federal Building at 819 Taylor Street in Fort Worth between 8:00 A.M. and 3:30 P.M., Monday through Friday. Telephone inquiries should be directed to (817) 886-1731. Please note that names and addresses of those who submit comments in response to this public notice may be made publicly available.

DISTRICT ENGINEER
FORT WORTH DISTRICT
CORPS OF ENGINEERS



WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

0 1 2 Miles

GOSHAWK ENVIRONMENTAL CONSULTING, INC

Sheet 1 of 17

Vicinity Map
Travis County, Texas

Paradise Cove Marina

Date: 10 October 2012

N

WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

0 250 500 1,000 1,500 Feet

GOSHAWK
ENVIRONMENTAL CONSULTING, INC

Sheet 2 of 17
Property Boundary
Travis County, Texas

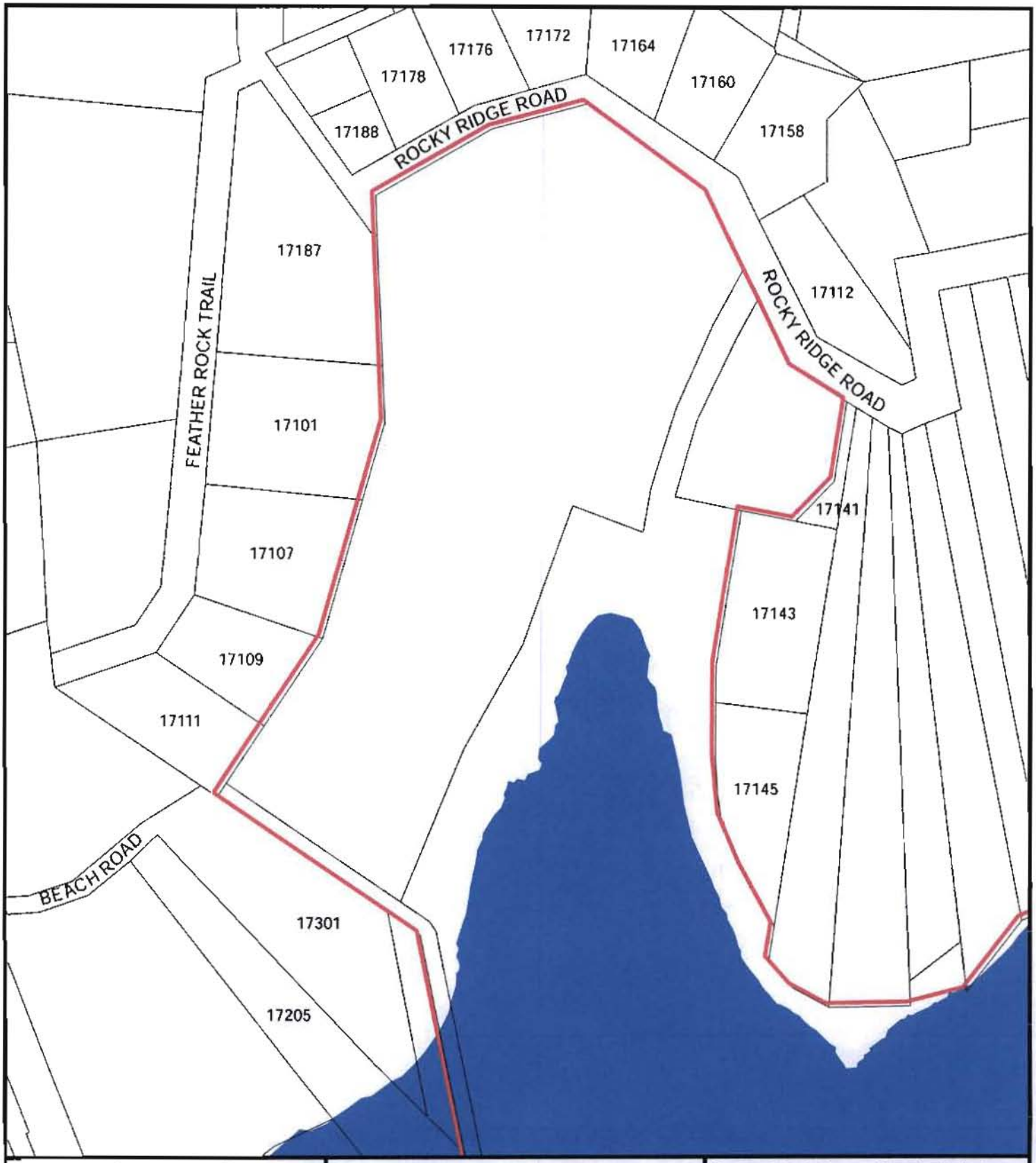
Paradise Cove Marina

Date: 10 October 2012

Source: 2010 USGS NAIP Natural Imagery for Texas

Property (Site) Boundary

N



WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

0 100 200 Feet

GOSHAWK
ENVIRONMENTAL CONSULTING, INC.

Sheet 3 of 17
USACE Jurisdictional Limits
Travis County, Texas

Paradise Cove Marina

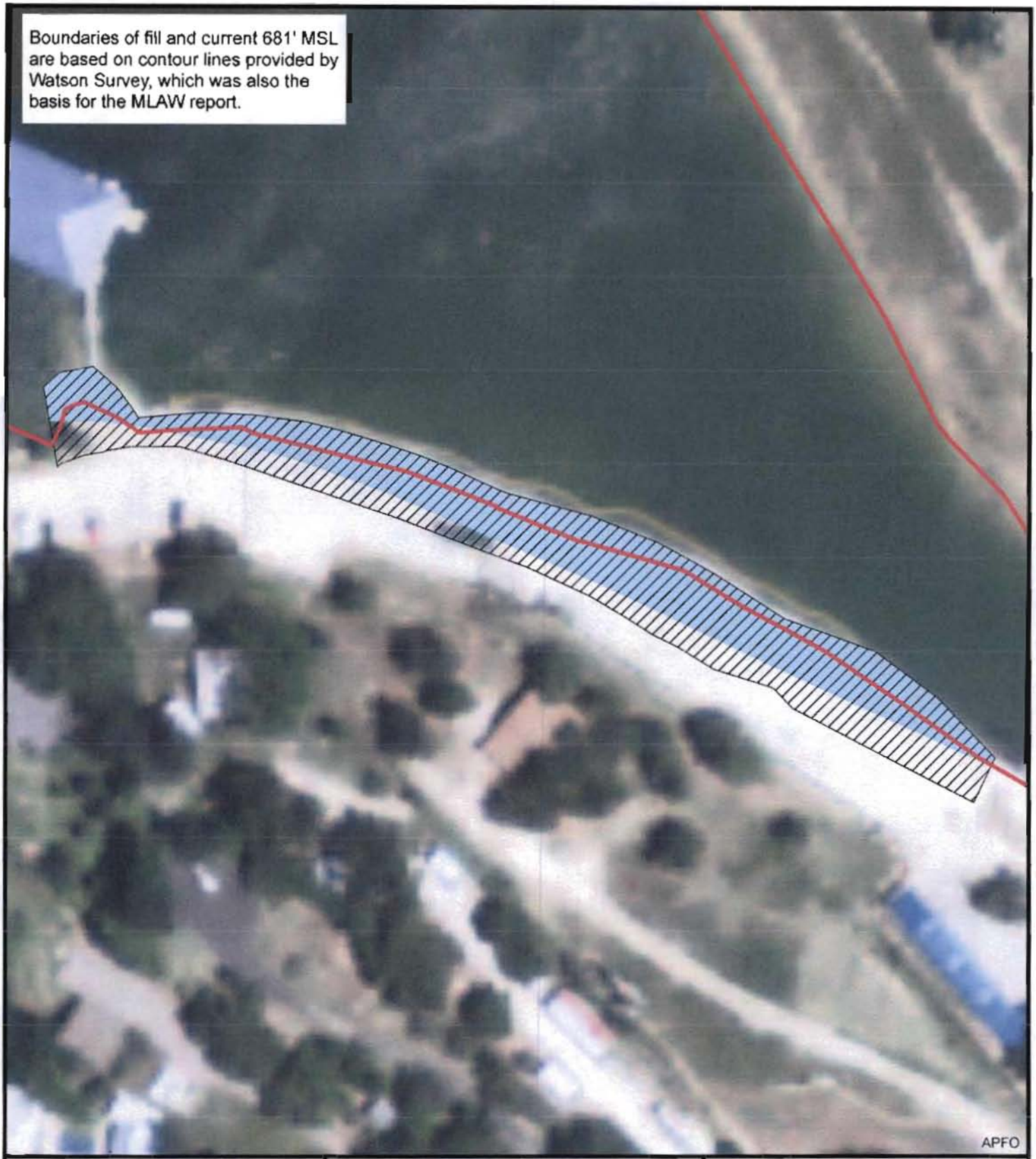
Date: 10 October 2012

Source: Travis County Appraisal District
October 2010 GIS Files

Parcel Boundaries
(w/ TCAD Property ID #)

Property (Site)
Boundary

Lake Travis



WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

0 37.5 75 150 Feet

GOSHAWK
ENVIRONMENTAL CONSULTING, INC.

Sheet 4 of 17
USACE Jurisdictional Limits
Travis County, Texas

Paradise Cove Marina

Date: 10 October 2012

Source: Travis County Appraisal District
October 2010 GIS Files

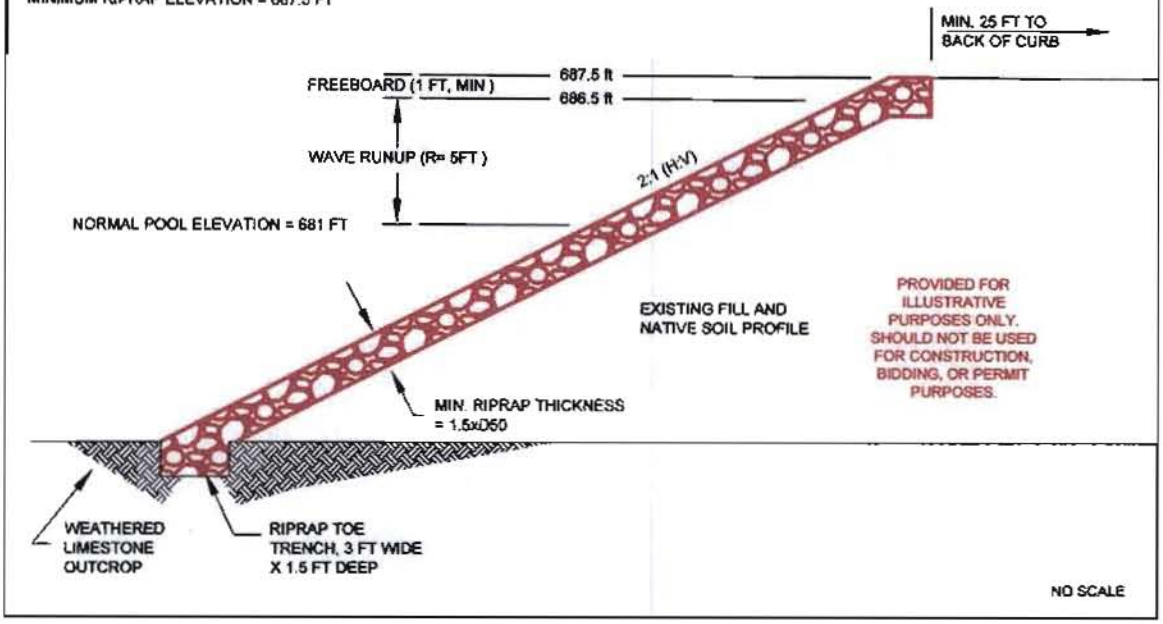
Current 681' Elevation
Limits of fill
Fill in Waters of the US below 681' MSL

N

RIPRAP CALCULATION SUMMARY:
USING LCRA DREDGE AND FILL STANDARDS MANUAL:

ASSUME: DESIGN WAVE HEIGHT (H) = 3.0 FT, 2:1 (H:V)
FREEBOARD = 1.0 FT

D50 = 16 IN (FROM TABLE 1)
WAVE RUNUP (R) = 5.0 FT (FROM TABLE 2)
MINIMUM RIPRAP ELEVATION = 687.5 FT



CONSTRUCTION NOTES:
1. INSTALL EROSION CONTROL MEASURES TO MEET AGENCY REQUIREMENTS
2. THE FILL SLOPE SHOULD BE GROOMED TO A SLOPE NO STEEPER THAN 2:1 (H:V).
3. EXCAVATE A TRENCH AT THE TOE OF THE FILL AS INDICATED
4. INSTALL RIPRAP.

RIPRAP NOTES:
1. RIPRAP SHOULD CONSIST OF SUB-ANGULAR TO SUB-ROUNDED NATURAL OR QUARRIED STONE. THE MOST COMMON SIZE OF RIPRAP STONE SHOULD BE 16 INCHES (D50 =16IN).
2. NEATLY PLACE RIPRAP STONE TO A MINIMUM DEPTH OF 24 INCHES (2 FT) USING LARGER AND SMALL STONES TO FILL IN GAPS. THE RIPRAP LAYER THICKNESS SHOULD BE INCREASED TO MATCH THE LARGEST STONE USED.
3. RIPRAP SHOULD MATCH ADJACENT SLOPES.

GENERAL NOTES:
1. CONTRACTOR TO OBTAIN ALL PERMITS REQUIRED TO LEGALLY PERFORM WORK.
2. CONTRACTOR SHALL NOTIFY ENGINEER 24 HRS. IN ADVANCE OF SIGNIFICANT WORK TO ALLOW INSPECTION.
3. ALL ITEMS NOT SPECIFICALLY ADDRESSED BY THESE PLANS ARE TO COMPLY WITH THE CURRENTLY ADOPTED CODE BY THE CITY OF AUSTIN, TEXAS.
4. THIS PLAN SHALL BE INTERPRETED TO INCLUDE ANY INCIDENTAL CONSTRUCTION OF WORK IMPLIED BUT NOT SPECIFICALLY CALLED FOR WHICH IS NECESSARY TO PROVIDE A FINISHED PRODUCT MEETING THE INTENT OF THE PLANS.
5. SHOULD CONDITIONS ARISE WHICH ARE NOT ADDRESSED BY THESE PLANS OR CONDITIONS BE DISCOVERED THAT ARE SUBSTANTIALLY DIFFERENT THAN THOSE THAT ARE ASSUMED IN THE PLANS, CONTACT THE ENGINEER AT ONCE FOR INSTRUCTION.
6. ALL APPLICABLE LAWS AND WORKER SAFETY REGULATIONS SHALL BE OBSERVED.
7. THE CONTRACTOR SHALL MAKE PROVISIONS AT ALL TIMES TO INSURE THE PUBLIC IS NOT EXPOSED TO DANGEROUS CONDITIONS IN THE WORK AREA. BARRIER FENCES WILL BE ERECTED AT ALL TIMES WHEN WORK IS NOT IMMEDIATELY BEING PERFORMED.
8. ALL SPOILS TO BE DISPOSED OF LEGALLY AT AN OFF SITE LOCATION OR ON-SITE AT LOCATIONS APPROVED BY THE OWNER AND REGULATORY AGENCIES.
9. CONTRACTOR TO VERIFY DIMENSIONS AND GRADE ELEVATIONS. CONTACT ENGINEER AT ONCE IF DISCREPANCIES FOUND.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO CONCRETE FLATWORK, PAVEMENT, CURBS, RETAINING WALLS, UTILITIES, DRAINAGE, IRRIGATION SYSTEM, WALKS, LANDSCAPING AND ALL OTHER ITEMS DAMAGED OR REMOVED BY THE CONDUCT OF THIS WORK UNLESS OTHERWISE NOTED IN PLANS. SUCH REPAIRS SHALL BE MADE BY A TECHNICIAN QUALIFIED IN THE SPECIFIC TRADE REQUIRED.
11. EMERGENCY EQUIPMENT MUST HAVE CONTINUOUS ACCESS AT ALL TIMES DURING THE PERIOD OF THE WORK.
12. CONTRACTOR TO WORK WITH THE OWNER TO MAINTAIN USE OF SITE TO THE GREATEST DEGREE POSSIBLE. SPOIL PILES, EQUIPMENT STORAGE, WORKER PARKING AND OTHER CONSTRUCTION ACTIVITIES ARE TO BE IN LOCATIONS APPROVED BY OWNER.

WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

GOSHAWK ENVIRONMENTAL CONSULTING, INC.

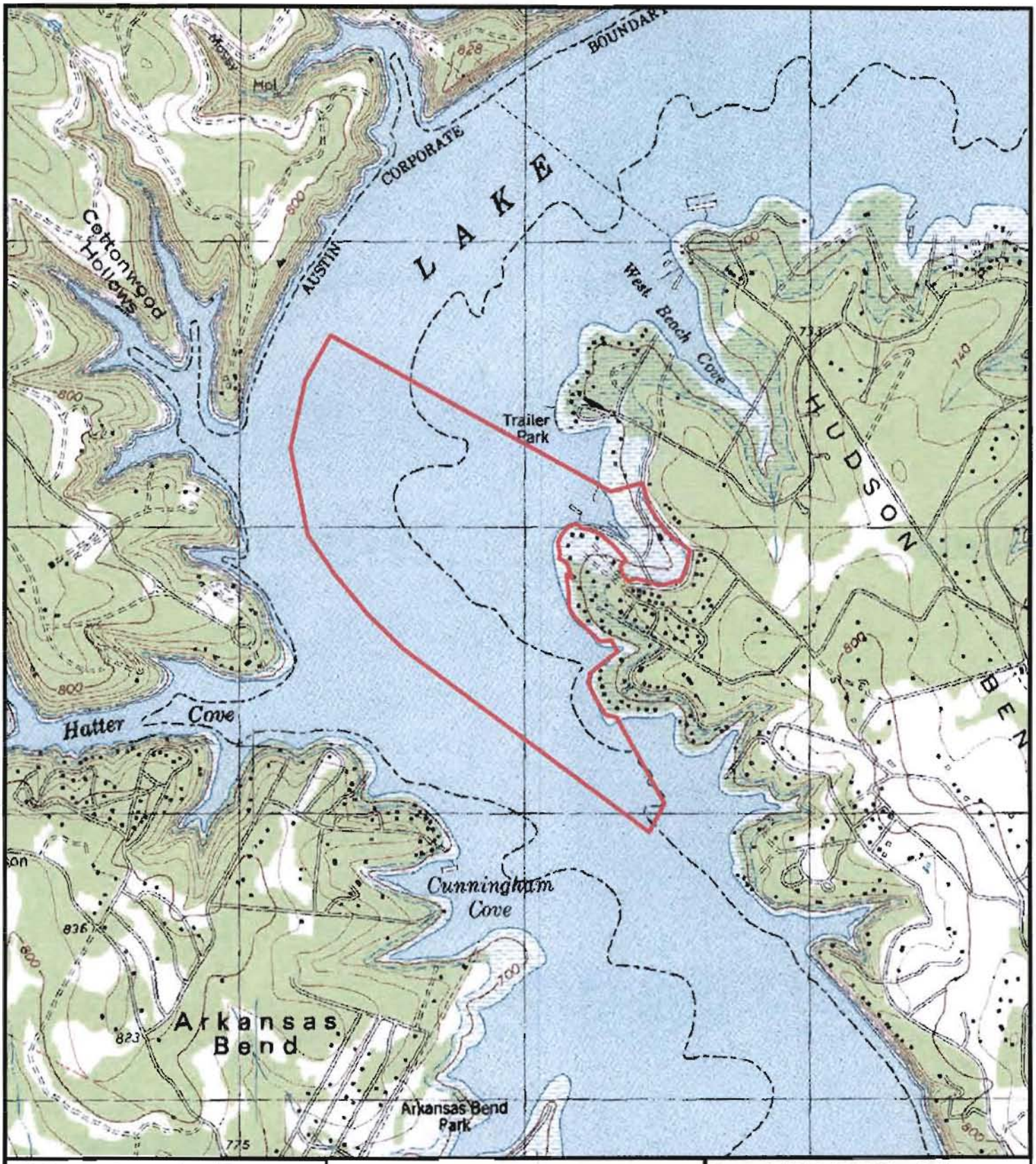
Sheet 5 of 17
Proposed Alternative Side Slopes
Travis County, Texas

Paradise Cove Marina

Date: 10 October 2012

Source: MLAW - Report of Fill Investigation Appendix C

N



WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

0 750 1,500 Feet

GOSHAWK
ENVIRONMENTAL CONSULTING, INC.

Sheet 6 of 17

Topographic Map
Travis County, Texas

Paradise Cove Marina

Date: 10 October 2012

Source: TNRIS, USGS Mansfield Dam Texas Quadrangle

N

Property (Site) Boundary

WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

0 125 250 Feet

GOSHAWK
ENVIRONMENTAL CONSULTING, INC.

Sheet 7 of 17
2010 Aerial Photograph
Travis County, Texas

Paradise Cove Marina

Date: 10 October 2012

Source: 2010 USGS NAIP Natural Imagery for Texas

N

Property (Site) Boundary

WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

0 125 250 Feet

GOSHAWK
ENVIRONMENTAL CONSULTING, INC

Sheet 8 of 17
2004 Aerial Photograph
Travis County, Texas

Paradise Cove Marina

Date: 10 October 2012

Map Source: TNRIS, 2004 NAIP Color Infrared Mosaic for Travis County, Texas.

N

Property (Site) Boundary

WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

0 125 250 Feet

GOSHAWK
ENVIRONMENTAL CONSULTING, INC

Sheet 9 of 17
1996 Aerial Photograph
Travis County, Texas

Paradise Cove Marina

Date: 10 October 2012

Map Source: TNRIS, 1996 NAIP Color Infrared Mosaic for Travis County, Texas

N

Property (Site) Boundary

WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

Sheet 10 of 17
1980 Aerial Photograph
Travis County, Texas

Paradise Cove Marina

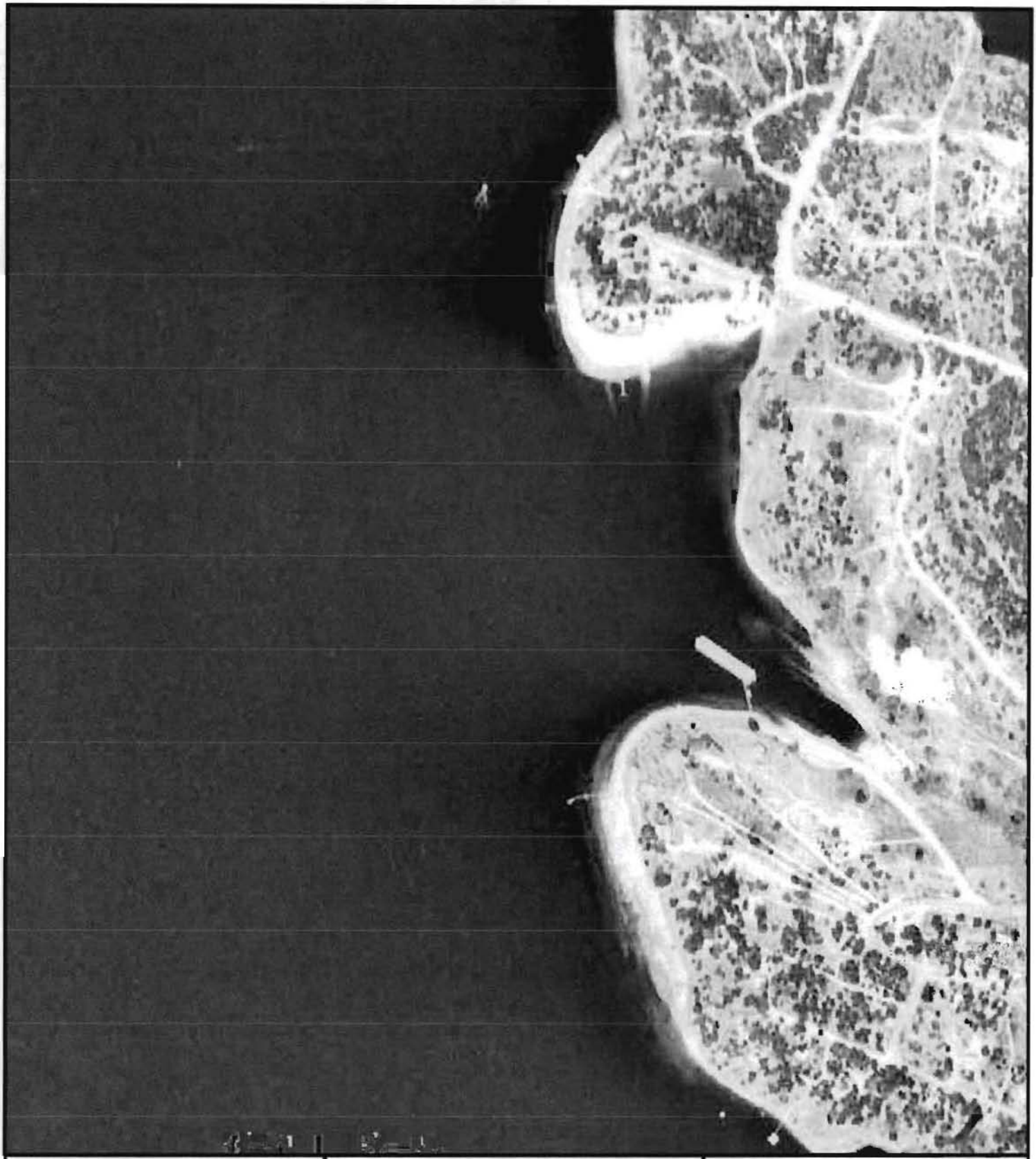
Date: 10 October 2012

Source: Geosearch, TXDOT 11-20-80

0 125 250 Feet

N

GOSHAWK
ENVIRONMENTAL CONSULTING, INC



WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

Sheet 11 of 17
1967 Aerial Photograph
Travis County, Texas

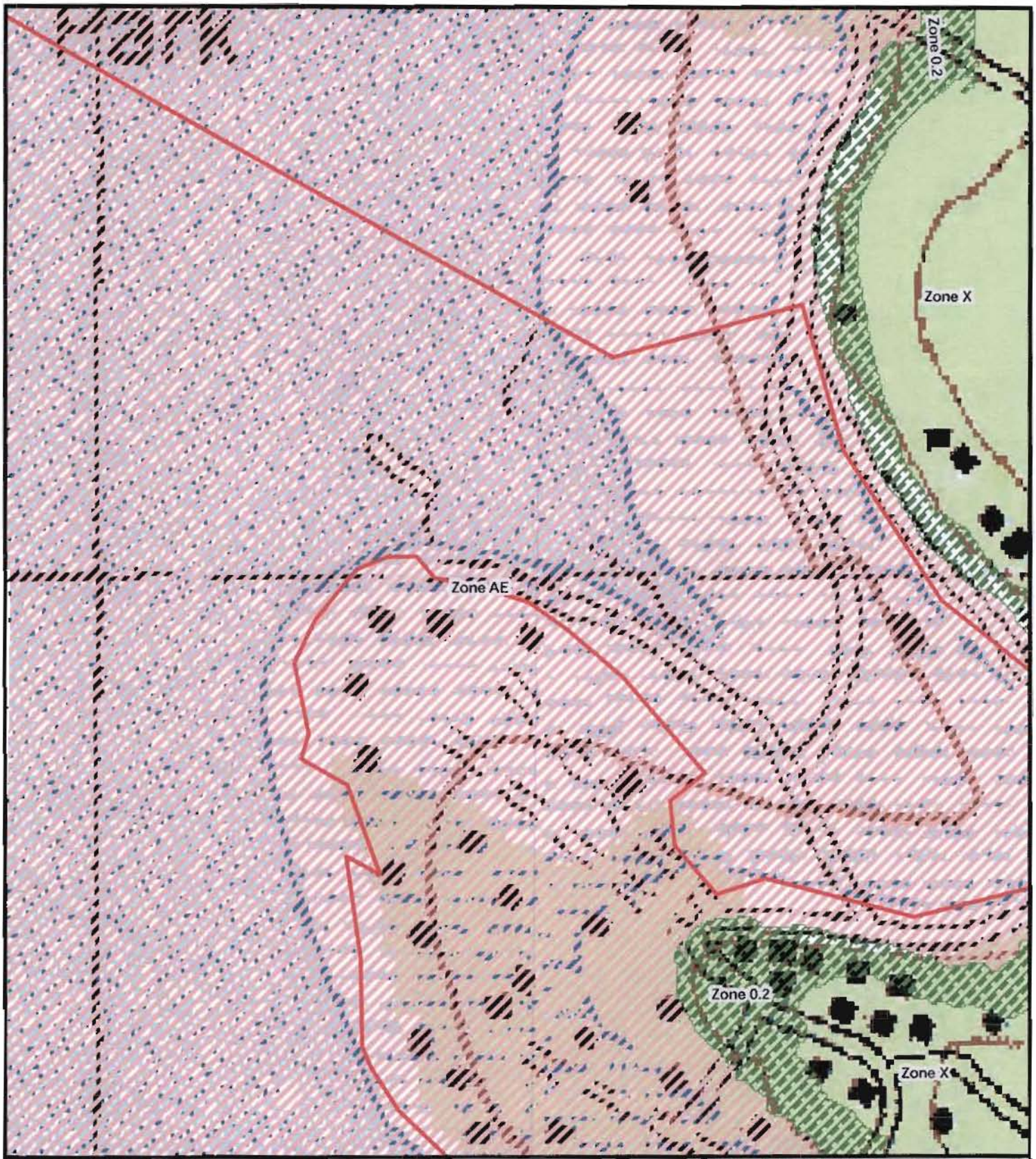
Paradise Cove Marina

Date: 10 October 2012

Source: Geosearch, USGS 3-13-67

N

GOSHAWK
ENVIRONMENTAL CONSULTING, INC



WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

N

0 125 250 Feet

GOSHAWK
ENVIRONMENTAL CONSULTING, INC

Sheet 12 of 17

FEMA Digital Flood Insurance Rate Map
Travis County, Texas

Paradise Cove Marina

Date: 10 October 2012

Source: FEMA, DFIRM Database, Travis County, Texas; Panel #48453C0215H; Effective Date: September 26, 2008. TNRIS, USGS Mansfield Dam Texas Quadrangle

Property (Site) Boundary

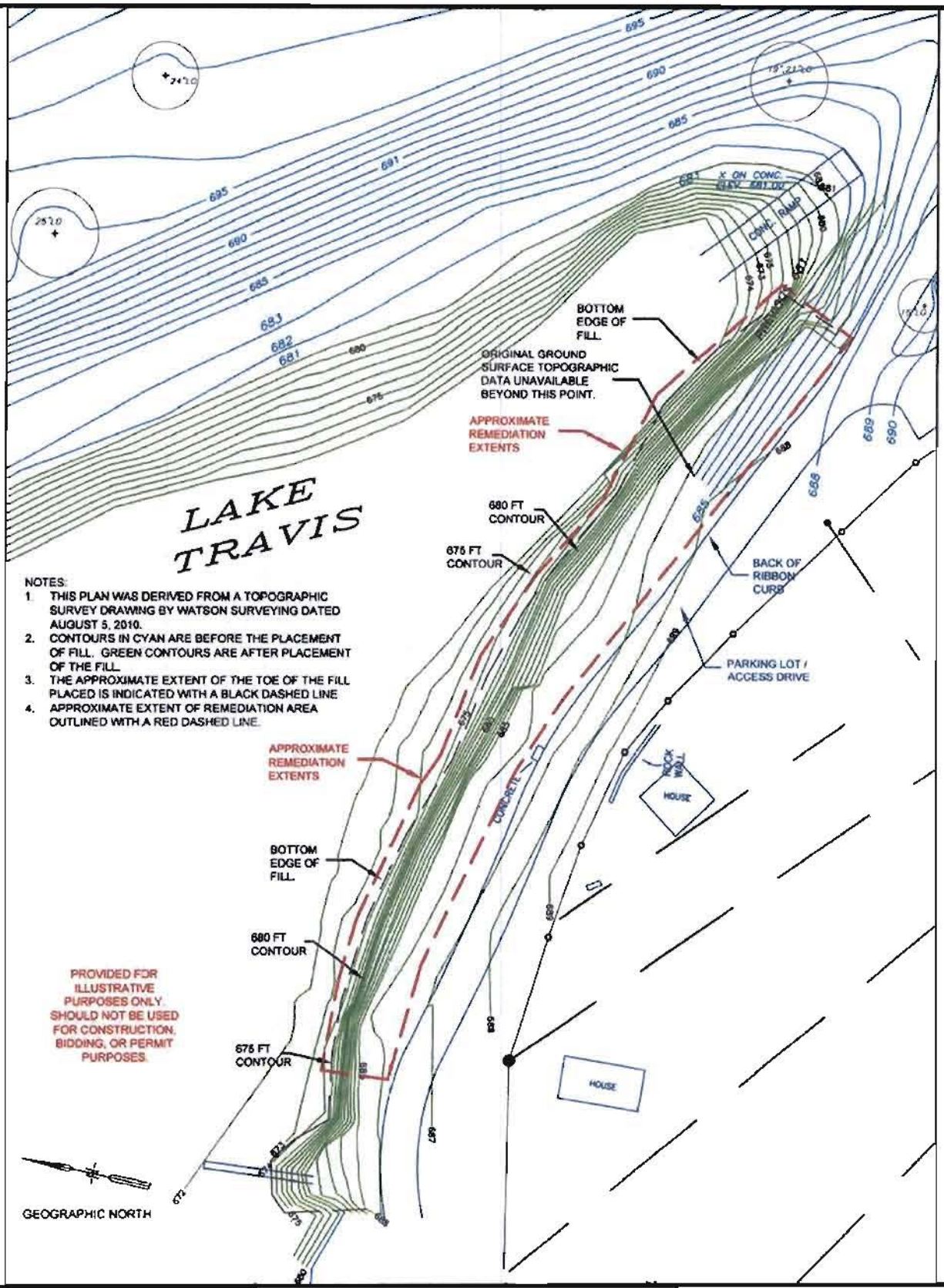
Travis County DFIRM

0.2=0.2% Annual Chance Flood Hazard

A=1% Annual Chance Flood Hazard

AE=1% Annual Chance Flood Hazard (detailed)

X=Areas outside Special Flood Hazard Area



WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

Sheet 13 of 17
Site Plan
Travis County, Texas

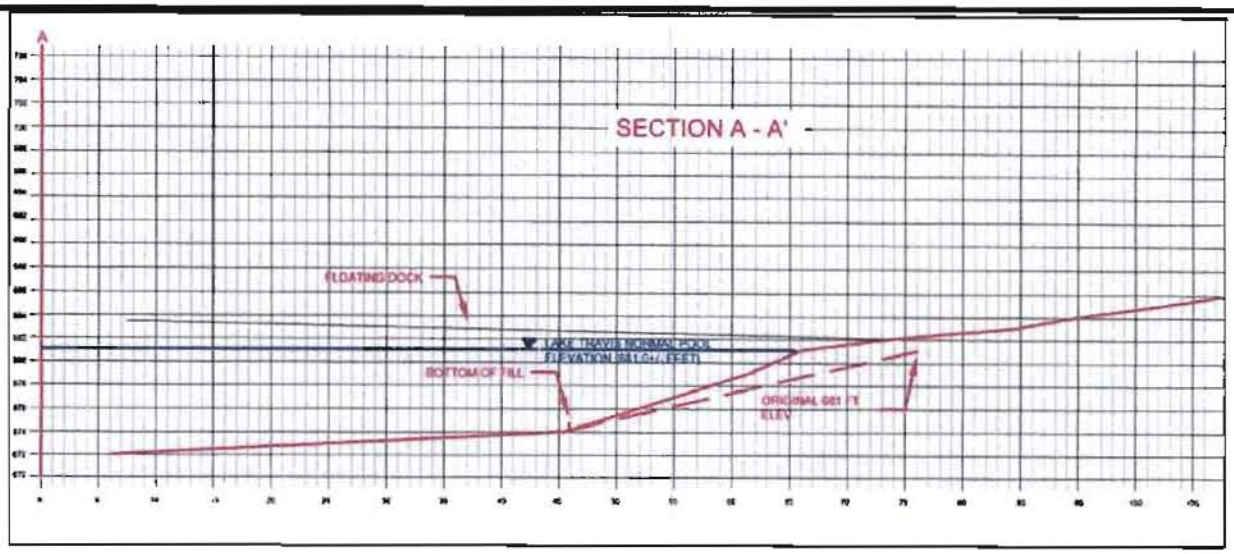
Paradise Cove Marina

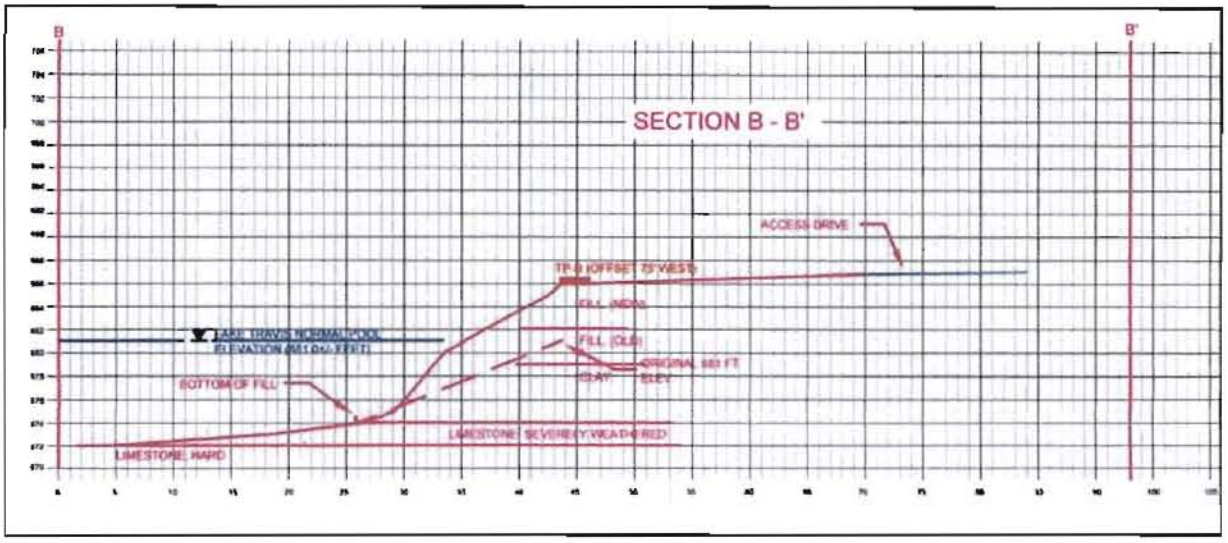
Date: 10 October 2012

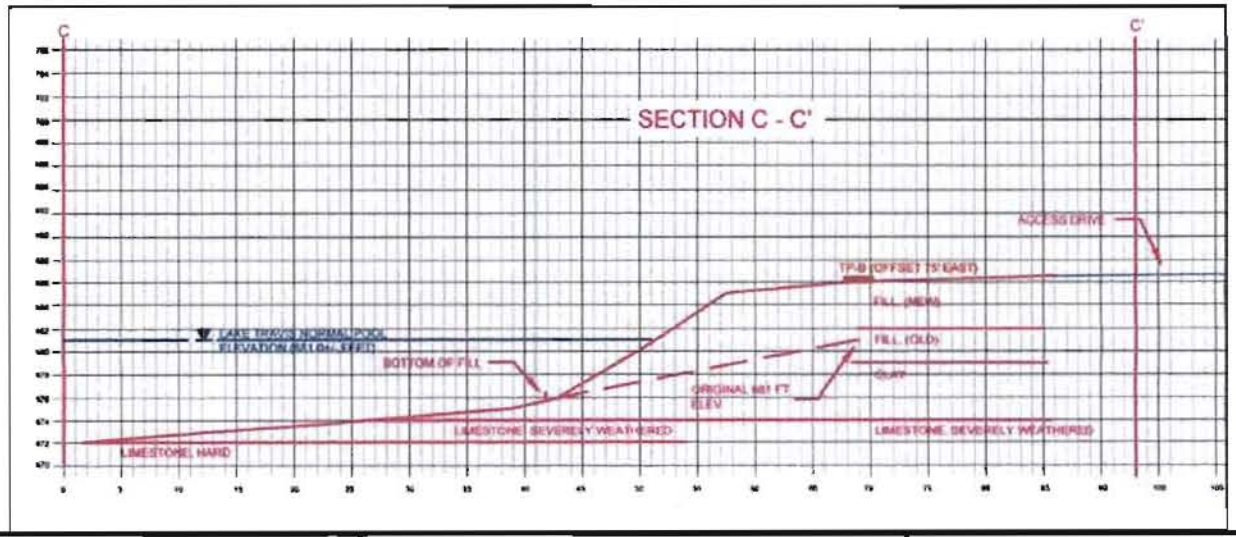
Source: MLAW - Report of Fill Investigation Appendix B

N

GOSHAWK
ENVIRONMENTAL CONSULTING, INC







WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

GOSHAWK
ENVIRONMENTAL CONSULTING, INC

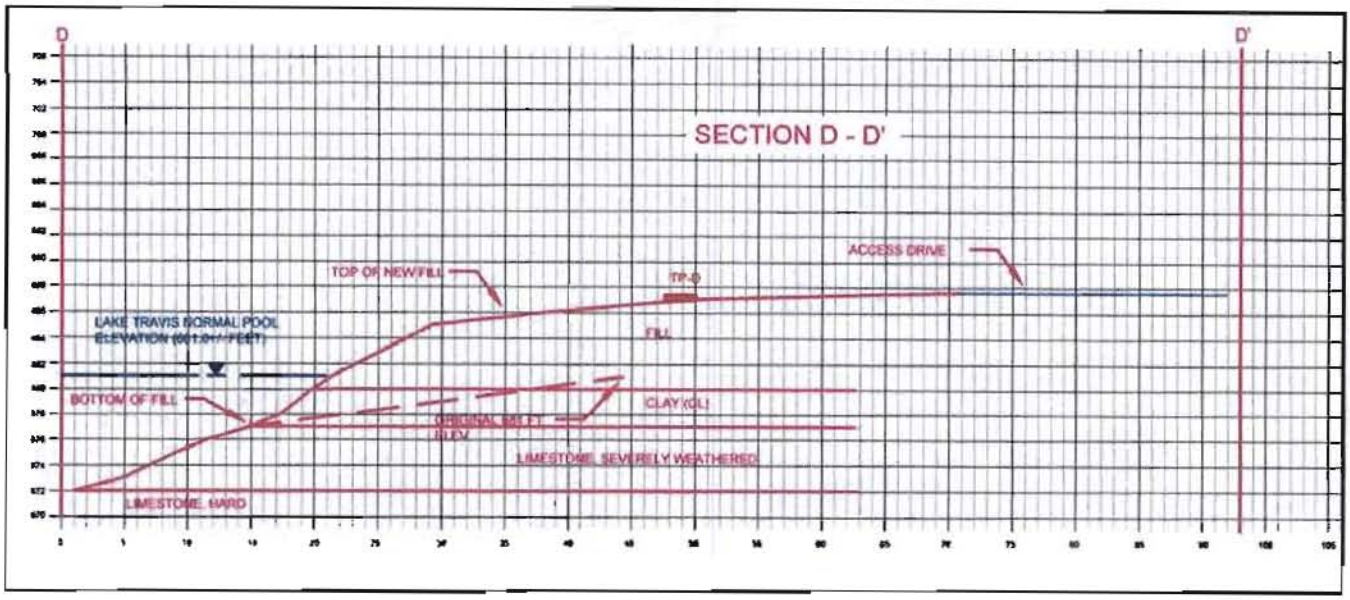
Sheet 14 of 17
Cross Sections A, B and C
Travis County, Texas

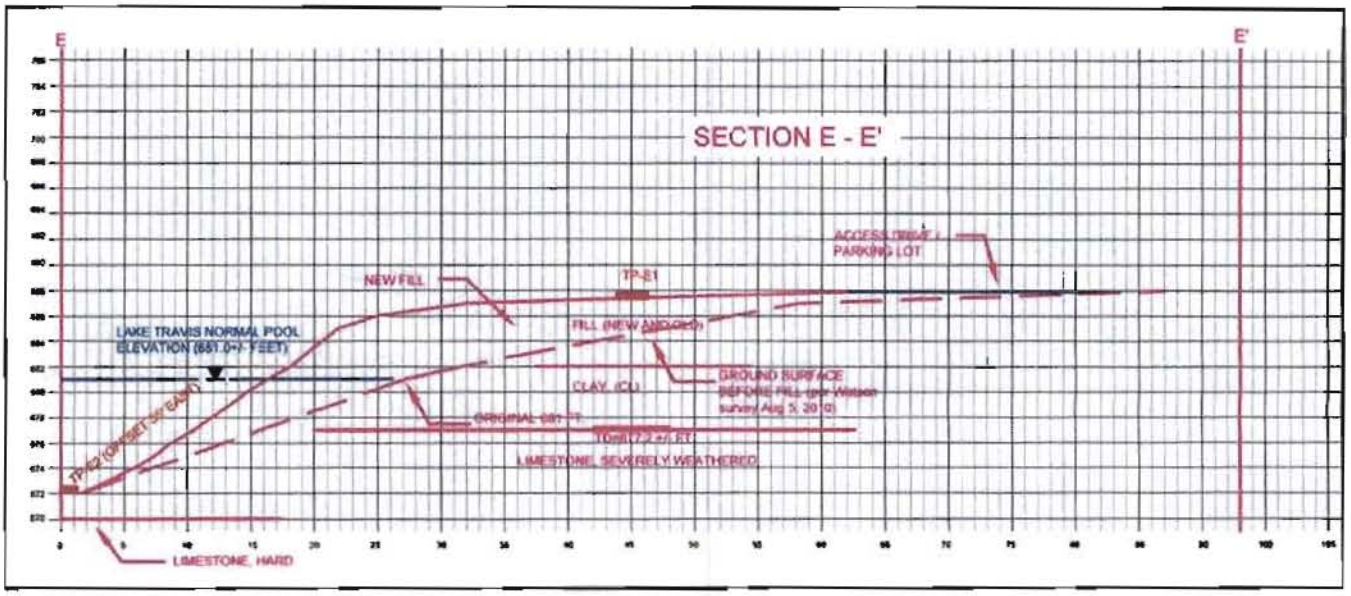
Paradise Cove Marina

Date: 10 October 2012

Source: MLAW - Report of Fill Investigation
Appendix B

N





WC Paradise Cove Marina, LP USACE Project #SWF-2011-000168	Sheet 15 of 17 Cross Sections D and E Travis County, Texas	Source: MLAW - Report of Fill Investigation Appendix B
GOSHAWK ENVIRONMENTAL CONSULTING, INC	Paradise Cove Marina	N
	Date: 10 October 2012	

WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

N

0 87.5 175 Feet

GOSHAWK
ENVIRONMENTAL CONSULTING, INC

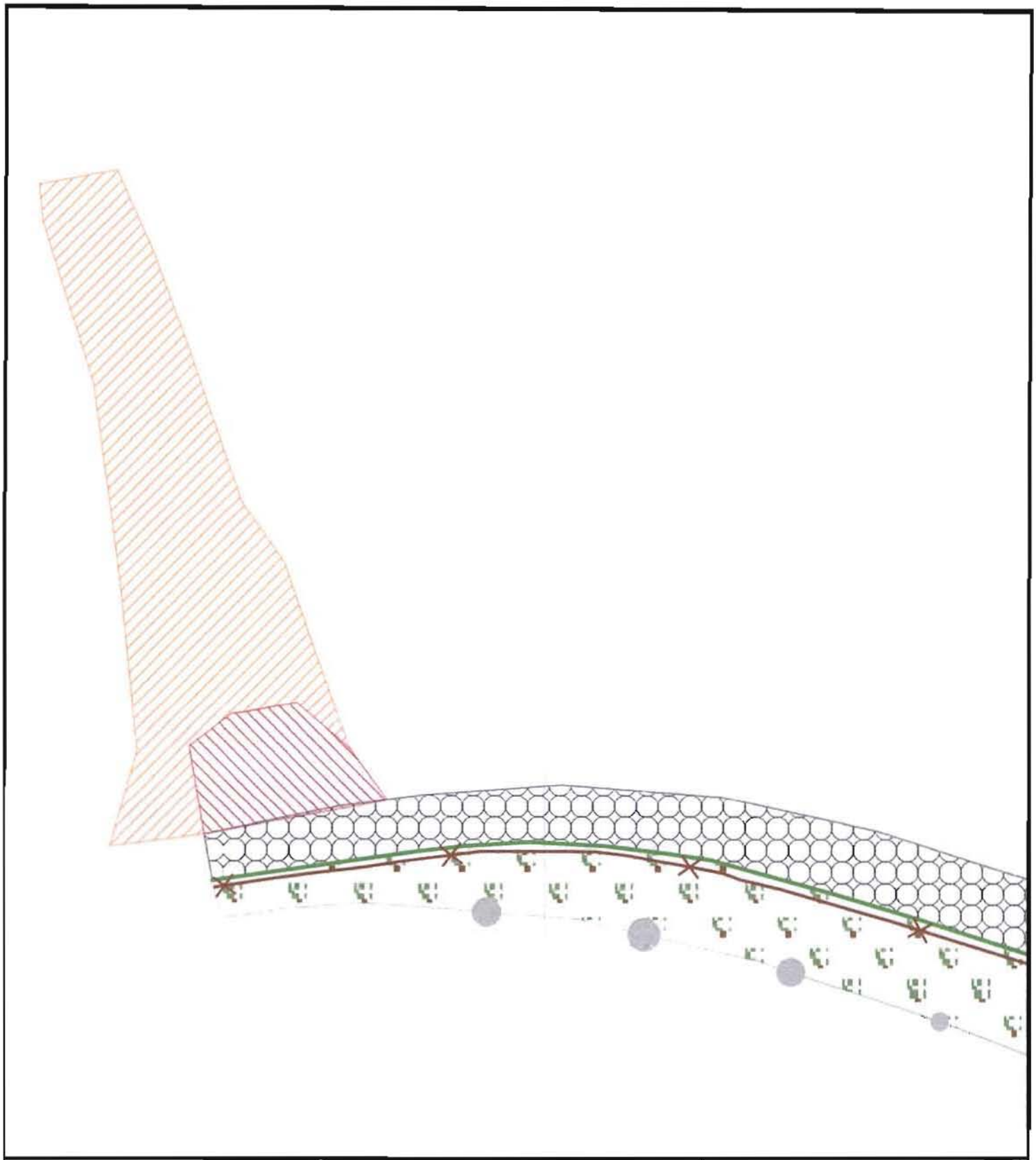
Sheet 16 of 17
Mitigation Area
Travis County, Texas

Paradise Cove Marina

Date: 10 October 2012

Source: Google Earth 8 August 2012

- Armorment
- Boat ramp removed per aerial
- Boat ramp to be removed per survey
- Vegetated Filter Strip



WC Paradise Cove Marina, LP
USACE Project #SWF-2011-000168

0 17.5 35 Feet

GOSHAWK
ENVIRONMENTAL CONSULTING, INC

Sheet 17 of 17
Close-Up of Mitigation Measures
Travis County, Texas

Paradise Cove Marina

Date: 10 October 2012

Erosion Control
Safety Fence
Armorment
Boat ramp removed per aerial
Boat ramp to be removed per survey
Boulder
Vegetated Filter Strip

N