From: To: CC: 3/24/2021 11:53:19 AM Sent: Subject: RE: Request: Intro conversation regarding strike tree analysis Sorry I just found that I have not responded to your question regarding FEA model outputs: the KMZ format is the only output format, and there is no plan to create shape file outputs. There is talk to export the results to text file such that the data can then be imported into ArcGIS portal, but this task hasn't been formalized yet. Thanks, From: Sent: Thursday, March 11, 2021 8:10 PM To: Cc: Subject: Re: Request: Intro conversation regarding strike tree analysis *****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.**** OK great! Francis, before you start to figure out how to proceed, we should attempt to check that your data is actually useful. I'm going to see if the RaDA data scientists can run an analysis to see if the presence of your data (just the fraction of HFTD 2 / 3 that is currently available) improves the predictive power of our model. You mentioned that your model produces output in KMZ format - do you have any other output formats available? In particular, do you have an output of all your results in a single file (or set of files that make up a "shape file")? Can you send me, or point me to where I can access, all of your results? We'll be sure to share with you what we learn! Thanks, Cooper On Thu, Mar 11, 2021 at 6:24 PM 1 > wrote: I think we can accommodate this expansion. I am going to be out on Monday and Tuesday. From: Sent: Thursday, March 11, 2021 6:12 PM To: I Cc: 1

Subject: Re: Request: Intro conversation regarding strike tree analysis

*****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.****
I've discussed Francis' data and analysis with an analysis with and there is interest from RaDA in having Francis' data expanded to cover all of HFTD 2/3.
notes below that this might require perhaps 150 hours of labor - that is certainly a non-trivial effort.
I like to ask how we might approach a decision regarding if and when model results could be expanded - I'll add this topic to our Monday sync meeting agenda.
Thanks,
On Tue, Feb 23, 2021 at 11:05 AM wrote: [Looping in Brad and Miroslav]
We've performed about 5,000 miles of the HFTD 2/3 calculations so far for Grid Design team. The calculations are currently setup to calculate one circuit at a time, so using the same approach the effort to calculate 20,000 miles is roughly 150 hours of labor. If you're interested in seeing more of a global effect, the calculations can be modified to calculate one region at a time which will shorten the effort and time considerably, but with the caveat that the calculated risk score will then be for the entire region as a whole. Thanks,
-
From: Sept: Tuesday February 23, 2021 920 AM
Sent: Tuesday, February 23, 2021 9:42 AM To: Cc
Sent: Tuesday, February 23, 2021 9:42 AM To: Cc Subject: Re: Request: Intro conversation regarding strike tree analysis
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Sent: Tuesday, February 23, 2021 9:42 AM To: Cc Subject: Re: Request: Intro conversation regarding strike tree analysis *****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.***** how much effort is it for you to extend your coverage? Like if I asked for your results for ALL of HFTD
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Sent: Tuesday, February 23, 2021 9:42 AM To: Cc Subject: Re: Request: Intro conversation regarding strike tree analysis *****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments. ***** how much effort is it for you to extend your coverage? Like if I asked for your results for ALL of HFTD 2/3 (eg. ~25,000 miles), how much work is that? On Tue, Feb 16, 2021 at 6:04 PM wrote:
Sent: Tuesday, February 23, 2021 9:42 AIM To: Cc Subject: Re: Request: Intro conversation regarding strike tree analysis *****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments. ***** how much effort is it for you to extend your coverage? Like if I asked for your results for ALL of HFTD 2/3 (eg. ~25,000 miles), how much work is that? On Tue, Feb 16, 2021 at 6:04 PM wrote: Red spans have more than 15 trees in each span that can break the span Amber spans have between 6 to 15 trees in each span that can break the span Yellow spans have between 1 to 5 trees in each span that can break the span
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Cc:

Subject: Re: Request: Intro conversation regarding strike tree analysis

******CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*****

Thanks sorry for my delay in cracking this open.

Can you remind me what the color coding is indicating?



On Wed, Feb 3, 2021 at 3:03 PM wrote:

- sorry for the miss! The outputs are KMZ files. An example is attached (you may need to uncheck the Terrain box in order to see the outputs in Google Earth because some LiDAR elevations are not perfectly compatible with Google Earth terrain rendering).

From:

Sent: Wednesday, February 3, 2021 2:20 PM

To

Cc

Subject: Re: Request: Intro conversation regarding strike tree analysis

******CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*****

Thanks

In what form do you produce the results of the calculations for the circuits below?

showed me some color-coded visualizations in Google Earth - did those come from you?

Are you producing KMZ files? Shape files? Raster files? CSV or other tabular data?

Could you point me to a sample of your calculation results?

Much appreciated

Cheers,

PS. My first name is a strain ast name - backwards, I know!

, PG&E <u>m</u>

On Mon, Feb 1, 2021 at 5:53 PM wrote:

Adding to PSPS work scope, similar calculations have been performed on about 70 distribution circuits (HFTD 2/3 areas) for Brad's system hardening scoping projects:

	·	*	
DESCHUTES 1104	KESWICK 1101	MOUNTAIN QUARRIES 2101	PUTAH CREE
DIAMOND SPRINGS 1105	KIRKER 2104	NORTH DUBLIN 2101	RINCON 110
DIAMOND SPRINGS 1107	KONOCTI 1102	OAKHURST 1101	RINCON 110
DUNBAR 1101	LAS GALLINAS A 1105	OLETA 1101/MARTELL 1101	SHINGLE SP 2109
DUNLAP 1102	LOS GATOS 1106	OREGON TRAIL 1103	SILVERADO
ELK CREEK 1101	MARIPOSA 2101	PINE GROVE 1102	SILVERADO
FITCH MOUNTAIN 1113	MARIPOSA 2102	PLACERVILLE 1112	SILVERADO
FROGTOWN 1701	MIDDLETOWN 1101	PLACERVILLE 2106	STANISLAUS
FROGTOWN 1702	MIDDLETOWN 1102	POSO MOUNTAIN 2103	TIDEWATER
FULTON 1107	MIDDLETOWN 1103	POSO MOUNTAIN 2104	TULUCAY 11
HALF MOON BAY 1103	MIWUK 1701	POTTER VALLEY P H 1105	UPPER LAKE
HIGHLANDS 1102	MIWUK 1702	PUEBLO 2102	VACA DIXON
	DIAMOND SPRINGS 1105 DIAMOND SPRINGS 1107 DUNBAR 1101 DUNLAP 1102 ELK CREEK 1101 FITCH MOUNTAIN 1113 FROGTOWN 1701 FROGTOWN 1702 FULTON 1107 HALF MOON BAY 1103	DIAMOND SPRINGS 1105 DIAMOND SPRINGS 1107 KONOCTI 1102 LAS GALLINAS A 1105 DUNBAR 1101 LAS GALLINAS A 1105 DUNLAP 1102 LOS GATOS 1106 ELK CREEK 1101 FITCH MOUNTAIN 1113 MARIPOSA 2101 FROGTOWN 1701 MIDDLETOWN 1101 FROGTOWN 1702 MIDDLETOWN 1102 FULTON 1107 MARIPOSA 2102 MIDDLETOWN 1103 MIDDLETOWN 1103 MIDDLETOWN 1103	DESCHUTES 1104 KESWICK 1101 2101 DIAMOND SPRINGS 1105 KIRKER 2104 NORTH DUBLIN 2101 DIAMOND SPRINGS 1107 KONOCTI 1102 OAKHURST 1101 DUNBAR 1101 LAS GALLINAS A 1105 OLETA 1101/MARTELL 1101 DUNLAP 1102 LOS GATOS 1106 OREGON TRAIL 1103 ELK CREEK 1101 MARIPOSA 2101 PINE GROVE 1102 FITCH MOUNTAIN 1113 MARIPOSA 2102 PLACERVILLE 1112 FROGTOWN 1701 MIDDLETOWN 1101 PLACERVILLE 2106 FROGTOWN 1702 MIDDLETOWN 1102 POSO MOUNTAIN 2103 FULTON 1107 MIDDLETOWN 1103 POSO MOUNTAIN 2104 HALF MOON BAY 1103 MIWUK 1701 POTTER VALLEY P H 1105

Thanks,

Sent: Monday, February 1, 2021 5:47 PM To: Cc: Subject: RE: Request: Intro conversation regarding strike tree analysis
Just select distribution circuit segments that are begin identified for PSPS de-scoping at this time.
From: Sent: Monday, February 01, 2021 5:44 PM To: Cc: Subject: Re: Request: Intro conversation regarding strike tree analysis
*****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.***** Very nice!
For what coverage area is this model's results available? All of HFTD 2 and 3? Or only the potential PSPS descoping areas being considered? Or some other extent?
On Mon, Feb 1, 2021 at 5:41 PM wrote:
This work is part of the PSPS descoping criteria. Wen's team builds a mechanical simulation of the distribution line and then uses the LiDAR tree data to identify which trees can reach the line. The simulation then models those trees falling on the line and the results indicate whether the tree is likely to break the line or other components of the line.
·
From: Sent: Monday, February 01, 2021 5:00 PM To: Cc: Subject: Re: Request: Intro conversation regarding strike tree analysis
Sent: Monday, February 01, 2021 5:00 PM To: Cc:
Sent: Monday, February 01, 2021 5:00 PM To: Cc: Subject: Re: Request: Intro conversation regarding strike tree analysis *****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*****
Sent: Monday, February 01, 2021 5:00 PM To: Cc: Subject: Re: Request: Intro conversation regarding strike tree analysis *****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.**** Ah, well, I wonder if perhaps I already know about your model Wen!
Sent: Monday, February 01, 2021 5:00 PM To: Cc: Subject: Re: Request: Intro conversation regarding strike tree analysis *****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.**** Ah, well, I wonder if perhaps I already know about your model Wen! I work for and closely with today showed me a great presentation about your strike tree analysis work - could you share it with
Sent: Monday, February 01, 2021 5:00 PM To: Cc: Subject: Re: Request: Intro conversation regarding strike tree analysis *****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.**** Ah, well, I wonder if perhaps I already know about your model Wen! I work for and closely with today showed me a great presentation about your strike tree analysis work - could you share it with me? today showed me a great presentation about your strike tree analysis work - could you share it with me?

some other purposes. Plugging in so he is aware of the ask.

What times are available for you?

Cheers,



From:

Sent: Monday, February 1, 2021 4:47 PM

To:

Subject: Request: Intro conversation regarding strike tree analysis

******CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*****

Hi

My team develops wildfire risk models for PG&E - you can learn more about us and our work here https://wiki.comp.pge.com/display/RaD/Risk+and+Data+Analytics

I recently became aware of your work on analyzing tree data (from PG&E's LiDAR surveys, I believe) to inform System Hardening work planning.

My team would very much like to learn more about your work - would you have time to share some details with us? Just a half-hour would be great!

I'm happy to schedule a mutually-available time.

Please let me know, thanks.

Cheers,

