Ben Carter:

Thank you. Welcome to Sacramento, here in the great Central Valley, the heart of California. My name is Ben Carter, and I hail from the small farming community of Colusa, up about 70 miles north of here on the Sacramento River. I’m a farmer so you might imagine why vegetation is near and dear to my heart. It’s actually what I do. And, that reminds me of a story of a farmer by the name of “Earl.”

Now, Earl had purchased an old, run-down, abandoned piece of property from the State, because the State didn’t have any use for it any longer. And, of course, it needed the money because it was broke. The fields were overgrown with weeds, the farmhouse was completely falling apart. The fences were broken down. And, varmints had burrowed everywhere, including the adjacent levee.

But, Earl had plans to turn the property into a working farm. During his first day of work, a preacher strolled by and stopped to bless Earl’s work, saying, “May you and God make this farm the thriving farm of your dreams.” A few months later, the preacher wandered by again. And, lo and behold, Earl’s property was a completely different place.

The farmhouse was completely rebuilt, in excellent condition. And, there were cattle and other livestock happily munching on grass and pasture. There were row crops that had been planted in neat, clean rows, and the rodent burrows were gone.

“Amazing,” exclaimed the preacher. “Look what great work you and God had done for this property.”

But, Earl said, “Yes, Reverend, thank you very much. But Father, remember what the farm was like when God was working it on it his own.”

Over the next three days, at this symposium, we will hear the results of the culmination of five years of applied research on levee vegetation. Look around you -- you are in good company. Here, under this roof, is the largest gathering of international, national, and regional experts on the -- the levee vegetation since we began this work five years ago.
Represented at the symposium, at last count, are four European countries and 13 U.S. states. It is a great honor for -- for me to stand before you today because I am humbled by the heavy-hitting roster of presenters and panelists that will come before you over the next three days. All of them are Doctors of Philosophy or have numerous initials behind their names.

And, oh -- you probably noticed: there’s a “PE” after my name. Well, in the interest of full disclosure, I want to tell you that is a typo. I am not a professional engineer or a registered professional engineer, but what do you think about “Pastoral Entrepreneur?” It has a nice ring. Certainly, sexier than “farmer,” and better than “hayseed,” which all apply to me. But, seriously, today there is a wealth of information and science, new understandings that did not exist when we started this five years ago. And, we’re going to hear about all of them.

But, let’s step back in time. It’s early, 2007, and the U.S. Army Corps of Engineers had just published a draft white paper entitled, “Treatment of Vegetation within Local Flood Damage Reduction Systems.” This draft paper called for the removal of virtually all woody vegetation from the state and federal levees in California, and a 15’ vegetation-free zone on the levees toes.

At this time, in my former life, I was serving as the president of the -- of the State Reclamation Board, which has since been renamed, “The Central Valley Flood Protection Board.” That Board, for the past 100 years, has served as the Corps’ partners in operating and maintaining the flood control system in the Central Valley. We looked at this -- this draft policy, and with the assistance of DWR and our local maintaining partners, began to realize the enormous implications of the white paper.

For those of you who did not have a chance to tour yesterday, I have a couple pictures here that I want to share. This one is up in the Sacramento Valley, actually north of Grimes. As you can see, this is -- this is the Sacramento River and it is surrounded by large, woody vegetation. Clearly, much of this vegetation has -- has been in existence for a long, long time.

The -- it is difficult to even see the levee from this perspective through the vegetation. One other photo, if I can get this to pull up. Oops. I’m a Mac guy, so this is a -- a foreign language to me. Here’s another photo, again, of the Sacramento River, but in this photo, you can see there is -- on your right, there is a -- a -- essentially, a vegetation-free levee. And, on the left, is a -- is a levee with vegetation inside the waterside.

Now this is just a -- a difference in levee maintenance activities. And, it so happens, in this particular area, there’s two different levee-maintaining agencies. These, by the way -- the levee on -- on your left has been maintained according to the State’s interim vegetation standards today. In the background, you can see Tisdale. We’re headed off to the east. So, as you can see, tremendous challenges, lots of large, woody -- woody vegetation. And, this is why this -- this symposium is so important to California.
In 2007, with this issuance of the draft white paper, our local maintaining partners were in a Catch 22 situation, where, if they fired up the chainsaws and started cutting down the trees, they would be thrown in jail by the resources agencies. And, if they didn’t, the U.S. Army Corps of Engineers would -- would remove their -- their levees from qualification of federal rehabilitation assistance.

Many of us were asking, “Much of this vegetation has been in the system for 60 to 70 years. The system has been performing relatively well. Does it really represent a risk to public safety? By the summer of 2007, the Corps had launched a worldwide literature search and also, almost five years ago to the day, the 2007 Vegetation Symposium brought together over 500 scientists, engineers, and policymakers. And, those two combined efforts did not find sufficient science to support either the guilt or innocence of the vegetation on the levees.

At the same time, the State Reclamation Board founded the California Levees Roundtable, which was a collaborative effort to define a path forward through this Catch 22 situation. Over the course of the next year and a half, the Roundtable representing nine federal state and local agencies -- and again, I’ll try my technically-challenged skills here.

But this -- this is the cover page of -- of the presentation when the Roundtable rolled out the framework when it was completed. But it shows more important -- most importantly, the logos of the - - the nine federal, state, and local agencies. And, this Roundtable developed a -- an agreement that was entitled, “California Central Valley Flood System Improvement Framework,” or, as we fondly called it, “the Framework.”

The Framework was a short-term bridge between the 2007 Catch 22 and the long-term plan under development, which is called, “The 2012 Central Valley Flood Protection Plan.” A key element of the framework was to support research to better understand the effects of vegetation on California Central Valley levees.

And, I quote from the Framework: “The goal is to contribute peer-reviewed scientific research to support the development of a technically defensible vegetation management policy. The research will include both beneficial and harmful effects and impacts of levee vegetation, focusing specifically on Central Valley conditions.”

Even before the Framework was complete, research work had begun and the California Levee Vegetation Research Program was launched. And, it’s unclear, but I -- I believe that the California Vegetation Research Program kind of defines some of the research priorities for the Framework and -- and, those folks think that the Framework defines -- I think they were -- they were developed concurrently. But, in any case, they were consistent and the -- the Vegetation Research Program used
what was in the -- the adopted Framework document as a guide to -- in terms of framing it’s research work to understand the effects of woody vegetation on levees.

As most of you know, California has spent nearly $2 billion in flood risk reductions in the last six years. And the California Central Valley Flood Protection Board has just adopted the 2012 Flood Protection Plan. This is a broad plan outlining approach to addressing numerous challenges of improving public safety in the Central Valley through flood risk reduction, while preserving and enhancing the ecosystem.

Many of the implementation details are now to be worked out on a region-by-region basis and a system-wide basis. And, I know that the stakeholders will benefit from sound science to inform the priorities and help guide the very critical decisions ahead. So, here we were today to learn about what has been discovered in the last five years about the effects of -- of vegetation on levee performance.

And, to ask ourselves several important questions. I start: How can today’s scientific knowledge be practically applied in the real world? What questions remain unanswered, and what are the next steps? Where do we go from here. No doubt, you will have many thoughts throughout the symposium. And, there are comment cards on tables in -- in the back. I encourage you to capture your thoughts, your significant insights, you questions, throughout the day and throughout the next -- the next two days.

You will have numerous question and answer opportunities with -- with each of the presenters that -- that come before you, and also with the panels. But those that remain unanswered or issues that you have, the Organizing Committee will collect those comment cards and they will -- they will then review them and pass them onto my colleagues, John McMahan and Scott Shapiro, who will be moderating on Wednesday and Thursday. And, those gentlemen will endeavor to incorporate your thoughts, concerns, questions, unaddressed issues in the discussions in those -- those succeeding days.

So, this morning, we’re going to frame the issue from the both the research -- resource agency perspective and a levee-maintaining agency perspective. In the second half of the morning, we’re going to drill down into the dirt and we’re going to look at the root of the issue. And, fortunately, we have saved the decomposition, decaying, and rotting discussions until after you’ve had lunch. After that, we’ll open up the -- the discussion to the topic of risk, and we will have a -- a wonderful panel discussion, including experts, and finally wrap up the -- the day with an evening reception. And, I hope you all can attend.

Before we started, a couple of housekeeping announcements: For those of you that didn’t find them before you came in, the bathrooms are out the rear doors and to the right or left, and I’ve forgotten which one’s male and female, but you’ll -- you’ll figure it out. If you have cell phones, please put them on silent mode and take your calls outside the auditorium.
If you’d like to flush your cell phones, you know where the bathrooms are. I often like -- would like to do that. Also, for the convenience of all these proceedings -- also for the convenience of all, these proceedings are being recorded, and all clips -- the audio clips and photos will be available on the Website. So, please, everyone, speak up and smile.