

Lake Miramar Dam
Sunny Day Dam Breach
Overview

San Diego County, California
State Dam ID: 8.011
& National Dam ID: CA00115



Modeling Date: April-2018
Map Creation Date: September-2018
By: J. Weber

- Legend**
- Cross Section
 - Flow Path
 - Detailed Sheet Extent
 - Approx. Maximum Flooding Extent



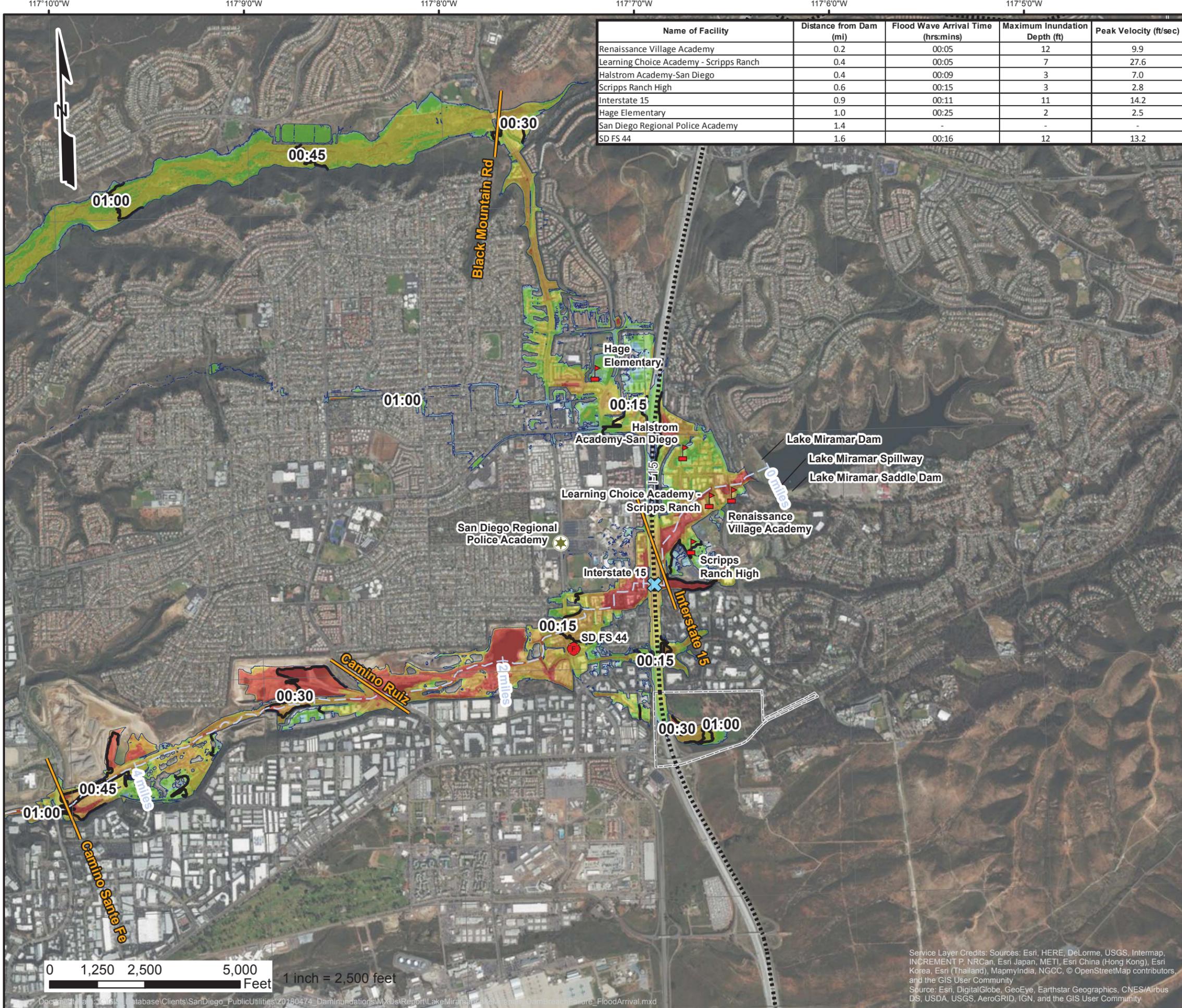
Notes:

1. This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.
2. The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.
3. All elevations are reported in the NAVD88 vertical datum.
4. Inundation depths less than one foot are not shown.
5. Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

KLEINFELDER
Bright People. Right Solutions.
550 West C Street, Suite 1200
San Diego, CA 92101
(619) 831-4600

Engineer Robert Carl Singer
License No. 63643

Name of Facility	Distance from Dam (mi)	Flood Wave Arrival Time (hrs:mins)	Maximum Inundation Depth (ft)	Peak Velocity (ft/sec)
Renaissance Village Academy	0.2	00:05	12	9.9
Learning Choice Academy - Scripps Ranch	0.4	00:05	7	27.6
Halstrom Academy-San Diego	0.4	00:09	3	7.0
Scripps Ranch High	0.6	00:15	3	2.8
Interstate 15	0.9	00:11	11	14.2
Hage Elementary	1.0	00:25	2	2.5
San Diego Regional Police Academy	1.4	-	-	-
SD FS 44	1.6	00:16	12	13.2



**Lake Miramar Dam
Sunny Day Dam Breach
Flood Arrival Times**
San Diego County, California
State Dam ID: 8.011
& National Dam ID: CA00115



Modeling Date: April-2018
Map Creation Date: September-2018
By: J. Weber

Legend

Critical Structures

- Critical Road Point
- CalFire Facility
- Licensed Healthcare Facility
- Law Enforcement Facility
- School

Critical Road

Approx. Time to 1 Foot Depth (hrs:mins)

Cross Section

Flow Path

Approx. Maximum Flooding Extent

Municipal Boundary

Maximum Inundation Depth (ft)

- 1 to 2
- 2 to 5
- 5 to 10
- 10 to 20
- 20+

* Variations in color are dependent upon the background imagery.

Notes:

- This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.
- The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.
- All elevations are reported in the NAVD88 vertical datum.
- Inundation depths less than one foot are not shown.
- Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

KLEINFELDER
Bright People. Right Solutions.
550 West C Street, Suite 1200
San Diego, CA 92101
(619) 831-4600

SD

Engineer Robert Carl Singer

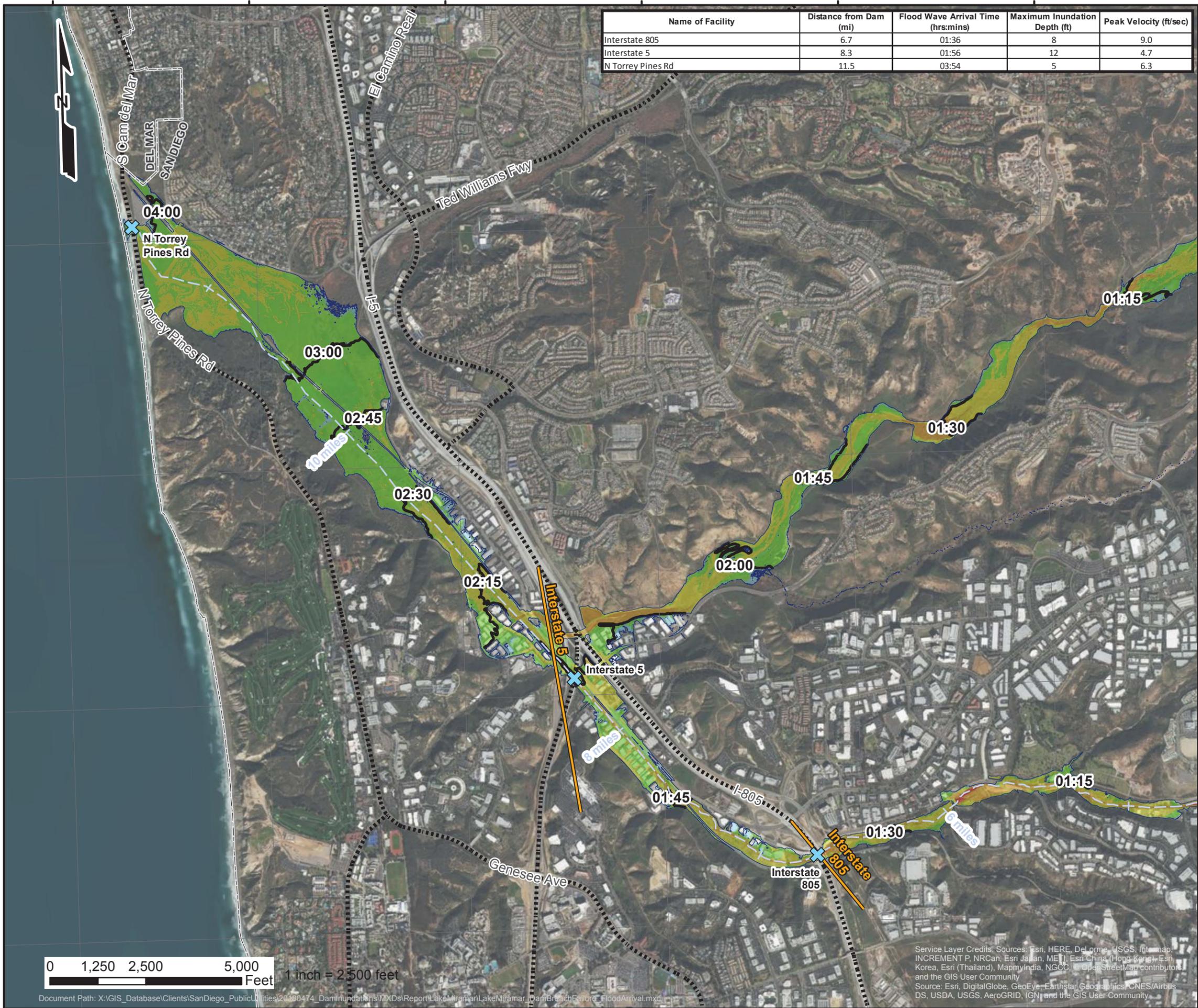
License No. 63643

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0 1,250 2,500 5,000 Feet
1 inch = 2,500 feet

117°16'0"W 117°15'0"W 117°14'0"W 117°13'0"W 117°12'0"W 117°11'0"W

Name of Facility	Distance from Dam (mi)	Flood Wave Arrival Time (hrs:mins)	Maximum Inundation Depth (ft)	Peak Velocity (ft/sec)
Interstate 805	6.7	01:36	8	9.0
Interstate 5	8.3	01:56	12	4.7
N Torrey Pines Rd	11.5	03:54	5	6.3



Lake Miramar Dam Sunny Day Dam Breach Flood Arrival Times San Diego County, California State Dam ID: 8.011 & National Dam ID: CA00115



Modeling Date: April-2018
Map Creation Date: September-2018
By: J. Weber

Legend

Critical Structures

- Critical Road Point
- CalFire Facility
- Licensed Healthcare Facility
- Law Enforcement Facility
- School

Other Symbols

- Critical Road
- Approx. Time to 1 Foot Depth (hrs:mins)
- Cross Section
- Flow Path
- Approx. Maximum Flooding Extent
- Municipal Boundary

Maximum Inundation Depth (ft)

- 1 to 2
- 2 to 5
- 5 to 10
- 10 to 20
- 20+

* Variations in color are dependent upon the background imagery.

Notes:

- This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.
- The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.
- All elevations are reported in the NAVD88 vertical datum.
- Inundation depths less than one foot are not shown.
- Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

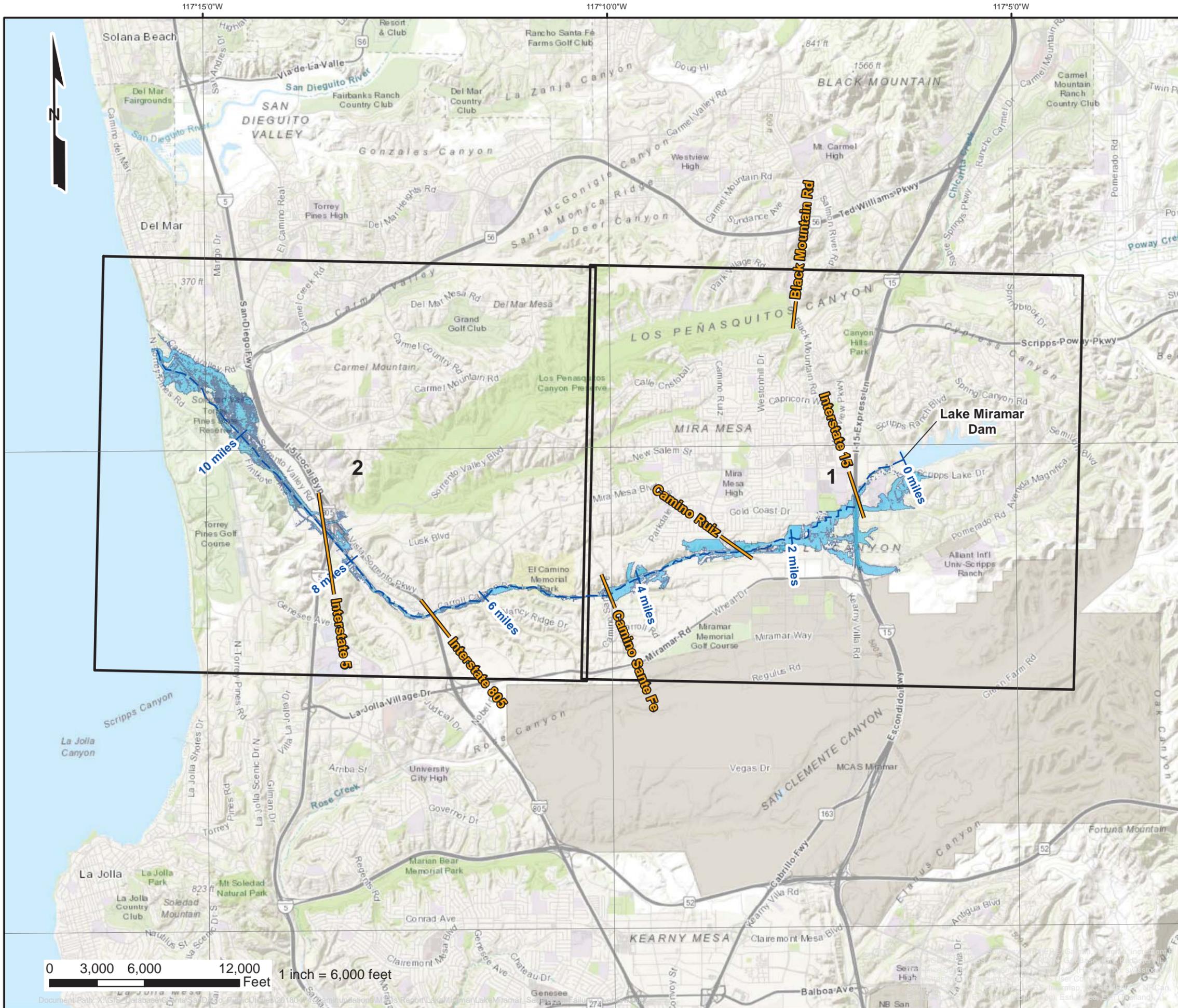
KLEINFELDER
Bright People. Right Solutions.
550 West C Street, Suite 1200
San Diego, CA 92101
(619) 831-4600

SD

Engineer Robert Carl Singer
License No. 63643

0 1,250 2,500 5,000 Feet 1 inch = 2,500 feet

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intel, mapbox, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



**Lake Miramar Dam
Sunny Day Saddle Dam Breach
Overview**
San Diego County, California
State Dam ID: 8.011
& National Dam ID: CA00115



Modeling Date: April-2018
Map Creation Date: September-2018
By: J. Weber

- Legend**
- Cross Section
 - Flow Path
 - Detailed Sheet Extent
 - Approx. Maximum Flooding Extent



Notes:

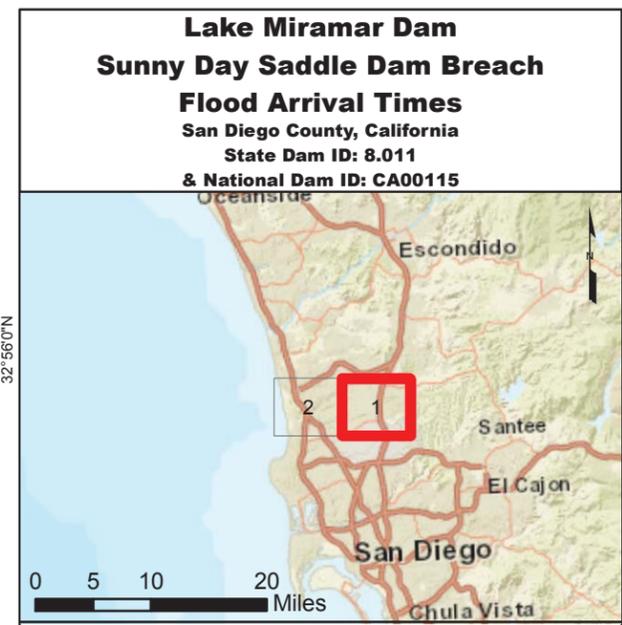
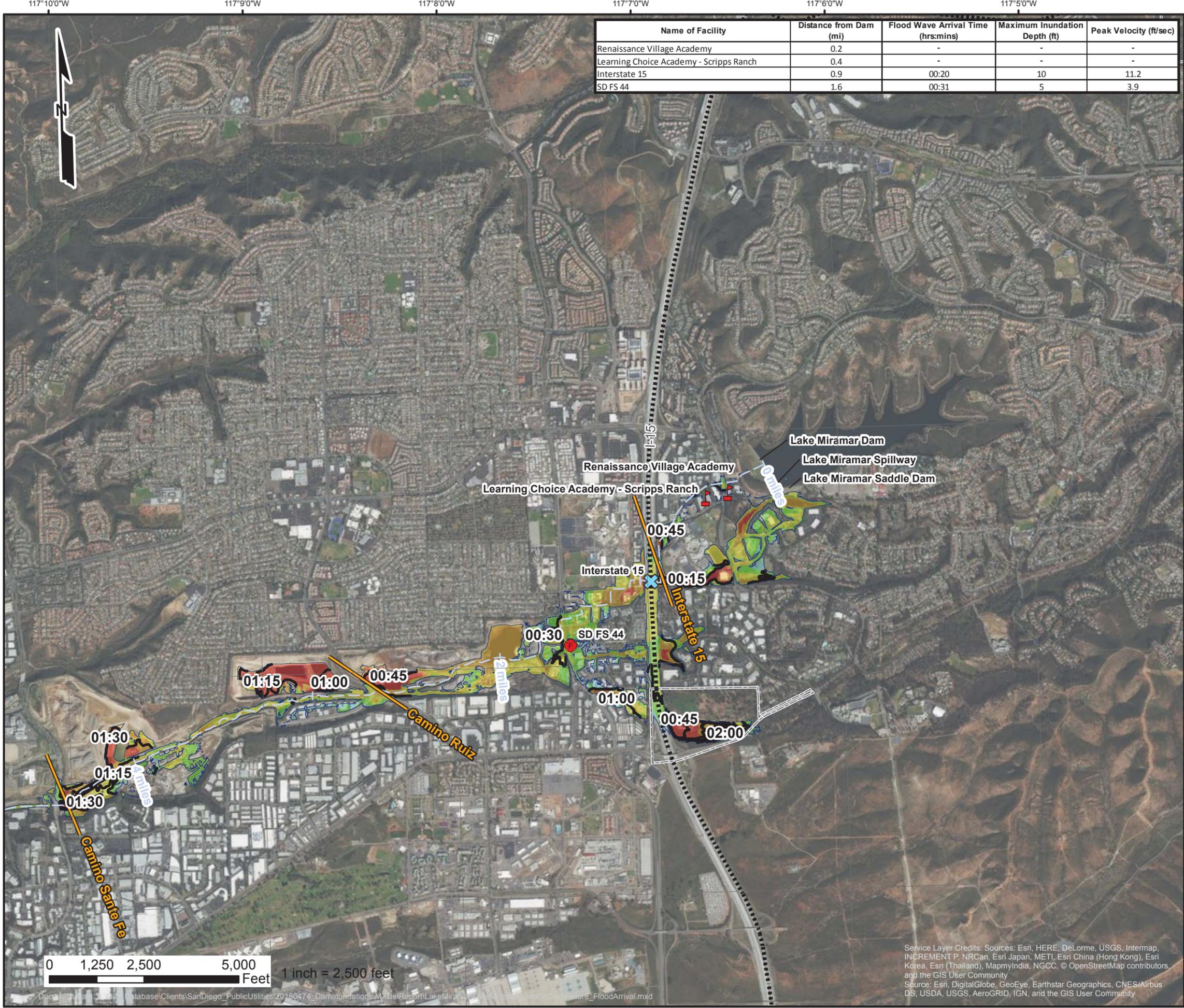
1. This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.
2. The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.
3. All elevations are reported in the NAVD88 vertical datum.
4. Inundation depths less than one foot are not shown.
5. Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

KLEINFELDER
Bright People. Right Solutions.

550 West C Street, Suite 1200
San Diego, CA 92101
(619) 831-4600

Engineer Robert Carl Singer
License No. 63643

Name of Facility	Distance from Dam (mi)	Flood Wave Arrival Time (hrs:mins)	Maximum Inundation Depth (ft)	Peak Velocity (ft/sec)
Renaissance Village Academy	0.2	-	-	-
Learning Choice Academy - Scripps Ranch	0.4	-	-	-
Interstate 15	0.9	00:20	10	11.2
SD FS 44	1.6	00:31	5	3.9



Modeling Date: April-2018
Map Creation Date: September-2018
By: J. Weber

Legend

Critical Structures

- Critical Road Point
- CalFire Facility
- Licensed Healthcare Facility
- Law Enforcement Facility
- School

Other Symbols

- Critical Road
- Approx. Time to 1 Foot Depth (hrs:mins)
- Cross Section
- Flow Path
- Approx. Maximum Flooding Extent
- Municipal Boundary

Maximum Inundation Depth (ft)

- 1 to 2
- 2 to 5
- 5 to 10
- 10 to 20
- 20+

* Variations in color are dependent upon the background imagery.

Notes:

- This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.
- The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.
- All elevations are reported in the NAVD88 vertical datum.
- Inundation depths less than one foot are not shown.
- Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

KLEINFELDER
Bright People. Right Solutions.
550 West C Street, Suite 1200
San Diego, CA 92101
(619) 831-4600

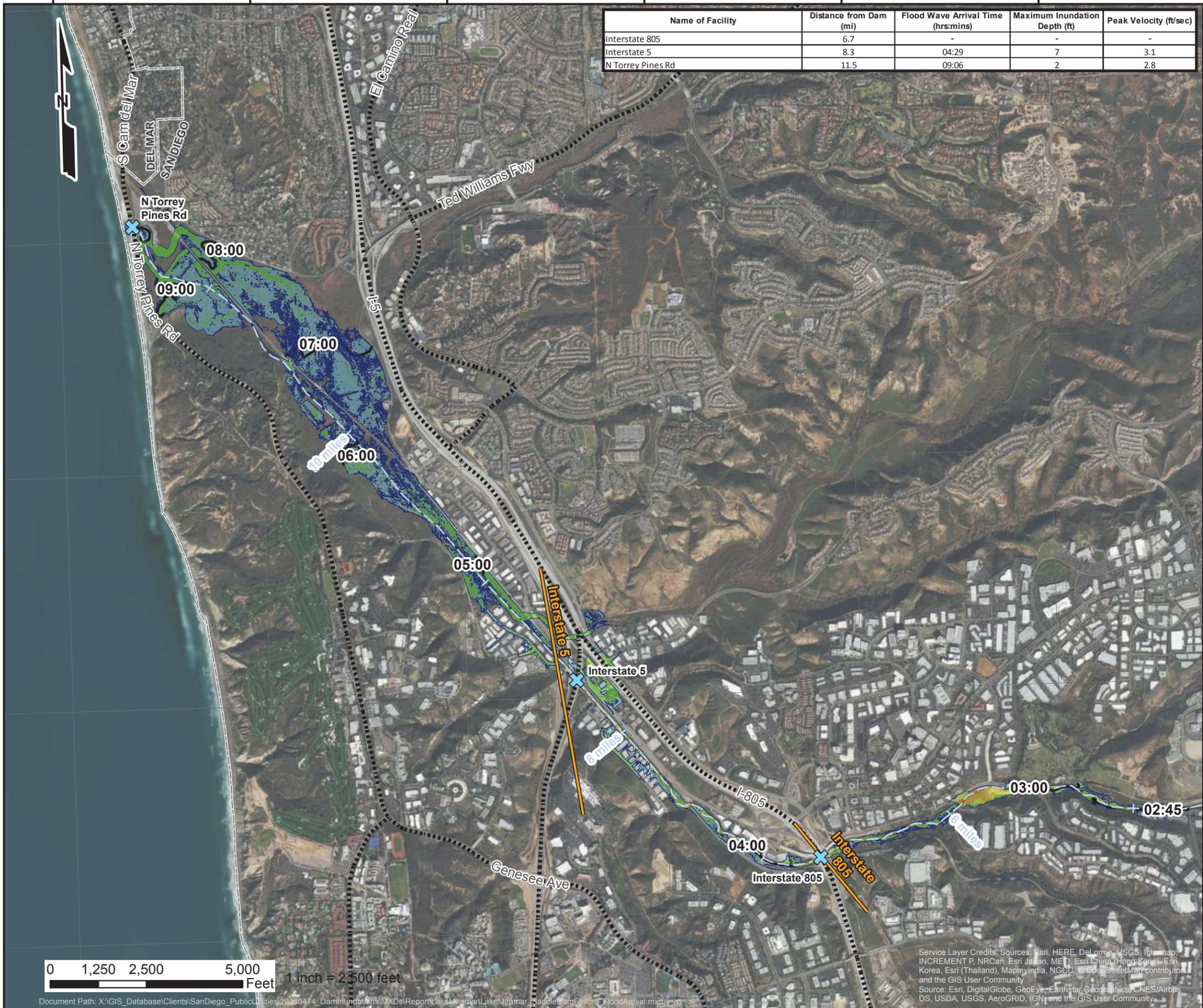
SD

Engineer Robert Carl Singer
License No. 63643

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

0 1,250 2,500 5,000 Feet
1 inch = 2,500 feet

Name of Facility	Distance from Dam (mi)	Flood Wave Arrival Time (hrs:mins)	Maximum Inundation Depth (ft)	Peak Velocity (ft/sec)
Interstate 805	6.7	-	-	-
Interstate 5	8.3	04:29	7	3.1
N Torrey Pines Rd	11.5	09:06	2	2.8



Lake Miramar Dam Sunny Day Saddle Dam Breach Flood Arrival Times

San Diego County, California
State Dam ID: 8.011
& National Dam ID: CA00115



Modeling Date: April-2018
Map Creation Date: September-2018
By: J. Weber

Legend

Critical Structures

- Critical Road Point
- CalFire Facility
- Licensed Healthcare Facility
- Law Enforcement Facility
- School

----- Critical Road

----- Approx. Time to 1 Foot Depth (hrs:mins)

----- Cross Section

----- Flow Path

----- Approx. Maximum Flooding Extent

----- Municipal Boundary

Maximum Inundation Depth (ft)

- 1 to 2
- 2 to 5
- 5 to 10
- 10 to 20
- 20+

* Variations in color are dependent upon the background imagery.

Notes:

- This inundation map has been prepared in a manner consistent with that level of care and skill ordinarily exercised by Kleinfelder's profession practicing in the same locality, under similar conditions and at the date services are provided. Our conclusions, opinions, and recommendations are based on a limited number of observations, data, and the current guidance and requirements outlined by the California DSOD.
- The information on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. The information shown on this map is approximate and should be used as a guideline for emergency response and preparation purposes. This document is not intended for use as a land survey project nor is it designed or intended as construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.
- All elevations are reported in the NAVD88 vertical datum.
- Inundation depths less than one foot are not shown.
- Mapped depths and arrival times will vary based on breach conditions, hydrologic conditions, modelling assumptions, and other factors. Emergency action plans that utilize these maps may want to consider a factor of safety for arrival times.

KLEINFELDER
Bright People. Right Solutions.
550 West C Street, Suite 1200
San Diego, CA 92101
(619) 831-4600

SD

Engineer Robert Carl Singer

License No. 63643

0 1,250 2,500 5,000 Feet 1 inch = 2,500 feet

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intel, mapbox, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, OpenStreetMap contributors, and the GIS User Community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community