

**APRIL 13, 2021
CITY OF ORINDA
SUPPLEMENTAL SALES TAX OVERSIGHT
COMMISSION REGULAR MINUTES**

6:30 P.M. – REGULAR MEETING – BY TELECONFERENCE: Meeting URL: <https://tinyurl.com/4syeya2f> Meeting ID: 924 8025 2784 Passcode: 628362 Phone: +1(669) 900-9128

A. CALL TO ORDER:

Chair Jud Hammon called the Supplemental Sales Tax Oversight Commission (SSTOC) Regular Meeting to order at approximately 6:30 p.m.

B. ROLL CALL:

COMMISSIONERS PRESENT: Brad Barber, Chris Decareau, Jud Hammon, Rachelle Latimer, Yasaman Lee, Melanie Light, Latika Malkani, Paula Reinman, Alex Weinstein

COMMISSIONERS ABSENT: None

C. ADOPTION OF AGENDA:

MOTION by Commissioner Decareau and seconded by Commissioner Malkani to **adopt the agenda**. Said motion carried by unanimous (9-0) roll call vote.

D. PRESENTATION:

D.1. Presentation by Professor John Radke on how modeling can help the City of Orinda improve its wildfire protection

Professor John Radke gave a background of his work and spoke of the need for a strategic wildfire planning process for Orinda. He gave a PowerPoint presentation covering topics of weather and winds, extreme topography, wildland-urban intermix, climate change, modeling, fuels, his study of the 1991 fire area and development of a fire model, the jump in surface air vapor pressure deficit, research that shows most fires are human-started, various fires throughout California, significant improvements in technology, and wildfire behavior and suppression options.

Dr. Radke then spoke of the need to go one step further past adaptive resilience to transformative resilience, organize around fire sheds and reduce the overlap between extreme fire impacts and the human built environment. He then characterized Orinda canyons or dips in the landscape that have extreme unpredictable fire behavior, and displayed views from above and talked about the use of imaging and laser technology to determine heights and locations of trees, homes, and fire shed areas.

He proposed using such technology to measure fuels and assess the potential fire intensity of each Orinda neighborhood. If mitigation occurs, they can quantify the reduction and burn intensity and determine when the neighborhood is safe for first responders to engage. He then spoke and displayed virtual burning done on unmitigated and mitigated environments and described differences.

Objectives include: 1) Build a process-based procedural system to identify greatest threats and rank them; 2) Propose a strategic initiative to mitigate the threats which will quantify a plan to optimize resources of Measure R funds and obtain the best wildfire safe Orinda for the money spent; 3) Make a defensible neighborhood by reducing fuels and the fire's ability to spread quickly; 4) Reduce the neighborhood risk by scientifically driven vegetation mitigation strategies targeting hot spots and choke points; 5) Develop science-based modeling that looks at topography, fuels, and weather; 6) Allow iterative mitigation strategies to be modeled and evaluated; 7) Identify egress strategies under numerous weather conditions; and 8) Undertake location and allocation strategies.

He recommended tasks as: Convening a technical advisory committee, getting people involved to help determine the tasks, developing an Orinda-wide inventory, doing a wildfire assessment, holding a citizen workshop in the beginning and at the end, and putting together a planning strategy about how to go about mitigating.

Chair Hammon thanked Dr. Radke for his presentation, recognized Councilmember Worth in attendance, and asked what would be the process to forward this presentation to the City Council.

Councilmember Worth thanked Dr. Radke for his work and presentation, recommended the subcommittee work with City staff and flush out a proposal of what is needed, to identify problem areas, and to identify how to motivate residents to mitigate their properties.

Chair Hammon asked for any questions from Commissioners about Dr. Radke's specific points from his presentation.

Commissioner Light asked if Dr. Radke has an estimate of the cost and said he referred to Catalonia as an area where they have executed a plan like the one proposed. She asked if there was any literature or papers about that to see how they translated the theory, data and "boots on the ground" application of the work.

Dr. Radke spoke of a former student who is the head of the European Union's (EU) Wildfire Research group. Another colleague is the head of fighting fires in the Catalonia area. Over 50% of their fires are started by arson, which is amazing. He has written a few papers on strategic firefighting, but none on mitigation.

He explained that they went around and did post-mortems on fires climbing through burned areas. On the way, they passed a landscape that looked like a park, but this burned at one time and they decided they would keep the vertical ladder cleaned out and keep it looking like a park, and it has never burned again. This landscape became a fuel break even though it was populated with many trees. Therefore, the key is keeping the fires cool which does a lot to protect firefighters so they can do their jobs.

Commissioner Reinman asked about the approximate cost and a general timeline.

Dr. Radke then reviewed the following costs: 1) graduate student during the summer at 100% time for three months is \$14,204; 2) In the fall, an in-state graduate student working at 50% time is called a graduate research assistant and their salary would be \$21,152 for a semester which is between 16-18 weeks. In the spring, it is the same amount of \$21,152; 4) One of the graduate students does not qualify for in-state tuition so his cost is \$28,197 during the fall and spring semester. In the summertime, he is also \$14,204 for 100% time; 5) The consultant he was going to hire to do the programming and manage the server would cost \$70,000 for the first year which would also include the maintenance, management and building of the system, and then \$30,000 the second year, and it would go down to \$15,000 or less if there was a third year. The digital library could transition over to the Orinda Public Library at some point and run on an Orinda computer once the project was done.

His time is pro bono and Jerry Kent's time is pro bono but they might want to pay Mr. Kent a stipend of some sort. Jack, the undergraduate would probably be given something but it would be minimal because he is not at UC Berkeley. If the thought was to buy out his course, he asked the university how much it would cost and no one has been able to tell him. He roughly estimates \$22,500 because he thinks this is what it would cost to buy out the course, but he was unsure. It would buy his time off of the course and the money would go towards paying a post-doctorate, a former student of his who is returning to Berkeley to do a post-doctorate in engineering. She would probably teach the course and relieve him of that obligation. This would only be in the fall and the rest of his time would be pro bono.

Additionally, there is on-campus and off-campus university overhead costs which varies for people and organizations. A large part of this project will be done in the City of Orinda and his graduate students can meet with people in Orinda and so there would be little reason for them to be on campus. The server would be on the campus and he heard what the high overhead is.

Commissioner Latimer said she is a fundraiser for the university system and noted there is a federally-negotiated rate. Unless the agency that is sponsoring the research has a limited amount that they will pay, the federally negotiated rate is 55% or 56% overhead. This was one of the questions they had for the City and they can talk about this off-line, but the time would likely be no more than 2 years.

Commissioner Malkani said in terms of moving forward, her understanding from Ms. Cronin was that they could undertake a Matters Initiated to recommend moving forward.

Chair Hammon said they do not have an official proposal today and it was also not on the agenda, but this does not mean the Commission cannot start talking about details and have the subcommittee return with suggestions at the next meeting.

Commissioner Decareau said their committee comes out of a former committee that was focused on roads. The modeling software used was called Street Saver. One of the key things it provides to the City is an index with street segments and an overall index of the health of those roads in the City. He asked if Dr. Radke's software is able to provide some sort of index a homeowner could look at and determine they are at a good or bad number.

Dr. Radke said yes; it is a good chart and it is what incident commanders use to keep their firefighters safe. The key is to make sure they understand how hot different areas of Orinda will burn as hot spots and choke points, which he described. This would be a good index anywhere from the spread of fire from wind conditions to the intensity, and this could live on as infrastructure given vegetation grows.

Commissioner Decareau asked if the software and the crowdsourcing could work in harmony to provide those residents who participate in the program with a report that they could use with their insurance company to relay their index.

Dr. Radke said as the fire shed gets safer, insurance companies will wake up. Right now, all of Orinda is declared a hot spot and there have been movements to declare them as even higher risk. He then spoke about an example involving the inability to do mitigation of the California Whip Snake where vegetation grew to protect this species. He wrote to the Governor after which three spots were narrowed down of the entire area and identified as Whipsnake habitat and they redefined the entire East Bay Hill area. This is what they have to do for Orinda—be more proactive.

Commissioner Decareau referred to comparative analyses and said several communities have begun earlier and have done better fuel mitigation, such as Montecito. He asked if it would be of interest to do a comparison for a community like Orinda and Montecito given they are a few steps ahead of Orinda in mitigation.

Dr. Radke said he just published a paper on Montecito called, "Flood Following Fire". They did a good job on the Thomas Fire. The incident response team was proactive and very few homes were lost, with no lives lost. The bad news was that within two weeks they had an upper atmosphere river event. People moved back into their homes and the wrong call was given; fire burns different than flood and debris flows. Under political pressure, politicians made the decision to have people move back into their homes and 23 people died as a result of the flooding. So, they did not let science decide the evacuation order, and instead, let history.

Commissioner Decareau said one of the strong recommendations was for a "boots on the ground" approach into the community and encouraging people to reduce fuels. He wondered if there were lessons learned from Montecito of over-doing fuel reduction that then led to geological issues which Orinda would also have.

Professor Radke said Orinda would not be as severe as Montecito because it is a different landscape and Orinda would not have the same impact. They will have landslides but will not have what was seen in Montecito.

Chair Hammon opened the public comment period.

Charles Porges asked where they stand today with the hardware, software, program and data and asked if Dr. Radke was in a position today to identify areas that have excess vegetation and are likely to be particularly fire prone. His second question relates to the story about Catalonia and an area maintained as a park. He asked who was maintaining it and asked if it was government-funded.

Dr. Radke said when training new firefighters you want to have prescribed burns to teach them techniques. This area was government land but it was not funded to do vegetation mitigation. The head of the group thought not only is it a good place to train young firefighters but also to see if there was any effect from changing the landscape. This was done and proven to be valuable in seeing how the approaching fire did not affect it.

As far as data, he has a lot of data on Orinda because it is close to Berkeley and he teaches the fall GIS program. He has used software for decades that generates hexagons and then students build their geographic information of the landscape, which then fits together like a puzzle. He has the data, has done some burns, and has given advice on Sleepy Hollow School egress, but the reason he thinks crowdsourcing is so important is there is a lot of error in the interpretation of vegetation using remote sensing. The more validation from citizens, the better the machine learning tools will get it right. He could give the City a simplified model of where they should go first and mitigate.

E. PUBLIC FORUM: