Appendix I FIRM Maps

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This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

consulated to possion upcase or assistant among name information. To obtain more delical information in assis where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult in Flood Profiles and Floodway Data and/or Summay of Silviante Elevations and Floodway Data and/or Summay of Silviante Elevations for Floodway Data and/or Summay of Silviante Elevations that Flood Profiles are the flood frood the Flood Floodway of the Floodway o

Coastal Base Flood Elevations shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88), Users of this FIRM should be aware that coastal flood devalution are also provided in the Summary of Sillwater Elevations state in the Summary of Sillwater Elevations states in the Summary of Sillwater Elevations show the Sillwater Elevations shown on this Sillwater Elevations shown on this RIPM.

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Boundaties of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the Mational Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this prisediction.

Certain areas not in Special Flood Hazard Areas may be protected by floo control structures. Refer to Section 2.4 "Flood Protection Measures" of th Flood Insurance Study report for information on flood control structures for th

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 11. The horizontal datum was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of PIRIAs for adjacent justiciations may result in sight positional differences in map features across, jurisdiction boundaries. These differences do not affect the accuracy of this FIRIAs.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding convenion between the National Geodetic Vertical Datum of 1923 and the North American Whetical Datum of 1988, visit the National Geodetic Survey who the all high professional Geodetic Survey at the Solving additional Solving Sol

NOS Information Services NOAA, NINGS12 National Geodetic Survey SSMC-3, 90202 igihuway Silver Spring, Manyland 20910-3282 (301) 713-3242

To obtain current elevation, description, and/or location information for bencimarks shown on this map, please contact the Information Services Branci of the National Geodetic Survey at (301) 713-3242, or visit its website a http://www.ngs.ngaa.gov.

Base map information shown on this FIRM was derived from the Nationa Agriculture Imagery Program, dated 2005.

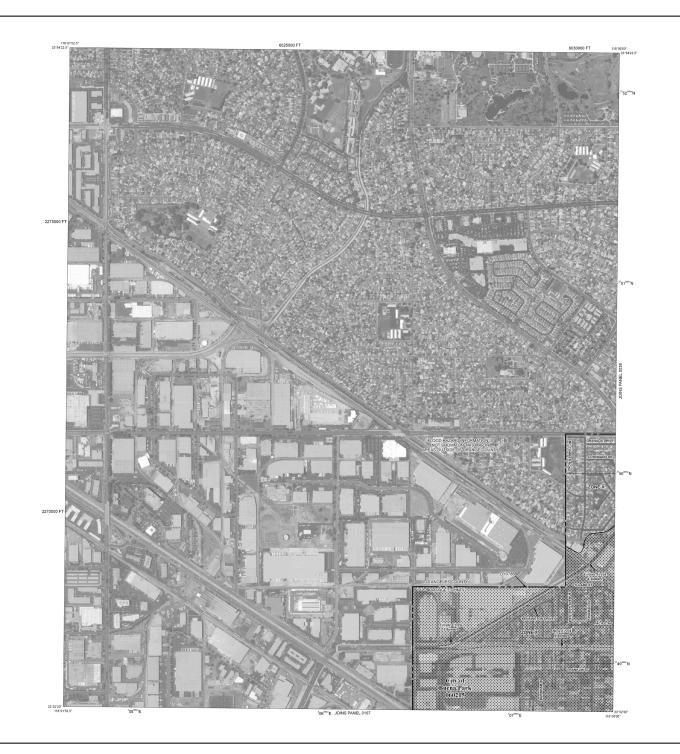
This map refects more detailed and up-to-date stream channel configurations than those shown on the previous FRNR for this justifiction. The floodplains and floodways that were transferred from the previous FRNR may have been adjusted to continue to these new steem channel configurations. As a result, the Flood Profess and Floodway Data bables in the Flood Insurance Study Report yields can almost authorities of the Contract and authorities of the Contract and authorities of the Contract and authorities that defer from which a flood on this hamp.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this may wear published, may users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels, community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the FEMA Map Service Center at 1-800-358-6616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital vestions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-6620 and its website at http://misc.fema.gov.

If you have questions about this map or questions concerning the National Flooinsurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) ovisit the FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard Include Zones A, AE, AH, AO, AR, AB), V, and VE. The Base Flood Benation is the water-surface election of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined ZONE AE

ZONE 40

ZONE A95

Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Blevations determined.

Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also

Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or repeter flood.

Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Blevations of the control of the con

Coastal flood zone with velocity hazard (wave action); no Base Flood Blevations determined. 70NE 1/6 Coastal flood zone with velocity hazard (wave action); Base Flood

FLOODWAY AREAS IN ZONE AE 11/

channel of a stream plus any adjacent floodplain areas that must be kept free that the 1% annual chance flood can be carried without substantial increases

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levess from 1% annual chance flood.

OTHER AREAS

Areas determined to be outside the 0.2% annual chance floodolain.

ZONE X

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

..... CBRS and OPA boundary

Boundary dividing Special Flood Hazard Area Zones and —boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

~~~ 513 ~~~ Base Flood Elevation line and value; elevation in feet Base Flood Blevation value where uniform within zone; elevation in feet\*

(EL 987)

@----@ Transect line

37°07'45", 32°22'30' Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere 10761000N

1000-meter Universal Transverse Mercator grid values, zone NAD 1983 UTM Zone 11N

5000-foot grid ticks: California State Flane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic 600000 FT

Bench mark (see explanation in Notes to Users section of this FIRM name)

●M1.5 River Mile

NFIP

PROGRAM

NATIONAL FLOOD INSURANICE

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP September 15, 1989

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL, February 5, 1992 - November 3, 1993 - January 3, 1997 - February 18, 2004 - December 3, 2009 for description of ministers, see Notice to Universizate in the Flood Insurance Shady report.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



250 0 500 1000 FEET 150 150 300

FIRM

FLOOD INSURANCE RATE MAP

PANEL 0019J

ORANGE COUNTY. CALIFORNIA AND INCORPORATED AREAS

PANEL 19 OF 539

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

COMMUNITY NUMBER PANEL SUFFIX

Notice to User: The Map Number shown below should bused when placing map orders; the Community Number shown shows should be used on insurance applications for the

MAP NUMBER 06059C0019J

MAP REVISED DECEMBER 3, 2009

This map is for use in administering the National Flood insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

consulted for possion upsales or administration for his minimum. The others more detailed information in seas where Base FRod Elevations the Flood Profiles and Flood Allevations the Flood Profiles and Flood Allevations (Flood Flood Allevations) and the Flood Insurance (South Floor Flood Insurance Insuranc

Coastal Base Flood Elevations shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FRIM should be aware that coastal flood deviations are also provided in the Summary of Sillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Shilwater Elevations tables should be used for construction and/or foodplain amagement purposes when they are higher than the deviations abrown on this FRIM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydrautic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 11. The horizontal datum was NAD 83, GRS80 sphorid. Officerones in datum, sphored, projection or UTM zones used in the production of FIRMs for adjacent jurisdiction may result in slight positional differences in map failures across jurisdiction boundries. These differences do not affect the data of the data of the control o leatures across jurisdi accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For immufor regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey at the following address, and one of the Colombia discrete Survey at the following address.

NGS Information Services NCAA, NYNGS12 National Geodetic Survey SSMC-3, #92012 1315 East-West Highway Silver Spring, Maryland 20910-3262 (301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.nosa.gov.

Base map information shown on this FIRM was derived from the National Agriculture Imagery Program, dated 2005.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FRM for this jurisdiction. The floodplans and floodways that were transferred from the previous FRM may have been displaced to cordinate the stream channel configurations. As a result, the Flood Profiles and Floodway Date tables in the Flood insurance SUM Report (which cordains authoritative hydrauic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the FEMA Map Service Center at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include proviously issued Letters of Map Change, a Flood Insurance Study report, and/or digital visions of this map. The FEMA Map Service Center may also be reached by Fix at 1490-358-9502 and its weeked at the time. Emema gov.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.



#### LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

ZONE A No Base Flood Elevations determined.

ZONE AR

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined. ZONE AO

Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined. ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

he channel of a stream plus any adjacent floodplain areas that must be kept free so that the 1% annual chance flood can be carried without substantial increases

OTHER FLOOD AREAS

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile: and areas protected by leves from 1% annual chance flood.

OTHER AREAS

Areas determined to be outside the 0.2% annual chance floodplain ZONE D

Areas in which flood hazards are undetermined, but possible COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

OPAs are normally located within or adjacent to Special Floo

1% annual chance floodplain boundary 0.2% annual chance floodplain boundary

Floodway boundary

CBRS and OPA boundary

~~~ 513 ~~~

Base Flood Elevation line and value; elevation in feet

Base Flood Elevation value where uniform within zone; elevation in feet* (EL 987)

* Referenced to the North American Vertical Datum of 1988 **⊸**

@----@ Transect line

37°07'45*, 32°22'30*

°76°°°N

1000-meter Universal Transverse Mercator grid values, zone NAD 1983 UTM Zone 11N

600000 FT

Bench mark (see explanation in Notes to Users section of this

●M1.5 River Mile

MAP REPOSITORY Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP September 15, 1989

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL February 5, 1992 - November 3, 1993 - January 3, 1997 - February 18, 2004 - December 3, 2009 for description of revisions, see Netice to Users page in the Flood insurance Study export.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.



MAP SCALE 1" = 500"

NFIP

NATIONAL FLOOD INSURANICE

PANEL 0126J **FIRM**

FLOOD INSURANCE RATE MAP

ORANGE COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 126 OF 539

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

COMMUNITY NUMBER PANEL SUFFIX

ANAHEM, CITY OF 060213 0126 J BUENA PARK, CITY OF 060215 0126 J FULLERTON, CITY OF 060219 0126 J

MAP NUMBER 06059C0126J



MAP REVISED DECEMBER 3, 2009

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

consistent to possess upsase or assistant month tables information. To obtain more delider information in assis where Base Flood Elevations ((FEs) and/or floodways have been determined, users are encouraged to consult he Flood Profilers and Floodway Data and/or Summary of Silvante Elevations tables collamed within the Flood Innurance Budy (FIS) report that accompliate Elevations tables collamed within the Flood Innurance Budy (FIS) report that accompliance and the Flood Innurance Budy (FIS) report that out the Flood Innurance Budy (FIS) are interedist for flood Insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or brought management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 98). Users of this FRM should be aware that coastal flood elevations are also provided in the Summary of Slinkwate Elevations stated in the Summary of Slinkwate Elevations stated should be used for construction and/or floodpian management purposes when they are higher than the elevations shown on this FRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood** control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this unsidiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 11. The horizontal datum was NAD B3, (RSB0 spherot) (RSB0 sp

Flood elevations on this map are referenced to the North American Vertical Datum of 1986. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1989, with the National Geodetic Survey at the following address:

NGS Information Services NOAA, NNRS12 National Geodetic Survey SSMC-3, #922 Highway Silver Spring, Maryland 20910-3282 (301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at https://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from the National Agriculture Imagery Program, dated 2005.

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Contact the FEMA Map Service Center at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-356-920 and its website at https://map.chema.gov/.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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ZONE A No Base Flood Elevations determined ZONE AE Base Flood Elevations determined.

Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Bievations determined. Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velooties also ZONE AO

ZONE A95 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Blevations determined.

Coastal flood zone with velocity hazard (wave action); no Base Flood

7// FLOODWAY AREAS IN ZONE AE

channel of a stream plus any adjacent floodplain areas that must be kept free that the 1% annual chance flood can be carried without substantial increases

OTHER AREAS

ZONE X

Areas determined to be outside the 0.2% annual chance floodolain.

Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS OTHERWISE PROTECTED AREAS (OPAs)

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Zone D boundary CBRS and OPA boundary

~~ 513~~~ Base Flood Elevation line and value: elevation in feet Base Flood Elevation value where uniform within zone; elevation in feet*

(EL 987)

----(Ā) Transect line

2476000N

1000-meter Universal Transverse Mercator grid values, zone NAD 1983 UTM Zone 11N

600000 FT 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic Bench mark (see explanation in Notes to Users section of this FIRM name)

●M1.5 River Mile MAP REPOSITORY Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL 1992 - November 3, 1993 - January 3, 1997 - February 18, 2004 - Decer

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction. To determine if flood insurance is available in this community, contact your Insur-



PROGRAM **FIRM** FLOOD INSURANCE RATE MAP ORANGE COUNTY, CALIFORNIA AND INCORPORATED AREAS IINSUIRANGE PANEL 129 OF 539

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

PANEL 0129J

CONTAINS COMMUNITY NUMBER PANEL SUFFIX 060213 0129 J 060212 0129 J

FL000D

IN/ATTIONN/AIL

MAP NUMBER

06059C0129J MAP REVISED DECEMBER 3, 2009

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

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Coastal Base Flood Elevations shown on this map apply only landward of 0.0 Noth American Vertical Datum of 1988 (NAVD 88), Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Sillevater Elevations tables in the Flood Insurance Study report for this jurisdiction. Sillevations shown in the Summary of Sillevater Elevations tables should be used for onstruction and/or floodplain management purposes when they are higher than be elevations shown on this FIRM.

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Food elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the verball of the Control of the Contr

NGS Information Services NOAA, N/NGS12 National Geodetic Survey SSMC-3, #9202 1315 East-West Highway Silver Spring, Maryland 20910-3282 (301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov.

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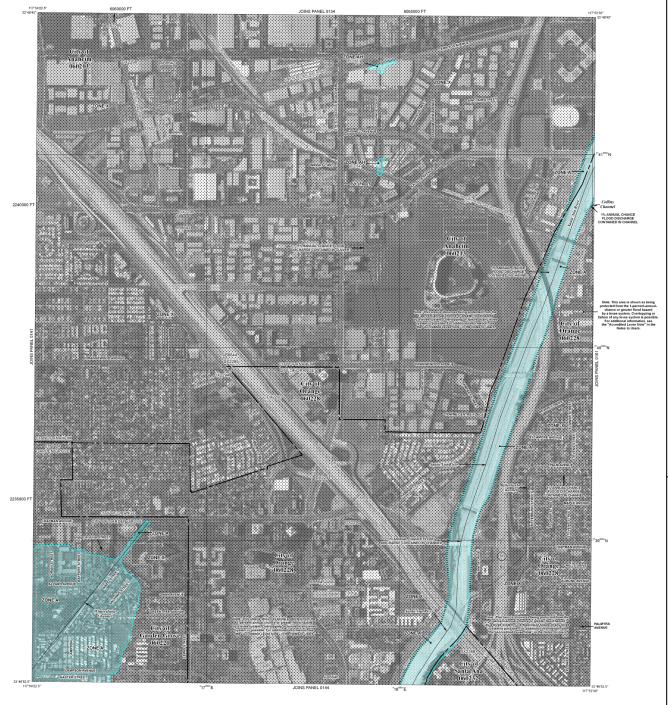
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If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

Accredited Levee Notes to Users: Check with your local community to obtain more information, such as the estimated level of protection provided (which may more information, such as the estimated level of protection provided (which may secedith—In-prorental-music-hance level) and Emergency-Action Plan, on the flood risk in residual areas, properly owners and residents are encouraged to consider flood instance and floodprofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at http://www.fema.gov/business/ripficil/docs.thm.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

hall flood (100-year flood), also known as the base flood, is the flood that has a 1% ening equated or exceeded in any given year. The Special Flood Hazard Area is that to flooding by the "ki amust chance flood. Areas of Special Flood Hazard side E, AM, AO, AR, AR9, V, and VE. The Base Flood Bevation is the water-surface the "his enincid florace flood."

ZONE A No Base Blood Elevations determined

ZONE AE

ZONE AO

ZONE X

ZONE X

ZONE D

(EL 987)

Plood depths of 1 to 3 feet (usually areas of ponding); Base Flood Blevations determined. ZONE AH

Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone 4R indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

70NE 499

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood

Coastal flood zone with velocity hazard (wave action); Base Flood flieutrions determined.

1/// FLOODWAY AREAS IN ZONE AE

he channel of a stream plus any adjacent floodplain areas that must be kept free so that the 1% annual chance flood can be carried without substantial increases

OTHER FLOOD AREAS

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. OTHER AREAS

Areas in which flood hazards are undetermined, but possible.

COASTAL RADDIED DESCRIPCES SYSTEM (CRDS) ADEAS OTHERWISE PROTECTED AREAS (OPAs)

As are normally located within or adjacent to Special Flood Hazard Are 1% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundar

Base Flood Elevation line and value; elevation in feet:

~~~ 513 ~~~

—(A) Cross section line Transect line

87°07'45", 32°22'30"

NFIP

INSURVANCE

FL000D

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Herrisphere 2476<sup>0000</sup>N

1000-meter Universal Transverse Mercator grid values, zone NAD 1983 UTM Zone 11N 600000 FT 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal Conic

DX5510 ~

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP September 15, 1989

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL.
February 5, 1992 - November 3, 1993 - January 3, 1997 - February 18, 2004 - December 3, 2009 :
for description of opisions, see Notice to Libert page in the filter for the property of the control of

For community map revision history prior to countywide mapping, refer to the Commun Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insuran agent or call the National Flood Insurance Program at 1-800-638-6620. 

MAP SCALE 1" = 500"

**FIRM** FLOOD INSURANCE RATE MAP

PANEL 0142J

ORANGE COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 142 OF 539

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS COMMUNITY

NUMBER PANEL SUFFIX 060213 0142 060220 0142 060228 0142 060232 0142

DECEMBER 3, 2009

MAP NUMBER 06059C0142J MAP REVISED

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more designation of automation for fundamental members. To obtain more deligible information in since swhere Base Flood Elevations the Flood Profiles and Floodway Data and/or Summary of Stitluter Elevations that contained within the Flood Insurance Study (FS) report that accompanies contained within the Flood Insurance Study (FS) report that accompanies rounded whole-boot elevations. These BFEs are intended for flood insurance ranging purposes orly and should not be used as the soles owner of flood report should be utilized in conjunction with the FIRM for purposes of construction and/or floodpin management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal food elevators are dae powered in the Summary of Sillwater Elevations tables in the Flood Insurance Study report for this justicition. Elevations shown in the Summary of Sillwater Elevations tables should be not levations shown in the Summary of Sillwater Elevations tables should be not constitution and/or flood/pain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 11. The horizontal datum was MAD 83, GRSS0 opheroids. FIRMS for adjacent priseditions may result in sight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information reporting conversion between the National Geodetic Vertical Datum of 1939 and the North American Vertical Datum of 1988 visit the National Geodetic Survey at the following addeand. Geodetic Survey at the following addeand.

NGS Information Services NOAA, NNGS12 National Geodetic Survey SSMC-3, #9202 1315 East-West Highway Silver Spring, Maryland 20910-3282 (301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from the National Agriculture Imagery Program, dated 2005.

This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FRM for this printiction. The floodplains and floodways that well transferred from the previous FRM has have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Instruance Study Report (which contains authoritative hydrauch data) may reflect stream channel distances that differ from what is shown or this map.

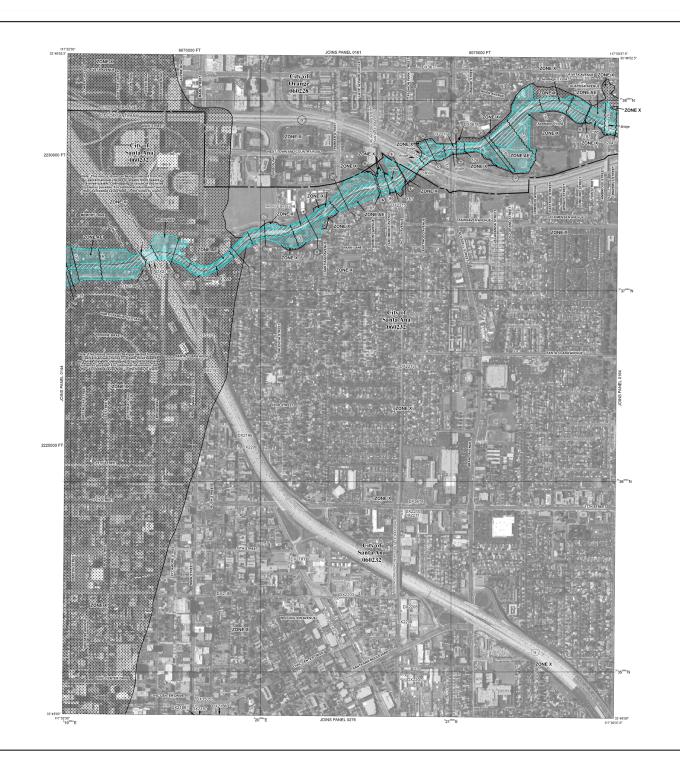
Corporate limits shown on this map are based on the best data available at the

Please refer to the separately printed Map Index for an overview map of th county showing the layout of map panets; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the FEMA Map Service Center at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1400-359-5020 and its weekles at <a href="https://dec.new.gov/map.com/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/map.gov/ma

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at <a href="http://www.fema.gov">http://www.fema.gov</a>,

Accredited Levee Notes to Users: Check with your local community to obtain more information, such as the estimated level of procedure provided (which may exceed the 1-year-che-manus-chance) levely and Emergency Action Plant. on the food insi, in less that areas, properly owners and residents are encouraged to consider flood insurance and floographory or other protection residents. For more information on flood instruction, interested parties should visit the FEMA Website at high/lower forms provisions/stifficients/stimuliary.



#### LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

od (100-year flood), also known as the base flood, is the flood that has a 1% justed or exceeded in arry given year. The Special Flood Hazard Area is the coding by the 1% annual chance flood. Areas of Special Flood Hazard include AD, RA, A99, V, and VE. The Base Flood Blevation is the water-surface annual chance flood.

No Base Flood Elevations determined. ZONE AE Base Flood Elevations determined.

Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood

Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also

Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

Coastal flood zone with velocity hazard (wave action); Base Flood Bevetions determined.

FLOODWAY AREAS IN ZONE AE

11/1 The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encreachment so that the 1% annual chance flood can be carried without substantial increases.

ZONE X

OTHER AREAS

ZONE X ZONE D

Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and CPAs are normally located within or adjacent to Special Flood Hazard Area

0.2% annual chance floodolain boundary

\_ \_\_\_ Zone D boundary CBRS and OPA boundar

Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

Base Flood Elevation line and value: elevation in feet\* Base Flood Elevation value where uniform within zone; elevation in feet\* (EL 987)

(A) (A) (B) -----(B) (B7\*07'45", 32\*22'30" Cross section line Transect line

NFIP

PRO

FL000D

NATTIONAL

Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere 2476000mN

1000-meter Universal Transverse Mercator grid values, zone NAD 1983 UTM Zone 11N 5010-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0405), Lambert Conformal Conic resolution.

Bench mark (see explanation in Notes to Users section of this FIRM panel) DX5510 v

River Mile

MAP REPOSITORY Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP September 15, 1989

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
February 5, 1992 - November 3, 1993 - January 3, 1997 - February 16, 2004 - December 3, 2009 for description of revisions, see Notice to Users page in the Thool Insurance Study export.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

MAP SCALE 1" = 500" 150 0

#### **FIRM** FLOOD INSURANCE RATE MAP

ORANGE COUNTY,

CALIFORNIA AND INCORPORATED AREAS

PANEL 163 OF 539

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

ORANGE, CITY OF SANTA ANA, CITY OF 090228 0163 J 090232 0163 J



MAP NUMBER 06059C0163J MAP REVISED DECEMBER 3, 2009

| Appendix C FIRM Maps |                                    |
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