SAN MATEO RESOURCE CONSERVATION DISTRICT

Regular Meeting of the Board of Directors
Thursday February 20, 2025
4:00 – 6:00 pm
The hybrid meeting will be accessible via Zoom at: https://us02web.zoom.us/j/89675733636

If you are using a computer or other device to join the meeting, you may click here. A computer video camera is not required to participate. If you do not have access to a computer or internet during this meeting, or if your computer does not have audio, you can call in by phone: (669) 900-6833 and enter the meeting ID: 896 7573 3636 when prompted.

1. **Call to Order**
2. **Approval of Agenda**
3. **Introduction of Guests and Staff**
4. **Public Comment-** The Board will hear comments on items that are not on the agenda. The Board cannot act on an item unless it is an emergency as defined under Government Code §54954.2.
5. **Consent Agenda**

   The Board of Directors approves:

   5.1. January 2025 Draft Regular Meeting Minutes
   5.2. Resolution 2025-2: Authorizing Execution of State Coastal Conservancy Grant Agreement for Fuel Reduction Along Critical Evacuation Routes in San Mateo County
   5.3. Resolution 2025-3: Authorizing Execution of State Coastal Conservancy Grant Agreement for the Pedro Point Headlands Wildfire Resiliency Program

   The Board of Directors receives into record:

   5.4. January 30, 2025 Coastside Buzz article, "*Coastside Local Food Hub is Ready for Action! Empowering Local Farmers to Build a Resilient and Equitable Food System*."
   5.5. January 2025 CalPoly San Luis Obispo study commissioned by Monterey County Farm Bureau, "*Two Decades of Change: Evolving Costs of Regulatory Compliance in the Produce Industry.*"
   5.6. February 14, 2025 U.S. Department of Agriculture memo, "*Secretary Rollins Takes Bold Action to Stop Wasteful Spending and Optimize USDA to Better Serve American Agriculture*."
   5.7. February 14, 2025 Agri-Pulse article, "*Mass Firings strike USDA across agencies, including field staff*."
6. **Regular Agenda**
   6.1. Presentation about new threats posed by invasive Shot Hole Borer beetle and Sudden Oak Death by Kirk Lenington from Midpeninsula Regional Open Space District
   6.2. 2024 Year in Review presentation by Kellyx Nelson, Executive Director
   6.3. USDA NRCS (Natural Resources Conservation Service) report
   6.4. Executive Director's report focused on recent federal executive orders
   6.5. Directors' connection and reports
7. **Adjourn Meeting**

   The next Regular Meeting of the Board of Directors will be March 20, 2025

Public records that relate to any item on the open session agenda for a regular board meeting are available for public inspection. Those records that are distributed less than 72 hours prior to the meeting are available for public inspection at the same time they are distributed to all members, or a majority of the members of the Board.

SAN MATEO RESOURCE CONSERVATION DISTRICT

Minutes of the Regular Meeting of the Board of Directors
Thursday, February 20, 2025
4:00 – 6:00 pm
Location: 80 Stone Pine Road, Suite 100, Half Moon Bay, CA 94019 and via Zoom

Directors: Barbara Kossy, Adrienne Etherton, Michelle Weil, Steve Stielstra (Absent: Troy Guy)
Associate Directors: Denise Phillips, Zahra Kassam (virtual) (Absent: Helen Wolter, John Wade)
RCD staff: Kellyx Nelson, Timothy Federal, Eliza Milio, Clarissa Maciel, Barb Kipreos, Kati McHugh, Carolyn Kriso (virtual)
NRCS staff: Jim Howard
Guests (all virtual): Kirk Lenington (Midpeninsula Regional Open Space District), Cassandra Matter (SMC Supervisor Ray Mueller's Office), Liz Chapman (La Honda Fire Brigade)

1. Call to Order

Kossy called the meeting at 4:03 p.m.

2. Approval of Agenda

Item 6.2 (2024 Year in Review presentation) was tabled to March.

ACTION: Weil motioned to approve agenda as amended, Stielstra seconded. Motion passed unanimously.

3. Introductions of Guests and Staff

All in attendance introduced themselves.

4. Public Comment

There was no public comment.

5. Consent Agenda

The Board of Directors approves:

5.1. January 2025 Draft Regular Meeting Minutes
- Amended to add Phillips as present.

5.2. Resolution 2025-2: Authorizing Execution of State Coastal Conservancy Grant Agreement for Fuel Reduction Along Critical Evacuation Routes in San Mateo County

5.3. Resolution 2025-3: Authorizing Execution of State Coastal Conservancy Grant Agreement for the Pedro Point Headlands Wildfire Resiliency Program

The Board of Directors receives into record:

5.4. January 30, 2025 Coastside Buzz article, "*Coastside Local Food Hub is Ready for Action! Empowering Local Farmers to Build a Resilient and Equitable Food System.*"

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5.6. February 14, 2025 U.S. Department of Agriculture memo, "*Secretary Rollins Takes Bold Action to Stop Wasteful Spending and Optimize USDA to Better Serve American Agriculture*."

5.7. February 14, 2025 Agri-Pulse article, "*Mass Firings strike USDA across agencies, including field staff*."

ACTION: Etherton motioned to approve the consent agenda with amended Minutes, Stielstra seconded. Motion passed unanimously.

6. Regular Agenda

6.1. Presentation about new threats posed by Sudden Oak Death (SOD) and Invasive Shothole Borer (ISHB) beetles by Kirk Lenington from Midpeninsula Regional Open Space District (Midpen)

- Lenington presented the attached PowerPoint presentation.
- SOD Blitzes organized by UC Berkeley through the Galvano Lab were an important monitoring tool for outbreak spread and led to the detection of the NA2 lineage in the 2024 sampling results analysis. Research has shown:
    - NA2 to operate at a higher temperature range (70-80°) compared to the other lineages, which was shown to spread in the temperature range between 60° to 80°.
    - Efforts have shown that statewide infection rates doubled between 2023 (2.7%) and 2024 (5.7%).
- The 2025 SOD Blitz was planned to occur later than in prior years and was expected to happen the first week of June 2025.
    - Midpen had actively participated in the event for years by surveying trees within district preserves and at key sites across the Peninsula.
- While most infections were the NA1 lineage, five NA2 outbreaks had been detected in the Bay Area, with the largest incidence of SOD NA2 variant detected around Filoli Gardens, and another detection around Burlingame Hills. In the East Bay, NA2 had also been detected near Tilden Park and John Muir National Monument (Martinez). [See Slide 6 for a map of detected locations.]
- Kossy inquired if the occurrence of NA2 was due to warmer weather. Lennington was unclear on whether weather was a contributing factor responsible for these

outbreaks because the discovery was so recent, but there is concern that warmer temperatures would cause more infection from the variant due to. Scientists went back and re-analyzed samples taken from prior years' blitz efforts to retroactively determine how long the NA2 variant was occurring in the detection zones.

- Nelson asked if there was a correlation between higher rates of NA2 detections and more heavily surveyed areas. Kirk directed attention to the map of SOD Blitz Survey test results [slide 6] and indicated that there are large gaps of unsampled areas. Nelson indicated that based on the map, there were areas where NA2 may be present but had not been visually inspected for and/or sampled for testing. Kirk agreed with this interpretation and indicated that the 2025 SOD Blitz results were greatly anticipated by many interested parties to better understand the impact of the NA2 lineage.
- Actionable steps to manage the spread of SOD included:
    - Increased adherence with Midpen Phytosanitation Guidelines and its included practices:
        - decontamination of boots and equipment between sites that would reduce human spread of the pathogen into and across wildland areas
        - reduced movement of plants, green waste, and soil
    - Midpen has also experimented with the strategic removal of infected bay laurel trees, a host species, especially where they existed in proximity to iconic oak trees that were actively being protected.
    - Increased monitoring of outbreaks, including:
        - Delineated zones of infection
        - Increased outreach and participation in SOD Blitz 2025 and the sampled data which would be compared to prior years to determine the rate of spread
- Phillips inquired if other types of impacted trees, such as madrones, served as hosts like bay laurel, or if they were killed by the disease. Lennington was not certain of the answer but believed madrones sometimes succumbed to the disease; he did not believe it was common.
- He was most concerned about the impact on forest health by the bay laurel, tanoak, and Quercus oak species, with the tanoak and Quercus oaks which were most likely to be fatally impacted.
- Federal added that madrones were particularly impacted when they were already damaged or diseased by another pathogen but generally was most concerned about the three tree types mentioned by Lennington.
- Howard commented that according to his field observations, tanoaks were also noted to have been sick or died in the Santa Cruz Mountains, but he was unaware of the reason why. Lennington agreed that there were many other diseases and reasons that take out trees, including ISHB.
- Kossy was concerned about infestation at Filoli. She was aware of tree removals there and inquired about any known management strategies at the site. She had been on a bird-watching trip and the guide had pointed out some trees infected

by SOD, though she had not seen any sanitation measures taken [see slide 8]. This was concerning to Lennington as the NA2 had been detected at that location.

- Steilstra asked about research and statistics of the rate at which trees were affected or resistant to SOD. Lennington was not aware of any studies on the distribution of infection within any given forest plot. Prior collection in partnership with Forest Service included the collection of tanoak acorns, wherein scientists had grown out tanoak seedlings in controlled garden plots to determine if resistant strains might be identified. The research had happened several years prior, though Lennington had not been made aware of the research results. This led him to believe that they had not identified any resistance via the research project.
- The Invasive Shot Hole Borer (ISHB) beetles have been demonstrated to carry with them a fungal pathogen, Fusarium wilt, into trees within riparian corridors. The pathogen has caused dieback of a large variety of riparian trees [see slide 12]. ISHB was initially detected in LA County in 2003 and identified in 2012 as an agricultural pest of avocado trees in Los Angeles. Since then, ISHB continued to spread north.
- Locally, ISHB was identified in 2023 within a riparian corridor in San Jose.
- A third species of Ambrosia beetle was detected in Santa Cruz County at Henry Cowell State Park and has impacted riparian forests there. They have responded by planning a treatment and removal of box elder trees in the infected area.
- ISHB detection efforts at the Department of Food and Agriculture were limited due to the genetic analysis required to screen samples. Midpen has reached out to State and County level Agricultural Commissioners to seek assistance in monitoring the spread due to their concerns about the impact on riparian areas.
- Since the ISHB has not targeted significant agricultural crops, it had not been identified as an agricultural pest, which reduced monitoring funding availability. Nelson mentioned that the RCD had invited a representative from the San Mateo County Agricultural Commissioner's Office to attend the meeting. Though they were not in attendance, she wanted to better understand the markers that would provide potential access to funding opportunities tied to agricultural production.
- Nelson added that the RCD had reached out to the Ag Commissioners' office to attend the meeting, though they were not in attendance. Her aim was to better clarify pathways toward resource allocation, and the ties to agricultural production that would be necessary to receive those resources.
- She recognized that Matter, a representative of Supervisor Muller's office, was in attendance via Zoom, and suggested that this information might be valuable to the Supervisor and invited their office to connect with the RCD to discuss further. Lennington confirmed that Midpen had not been in contact with his office.
- Kossy inquired about the impact on avocado crops, and Lennington answered that since it was not a significant crop in Northern California, this did not open a pathway for resources. Kossy wondered if the research taken on in Southern California might be applied to local monitoring efforts.
- Federal added that San Mateo County Parks was also monitoring for the presence of ISHB.

- Nelson commented that that the known solution for ISHB and Fusarium wilt was to remove trees, many of which existed in riparian areas. She acknowledged clear-cutting riparian forests was difficult to accept as the best solution available.
- Kirk commented that the CDFA had asked (though not ordered) Midpen to place a hold on any riparian plantings because of the concern that amplifier species would inadvertently be planted and would create an increased risk for significant new infections.
- Howard added that the hold may have also exacerbated wildfire risk due to the dead and dying material within these riparian zones.
- Nelson commented that this created further adverse incentive to have implemented fuel load reduction and forest design projects in riparian areas, because there was a perception that permits were harder to acquire in those zones.
- Stielstra asked about the origin of the ISHB and whether they were detrimental to their native environment. Lennington explained that the beetles were from Southeast Asia. Federal expanded on this by saying they were well controlled in the region due to natural predators, but without those predators in North America, their populations were able to become uncontrolled, which led to the destructive impacts.

6.2. 2024 Year in Review presentation by Kellyx Nelson, Executive Director

- This item was postponed to the end of the agenda in case items 6.3 and 6.4 needed more time. After those items, it was decided to postpone this presentation to March.

6.3. USDA NRCS (Natural Resources Conservation Service) report

- Howard reported:
    - The last several weeks have been unlike any time period he has experienced in over 30 years at the federal government.
    - Information often coming from news outlets
    - Around 200,000 to 220,000 federal employees are on a probation level, which occurs following a promotion or taking a new job regardless of length of total time in service.
    - Notices of immediate termination come from the Office of Personnel via email, not cc'd to their agency's management staff, has led to waves of anxiety and chaos because management wasn't aware who had been terminated and who was left.
    - The "Fork in the Road" buyout emails were not trusted by many
    - Employees encouraged to report disguised DEI positions and funding
    - Agency management niven 30 days (as of the week of February 10-14) to come up with a Reduction in Force (RIF) plan
    - Clinton Administration RIF aimed to reduce the federal workforce by 8-10% but followed a process wherein workers were typically offered other open positions.
    - Agencies must provide their RIF lists to the Office of Personnel Management approximately when applications for available funding are

due to the Budget Appropriations, March 14, 2025, and it is unclear if the government will be funded at that time.
    - Farm Bill Programs are a large part of this funding bid by the NRCS.
    - Funding decisions are made about a week after the March 14 deadline. If the Government doesn't get funded, these programs are "dead in the water."
    - Inflation Reduction Act (IRA) funds have also been put on hold and no additional funds are anticipated for that funding pool.
    - Existing customers under contracts funded by IRA are not being paid.
    - Howard has emailed customers that NRCS is in a "holding pattern" and is awaiting further information on the obligated contracts from Congress.
    - Includes work that has already been started under cost-share agreements and some customers who have finished projects are waiting for response on if their expenses will be reimbursed.
    - Inflation Reduction Act (IRA) funds earmarked for Climate Smart Practices include Farm Bill program funding for things like carbon sequestration and reduced greenhouse gas emissions.
        - Amount of funding was significant, required NRCS to ramp up efforts to utilize it, with a peak in funding anticipated in 2025.
        - IRA made up around half of total funds.
        - California total was $190 million in 2025, about $90 million higher than the historical average.
        - Anticipating that these funds are no longer available. Any applications submitted for conservation contract will compete for reduced funds still available.
        - Customer (farmer) inquiries are primarily focused on understanding what is happening and Howard is unable to provide answers.
- Discussion among Howard, directors, and RCD staff included:
    - what happens when employees are terminated
    - whether employees would be paid for work already done (Howard believed that they would)
    - federal employees in other agencies who accepted the buyout offer, were subsequently terminated, and did not receive the buyout terms
    - how farmers are reacting to the information and how the speed at which changes are occurring make it hard to tell
    - how this impacts financial planning and budgets for farms and how this impacts the ways that farmers use their land.

- Howard reported:

    - estimated $150 to $190 million in a single year of funding for farmers to make improvements such as installation of irrigation systems, to replace diesel pumps with more efficient electric pumps, and to put down more advanced or more aggressive cover crops in fields that are up to 300 acres—all of which require the farmers to assume large risks and costs ($40,000-$50,000) without reimbursement.
    - some multi-year contracts are up to $450,000 and on a performance schedule to implement the improvements.
    - Dave Lea of Cabrillo Farms is an example of a conservation-minded farmer that works closely with the NRCS. Howard described Lea as a great multi-generational farmer that Howard regularly brought VIPs to for site tours.

Howard went on to quote Lea, who would consistently remark to the tour guests that, "The first thing that goes when times get tough are the conservation practices."
    - Howard's tenure at NRCS has been over 20 years, the agency was already understaffed for the expected workload. Human Resources department is overwhelmed and more of a bottleneck than before.

- Discussion included:
    - what is/ isn't known about an overall percentage for RIF plan; that the Administration does not revealing a plan until it is in place; widespread worry about who would survive the cuts and what the future would be;
    - reduction in leases and federal office space while they also requiring workers cease tele-working and return to the office;
    - about farmers that have not received promised funding and are unable to pay bills for the work they did; farmer stress, particularly for those who had made major capital outlays to do their contracted projects;
    - implications for relationships between agencies and customers; the perception after the 2008 State funding freeze that the RCD was unstable, despite our status as a government agency and an extensive length of service— some never again worked with the RCD
    - how the current situation affects future credibility and productive relationships with everyone required to do get conservation work done
    - the value of NRCS partnerships that make the work very cost-effective and help reduce the risk of smaller regional offices being eliminated
    - our local partnership office is unusual because the RCD pays the rent- has minimized impact on the RCD during federal government shutdowns;
    - whether California is being targeted for cutbacks (Howard didn't think so)
    - farmers facing many operational concerns right now, including potential impacts to labor force with immigration policy, potential increased costs due to tariffs, and reductions in cost-sharing programs and grants.
    - higher rates of suicide reported for farmers who are in debt and/or are unable to farm
    - Consent Agenda Item 5.5, a CalPoly SLO study commissioned to investigate the impact of regulatory compliance costs to the produce industry, itemized the impact of these costs on profit margins

6.4. Executive Director's report focused on recent federal executive orders

- Approximately $4-6 million potentially at risk due to federal funding freeze
- May affect State funding that depends on matched or leveraged federal funds
- Some state or local funding programs have federal funds as their source
- As federal funding sources are reduced or unstable, there is increased pressure on State and local funds, and increased competition for funds.
- Fewer federal employees are available to help navigate these concerns and provide clear answers during a time of greater uncertainty.
- Federal partners are experiencing uncertainty and low morale, some disappearing, e.g. NRCS engineers in San Benito, Santa Clara, and Napa Counties, who were laid off with no notice via email.

- Partner agency employees have received termination letters from Washington, D.C. without their supervisors or leadership being apprised.
- Loss of emails and institutional information for remaining staff to help navigate the next steps.
- Federal employees report uncertainty about the "Fork in the Road" buyout without adequate information but including threats of layoff if the employees do not accept the offer. In some cases, employees took the buyout offer but were laid off anyway.
- Requirements to report to duty stations without notice, without the time to plan for child or elder care responsibilities. Some commutes exceed 4 hours per day.
- Offered our office as a duty station by entering into MOUs with federal agencies as we have with NRCS and US Fish & Wildlife Service. Partner agencies were unclear on whether they could accept this arrangement and have declined it due to the potential consequences.
- Chill effects associated with DEI rollbacks- a number of organizations report having scrubbed their websites and eliminated, scaled back or altered their DEI efforts out of fear of being targeted; some have said they have to report us for our DEI work
- Federal Executive Orders difficult to track due to the sheer volume, lack of clarity or specifics, contradictions, revisions and modifications, reversals to revisions, and legal challenges- language that is uncharacteristically vitriolic when compared against her 30+ years experience working with government agencies.
    - Extensive time spent trying to understand what they mean for the RCD.
    - Attorneys offered inconsistent legal interpretations and opinions on risks .
    - Constant changes to basic facts, legal interpretations, and strategies.
    - Costs associated with tracking the changes and responding appropriately, and fewer places to bill for that time.
- Reports from NACD that districts in red states are reeling as much as blue states.
- Partner agency leadership receives conflicting information every day- widespread lack of clarity on what will happen, and a prevailing sense of fear.
- NACD was in communication with the new administration's transition team, but there were no results to report yet.
- Republican elected officials, preferably from outside California, preferably from red states, are the most more valuable advocates in highly partisan environment
- We have been advised that if contracts cannot be cancelled outright, the administration will look for reasons to say we are non-compliant and cancel the contracts based on that premise- would go on our "permanent record." Affects our culture of growth mindset and mistakes being acceptable learning experiences.
- Discussions with legal counsel to understand implications of the False Claims Act, also known as the "Lincoln Law," which "holds liable anyone who knowingly submits false claims to the government and allows the government to pursue fraud, recovering three times the damages plus an inflation-adjusted penalty." This

Act also incentivizes private citizens to act as whistleblowers and receive a portion of the recovered funds.

- Participation in weekly state-wide RCD District Manager calls uncovered inconsistencies in the cancellation of funding from the same funder sources. District Managers were not clear on the reason for these inconsistencies but hesitated to elevate these concerns so as to not risk the remaining funding and remain supportive to one another.
- "Employees Only" stickers at the base of all office doors help establish office lobby area as e public space and individual offices to be private spaces.
- Discussion included:
    - Primary federal partners or funders- the NRCS, other parts of the USDA, the National Marine Fisheries Service, NOAA Restoration and NOAA Science Centers, the U.S. Fish and Wildlife Service, Bureau of Land Management, U.S. Geological Survey, U.S. Forest Service, National Park Service; Army Corps are permitters and regulate RCD projects, but we do not partner with them.
    - GGNRA (San Vincente Creek and Rancho Corral de Tierra, as well as some projects in Pacifica) reported losing 6 or 7 of its 12-15 person Natural Resource team.
    - RCD has planned for fiscal uncertainty since 2008 by maintaining an operating reserve, diversified revenues, and negotiation of indirect costs.
    - Nelson is moving forward with the most secure partnerships and projects, ensuring staff is cared for, and maintaining the RCD's core tenets of being relevant, excellent, and visible; continue doing high quality of work based on community needs with funding that provides the right fit; optimistic that the RCD will persevere with the support of partnerships
    - Planning for upcoming construction season
    - County support
- Question about updates on effects of Los Angeles wildfires since the January Board meeting, particularly as it related to State Forest health and resources. Nelson noted three outcomes:
    - increased support for Fuel Load Reduction work,
    - increased competition for resources, and allocation of those resources to elsewhere, and
    - holds on environmental regulations put in place by Gov. Newsom to allow for rebuilding
- Discussion about how the Board members could best support
    - Howard offered that the circumstances could provide an opportunity for RCDs to become a more valuable resource to fill-in voids for natural resources management left by rescinded federal support. He commented on the San Mateo RCD as a leader in resiliency and operational capacity.
    - Nelson clarified that some RCDs in California will become unstaffed, which Howard acknowledged will make it more difficult to maintain the progress

this RCD has made in the last decade to advance the efforts of many other RCDs across the state.

- Discussion about County support and observation that Matter had left the meeting; recommendation that Nelson follow up with Supervisor Mueller's office about what was discussed

6.2. 2024 Year in Review presentation by Kellyx Nelson, Executive Director

- Postponed to the following Board meeting, scheduled for March 20, 2025.

6.3. Directors' connections and reports

- Barbara Kossy reported on President's Day demonstration in Pacifica, donating her electric car to Ayudano Latinos a Soñar (ALAS) for medical transportation for farmworkers, feeling honored and happy to have actively engaged with volunteer work that built community by being on RCD board, encouraged others to be engaged.
- Denise Phillips is helping to offer a Master Food Preserver course on salmon canning with the local UC Extension, and gave a shout out to RCD's Amy Kaeser, who would speak on local salmon creek restoration as a part of the class.
- Adrienne Etherton
    - "Keep calm and carry on" is an important mantra in climate and sustainability work; important to stay focused on that work and participation with the RCD Board.
    - City of Brisbane public pool electrification project she had worked on for around six years that was on the evening's City Council agenda; anticipated their approval to move forward to the construction contract stage.
    - Found a dead barn owl outside of her home and submitted a report for West Nile virus tracking project.
- Michelle Weil
    - Discussed impact of threat of tariffs and federal job cuts on her work involving a new medical device for children
- Zahra Kassam
    - Appreciated Nelson's leadership and calm approach to the current circumstances.
    - Discussed work moving forward with RCD staff on Hypericum removal project, and that she endeavored to stay calm in order to best continue this work.
- Steve Stielstra
    - Reported on his research regarding financial holding opportunities since Finance Committee's last update to the Board a few months prior.
    - He described the opportunities through Tri-County Bank (TCB), which he found were not good options, symptomatic of Tri-County Bank's status as a smaller banking institution compared to Wells Fargo, Bank of America, or Citi.

    - SWEEP accounts- money market account structure where total investments were “swept” into multiple accounts that held no more than the FDIC-insured limit per account, interest rates of 3.25%, maintained a working balance in a TCB checking account, and used an algorithm to select funds from the associated investment accounts and “sweep” those funds into the checking account, which would maintain the working balance.
- California CLASS is an investment vehicle approved by the State of California and utilized by over 140 special districts and 40-60 cities for their financial asset management.
    - Oversight was conducted by a Board of Trustees, consisting of public agency finance officials who were members of the Joint Powers of Authority Board of Trustees.
    - Same-day availability of funds, contributions by wire, AAA-rated investment vehicle tools, portfolio securities market, no redemption notices, no account or transaction fees, and a dedicated portal which allowed participating organizations to actively manage their money.
    - A Joint Powers Authority (JPA) which created a pooled investment account for all participating entities.
    - Earning approximately 4.24% interest
- Recommended California CLASS account as the best investment vehicle because of the investment safety, the state approval, and the active management structure.
- Discussion included active fund management, the risk of liquid asset futures which made the SWEEP account appear to be less risky, that the SWEEP account was FDIC-insured, that the CLASS accounts have AAA ratings of the investments and bigger economic opportunities.
- Stielstra's calculations are that each month that the RCD held off on moving funds resulted in approximately $8,000 in opportunity cost.
- Discussion that Finance Committee could could proceed without full Board decision and will report back.
- Weil utilized the calculator on the California CLASS website to approximate the monthly returns on investment by the RCD to be around $14,000 per month, and her opinion was that RCD funds should be utilized more proactively to achieve more with it. In the six months since the Finance Committee began their research, the lost opportunity cost was around $100,000. She mentioned the option to split the investment funds between SWEEP and California CLASS accounts to minimize risk, and how much extra work this would entail to set up. Both account types would allow the RCD to maintain a fixed working balance in a checking account.
- Phillips was curious what the guidelines were for the fund investments, and that she anticipated this was something one of the participating RCDs had already considered and looked into.
- Stielstra offered that the portfolios were highly scrutinized and did not include stocks, but did include securities and bonds as well as treasuries.

- Kossy added that bonds were comparatively secure compared to stocks, and were considered a more conservative investment option. She clarified that Stielstra has simply offered this information as a Finance Committee report, and that the Committee had the authority to conduct these decisions in partnership with the RCD's Executive Director. She asked if Stielstra was comfortable with the account structure, and he confirmed that he was. Kossy then asked if Weil was also comfortable with it, and she mentioned having some questions. Kossy encouraged the Finance Committee to continue their good work and conveyed her appreciation that they take action on this needed change to how the RCD managed its money.

7. **Adjourn Meeting**

- Meeting adjourned by Kossy at 6:13 p.m. The next Board meeting will be held on March 20, 2025.

SAN MATEO RESOURCE CONSERVATION DISTRICT

PHONE: 650.712.7765

80 STONE PINE ROAD, SUITE 100
HALF MOON BAY, CA 94019

SANMATEORCD.ORG

RESOLUTION 2025-2

A RESOLUTION AUTHORIZING EXECUTION OF STATE COASTAL CONSERVANCY GRANT AGREEMENT FOR FUEL REDUCTION ALONG CRITICAL EVACUATION ROUTES IN SAN MATEO COUNTY

WHEREAS, the San Mateo Resource Conservation District is a Special District organized under Division 9 of the California Public Resources Code with an original petition granted on July 1, 1939 and is defined in Section 3501 of the Government Code as a public agency; and

WHEREAS, the Legislature of the State of California has established the State Coastal Conservancy ("Conservancy") under Division 21 of the California Public Resources Code, and has authorized the Conservancy to award grants to public agencies to implement the provisions of Division 21; and

WHEREAS, the Conservancy solicited grant applications under its Wildfire Resilience Program; and

WHEREAS, San Mateo Resource Conservation District intends to carry out "Fuel Reduction Along Critical Evacuation Corridors in San Mateo County" ("the Project"), for which it applied to the Conservancy for grant funding; and

WHEREAS, the Conservancy authorized a grant for the Project at its board meeting on November 21st, 2024, and requires San Mateo Resource Conservation District to enter into a grant agreement setting forth terms and conditions of Conservancy funding;

NOW, THEREFORE, be it resolved that the San Mateo Resource Conservation District has authorized Kellyx Nelson, Executive Director, to act as its representative and to execute on its behalf a grant agreement and any amendments thereto setting forth the terms and conditions of grant funding and any other contracts necessary to comply with the Conservancy's grant requirements.

The foregoing resolution was approved and adopted on February 20, 2025, by the Board of Directors of the San Mateo Resource Conservation District.

BKossy
Barbara Kossy (Mar 5, 2025 16:23 PST)

Barbara Kossy, President

Date

SAN MATEO RESOURCE CONSERVATION DISTRICT

PHONE: 650.712.7765

80 STONE PINE ROAD, SUITE 100
HALF MOON BAY, CA 94019

SANMATEORCD.ORG

RESOLUTION 2025-3

A RESOLUTION AUTHORIZING EXECUTION OF STATE COASTAL CONSERVANCY GRANT AGREEMENT FOR THE PEDRO POINT HEADLANDS WILDFIRE RESILIENCE PROGRAM

WHEREAS, the San Mateo Resource Conservation District is a Special District organized under Division 9 of the California Public Resources Code with an original petition granted on July 1, 1939 and is defined in Section 3501 of the Government Code as a public agency; and

WHEREAS, the Legislature of the State of California has established the State Coastal Conservancy ("Conservancy") under Division 21 of the California Public Resources Code, and has authorized the Conservancy to award grants to public agencies to implement the provisions of Division 21; and

WHEREAS, the Conservancy solicited grant applications under its Wildfire Resilience Program; and

WHEREAS, San Mateo Resource Conservation District intends to carry out the "Pedro Point Headlands Wildfire Resilience Program" ("the Project"), for which it applied to the Conservancy for grant funding; and

WHEREAS, the Conservancy authorized a grant for the Project at its board meeting on February 13th, 2025, and requires San Mateo Resource Conservation District to enter into a grant agreement setting forth terms and conditions of Conservancy funding;

NOW, THEREFORE, be it resolved that the San Mateo Resource Conservation District has authorized Kellyx Nelson, Executive Director, to act as its representative and to execute on its behalf a grant agreement and any amendments thereto setting forth the terms and conditions of grant funding and any other contracts necessary to comply with the Conservancy's grant requirements.

The foregoing resolution was approved and adopted on February 20, 2025, by the Board of Directors of the San Mateo Resource Conservation District.

Barbara Kossy (Mar 5, 2025 16:25 PST)

Barbara Kossy, President

03/05/2025

Date

COASTSIDE BUZZ

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Coastside Local Food Hub is Ready for Action! Empowering Local Farmers to Build a Resilient and Equitable Food System

January 30, 2025

ARTICLE. From TomKat Ranch January 2025 Newsletter; written by Kathy Webster.

We're excited to announce the launch of the Coastal Local Food Hub's website! The new website is a fantastic resource for showcasing our timeline and keeping everyone informed about the progress we've made and what's currently underway.

We would like to thank Kitchen Table Advisors for doing a great job putting this together and for working with and being part of the Coastal Local Food Hub team, which includes San Mateo RCD, Brisa Ranch, and TomKat Ranch Educational Foundation.

This website is the result of so much hard work and support for w series of working group meetings involving a diverse cross-section of local farmers and ranchers; grant funding from UC SAREP (Sustainable Agriculture Research & Education Program) and USDA LFPP (Local Food Promotion Program) which compensated the producers for their time, and supported a feasibility study and a business plan.

In a region rich with agricultural lands producing a variety of fruits, vegetables, and proteins, a collaborative effort of a food hub makes so much sense. According to the 2023 San Mateo County Crop Report, San Mateo County producers grow approximately 50 types of vegetables, 30 types of fruits and nuts, and six types of domesticated animals.

In an April 2024 survey of farms in San Mateo County, 85% of respondents believed that a food hub would benefit their business. Farmers expressed particular interest in sales and delivery support, with many valuing the opportunity to secure forward contracts. A food hub can help farmers plan their crops to align with buyer demands and provide solutions for marketing surplus products. Additionally, by pooling resources and working collaboratively, a local food hub can offer small and mid-sized farmers and ranchers the ability to access larger markets that would otherwise be out of reach.

To see what Coastside Local has been up to, please visit coastside-foodhub.com.

Empowering Local Farmers to Build a Resilient and Equitable Food System

At Coastside Local Food Hub, our vision is to build a resilient, producer-led food system that champions equity for all local farmers in San Mateo County. Empowering local farmers through a centralized platform for sustainable growth, creates a resilient and thriving local food economy.

Our purpose is to establish a collaborative ecosystem where local farmers and rancherscan pool their products, streamline their distribution processes, and explore new markets.

The Coastside Local Food Hub is dedicated to revitalizing the local agricultural economy in San Mateo County. Our mission is to create a centralized platform that simplifies marketing, distribution, and processing of locally grown and raised products.

By tackling challenges such as limited market access, logistical hurdles, and the need for shared processing infrastructure, we aim to boost the economic sustainability of small and mid-sized producers in our region.

Our project supports sustainable farming practices, fostering a res en food system that benefits both producers and consumers.

Get Involved

Farmers & Producers: **Interested in partnering with Coastside Local?**

- Please complete this quick intake form to get started. While submitting the form does not guarantee sales, it is the first step toward becoming a participant in our hub. We encourage all interested growers and producers to apply and join our community.

Two Decades of Change: Evolving Costs of Regulatory Compliance in the Produce Industry

Lynn Hamilton[1]

and

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January 2025

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We appreciate the initiative and support for this project from the Monterey County Farm Bureau and its members, as well as the cooperating ranch owners and staff who have volunteered their time and shared information over the years to make possible this unique, long-term view of regulatory change in California.

EXECUTIVE SUMMARY:

Rising costs of regulation are an increasing concern for California growers. An initial study of regulatory costs in California agriculture was conducted in 2006, as means to compare California's regulatory environment to other competing states. Industry groups in the Salinas Valley contacted Cal Poly to update the original study in 2018 as new state and federal laws imposed significantly higher regulatory burdens on growers, specifically with respect to food safety, water quality, labor wages, air quality and worker health and safety. We used 2017 data as it was the most recently completed full production year.

As the 2020s progressed, additional regulations, including the Sustainable Groundwater Management Act, the Irrigated Lands Program, equipment emissions regulations and minimum wage and overtime laws for farmworkers were being phased in. Industry groups once again requested an updated study to quantify the evolving regulatory landscape for farms and ranches. This report updates the 2017 case study that documented the regulatory costs on a commercial-scale head lettuce grower in the Salinas Valley. The same grower that we interviewed for the previous two projects was willing to cooperate on the 2024 study, providing a snapshot across three different decades on one large Salinas Valley lettuce operation.

In the 2006 study, the cooperating lettuce grower reported regulatory costs totaling $109.15 per acre or 1.26% of total production costs. Lettuce production costs were $8,793 per acre. Workers' compensation comprised over half of regulatory costs in the initial report; other compliance areas included water quality, food safety, worker education and training.

However, by 2017, the regulatory landscape had drastically changed, precipitated by a 2006 E. coli outbreak in spinach in the Salinas Valley (that occurred after the 2006 data was collected) that altered the landscape for food safety compliance. New environmental and worker wage and safety laws were also imposed in the ensuing years. The 2017 data showed that regulatory costs were $977.30 per acre, or 8.90% of total production costs. The grower's total production costs were $10,977 per acre in 2017.

The results of the first comparison case study showed that production costs increased by 24.8% from 2006 to 2017, but the costs of regulatory compliance rose by 795%.

Increased compliance requirements in 2024 bring the grower's total costs of regulation to $1,600.12 per acre, which is a 63.7% increase from 2017 and a 1366% increase since 2006. Total costs for lettuce production increased to $12,702.47 in 2024. Over the entire period, this is a 44.4% increase in production costs. Regulatory costs comprised just 1.24% of production costs in 2006, then rose to 8.9% of production costs in 2017, and are now calculated at 12.6% of production costs. These cost increases have occurred while farm-gate prices have remained relatively stable. From 2007 to 2017 the average farmgate value per acre of head lettuce increased from $8,637 to $12,415 or 43.7%, which primarily covered increased production costs. However, the most recent estimates of farmgate value for 2023 are $12,461 marking only a 0.37% increase. The following pages summarize the regional, state and federal laws that lead to these costs.

Summary of Major Regulatory Changes Affecting California Agriculture, 2006-2024

Food Safety

- 2007: The Leafy Greens Marketing Agreement: passed by California leafy greens grower and handlers; requires growers to create and follow a food safety plan and trace-back program, environmental assessments for food safety risks, extensive water and soil amendment testing and certification, and field audits to verify compliance with worker practices and field sanitation.

- 2011: Food Safety Modernization Act: incorporated Hazard Analysis and Critical Control to the food system, increased inspections and food safety practices on the farm and in the handling/processing sectors. Adopts many of the same practices in the fresh produce sector (known as the Produce Safety Rule) as the LGMA; the LGMA updated its metrics in 2018 to align with FSMA.

- 2019, 2020 and 2021*:* Updates to the 2007 Leafy Greens Marketing Agreement. The LGMA was aligned with the most recent Federal food safety ruling, the Food Safety Modernization Act (FSMA), and had updated its standards in 2018 to be fully aligned with the Produce Rule, after two E. Coli outbreaks in 2018 and 2019 in Central Coast Romaine lettuce were traced to contaminated water. In response, the LGMA adopted more robust monitoring standards for agricultural water quality in 2019 and refined its standards for harvest equipment sanitation and water quality assessment in 2020. In 2021, the LGMA added new requirements, including increased risk assessment from adjacent farmland, revised soil amendment and crop input requirements, and added root cause analysis to the already extensive list of food safety obligations for leafy greens production.

Air Quality:

- 2006: AB 32, California Global Warming Solutions Act. Instituted a cap-and-trade system for greenhouse gas emission reductions with the goal of reducing California's GHG emissions to 1990 levels by 2020.

- 2020: SB 1. Truck and Bus Regulation. This rule requires all heavy-duty diesel vehicles that operate in California to reduce toxic exhaust emissions. By January 2023, nearly all diesel trucks and buses operating in the state are required to have 2010 or newer model year engines to reduce particulate matter (PM) and nitrogen oxides (NOx) emissions. Starting in 2020, only compliant vehicles could be registered with the California Department of Motor Vehicles.

- Revised 2020: Ag Engine Registration Permits & Fees. The Monterey Bay Air Resources Board Rule 220 requires, since 2007, any stationary diesel agricultural engine of 50 horsepower (hp) or greater to be permitted and registered annually. As established by Rule 310, the current fees (as of July 1, 2024) are $243 for the first engine and $173 for each additional engine.

Water Quality:

- 2012 and 2017: Updates to the Region 3 (Central Coast) Irrigated Lands Regulatory Program. Groundwater well monitoring was added in 2012, and as of 2017, all Tier 2 and Tier 3 (medium and large) farms must report total nitrogen applied to their crops.

- 2014: Sustainable Groundwater Management Act: requires critical and high-priority groundwater basins to develop a local Groundwater Sustainability Agency by January 2018, which are then tasked with developing Groundwater Sustainability Plans to prevent further groundwater overdraft and pollution.

- 2020: Sustainable Groundwater Management Act of 2014: Critical and high-priority groundwater basins were required create a local Groundwater Sustainability Agencies by January 2018 and then develop and implement a Groundwater Sustainability Plan (GSP) by 2020 to prevent further groundwater overdraft and pollution. The GSPs can impose fees, restrict groundwater use and require monitoring, among other regulatory actions. Basins that do not meet their sustainability goals can fall under control of the State Water Board. The governing body in the Salinas area is the Salinas Valley Basin Groundwater Sustainability Agency.

- 2021: Agricultural Order 4.0: Starting in 2022, the Central Coast Region 3 Irrigated Lands program added significant monitoring and reporting requirements for groundwater as well as regulating nitrogen application via targets or limits and mandated growers to submit on-farm nitrogen management plans. Farms are phased in based on location and size and farm. Ag Order 4.0 also includes surface water protection but will not be phased in until 2032.

Labor Health and Safety

- 2010: Affordable Care Act: Requires employers with at least 50 employees to provide health insurance.

- 2014: AB 1522, Healthy Workplace, Healthy Family Act: As of July 1, 2015, employers must provide paid sick leave to any full or part-time worker; employees earn at least one hour of paid leave for every 30 hours worked.

- 2015: Cal OSHA updated its Heat Stress Prevention regulations, requiring shade and water provision to outdoor employees when the temperature reaches 80º F, as well as supervisor and employee training about heat stress prevention.

- 2019: SB 78, Health, Chapter 38. California created an individual health care mandate enforceable with penalties starting in 2020. While there is no state-required mandate for employers to provide insurance, the federal Affordable Care Act of 2010 requires employers with at least 50 employees to provide health insurance. California's law requires employers to file reports on behalf of self-insured, full-time and part-time

employees, along with covered dependents, as well as distribute proof-of-coverage forms to California resident employees. Each unreported employee can result in a $50 fine.

- 2018 & 2019: SB 1343 and S778, employers with five or more employees must have all staff complete at least one hour of Sexual Harassment Prevention Training and Education by January 1, 2021. All employees with supervisory roles are required to complete at least two hours of training. These trainings must be renewed every two years. Prior to this legislation, employers of 50 or more employees to provide training only for supervisors and management staff.

- 2024: AB 1522, Healthy Workplace, Healthy Family Act: As of January 1, 2024, employers must provide 40 hours (five days) of paid sick leave (PSL) to full-time workers annually; this is an increase from the 2015 law that required employers to provide 24 hours (three days) of paid sick leave per employee. California's Division of Labor Standards Enforcement clarified that part-time employees earn at least one hour of paid leave for every 30 hours worked, the same as the original law. All employees who work at least 30 days for the same employer, within a year in California are covered by this law.

- 2024: SB 553 As of July 1, 2024, employers must develop and implement a workplace violence prevention plan in accordance with new Labor Code section 6401.9, as well as conduct trainings for employees about workplace violence prevention with training material that is appropriate to the employees' educational level and language.

Labor Wages

- 2016: AB 1513, Piece Rate Compensation: As of July 1, 2016, companies that employ piece-rate workers are required to compensate unproductive time (i.e. rest breaks) at either the legal minimum wage or the workers' average wage, whichever is higher, and employees must receive documentation of the non-productive time on their pay stubs.

- 2016: SB 3, Minimum Wage Phase-In Requirement: California employers with 26 or more employees must scale up minimum wage, starting at $10.50/hr in 2017 to $15/hr by 2022. Employers with 25 or fewer employees had an additional year to phase in the increases, but by 2023, all employers had to meet the current minimum wage requirement. The minimum wage for 2024 for non-fast-food workers was $16.00/hr.

- 2016: AB 1066 created a timetable for agricultural workers to receive overtime pay so that they gradually received overtime pay on the same basis as workers in most other industries. Starting in 2019, agricultural businesses with 26 or more employees had to phase in overtime pay, starting at 9.5 hours per day or 55 hours per week. The hours scaled down until the law was fully implemented on January 1, 2022, with overtime starting at 8 hours per day or 40 hours per week. Businesses with 25 or fewer employees had until January 1, 2025, to fully phase in overtime at this rate. Wages are calculated at 1.5x once the daily or weekly time limit is surpassed.

Introduction

The regulatory environment in California is constantly evolving in response to new laws, policies, and legislative mandates, and has scaled up considerably in recent years. Regulations can provide benefits to the agricultural industry and society at large by increasing food safety, improving air and water quality, and improving conditions for farm workers. However, regulations also impose compliance costs on agricultural businesses. Regulatory costs can be classified as either direct, involving a cash outlay in response to the regulation, or indirect, involving an opportunity cost to the business or industry as a result of the regulation. Both direct and indirect costs of regulations to agricultural producers in California have been increasing in recent years and have been documented in two previous studies in the Salinas Valley in 2006 and 2017 as well as the San Joaquin Valley in 2012 and 2018.

This paper presents the second update to the original 2006 study of regulatory costs for a large Salinas Valley lettuce grower; the first update was in 2018 (Hamilton 2006; Hamilton & McCullough 2018). The 2006 study found that regulatory compliance costs totaled $109.15 per acre, or 4.25% of cultural costs and 1.24% of total production costs (Hamilton 2006). However, by 2017, the regulatory landscape had significantly changed, precipitated by a 2006 E. coli outbreak in spinach in the Salinas Valley (that occurred after the 2006 data was collected) that altered the landscape for food safety compliance. New environmental and worker wage and safety laws were also imposed in the ensuing years. The 2017 study found that regulatory costs had escalated to $977.30 per acre, or 8.90% of total production costs. Total production costs in 2017 were $10,977 per acre for this grower. Workers' compensation was again the highest cost of regulatory compliance and had risen to $336 per acre. Labor wage regulations comprised another $189 per acre, and food safety compliance followed closely behind at $181 per acre. Affordable Care Act requirements added $141 per acre, while pesticide regulatory compliance totaled over $35 per acre. Other regulatory compliance costs totaled between $5.50 and $28 per acre. The results of the updated case study show that, for this lettuce grower, production costs increased 24.8% from 2006 to 2017, but the costs of regulatory compliance rose by 795% (Hamilton & McCullough, 2018).

Lettuce continues to be an important crop in California, consistently ranked in the top five commodities in California. The most recent California agricultural statistics for lettuce in the 2023 crop year reported a value of $3.93 billion in farmgate sales for all lettuce and 264,600

harvested acres. California grows 76% of all lettuce in the U.S. Monterey County, where the data for this study was collected, produces 60% of California's lettuce (CDFA, 2023).

Very few studies exist that examine the costs of regulation at the producer level. A study of regulatory costs accruing to agriculture in 2012 in the San Joaquin Valley found regulatory compliance for labor and environmental laws was between .98% and 5.6% of cash operating costs. This study investigated 22 growers across the eight most important crops in the San Joaquin Valley (McCullough et al., 2018). However, a follow-up study of the same growers found that by 2018, regulatory costs had outstripped costs of production increases by a wide margin. Compliance costs per acre had increased 265% over the six-year period, while production cost across all crops in the study had risen by only 25% (McCullough et al., 2020). Specialty crops, such as table grapes, citrus and stone fruit, had relatively higher compliance costs, and a larger proportion of regulatory costs had shifted to large farms because small farms were exempt from the Affordable Care Act and many provisions of the Food Safety Modernization Act.

Problem Statement: This study will update the 2006 and 2017 case studies of a Salinas Valley commercial lettuce grower to examine the increasing array of regulatory costs faced by California farms in 2024. California producers sold over $59 billion of farm-gate products in 2023, the most recent year reported (CDFA). However, many countries and some states produce similar agricultural products, and California producers could be at a competitive disadvantage if their costs of regulation continue to escalate.

Objectives: To conduct a case study analysis of 2024 regulatory costs in lettuce production and compare them to the regulatory costs documented in 2006 and 2017 with the same grower in the Salinas Valley. We also review the changes in regulations for California agriculture since 2017, primarily with respect to water quality, groundwater legislation, and labor regulations including minimum wage, overtime and worker health and safety protocols. The findings of this study will provide the agricultural industry and policy makers with more complete information when making policy decisions regarding regulatory issues for California farmers.

Methodology

Western Growers' Association identified a cooperating grower for the study in 2006, and the same grower was contacted in 2017 and 2024 to participate in the follow-up studies. The grower was contacted in August 2024 and the in-person interview with the owner and several managers took place in October 2024, with follow-up emails for additional information; confirmation for all data was provided in mid-January 2025. The cooperating producer was assured anonymity as proprietary production cost data would be the centerpiece of the study.

Regulatory changes since 2017 were reviewed and are included in the regulatory cost narrative. All known regional, state and federal laws that were in effect in any capacity in 2024 were documented. Some laws are still being phased in, such as the surface water provisions of Irrigated Lands Program, while others, like the Sustainable Groundwater Management Act, have been fully implemented.

The cooperating grower was provided a spreadsheet that outlined the regulatory cost areas that were expected to impact the operations. They were asked to estimate the annual amount of time maintaining compliance in each regulatory area; the value of that time; whether it was their time or an employee's or contractor's time; and to provide the fees they were assessed for any permits, licenses, training sessions or exams. Fines for non-compliance were also reported when applicable. In some cases, the regulatory costs in question accrued to the entire farm operation, while some regulatory costs were specific to head lettuce. In the cases where the regulatory costs accrued to the entire farm, the costs were apportioned to the head lettuce acreage. This information was collected during an in-person interview with the owner(s) and relevant staff members. The owners were also asked to provide the annual production budget for their head lettuce operation, to compare the impact of regulatory expenses on their growing costs. The 2023 University of California Cooperative Extension cost of production budget for head lettuce in the Salinas Valley (Tourte, et al. 2023) was used as a baseline from which to compare the grower's production costs.

A total cost of regulation was summarized for the grower, and the regulatory cost per acre was calculated and compared to the 2006 and 2017 findings. We do not report the total farm acreage or proportion devoted to lettuce to maintain confidentiality. However, the lettuce grower fits into the "large" grower category (greater than 1,000) acres as defined by the U.S. Census of

Agriculture. The terms “farm” and “ranch” are used interchangeably throughout this study in reference to agricultural operations.

Results

The discussion and regulatory cost areas are divided into the following categories:

- Education and Training for Regulatory Compliance
- Air Quality Requirements
- Water Quality/Quantity Requirements
- Department of Pesticide Regulation
- Food Safety
- Workers Compensation
- Affordable Care Act
- Labor Health & Safety Requirements
- Assessments

Education and Training for Regulatory Compliance

This category summarized all education and training efforts on the part of the grower to maintain compliance with Cal OSHA as well as pesticide and food safety requirements. In 2006 the costs of this category were due to the grower’s time spent in staying current with worker safety laws and environmental issues and amounted to $1.27 per acre. By 2017, the education and training component of regulatory compliance had exploded, and the operation spent $26.31 per acre on education and training. The largest component of this segment in 2017 was that one of the owners estimated that they spent about 1/3 of their time on keeping up with new food safety and other regulatory requirements. The value of their time comprised about 25% of this compliance category.

In 2024, the farm had eliminated the lettuce bin program and only harvested lettuce by the carton. Meanwhile, they had to consider the impact of new agricultural overtime regulations. The 2017 study included three harvest crews, all directly employed by the ranch, which at that time were able to work 60 hours per week before overtime accrual. In 2024, the ranch employed an additional lettuce harvest crew (25-30 workers), contracted with an outside provider, and each crew worked 40 hours per week. The human resources director manages on-boarding training with all employees with respect to onboarding, health/safety compliance required by Cal OSHA and the Department of Pesticide Regulation as well as food safety, which takes half of their total

time. In addition, the HR manager must attend an annual "train the trainer" session; the training fees, travel and hotel stay cost $1250.

All workers must go through the Worker Protection Standard training for 30 minutes annually. The grower has 120 workers for the lettuce operation and another 50 for the overall farm. In addition, these employees must take part in food safety/pesticide safety training every two weeks for 30 minutes. Four supervisors and three foremen are also involved, and the farm's HR director runs these meetings. In addition, new laws require that all employers provide a Workplace Violence Prevention program and training for all employees annually, and all employees participate in at least one hour of sexual harassment prevention training every two years. Anyone in a supervisory role must take part in at least two hours of sexual harassment prevention training every two years. Food safety compliance staff, of which the farm has three, must each attend at least four hours of trainings every year to maintain state and federal approved certifications.

Overall, the sum of the education and training efforts for regulatory compliance is $25.61 per acre, a -3% decrease from 2017. Besides assessments, this the only regulatory category to decrease from 2017, which may seem unlikely as the regulatory requirements have only expanded in this area. However, in 2017, because of the significant and ongoing changes in food safety requirements as the Produce Rule was coming into full effect, one of the owners of the ranch was investing significant time in maintaining currency as the rules evolved, which added over $7 per acre to the cost of education and training compliance. By 2024, the Leafy Greens Marketing Agreement was fully aligned with the federal Produce Rule, two additional food safety staff were on the ranch's payroll, and the owner's time was more focused on the evolving regulations with water quality/quantity under the Irrigated Lands Regulatory Program and SGMA. The owner's opportunity costs of time shifted to other compliance areas.

Air Quality Requirements

The Federal Clean Air Act requires the Environmental Protection Agency to authorize state implementation of air quality plans. The main component of the Clean Air Act that concerns agriculture is compliance with National Ambient Air Quality Standards, which sets limits on six pollutants known to cause health hazards, environmental damage, and/or contribute to the formation of smog: ozone, particulate matter, sulfur dioxide, carbon monoxide, nitrogen

dioxide and lead. Each state is required to submit a State Implementation Plan to reduce or maintain pollutant levels below national standards set by the EPA. The regulatory burden in each region is based primarily on whether the air quality meets or exceeds the pollutant levels set by the EPA under Title V, which requires the monitoring of and meeting standards for major source pollutants. This approach establishes different regulatory requirements from one air region to the next (U.S. EPA).

California is comprised of 35 air districts. Requirements for air quality compliance vary greatly, depending on the pollution levels inherent in a particular region. The lettuce grower in Salinas falls under the jurisdiction of the Monterey Bay Air Resources Board (MBARD), which considers agricultural operations for growing crops or livestock as generally exempt from air quality permits and regulations. Monterey County, on the Central Coast of California, has no non-attainment areas for air quality, and thus does not fall under EPA's Title V regulations for pollution reduction.

The original study in 2006 reported no costs for air quality regulation. By 2017, state laws required more extensive reporting under the AB 32, Global Warming Solutions Act, even for "clear air" areas such as Monterey County. As of May 2007, all agricultural diesel engine equipment, both stationary and mobile, must be registered with the MBARD, and equipment emissions must be monitored (California Air Resources Board). In 2017, the grower reported spending $5.31 per acre on air quality compliance, the lowest of any category; most of the costs were in staff time to report equipment and emissions information as well as upgrading equipment filters.

In 2020, a new California Air Resources Board rule known as the Truck and Bus Regulation requires all heavy-duty diesel vehicles that operate in California to reduce toxic exhaust emissions. By January 2023, nearly all heavy-duty diesel trucks and buses operating in the state are required to have 2010 or newer model year engines to reduce particulate matter (PM) and nitrogen oxides (NOx) emissions. The ranch's trucks were found to be non-compliant with the rule in 2024, and the ranch was fined $1,900. They were required to replace three trucks, which cost $60,000 each, and are expected to be in service for 10 years. Existing haul trucks had emissions filters upgraded at $25,000 each; the expected life span is six years. The lettuce grower has two staff members who each spend 40 hours annually reporting equipment and emissions information to the MBARD. The ranch's irrigation pumps fall under the

Agricultural Diesel Engine Registration, Rule 310, of the MBARD; which requires most stationary diesel-powered engines on agricultural operations to have a permit. The annual fees are $243 for the first engine and $173 for each additional engine. The total air quality compliance costs per acre in 2024 was $8.29, the lowest of all regulatory categories, but an increase of 56% over 2017 costs.

Water Quality/Quantity

The United States Clean Water Act is the primary federal statute that mandates states to control water quality. The EPA provides funding for states to administer the required planning and regulatory programs, but states must submit plans to control water pollution that meet the criteria established by federal law. The most difficult type of pollution to control is non-point source pollution, or NPS. According the U.S. EPA, nonpoint source pollution is the largest source of water quality problems in the U.S.

Two California agencies are responsible for developing and carrying out the NPS pollution control policies; the State Water Resources Board (SWRB) and the nine Regional Water Quality Control Boards (RWQCB). The Porter-Cologne Act, initially adopted in 1969, is the state law that provides the authority to the SWRB and the RWQCB to control NPS pollution (Gerstein, et al. 2005). Each regional board develops "basin plans" for their hydrologic areas, governs requirements and issues waste discharge permits, takes enforcement action against violators, and monitors water quality. The California Water Code gives RWQCBs the authority to regulate discharges of waste that could impact the waters of the state of California, through permits called “Waste Discharge Requirements.” A discharge is any release of waste, such as fertilizer, pesticide or sediment, to a water of the state. Waters of the state include rivers, streams, lakes, bays and estuaries, and groundwater.

The lettuce producer’s operation is in Region 3 which is comprised of Santa Cruz, San Benito, Monterey, San Luis Obispo, and Santa Barbara counties as well as the southern parts of Santa Clara and San Mateo counties, the northern portion of Ventura County, and small portions of Kern County. Since the original study, the Central Coast Regional Water Quality Control Board adopted much more stringent rules for water quality on irrigated lands; a revised Agricultural Order was introduced in 2012, updated in 2017 and further restrictions were set forth in 2021, now known Agricultural Order 4.0. Approximately 500,000 irrigated acres spread

across 3,000 farms are under the jurisdiction of Ag Order 4.0 (CCRWQCB). Rather than structuring compliance in a tiered system based on farm size per Ag Order 3.0, agricultural operations are now classified in groundwater and surface water priority areas, referred to as GW Phase 1, 2 and 3 and SW Phase 1, 2 and 3 based on geographic location over the groundwater basin and subbasins. Surface water restrictions were not yet implemented in 2024, they will be phased in by 2032.

The lettuce grower falls into GW Phase 2, which includes all farms/ranches in the Corralitos – Pajaro Valley Subbasin and two Salines Valley subbasins – the 180/400 Foot Aquifer and the East Side Aquifer subbasins. By 2024, the following water quality compliance activities are required of all Region 3 GW Phase 2 operations (California Water Boards – Central Coast R3):

- Submit or update an electronic Notice of Intent (enrollment with the Region 3 Water Board)
- Collect and submit information for Total Nitrogen Application (TNA) report
- Conduct monitoring of on-farm domestic wells for nitrate & 1,2,3-TCP annually and report results; drinking water notifications are also required
- Primary irrigation well monitoring and reporting with annual sampling for nitrate and TDS
- Develop a groundwater trend monitoring workplan
- Well sampling & reporting either semi-annually or via an approved workplan
- Compile a trend evaluation report
- Meet either targets or limits for pollutants, depending on whether farm is enrolled whether the farm is participating with an approved third-party compliance service
- Ranch-level groundwater discharge monitoring may be required if targets or limits are exceeded. This is not required of farms enrolled in Third Party ACP

In 2006, the lettuce grower estimated a water quality compliance of $4.30 per acre. The farm's primary cost in 2006 was for water monitoring systems; flow meters were installed to report water use. Irrigation water quality testing was done for food safety compliance, not to protect water quality.

By 2017, the grower reported that costs had risen to $18.57 per acre, a 331% increase over the 2006 costs. Most of these costs involved increased monitoring and reporting of both groundwater as well as fertilizer applications to the land. Contracts with third-party testing services and a reporting system, as well as staff time comprised the largest components of compliance costs. The Sustainable Groundwater Management Act had not been fully

implemented, but the grower was investing significant time in education and planning for its implementation in the Salinas Valley. The compliance costs in 2017 also included the Salinas Valley Water Sustainability fee that ranchers paid into; for this grower it was $21,000 to help provide clean drinking water to area residents.

In 2024, most of the ongoing compliance activities are handled by an approved, third-party provider, Central Coast Water Quality Preservation, Inc., to which the ranch pays $43,000 annually. A manager who works mainly in compliance spends about 30 hours annually to prepare and submit the required electronic notice of intent to the water board. The owner and another family member spend several days working with the third-party provider to evaluate the ranch for reporting and monitoring purposes. A $15,000 annual add-on to the Famous software system tracks and reports nitrogen application by farm block. Reporting nitrogen applications to meet annual targets set by Ag 4.0 requires an estimated 86 hours of staff time annually. The ranch also spends $9,000 to replace flow meters per year. Overall, the ranch spent $10.45 per acre on water quality compliance fees and activities in 2024. The remaining costs are associated with groundwater allocation and sustainability.

As of 2020, the Sustainable Groundwater Management Act was implemented in all overdrafted groundwater basins in the state. The law, passed in 2014, required local water basins to develop a Groundwater Sustainability Agency (GSA) by 2018, which was tasked with developing an approved Groundwater Sustainability Plan (GSP) by 2020. Each overdrafted basin must meet their groundwater sustainability goals by 2040 (California Department of Water Resources). For the region pertaining to this study, the Salinas Valley Basin Groundwater Sustainability Agency (SVBGSA) was formed in 2017, and in 2020, the GSP went into effect. The SVBGSA is comprised of six subbasins, and the fees associated with the GSA are determined by which subbasin(s) a ranch overlays. The cooperating grower's ranch falls within the 180/400 Foot and the Eastside subbasins. Each subbasin has required Tier 1 and Tier 2 fees calculated on a per-connection and per-irrigated acre basis. In 2024, the 180/400 Foot subbasin fees were $12.76 per acre and $5.22 per connection, and the Eastside subbasin fees were $11.24 and $4.54, respectively. Two of the other subbasins have fees as high as $21 and $43 per irrigated acre. Fees are set annually by the SVBGSA and are used to fund the agency and any regulatory activities, such as requirements to register wells and report groundwater use through the basins' Groundwater Monitoring Program. There are currently no demand management

requirements, but the SVBGSA held a variety of workshops to collect feedback from Salinas Valley landowners and residents during 2024 regarding future demand management strategies in the region. The cooperating ranch owners are very involved in SVBGSA and reported spending several hours per month on SGMA-related meetings and activities. The ranch is also a member of the Salinas Valley Basin Water Alliance, which was developed in late 2020 "in an effort for growers to track and engage with public water policy regarding groundwater supply" (SVBWA). The ranch pays $45,000 annually for membership.

The overall cost of education and compliance for SGMA and related activities in 2024 was $19.28 per acre, which did not exist as a separate category in 2017 as SGMA was not yet implemented. Water regulations overall accounted for $29.72 per acre, a 60% increase from 2017.

Pesticide Use Regulations

The U.S. Environmental Protection Agency regulates pesticides under the auspices provided by two major acts of Congress; the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and the Federal Food, Drug and Cosmetic Act (FFDCA). These were strengthened by the Food Quality Protection Act (FQPA), which became law in 1996. States are authorized to regulate pesticides under FIFRA and under state pesticide laws. States may place more restrictive requirements on pesticides than EPA. Both the EPA and the state must register a pesticide before distribution. California pesticides must undergo a more rigorous review than all other states. The Department of Pesticide Regulation, under Cal EPA, administers the certification and licensing process. Owners of private firms who plan to use restricted-use pesticides (as classified by the U.S. EPA) on their own property (defined as property owned/leased or rented by him/her or his/her employer) can apply for a Private Applicator Certificate, which requires the passage of an exam that is administered through the County Agriculture Commissioner's office. To renew the Private Applicator Certificate, six hours of continuing education over the three years of the valid certification is required.

An Agricultural Pest Control Advisor's (PCA) license is required of anyone who advises the use of restricted materials, and a Qualified Applicator's license is required of anyone planning to apply restricted materials for hire. The requirements for a PCA include 42 semester units of core courses, over and above a B.S. degree or equivalent. The applicant must pass a

Laws and Regulations exam, and must acquire 40 hours of DPR-approved continuing education every two years to maintain the license.

Both private applicators and PCAs are required to provide a Notice of Intent to the County Agricultural Commissioner at least 24 hours before the application of restricted materials. Since 1990, when the DPR began its "full-use reporting" program, private applicators and PCAs must report their applications monthly to the County Agricultural Commissioner, who then reports the data to the Department of Pesticide Regulation. The reports must include the data and location where the application was made, the type of crop, as well as the type and amount of pesticides used. The DPR keeps a comprehensive database of pesticide use in California (California Department of Pesticide Regulation).

The lettuce grower contracts out their crop protection services to third party providers and estimate that the embedded cost of pesticide regulation is around 5% of their costs, or $47.53 per acre. These regulatory costs would include posting signs, filing notices of intent, filing pesticide application reports, and is included in the price of the chemicals. One of the owners spends three hours annually renewing their pesticide certification, which added another $.06 per acre. In 2024, the total pesticide regulatory costs were reported as $47.59 per acre, a 34% increase over 2017 and a 107% increase since 2006. However, we note that these costs are likely underreported, as it is difficult without a comparison state (as in the 2006 study) to study the cost differences in pesticides due to increased registration costs in California and requirements to use a PCA. If a crop protection service includes their PCA and other regulatory services within the price of the chemicals, it is also difficult to ferret out the regulatory component. Some of the increased regulatory costs of pesticide use are also captured in other areas of this study, such as Education & Training for Regulatory Compliance as well as the Worker Protection Standard that accounts for the costs of safety gear for workers.

Food Safety

When the 2006 study was conducted, it preceded the E. coli outbreak in spinach that occurred later that year, and regulatory food safety oversight was minimal, mostly paying for a third-party food safety audit. In 2006, this grower spent $.64 per acre on food safety.

By 2017, food safety regulations were the grower's third highest compliance cost behind workers' compensation and other labor wage regulatory costs. Most of these compliance costs

were components of the Leafy Greens Marketing Agreement (LGMA) of 2007, an industry-developed set of food safety practices for California leafy greens producers and handlers. These were updated to correspond with the federal Food Safety Modernization Act of 2011, which included the Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption, which went into effect in 2016, commonly known as the Produce Safety Rule. The rule established, for the first time, scientific minimum standards for food safety throughout the entire food supply chain, from production and harvest to packaging, handling and transporting (U.S Food and Drug Administration).

The LGMA has five basic provisions at the farm level, covering the following areas: 1) Environment, 2) Water, 3) Soil Amendments, 4) Worker Practices and 5) Field Operations.

While the LGMA was fully enforced in 2017, food safety outbreaks still occurred. In 2018 and 2019, two E. coli outbreaks in Central Coast Romaine lettuce were traced to contaminated water. In response, the LGMA adopted more robust monitoring standards for agricultural water quality in 2019 and in 2020, refined its standards for harvest equipment sanitation and water quality assessment. In 2021, the LGMA added new requirements, including increased risk assessment from adjacent farmland, revised soil amendment and crop input requirements, and added root cause analysis to the already extensive list of food safety obligations for leafy greens production.

The original requirements for the LGMA are that a farm must have a written food safety plan that describes their management practices toward food safety. Growers must maintain buffer zones between fields and any areas used for livestock, compost or septic leach fields. Fields must be inspected prior to harvest for animal intrusion, either wild or domestic, and staff must document the incident and all or part of the crop might be destroyed.

With respect to worker practices, growers must provide toilet facilities and hand washing stations that are regularly cleaned and stocked with supplies. The facilities must be accessible from the workers' locations, and workers must participate in on-going training sessions and have signage posted regarding employer rules regarding hand washing and other sanitation issues such as eating and drinking near adjacent fields. Field operations with

respect to cross-contamination between other leafy greens fields is another component of the LGMA; growers must have in place a process to clean equipment between fields and identify any sources of contamination. Each production block must have a food safety harvest assessment, documenting cleaning and sanitation procedures, any evidence of animal intrusion, and equipment storage procedures. Farms are subject to both scheduled and unscheduled audits of their food safety practices (LGMA).

By 2024, the ranch has expanded its food safety staff to include two employees whose primary responsibilities are regulatory compliance. Their director of food safety spends half of their time in record keeping and documentation of food safety activities. Additional costs attributed to the food safety team are three pickup trucks that are used daily in compliance activities, driving to various ranch blocks to document food safety requirements. Harvest machinery sanitation requires one full-time worker for each of the four crews during the 32 weeks of the growing season, which costs nearly $100,000 annually. The foreman of each crew must test all of the workers' equipment and making sure the crew is following sanitation practices, as well as conduct the preharvest inspection and paperwork. This time totals over $62,000 during the season. Toilet facilities and handwashing facilities are provided for each crew and are cleaned every day during the season; the rental, maintenance and cleaning expenses are more than $25,000 for the season. Costs for the overall farm's toilet facilities, cleaning and maintenance are partially apportioned to the lettuce program. Third-party food safety audits for the lettuce portion of the farm cost $14,000 annually. The combined costs of food safety compliance in 2024 was $244.15 per acre – a 35% increase from 2017, and thousands of percent higher than the 2006 food safety cost of $.64 per acre.

Workers' Compensation

As with many regulatory costs, workers' compensation is a cost of doing business in California. All employers, even those with only one employee, are required to carry workers' compensation in the state. In California, the Division of Workers Compensation monitors and administers workers' compensation claims. California employers generally have three options to fund their workers' compensation benefits: (1) self-insurance, (2) private insurance, or (3) state insurance.

- Self-Insurance - This option is available for employers with at least $5 million in net worth, net income of $500,000 per year and be certified from the Department of Industrial Relations. Private employers must post security as a condition of receiving a certificate of consent to self-insure.
- Private Insurance - Employers may purchase insurance from any of the approximately 300 private insurance companies which are licensed by the Department of Insurance to provide workers' compensation insurance in California. Insurance companies are free to price this insurance at a level they deem appropriate for the insurance and services provided.
- State Insurance - Employers may also purchase insurance from the State Compensation Insurance Fund, a state-operated entity that exists solely to provide workers' compensation insurance on a non-profit basis (California Department of Industrial Relations).

Prior to the 2006 study, the state had undergone workers compensation reform in 2003 and 2004, a result of which reduced premiums for employers. The grower reported costs for workers' compensation as $58.94 per acre in 2006, 95% of which came from the 10% insurance premium on worker pay. The additional five percent came from clerical staff filing paperwork with the State of California. In 2006, workers' compensation comprised 54% of this grower's total regulatory costs.

California passed additional workers' compensation reforms in 2012; the primary changes were increased benefits to injured workers and new processes for independent bill review, a new fee schedule and changes in the calculations of permanent disability benefits, among others. Despite these reforms, workers compensation costs increased dramatically for the grower by 2017, mostly driven by wage increases. Because workers compensation is paid as a percentage of their pay rate, any increase in wages will result in an increase in workers' compensation costs, even when the premium level is constant.

By 2024, the same phenomenon occurred. The grower reported that the workers' compensation premium for field workers, supervisors and foremen is 15% of their wages, the same as in 2017. The grower noted that the harvest crews are paid on piece rate and typically earn $19 to $21 per hour. Workers' compensation is calculated based on actual earnings, so the grower's total cost of workers compensation premiums was $320 per acre. Workers' compensation for other employees, including the foremen, supervisors and overall farm employees (apportioned to the lettuce operation) added over $100 more per acre. Overall, the

grower's reported costs of workers' compensation in 2024 was $428.40 per acre, a 27% increase from 2017, and a 627% increase from 2006. It is possible that the 2006 study underestimated the workers' compensation costs to some degree – we did not consider the impact of piece rate wages, and thus used the minimum wage at the time, which was $6.75 per hour.

Affordable Care Act Requirements

The Affordable Care Act (ACA) of 2010 went into effect in 2014 and requires all employers with 50 or more full time or full-time-equivalent employees to provide health care coverage for their workforce, and file an annual information return to the IRS reporting whether and what type of health insurance is provided to employees. The same information must be provided to the employees annually to provide the IRS on their tax returns. While the federal individual mandate for health care coverage was eliminated from the ACA, California created an individual health care mandate enforceable with penalties starting in 2020. California's law requires employers to file reports on behalf of self-insured, full-time and part-time employees, along with covered dependents, as well as distribute proof-of-coverage forms to California resident employees.

The federal provision for employee-sponsored health care coverage and state-mandated reporting resulted in payments of $500 per worker per month for the harvest crew, and an apportioned cost of $80 per month to the lettuce operation for all-farm employees. Reporting requirements comprise 200 hours annually of the controller's time. Overall, ACA coverage and documentation cost $334.47 in 2024, an increase of 137% over 2017. The high cost of health care premiums is the primary cause; in 2017 the grower reported paying $250 per harvest worker per month, which doubled in the ensuing years.

Labor Health and Safety Requirements

The original study in 2006 did not include a category for this area of regulatory compliance. Heat stress and illness prevention measures were adopted by Cal OSHA in 2006 for those in outdoor occupations, defined as agriculture, construction, oil and gas extraction, landscaping, and the transportation or delivery of agriculture, construction or heavy materials. This was the first law of its kind in the nation, but there was little training or enforcement during this initial period. In the ensuing years, training became mandatory for both supervisors and

employees and additional worker protection standards have been developed. In 2015, Cal OSHA approved changes to its Heat Illness Standard, effective May 1, 2015. Employers must provide shade structures that are sufficient to cover all employees taking breaks at one time when the temperature is above 80ºF. Clean, cool drinking water must be provided free of charge to employees, and both the shade structure and water must be nearby the workers' location. Many growers use portable shade wagons or trailers. Pre-shift heat stress trainings are required to remind workers about drinking sufficient water, taking breaks and the signs of heat stress. During extreme heat conditions, defined as 95ºF or above, workers must take a 10-minute rest break to cool down every two hours in an eight-hour shift. Workers must also be able to take at least a five-minute break upon request, even if temperatures are below those thresholds. Farming operations are subject to unannounced inspections by Cal OSHA to check for compliance. Fines are assessed for any violations (California DIR, Heat).

With respect to pesticide safety, the training costs for the 2017 Worker Protection Standard were covered in the Education/Training for Regulatory Compliance category. However, it is the grower's responsibility to provide safety gear to the workers, such as gloves and protective eyewear. Some of these provisions are part of the LGMA food safety protocols as well. The lettuce grower estimates that the costs for the worker supplies comes to about $.05 cents per carton, or $42.50 per acre. Shade trailers for the lettuce operation cost about $1,200 per crew; after depreciating the cost of the trailers over six years this comes to $.21 per acre. Providing sufficient clean, cool drinking water to the crews during the season costs about $5 per crew per day. Overall, the cost of labor health and safety provisions cost $43.71 acre in 2024, a 52% increase from 2017.

Labor Wage Requirements

This category was part of the original study, but again, costs increased in conjunction with regulatory expansion through 2024. In 2006, the grower's labor wage requirements were reported as the time spent in filing employee paperwork and taxes primarily with respect to the workforce and was calculated as $1.36 per acre. As in many other categories, new regulations greatly expanded this cost by 2017 and furthermore in 2024. In 2016, AB 1513 went into effect for employers of piece rate workers. The California Labor Code was amended to establish separate wage calculations to compensation for rest or other non-productive time so as not to

penalize workers for taking rest breaks. Most of this grower's workforce is paid on piece rate, so the foremen must document and payroll staff must calculate the non-productive time. This time is paid at an average hourly rate based on their piece work rate. The grower estimated this regulation cost $.35 per carton for additional documentation time required of staff and higher wage rates for rest breaks. Additionally, SB 3, the Healthy Workplace Healthy Families Act of 2014, requires employers to provide paid sick leave for any employee who works 30 or more days within a year, including part-time and temporary workers. Employees earn at least one hour of paid sick leave for every 30 hours worked (California DIR). Beginning in January 2024, the mandated number of paid sick days increased from 24 hours (three days) to 40 hours (five days). The grower estimates that the expanded paid sick leave costs $.15 per carton. The total combined cost to the grower for nonproductive time wage increases and sick leave, are calculated at $425 per acre, a 125% increase over 2017, and is the second highest regulatory cost category.

Assessments

The California Leafy Greens Research Board began in 2008, after a referendum by the leafy greens growers and approval by the California Department of Food and Agriculture. The 2024 assessment on growers was $.004 per carton. This organization is separate from the Leafy Greens Marketing Agreement, which required growers to pay .012 per carton in 2024. The total cost per acre for these assessments was $13.18 per acre in 2018. As in the previous study, this is the rare regulatory category that decreased over the study period; in 2017 the assessment rates were higher and the cost per acre was $14.88, so the 2024 cost decreased by -11%. In 2006, under an industry marketing board assessment that preceded the LGMA, the cost was $19.66 per acre.

Summary and Conclusion

In the decades since the initial case study, the regulatory costs of production have skyrocketed in California. The first update to the 2006 study showed a 795% increase in regulatory costs, from $109.16 per acre in 2006 to $977.30 per acre in 2017. Increased compliance requirements in 2024 bring the grower's total costs of regulation to $1,600.12 per acre, which is a 63.7% increase from 2017 and a 1,366% increase since 2006. Total costs for lettuce production increased by 24.8% from 2006, from $8,793 per acre in 2006 to $10,977 in

2017. In 2024, the grower reported production costs of $12,702.47 per acre, a 15.7% increase from 2017 and a 44.4% increase since 2006.

As the fresh produce industry has adapted to the food safety requirements of the LGMA and Produce Rule in the ensuing years, the most notable increases in regulatory costs in this update are those associated with labor. The Affordable Care Act and reporting requirements, the additional labor wage requirements for provision of sick leave and the higher average wages for piece rate workers all contribute to this growth. While workers' compensation premiums have stabilized, higher average wage rates due to both regulatory requirements and the general agricultural labor market shortage drive up workers' compensation costs.

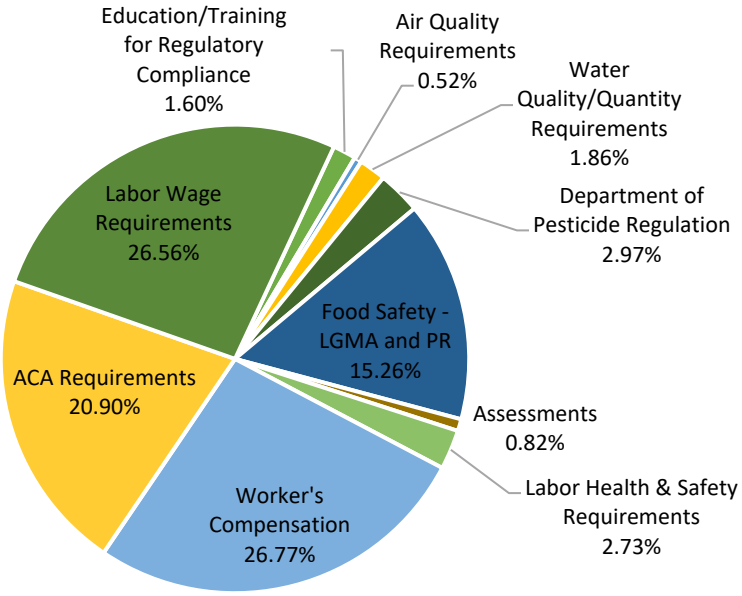
The two most significant environmental regulations involve water, and the implementation of SGMA and Ag Order 4.0 resulted in a 60% increase in regulatory costs compared to 2017. Even though the Salinas Valley is in a relatively clean air region, increased stipulations for agricultural equipment emissions and equipment replacement under the Truck and Bus Rule increased cost of compliance by 56%. Table 1 summarizes the changes in the regulatory costs from 2006 to 2017 to 2024.

Table 1. Regulatory Cost Changes for Salinas Valley Lettuce Grower, 2006, 2017 & 2024

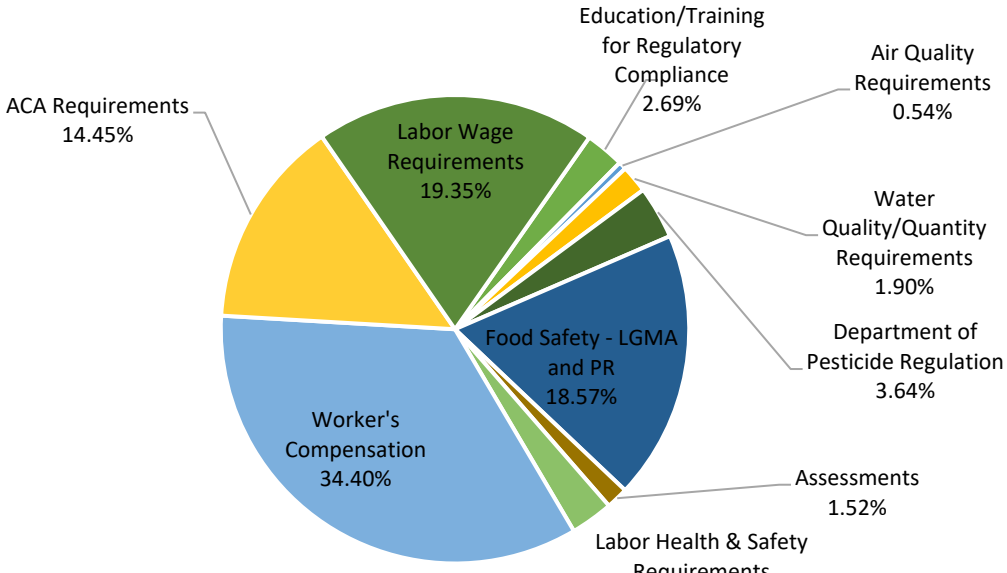
Regulatory Category	2006	2017	2024
	Cost per acre		
Education/Training for Regulatory Compliance	$1.27	$26.31	$25.60
Air Quality Requirements	$0.00	$5.31	$8.29
Water Quality/Quantity Requirements	$4.30	$18.57	$29.72
Department of Pesticide Regulation	$22.98	$35.55	$47.59
Food Safety - LGMA and PR	$0.64	$181.48	$244.15
Assessments	$19.66	$14.88	$13.18
Labor Health & Safety Requirements	$0.00	$28.72	$43.71
Worker's Compensation	$58.94	$336.23	$428.40
ACA Requirements	$0.00	$141.19	$334.47
Labor Wage Requirements	$1.36	$189.10	$425.00
Totals (per acre)	**$109.16**	**$977.34**	**$1,600.12**

Figure 1 on the following page depicts the percentage breakdown for each regulatory category by year. Though workers' compensation remains the most expensive regulatory category in 2024 and has dramatically increased since 2006, its relative cost has diminished as other regulatory costs, notably labor wage requirements, food safety, and health insurance, have increased.

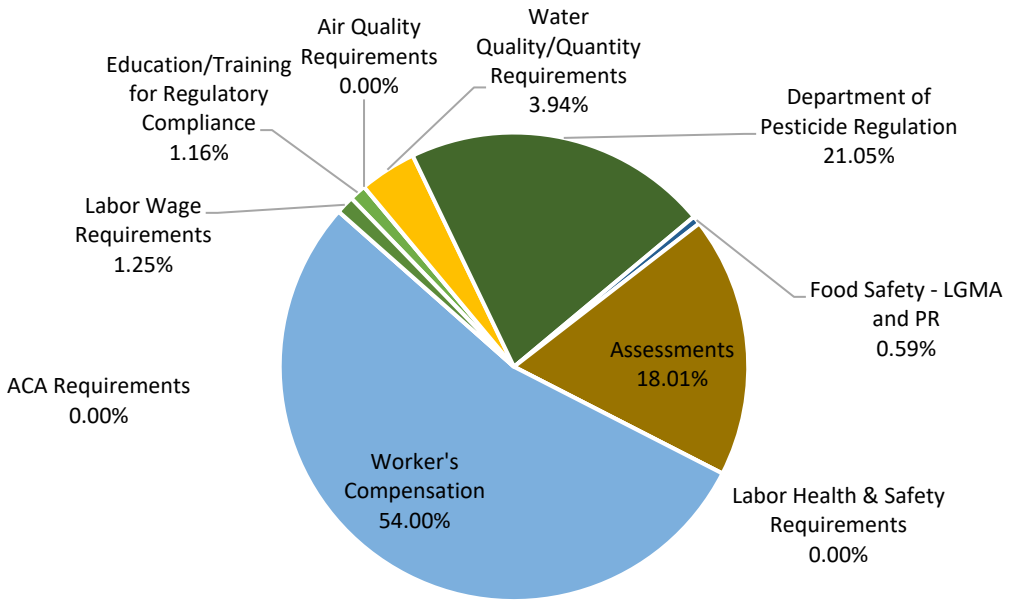
Figure 1. Regulatory Category Comparisons 2024, 2017, & 2006



2024 Regulatory Costs - $1600.12/acre



2017 Regulatory Costs - $977.34/acre



2006 Regulatory Costs - $109.16/acre

The impact of California's minimum wage laws and agricultural overtime rules were not directly included as a regulatory cost in this study, though the impacts are embedded. California's minimum wage was $6.75 per hour in 2006, increased to $10.50 in 2017 and was $16.00 per hour in 2024. However, the fresh produce industry increasingly relies on the federal H2A program for workers to shore up a domestic agricultural labor shortage. California's 2024 H2A adverse effective wage rate was $19.75, thus becoming the effective minimum wage for industries reliant upon this program (U.S. Department of Labor). Additionally, the harvest workers are paid piece rate wages (with a guarantee of at least minimum wage), and the grower reported that the lettuce workforce earned between $19 - $21 per hour in 2024. Thus, the effect of higher California minimum wage laws is not directly factored into this case study, though we recognize its indirect impact.

The agricultural overtime law passed in 2016 and was phased in starting in 2019 with final implementation in 2022. While we did not expressly calculate the impact on the grower, we do note a change in harvest crews – the grower added a lettuce harvest crew via a labor contractor, and the crews worked 40 hours per week. The previous two studies reported harvest crews working the then-standard 60 hours per week. Though the overhead costs for hiring additional labor is expensive (and is captured in the regulatory costs represented in this study), it

is less costly than paying workers overtime. The growers noted the change in crew numbers was a cost-reduction decision.

As was the case in the previous two studies, some laws are in the process of full implementation. Ag Order 4.0 includes a plan for much more restrictive surface water management, requiring all surface water run-off to be captured and/or eliminated. Phase-in begins based on surface water priority regions, and initial work plans have been submitted in those areas. This study did not include those requirements, as the ranch location was not in a current compliance zone. The growers noted they will have to build grass waterways, retention ponds, and likely will have to remove acreage from production to meet the regulatory requirements for surface water discharge. The timeline stretches into 2032, but implementation will require significant adjustments all over Salinas Valley.

Policy Implications

The purpose of the initial case study conducted in 2006 was to compare regulatory costs between California, Arizona and Texas and to quantify, at the grower level, the cumulative effect of regulation. We know of no prior studies that document the total effect of environmental and employee regulations at the farm level, though subsequent work has been conducted by the authors as well as other researchers. Though there are certainly limitations to the case-study method that make it difficult to extrapolate these results industry-wide, this study provides a snapshot of the regulatory burden faced by a large grower of one of California's top agricultural commodities over a time span characterized by a wave of new regulations. Policies are fragmented among a broad swath of government agencies, at regional, state and federal levels, and it is rare that a government agency understands the total regulatory burden growers face, or the impacts of increasing regulations. No one (except the growers) seems to understand that rising regulatory costs erodes profits and limits their long-term ability to keep farming and growing food. Farms are price takers and have little ability to pass along the increased cost of production, from regulatory or other input cost increases.

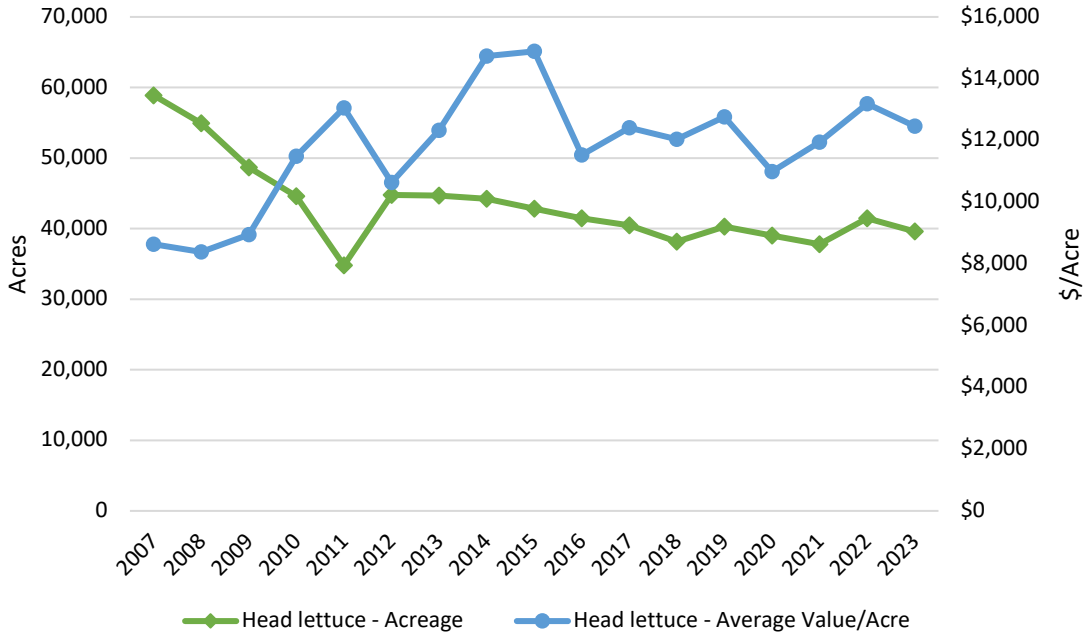
The work presented here depicts the dramatic rise over time in the regulatory burden in agriculture. Notably, most of the additional regulations since 2006 (the largest exception being the Affordable Care Act) were enacted at the state level. Amid the backdrop of existing environmental and economic stresses caused by recurring drought, climate change, labor

shortages, and uncertainty in trade and immigration policy, California's future as the U.S.'s number one agriculture state seems imperiled. Anecdotal evidence from growers as well as recent research indicate that other states are not necessarily California's biggest competition, but other countries. A recent report by the University of Illinois highlights the exponential growth of Peru's blueberry industry in the last decade (Pazos and Janzen, 2025), and production is on track to overtake the U.S. The study notes country's ability to compete in grapes and avocados, and the Peruvian government is making large investments in irrigation to bring more land into production. Large specialty crop producers such as Driscoll's, Sun Pacific and Mission Avocado have expanded their operations into Central and South America where land, labor, water and regulatory costs are a fraction of that in the U.S. Such a trend could permanently change California's dominant position in U.S. agriculture.

Since the 2017 study was published, automation and AI has started to infiltrate specialty crop agriculture, and further, well-directed adaptation could hold promise in helping to maintain competitiveness. A recent case study published by Western Growers showed significant labor cost savings by adopting laser weeder technology in specialty crops. While these innovations are still in the early adopter stage, the future could provide regulatory relief in finding alternatives to an increasingly expensive labor force, not only in indirect regulatory costs, but in rising direct wages. Technology also has the potential to reduce reliance on chemical herbicides and more efficiently use scarce water supplies.

Finally, it is important to note the relative impact of increased regulatory costs on growers' ability to generate profit. If farmgate values of head lettuce were keeping up with increases in production and regulatory costs, growers would be able to absorb increased costs. This, however, is not the case. Figure 2 illustrates the relative flat trend in acreage and the average value of head lettuce per acre. Since the previous case study, the average farm-gate value per acre for head lettuce has been $12,256. Grower margins over cash production costs have become thinner over time and with additional regulatory costs growers are likely to experience more unprofitable seasons.

Figure 2. Head Lettuce Acreage and Average Value per Acre for Monterey County



Source: Monterey County Crop Reports, 2007 - 2023.

This case study once again indicates that California agricultural producers face increasingly intensifying regulatory pressure. While California agriculture has thus far shown resilience as regulations have escalated, the results of this study provide evidence that the regulatory burden has far surpassed production cost increases. Whether California agriculture continues to be a dominant force in the U.S. food system may at least in part depend on growers' abilities to withstand the increasingly expensive regulatory environment in the Golden State.

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U.S. Department of Agriculture

Secretary Rollins Takes Bold Action to Stop Wasteful Spending and Optimize USDA to Better Serve American Agriculture

Washington, D.C., Feb. 14, 2025—Today, U.S. Secretary of Agriculture Brooke Rollins addressed more than 400 USDA staffers, stakeholders and friends and pledged to bring greater efficiency to USDA to ensure it better serves American farmers, ranchers, and the agriculture community. She reviewed findings from the Department of Government Efficiency and welcomes the opportunity to optimize the USDA workforce and stop wasteful spending.

"I welcome DOGE's efforts at USDA because we know that its work makes us better, stronger, faster, and more efficient. I will expect full access and transparency to DOGE in the days and weeks to come," **said Secretary Rollins**.

Since January 20th, USDA has begun a comprehensive review of contracts, personnel, and employee trainings and DEI programs. In many cases, programs funded by the Biden administration focused on DEI initiatives that are contrary to the values of millions of American taxpayers.

Today, USDA is announcing the first tranche in a series of bold reforms.

Contracts

USDA terminated 78 contracts, which totaled more than $132 million. Additionally, more than 1,000 contracts are currently under review for potential termination. Here are just 10 examples of the frivolous Biden-era contracts USDA recently terminated or proposed procurements that were discontinued before they went into effect:

1. Media contracts, including Politico subscriptions: $2.77 million
2. Diversity, Equity, and Inclusion Onboarding Specialist: $374,000
3. Diversity Dialogue Workshops: $254,000
4. International Development for Historically Underrepresented Communities: $298,000
5. Brazilian Forest and Gender Consultant: $229,000
6. Women and Forest Carbon Initiative Mentorship Program: $121,000
7. African and Middle Eastern and Latin America and Caribbean Regions for training, education, and access to professional and economic opportunities for women and increasing their participation in climate change adaptation activities: $91,000
8. Central American Gender Assessment Consultant: $29,000
9. Neighborhood Electric Vehicle Utility Van: $33,000
10. Hawaii conference room rental for 100-person USDA Meeting on Biodiversity: $11,000

Employee Trainings and DEI Programs

On Day One, Secretary Rollins issued a memo to officially rescinded of all Diversity, Equity, Inclusion, and Accessibility (DEIA) programs to reprioritize unity, equality, and meritocracy.

To this end, USDA has identified and canceled 948 employee trainings, 758 of which focused on DEI alone. Other canceled trainings include Environmental Justice and gender ideology.

Workforce Optimization

USDA is pursuing an aggressive plan to optimize its workforce by eliminating positions that are no longer necessary, bringing its workforce back to the office, and relocating employees out of the National Capital region into our nation's heartland to allow our rural communities to flourish.

This is just the beginning. Over the next few days and weeks, Secretary Rollins will have the opportunity to review thousands of contracts, grants, cooperative agreements and spending across the agency to ensure that every dollar is being spent as effectively as possible to serve the people, not the bureaucracy.

Per the President's directives, Secretary Rollins will lead a new era of USDA to ensure that it is the most efficient, nimble, and innovative department to serve American Agriculture since it was Established by President Abraham Lincoln.

Mass firings strike USDA across agencies, including field staff

02/14/25 4:15 PM

By Philip Brasher (/authors/1-philip-brasher), Noah Wicks (/authors/295-noah-wicks), Steve Davies (/authors/2-steve-davies), and Lydia Johnson (/authors/496-lydia-johnson)

USDA's Jamie L. Whitten Building on the Mall in Washington, D.C.

The Trump administration's mass firing of probationary federal employees has swept out workers across USDA, including loan analysts in Farm Service Agency field offices, ag scientists, and about 1,200 staff of the Natural Resources Conservation Service, according to sources.

The number of firings isn't known but there are more than 200,000 federal employees nationwide on probationary status, which means they are in their first year of federal employment, or in some cases the first two years.

Multiple sources told
Agri-Pulse
on Friday that USDA also is demoting employees who were recently given senior executive service status, which is reserved for top-performing managers just below presidentially appointed positions.

Multiple termination notices viewed by
Agri-Pulse
also include language claiming the firings were based on performance, when in fact the terminations extended to all probationary employees. In addition, employees said they had either received good performance reviews or no formal reviews at all.

A spokesperson for Agriculture Secretary Brooke Rollins said in a statement to
Agri-Pulse
that Rollins "fully supports President Trump's directive to optimize government operations, eliminate inefficiencies, and strengthen USDA's ability to better serve American farmers, ranchers, loggers and the agriculture community.

"We have a solemn responsibility to be good stewards of Americans' hard-earned taxpayer dollars and to ensure that every dollar is being spent as effectively as possible to serve the people, not the bureaucracy. As part of this effort, USDA has released individuals in their probationary period of employment.

"We are confident that talented individuals who have been affected by this change will have many opportunities to contribute to our economy and society in countless ways outside of government."

A department press release issued late Friday said "
USDA is pursuing an aggressive plan to optimize its workforce by eliminating positions that are no longer necessary, bringing its workforce back to the office, and relocating employees out of the National Capital region into our nation's heartland to allow our rural communities to flourish."

The department also touted the cancellation of contracts including media subscriptions and the end of diversity, equity, inclusion and accessibility programs and positions.

Zach Ducheneaux, who served as FSA administrator during the Biden administration, said the firings of loan officers would likely make it harder for farmers to get USDA loans.

"Firing local FSA loan officers is not only a waste of taxpayer investment in their training, producers will lose the opportunity to buy a farm or ranch, if not lose their existing farm or ranch," Ducheneaux said. "They will not be able to get their operating money in a timely fashion. That's not hyperbole. It is actual, literal fact."

An estimated 40% of USDA loan officers are eligible for retirement, according to a congressional source familiar with USDA. The source said Congress has given FSA $30 million over the last two years to hire staff to replace those nearing retirement.

"FSA has to do this because it is a two-year training cycle for loan officers before they are fully operational. All this talent is now gone," the congressional source said.

One terminated Agricultural Research Service employee who spoke with
Agri-Pulse
but did not want to be identified by name said he got an email at 11:29 p.m. Thursday saying he was terminated due to poor performance. The worker, who had been employed for less than a year, said he never had a formal performance review.

Related Articles

Rollins vows return to 'core mission' of USDA (/articles/22385-rollins-vows-return-to-core-mission-of-usda)
USDA faces 'stigma,' course work challenges in hiring critical field staff (/articles/19459-usda-faces-stigma-course-work-challenges-in-hiring-critical-field-staff)
Vilsack: USDA strapped by low staff salaries (/articles/19156-vilsack-usda-strapped-by-low-staff-salaries)

"What I think is just totally unfair is, you know, we were given the 'fork in the road' email and you could just type your resignation along with your name and send it back," the former employee said. The "fork in the road" email, which went to all federal employees, offered them full pay them until Sept. 30 if they would resign immediately.

“Now, I don't think we're going to be getting anything,” the ex-employee said, adding, “We're supposed to get paid today, and I still haven't seen the paycheck for normal services rendered.”

Approximately 1,200 Natural Resources Conservation Services employees are believed to have been fired, according to a source close to the agency who spoke to
Agri-Pulse
on the condition of anonymity.

The firings will be a setback for NRCS, which has been trying for years to increase its workforce to help producers implement conservation practices. Many of the impacted staff work in county offices, often serving as farmers’ first points of contact when applying for a federal program, the source said.

“I think this is a lot of steps backwards in terms of the ability to serve those producers,” the source said.

The termination notices viewed by
Agri-Pulse
included language such as “the agency finds, based on your performance, that you have not demonstrated that your further employment at the agency would be in the public interest.”

One terminated NRCS employee said in a message to
Agri-Pulse
that they had two spot performance awards, “fully met expectations” on their annual review last fall, and were recently promoted from GS-9 to GS-11 because of their performance.” GS-9 and GS-11 are federal employment pay grades.

Agri-Pulse
identified dozens of former USDA employees who reported being fired in social media postings, including staff from the USDA National Bio & Agro-Defense Facility, National Laboratory of Agriculture and the Environment, U.S. Forest Service and Rural Development agency stationed in various positions across the U.S., among others. One terminated employee was a doctorate level research molecular biologist in the USDA ARS.

The American Federation of Government Employees, which represents about 100,000 people at USDA, condemned the firings.

"Despite OPM's guidance earlier this week advising agencies not to engage in sweeping terminations, the administration has plowed forward,"
AFGE National President Everett Kelley said
(https://www.afge.org/publication/afge-president-everett-kelley-condemns-trump-administrations-mass-firing-of-federal-

employees/)
. "Employees were given no notice, no due process, and no opportunity to defend themselves in a blatant violation of the principles of fairness and merit that are supposed to govern federal employment."

Another 75,000 federal employees accepted the offer from the Trump administration to leave their jobs in return for getting paid through September. USDA has not said how many department employees took the offer.

According to the Partnership for Public Service, 38% of USDA employees were eligible for retirement at the end of 2023. Some 63% of USDA employees in the senior executive service were eligible for retirement.

“What a Valentine’s Day ❤️letter,” wrote one terminated USDA-NRCS employee in a LinkedIn post, announcing that they were now looking for employment.

For more news, go to
www.Agri-Pulse.com
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Sudden Oak Death NA2 Outbreak
Fusarium Wilt and Invasive Shot Hole Borer Complex

Kirk Lenington, Natural Resources Manager

February 20, 2025

Russian Ridge, Judith Zimmermann

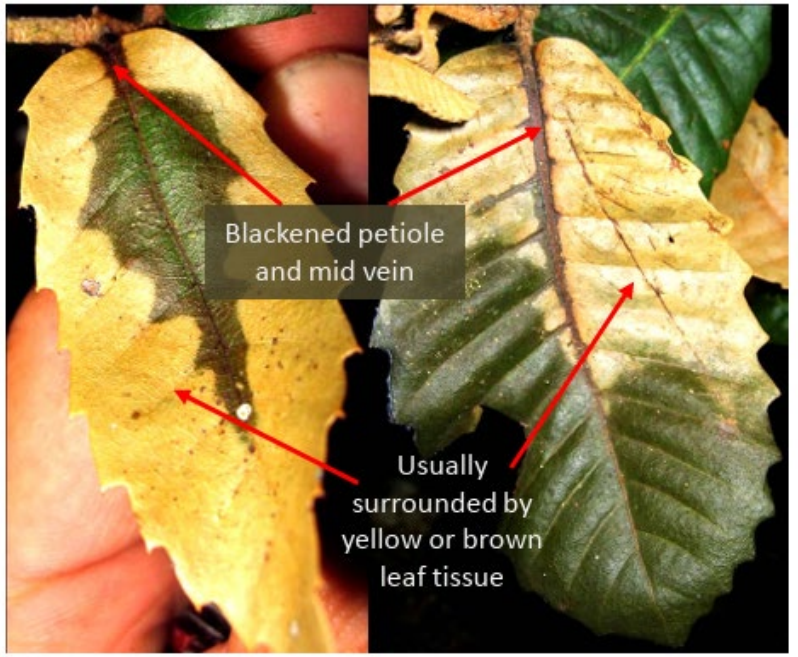
Agenda

- **New Sudden Oak Death Outbreak**
- **Monitoring for Invasive Shot Hole Borer**

What is Sudden Oak Death (SOD)?

- **Plant disease** that has caused one of the worst tree epidemics in the world
- Caused by an oomycete: ***Phytophthora ramorum***
- Kills **coast live**, **black**, **Shreve**, and **canyon live oaks** as well as **tanoaks**

SOD Symptoms on Tanoak Leaves



Oak Stem Infection

Photo credits: UC Berkeley Forest Pathology and Mycology Lab

How does SOD spread?

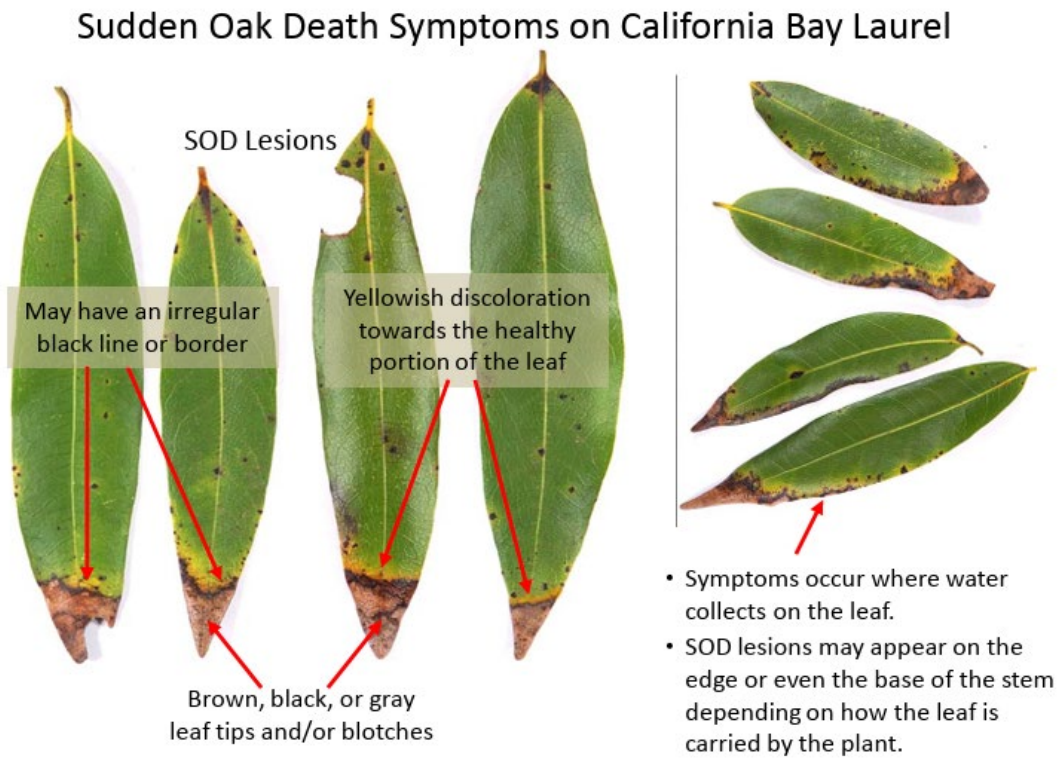


Photo credits: UC Berkeley Forest Pathology and Mycology Lab

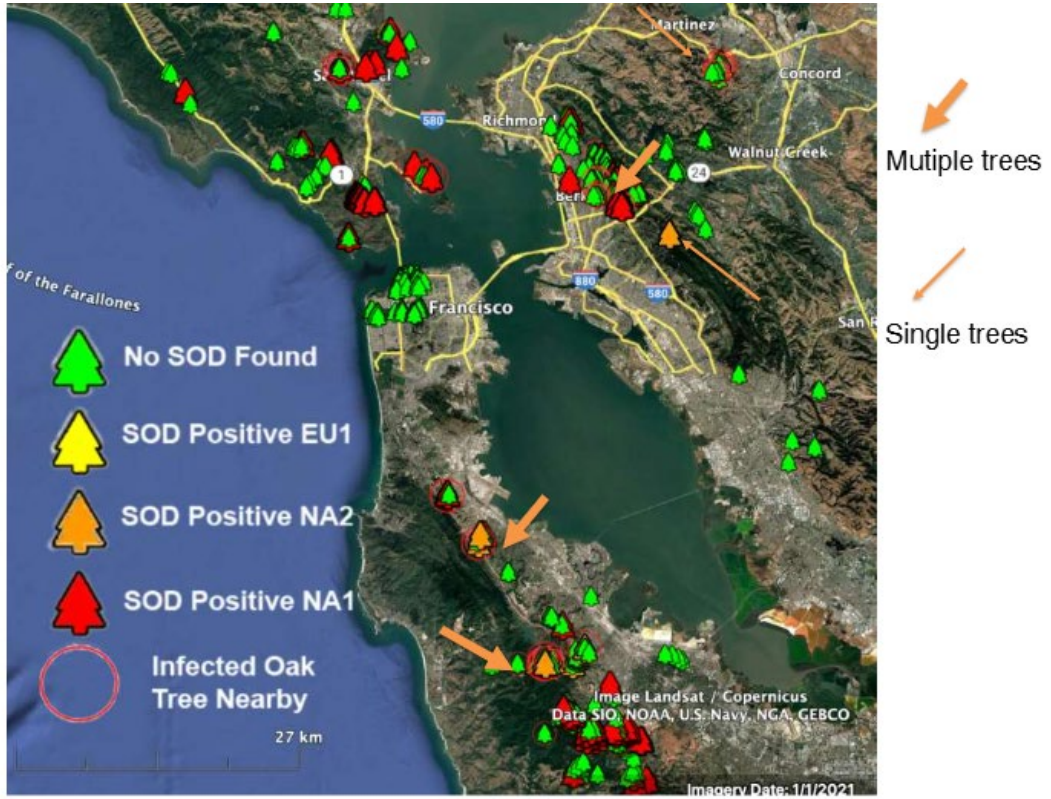
- Dispersed **aerially** and through **moisture**, especially in the **spring**
- Vectored by **infected plants** and by **moving infected plant materials** and **soil**
- Transferred from **shoes** and **tires** carrying spores

New SOD Outbreak

- *Phytophthora ramorum* lineages in North America:
  1. **NA1**
     - Widespread driver of oak and tanoak mortality since the 1990s
  2. **EU1**
     - Detected in 2020, but limited in scope and impact
  3. **NA2**
     - Newly detected as of 2024
     - **More virulent and aggressive, particularly in warmer conditions**

Discovery

- SOD Blitz Survey Effort
  - ~24,000 trees surveyed across 28 blitzes
  - Statewide **NA1** infection levels are **increasing**, with especially high incidence in **Sonoma, Marin, and Santa Cruz Mountain region**
  - 5 **NA2** outbreaks detected in the Bay Area



Source: Dr. Matteo Garbelotto, UC Berkeley

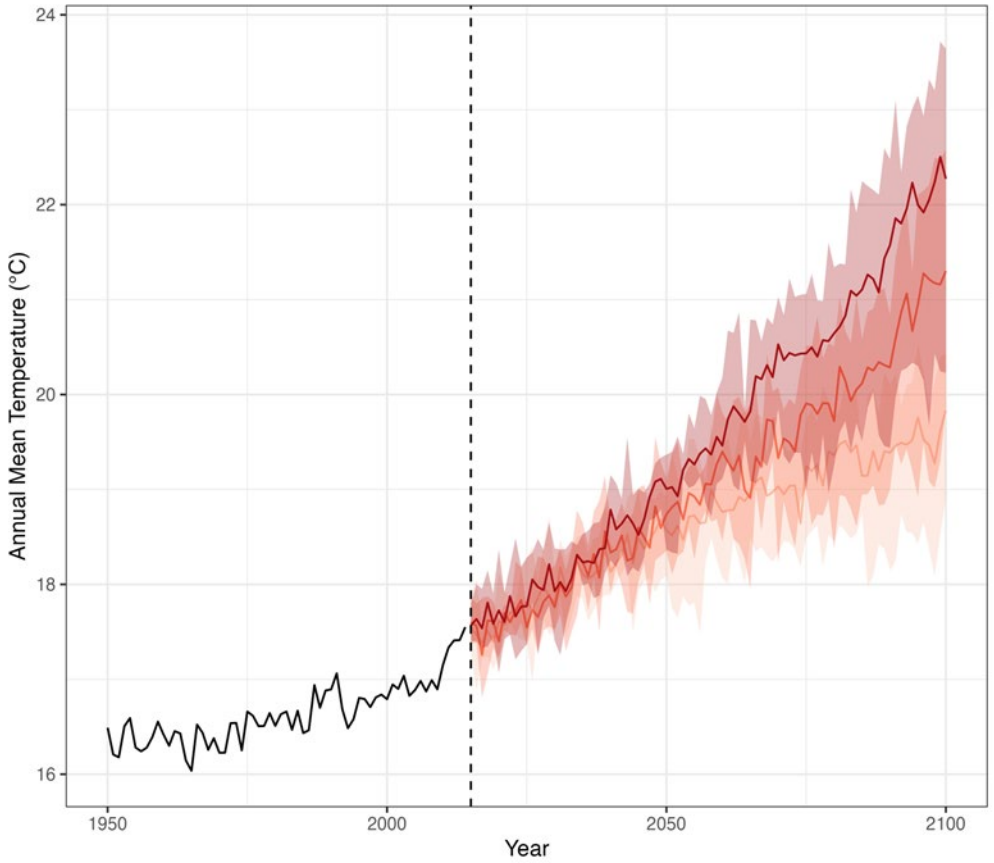
Why Now?

- **Two Theories:**

1. **Introduced recently on infected plants**

2. **Introduced in the past, but is emerging now because of climate change**

↪**Especially concerning if this is the case!**



Sources: S: Camponuri et al., in prep.
Pierce, D.W., D.R. Cayan, and B.L. Thrasher, 2014: Statistical downscaling using Localized Constructed Analogs (LOCA).

What can we do about this?

- **Manage the Spread**
  - Follow **Midpen Phytosanitation Guidelines**
    - **Decontaminate boots** and **equipment** between sites
    - **Limit movement** of plants, green waste, and soil
  - **Strategically remove infected bay laurel trees**
- **Monitor Outbreaks**
  - Delineate **zones of infection**
  - **SOD Blitz 2025** this spring **critical** for tracking spread

Implications & Next Steps

- **Important to Manage Spread of NA2**
  - **Limit movement** of plants, green waste, and soil from areas infested by NA2 into areas where only NA1 exists
  - **Remove NA2-infected bay laurels**
- **Further Testing & Surveying Needed**
  - UC Berkeley **retesting** all positive SOD samples within 1 km of current outbreaks
  - **SOD Blitz 2025** this spring critical for tracking spread

Source: Dr. Matteo Garbelotto, UC Berkeley

Fusarium Wilt and ISHB

Three Non-native Ambrosia Beetle Species:

Euwallaceae polyphageae

Euwallaceae kuroshio

Euwallaceae interjectus

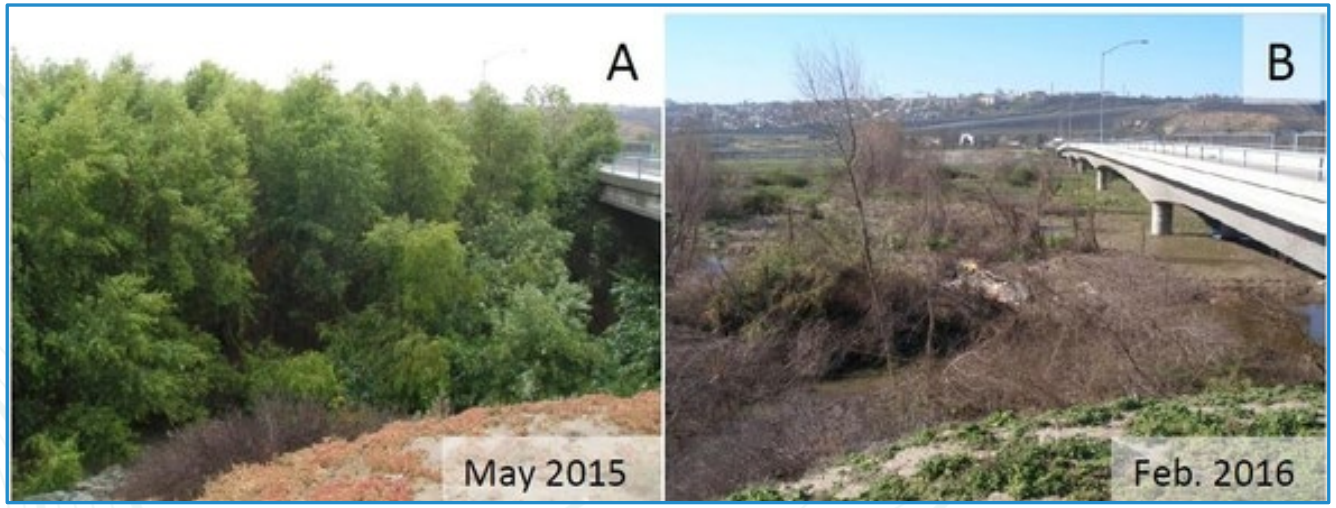
Referred to collectively as “ISHB” or “Invasive Shot Hole Borer” are inoculating trees in California with pathogenic fungi:

Fusarium spp.

commonly referred to as “Fusarium Wilt”

Fusarium Wilt and ISHB: Damage

Santa Clara Co. Coyote Creek infestation 2024.
Dead Amplifier Box Elder in foreground. Alive amplifier tree in background. Riparian corridor to right. Trees were removed. Riparian corridor not surveyed.



Credit: J. Boland and K. Uyeda

Riparian Forest canopy loss and mortality in Tijuana River Valley, San Diego Co. due to ISHB/Fusarium.

180k estimated trees killed in 1 year. Many Willows were able to regenerate within 2 years. Other species do not survive.

Fusarium Wilt and ISHB: Detection

Abbreviated Host List

Susceptible to ISHB-FD (may cause tree death)

1. *Acer buergerianum* - Trident maple
2. *Acer macrophyllum* - Big leaf maple*
3. *Acer negundo* - Box elder*
4. *Parkinsonia aculeata* - Palo verde
5. *Platanus racemosa* - California sycamore*
6. *Platanus x hispanica* - London plane
7. *Populus fremontii* - Fremont cottonwood*
8. *Populus nigra* - Black poplar*
9. *Populus trichocarpa* - Black cottonwood*
10. *Quercus lobata* - Valley oak*
11. *Quercus robur* - English oak
12. *Ricinus communis* - Castorbean
13. *Salix gooddingii* - Black willow*
14. *Salix laevigata* - Red willow*
15. *Salix lasiolepis* - Arroyo willow*

Long list of additional hosts that are susceptible to dieback and structural damage but not mortality.

*indicates CA Native

Symptoms and Sign

Fusarium Wilt and ISHB: Monitoring

Fusarium Wilt and ISHB: Response

Restoration site success: Adjust plant pallets to exclude hosts as much as possible.

Worker Safety: ISHB tend to colonize in tree crotches compromising structural integrity. Can present risks to tree workers and others.

Manage hazard trees to prevent injuries and damage to vehicles and infrastructure.

Questions?

openspace.org
info@openspace.org

MIDPENINSULA REGIONAL OPEN SPACE

Los Trancos, Thirumalai Suresh