

From: [REDACTED]
To: [REDACTED]
CC: [REDACTED]
Sent: 5/6/2021 4:35:03 PM
Subject: RE: Wildfire Consequence Models Summary
Attachments: RE: 2019 Model

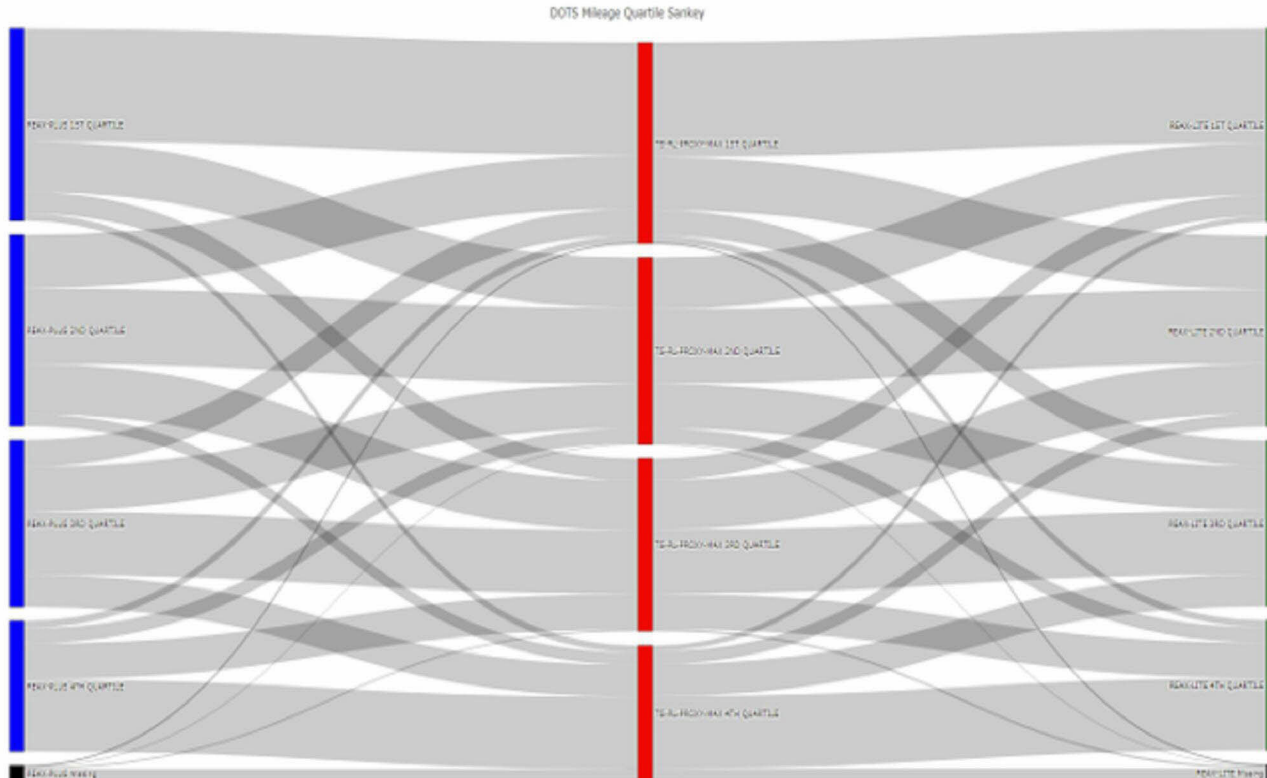
[REDACTED] – I lost this open email in a PC forced restart so I went looking for it today. This is really good work and we may need to do something similar for our WMP RCP on the changes between our risk models from 2019 to 2021. When I joined the department I asked Carlos to do a similar exercise and he produced various rankings for me (attached) so we may need to dust these off.

My suggestion would be to build the walk as follows:

1. Baseline CPZ ranking with 2019 Risk Model Output for System Hardening (POI x Reax x Egress)
2. Take out Egress leaving POI x Reax
3. If we can, go with 2019 POI x 2021 Technosylva (might not be possible)
4. Then add 2021 POI x 2021 Technosylva

We will need a bucket for the “new entrants” at each stage in the progression, and I know that some segments will change with the addition of sectionalizing equipment, but we will handle that down the road.

Here is the one we used at SCE (new entrants in BLACK) final model in the middle.



Thanks

[REDACTED]
Director, Electric Operations Risk Management and Analytics

From: [REDACTED]
Sent: Tuesday, April 13, 2021 11:34 AM
To: [REDACTED]
Subject: RE: Wildfire Consequence Models Summary

Thanks [REDACTED] – this is some good analysis. I will need to dedicate some focus time to reviewing.

[REDACTED]
Director, Electric Operations Risk Management and Analytics
Pacific Gas & Electric Company

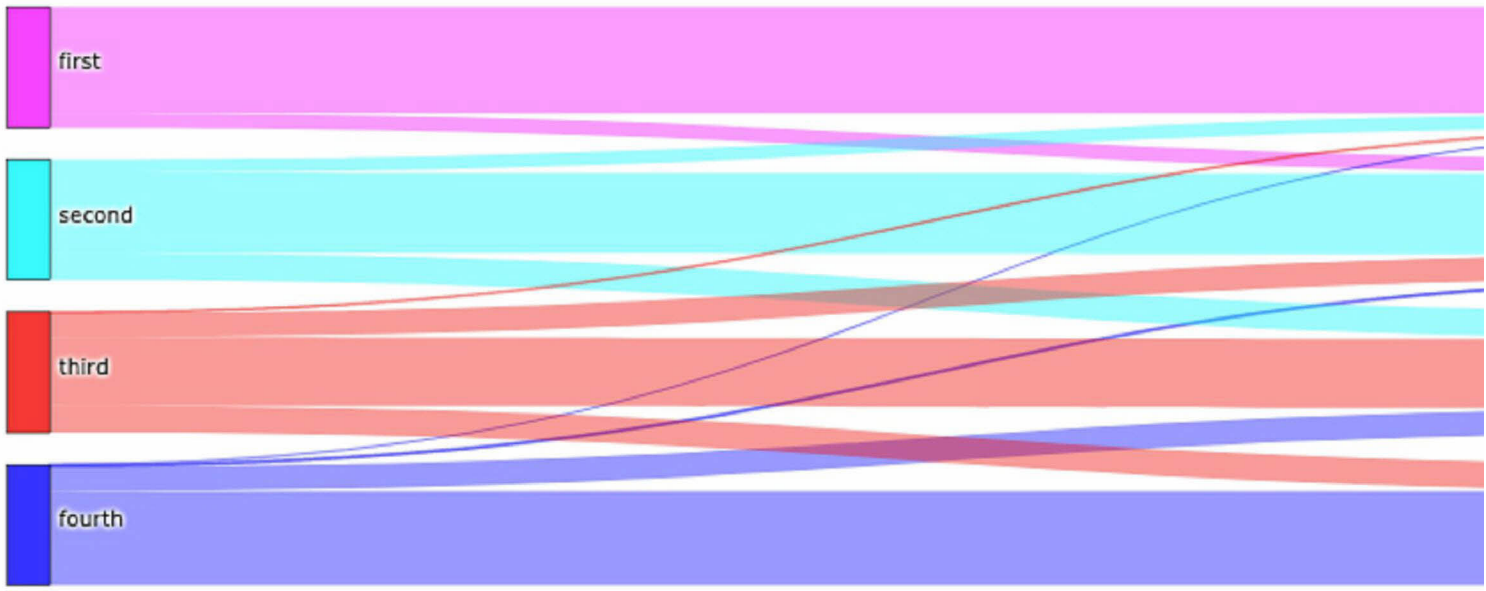
From: [REDACTED]
Sent: Monday, April 12, 2021 5:45 PM
To: [REDACTED]
Subject: Re: Wildfire Consequence Models Summary

[REDACTED]

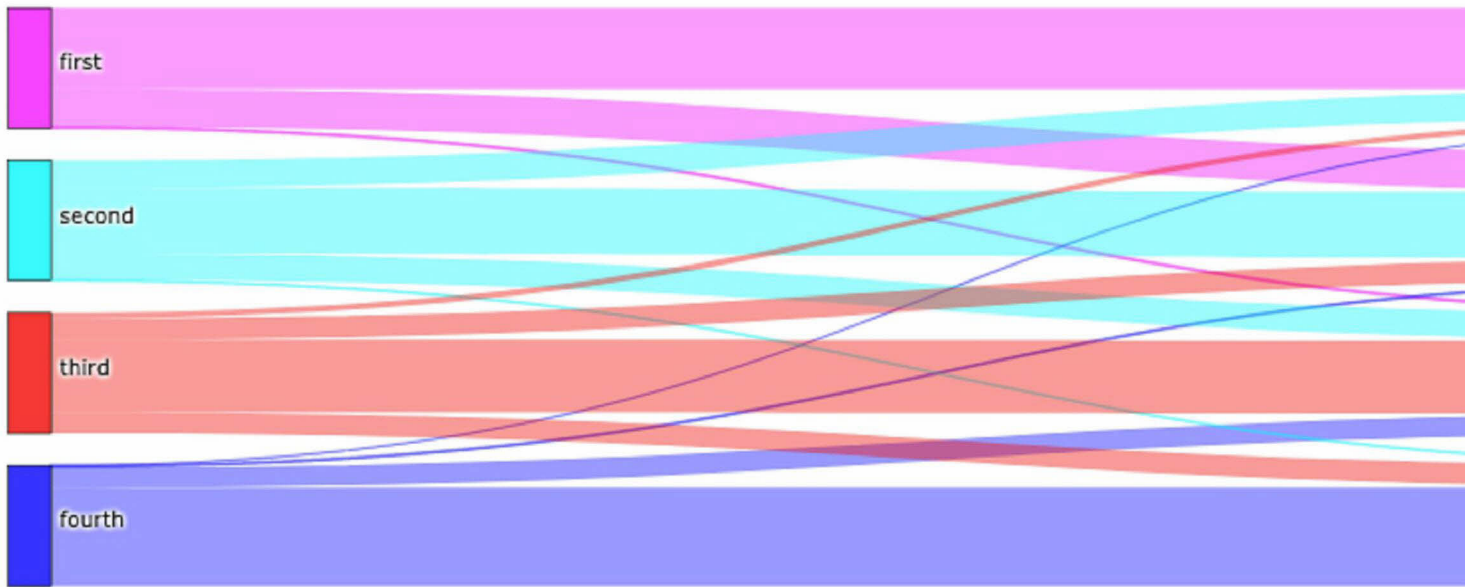
Here are the Sankey charts compared with the v2.1 (2021 official version). I suggest we should have a quick meeting to review these and come up with next validation steps.

Model Version	Description
v2.1	Used in RaDA 2021 Model Prioritization and inspection prioritization. Destructive Fire Probability is defined as (acres > 300 & buildings >50 & fbi>= 2) or fbi > 3
v2.2_fbi4	Destructive Fire Probability is defined as (acres > 300 & buildings >50 & fbi>= 2) or fbi > 4
v3	Development model. Enhance the Destructive Fire probability using Random Forest Model.
v3_simple	Use the technolsylva natural units p90 values to create the MAVF score.
v3_Complex	Development model using the logic to include non- worst weather day probability values from EORM team. Enhance the Destructive Fire probability using Random Forest Model.

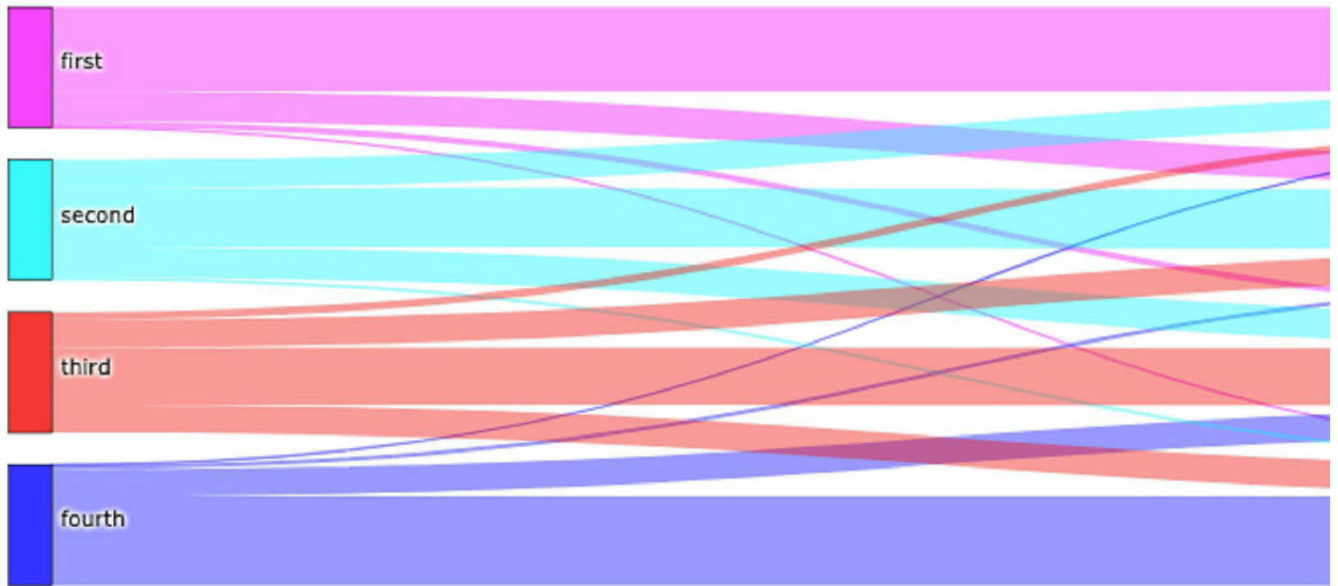
CPZ mean mavf core quartile comparison between _v2.1 and _v2.2_fbi4



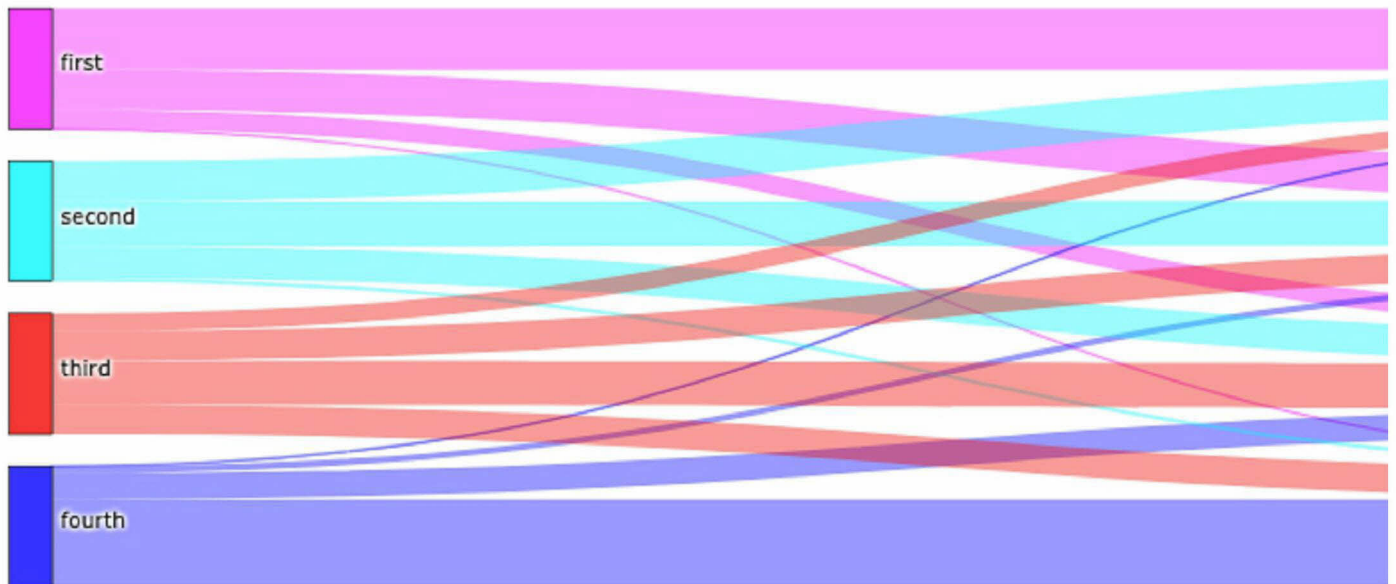
CPZ mean mavf core quartile comparison between _v2.1 and _v3



CPZ mean mavf core quartile comparison between _v2.1 and _v3_simple



CPZ mean mavf core quartile comparison between _v2.1 and _v3_complex



From: [REDACTED]

Date: Wednesday, April 7, 2021 at 5:49 PM

To: [REDACTED]

Subject: RE: Wildfire Consequence Models Summary

Thanks [REDACTED] – I will take a good look at this.

I wonder if we can create a Sankey chart to look at the “movers and shakers”?

Director, Electric Operations Risk Management and Analytics
Pacific Gas & Electric Company

From: [REDACTED]

Sent: Wednesday, April 7, 2021 5:36 PM

To: [REDACTED]

Subject: Re: Wildfire Consequence Models Summary

Please find the attached Circuit Segments ranked based on the mean consequence score. I highlighted the rank columns using the mean score. I also added p90 values and corresponding rank as well. Next steps would be getting SME inputs from PSS team to review if the modeling captures the high risk segments.

Model Version	Description
v2.1	Used in RaDA 2021 Model Prioritization and inspection prioritization. Destructive Fire Probability is defined as (acres > 300 & buildings >50 & fbi>= 2) or fbi > 3
v2.2_fbi4	Destructive Fire Probability is defined as (acres > 300 & buildings >50 & fbi>= 2) or fbi > 4
v3	Development model. Enhance the Destructive Fire probability using Random Forest Model.
v3_simple	Use the technosylva natural units p90 values to create the MAVF score.
v3_Complex	Development model using the logic to include non- worst weather day probability values from EORM team. Enhance the Destructive Fire probability using Random Forest Model.

	A	B	C	D	E	F
		CPZ_name	mavf_core_pixel_count_v2.1	mavf_core_mean_v2.1	mavf_core_p90_v2.1	mavf_p90_rank_v2.1
1	1838	CLEAR LAKE 1101444	1	8773.203125	8773.203125	28
2	2388	CUYAMA 1103622728	3	8250.847656	8250.847656	53
3	3750	GLENN 11012012	39	8218.875	8686.367383	37
4	1844	CLEAR LAKE 1101881362	11	7820.821023	9320.228516	17
5	10823	WILLITS 1102CUS8736	1	7752.387695	7752.387695	80
6	10862	WILLOW PASS 210721135	1	7656.281738	7656.281738	85
7	10276	VACA DIXON 110118292	30	7641.493229	9891.387695	5
8	10293	VACA DIXON 11059792	111	7556.689752	9915.138672	4
9	5306	LOGAN CREEK 21022226	19	7554.702303	8277.850586	52
10	6336	MORGAN HILL 2105693746	6	7337.900391	7987.540039	68
11	2437	DAIRYVILLE 1101CB	11	7242.086648	7164.245117	106
12	7942	PUTAH CREEK 1103654021	15	7236.201042	9487.265625	15
13	7462	PEABODY 2113945670	5	7048.614063	7539.923828	94
14	8007	RAWSON 11033314	11	7012.855824	7140.436523	107

From: [REDACTED]

Date: Friday, April 2, 2021 at 5:04 PM

To: [REDACTED]

Subject: Wildfire Consequence Models Summary

[REDACTED]

Here is the summary of the different models we discussed this afternoon. I will send out the Excel comparing the Circuit segment level ranking using both mean and p90 consequence score by early next week.

Model Version	Description
v2.1 -	Used in RaDA 2021 Model Prioritization and inspection prioritization. Destructive Fire Probability is defined as (acres > 300 & buildings >50 & fbi>= 2) or fbi > 3
v3.0	Development model. Enhance the Destructive Fire probability using Random Forest Model.
simple	Use the technosylva natural units (acres, buildings and people) p90 values to create the MAVF score.
v2.4	Destructive Fire Probability is defined as (acres > 300 & buildings >50 & fbi>= 2) or fbi > 4

Thanks
[REDACTED]