

STATE OF CALIFORNIA
ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

GREEN RIBBON SCIENCE PANEL
MEETING

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THURSDAY, MAY 13, 2010

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Bill Carroll, PhD, Co-Chairperson

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Michael P. Wilson, PhD, MPH

APPEARANCES CONTINUED

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Odette Madriago, Acting Deputy Director

Kathryn Barwick

Pauline Batarseh

Bob Boughton

Richard Driscoll

Trina Gonzalez

Judy Kong

Valetti Lang

Sherri Leiman

Cynthia Miller

Michael O'Docharty

Karl Palmer, Branch Manager, Science, Pollution
Prevention, and Technology Program

Jeffrey Wong, PhD

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1 PROCEEDINGS

2 MS. BARWICK: Good morning, everybody, and
3 welcome to the day two of our Green Ribbon Science Panel
4 meeting.

5 My name is Kathy Barwick. I'm with the
6 Department of Toxics, and I manage the Green Ribbon
7 Science Panel.

8 And this morning I just have a couple
9 housekeeping items. As you all know, the bathrooms are
10 right down the hall and to your left.

11 And I want to address the process about public
12 comment. But I'm just going to go through this morning's
13 agenda very quickly. We're going to talk today about our
14 Pollution Prevention Program, which is really exciting for
15 me since I've been in the program for many years. And I
16 really look forward to hearing what you all have to say
17 about our program and how we can improve it.

18 We're going to have an introduction this morning
19 by our Deputy Director, Trina Gonzalez, and Karl Palmer,
20 my Branch Chief. And then we're going to do some public
21 comment and opportunity for public comment.

22 And if members of the public would like to make a
23 comment, Judy, there in the red sweater, will have comment
24 cards. Just fill one of those out and provide that to
25 her, and we'll have that comment. As you know, the

1 comment is to the panel and not to the department.

2 We'll follow the comment by panel discussion and
3 advise to our program. And somewhere in there, there will
4 be a break. And then we will adjourn this meeting at noon
5 today.

6 And Debbie Raphael will be chairing our meeting
7 this morning, so I'll turn it over to her.

8 CO-CHAIRPERSON RAPHAEL: Thank you, Kathy.

9 So welcome back, everybody. I think you will
10 find that today's discussion has a little bit of a
11 different flavor than yesterday's intensity of detail. So
12 I know I'm really looking forward to today. We've got
13 some wonderful colleagues who will be presenting to us.

14 And I just want to take a minute to step back and
15 think about what's before us today, what we're going to be
16 doing this morning. Because in some sense, it seems so
17 painfully obvious that it's hard to know where to begin,
18 and that is what the link between the work of green
19 chemistry and the ideas behind green chemistry and that of
20 pollution prevention.

21 So I've been in this field myself for 17, 18
22 years. I know some of you have been in it longer than
23 that. And through that time, it feels like we've had
24 different terminology, different words to describe the
25 work we're doing. But at the end of the day, whether

1 we're talking about pollution prevention, sustainability,
2 green chemistry, cradle to cradle, all of those have one
3 thing in common, and that is we're trying to take care of
4 this planet that we live on, this closed ecosystem where
5 everything is connected and a change in one place effects
6 everything around it in that web of life. And I think
7 it's important to just take note of that, because the
8 whole purpose of the Green Chemistry Initiative was to
9 really address that issue. And we've got a State agency
10 who feels like it's their mission to start tackling that
11 nut and trying to figure out how best to deliver service
12 with limited resources.

13 So today, we've got two people presenting, but we
14 have more expertise in the room than that. And I'm going
15 to take the Chair's prerogative and ask Bob to move his
16 chair closer to Kathy. So is there anybody else in the
17 audience who is pollution prevention staff other than Bob
18 Boughton who I just happen to know?

19 And the other thing we've got is Kathy is putting
20 on her other hat now, the deeper hat, which is that of an
21 expert on pollution prevention. So this is a time for us
22 to come together as colleagues, listen to what the
23 department staff have been working on, and give them our
24 sage advice based on our years and years of collective
25 experience in this room.

1 So with that, I'm going to let Trina -- welcome,
2 Trina. Maybe you can tell us a little bit about yourself,
3 because you are a new player in this room.

4 DEPUTY DIRECTOR GONZALEZ: Thank you very much,
5 Debbie.

6 Can everyone hear me?

7 So I will take a quick moment to introduce
8 everyone, since Debbie already introduced Kathy, who all
9 of you know.

10 Bob Boughton is with our Green Technology Branch.
11 And he does a lot of our LCA work.

12 Melody Lang here is one of our program sups in
13 our P2 Branch, works for Karl, who will be presenting with
14 me.

15 And Sherri Lehman, who is our Branch Chief over
16 Toxic and Products Branch.

17 So thank you for letting me introduce everybody
18 here. Thank you, Debbie, for this opportunity.

19 Thank you, Maziar, for this opportunity to
20 present in front of the Green Ribbon Science Panel.

21 As Debbie intimated, I'm one of the newer people
22 here at the department. I'm on week ten, but I'm not
23 counting. So obviously still trying to learn the simple
24 things of the acronyms, where the bathrooms are, how to
25 get from floor to floor, that lovely thing of Cal/EPA. So

1 I definitely have been lucky however to have such great
2 staff working with me who are here and people who are not
3 here in our division.

4 So just a quick introduction of myself. Prior to
5 coming to DTSC, I spent the last five-and-a-half years at
6 the Health and Human Services Agency where I wore three
7 separate hats. I first started as a Special Assistant to
8 the Secretary where I worked on broad policy initiatives
9 and administrative support of the Secretary. So I worked
10 on the Governor's obesity prevention initiatives, health
11 care reform initiative, as well as the San Joaquin Valley
12 Partnership, which is an Executive Order mandated
13 partnership that's looking at broad how to improve the
14 health and well-being of the people in the valley.

15 After two years as Special Assistant to the
16 Secretary, she asked me to take over to be the Assistant
17 Secretary for Public Health and Emergency Medical Services
18 where I basically lead the agency's efforts in overseeing
19 the policy program, budget, and other issues related to
20 public health. And as some of you who have the
21 environmental health background, that's definitely one
22 piece of the world that I was in for about almost three
23 years. So my day-to-day work there could have been
24 anything from we're going to recall two million pounds of
25 ground beef, to H1N1.

1 After two-and-a-half years in that roll, as many
2 of you know, about this time last year, about
3 year-and-a-half ago now, I guess President Obama signed
4 into law the Federal Stimulus Act, or ARRA. And we had
5 nine departments in our agency that received ARRA funding.
6 And as maybe some of you know, ARRA funding comes with its
7 own fund in terms of how to implement what's allowed,
8 what's not allowed and the lovely reporting requirements
9 related to ARRA. And because of the nine departments that
10 were receiving ARRA funds in our agency, totaling up to
11 about \$16 billion, the Secretary asked me to take over and
12 kind of coordinate all our ARRA-related activities at the
13 agency. So that was my last job at the agency before I
14 left HHS to come to DTSC.

15 In addition to that, my other State experience
16 has been with the Department of Food and Agriculture where
17 I worked for two years under Secretary Veneman under the
18 Wilson administration. And there I primarily lead efforts
19 around international trade policy in support of the
20 Secretary as well as strategic planning efforts for the
21 department.

22 Outside of state government, my jobs have been
23 varied. My parents have a hard time when they ask how are
24 your kids doing. It's like, well, one is a web developer.
25 One is a doctor. And the third one, I'm not quite sure

1 what she does today. And then my jobs when you look at my
2 resume doesn't make sense.

3 But outside of state government, I worked at
4 Sacramento State University where I was Director of
5 Outreach and Recruiting for the graduate school at
6 Sacramento State. I was a policy analyst -- research
7 associate at the California Center for Health Improvement,
8 which is the Health Policy Center here in Sacramento.

9 And for over five years prior to coming back into
10 state government at HHS, I founded, along with two
11 partners, a program development and grant writing
12 consulting firm called Third Sector Strategies, where our
13 clients were primarily in the health world and the
14 education world. So that's kind of my broader background.

15 Obviously, you are probably most influenced by
16 your past, immediate past. So a lot of the approaches I
17 bring, a lot of the thinking I bring, a lot of the lens by
18 which I view my work will come from my HHS background, my
19 public health background probably more specifically that
20 very much dovetails nicely into some of the work that we
21 do at P2 in DTSC more broadly.

22 With that, am I speaking too fast? Because I
23 also have that tendency. So someone can throw something
24 at me if I start to speak too fast. Am I okay?

25 So to move on, on the quick presentation, this

1 slide is a quick reminder in terms of the final report
2 we've all seen many, many times. All the issues around
3 where the key six policy recommendations. And as you see,
4 number one there was pollution prevention.

5 Specific within the report are some key
6 recommendations. This is not the exhaustive list. This
7 is just to illustrate some of the recommendations within
8 the report expanding the Pollution Prevention Program from
9 everything from some key issues of bolstering the degree
10 business program, which you'll hear more about in Karl's
11 part of the presentation, providing incentives to invest
12 in safer alternatives, some of the work we could possibly
13 do on toxics in products, looking at modernizing our
14 programs in terms of aligning some of the newer and some
15 of the more recent green chemistry principles into our
16 pollution prevention work, including life cycle thinking
17 and processes in all of our work. And that's something if
18 you have further questions about that, Bob can be a good
19 resource for that.

20 And the third thing is adopting environmentally
21 preferred technologies and practices to guarantee a market
22 for green technologies. So, for example, the
23 Environmental Preferred Purchasing Program at the
24 Department of General Services with the State is something
25 we work with with DGS in terms of developing standards

1 around EPP, as we like to call it. And we continue to
2 work with them.

3 And this slide again is more illustrative of how
4 we're viewing green chemistry more broadly but
5 particularly around the expanding P2. This is not many --
6 this is more to illustrate that it's all interconnected.
7 We could change the middle box to the quest for safer
8 products and have all the programs around it, because
9 they're all dovetailing. Without the cohesive six,
10 they're all interconnected in terms of how we're going to
11 implement the Green Chemistry Initiative.

12 So, for example, in our quest for safer
13 alternatives products within our regs, what is our role
14 going to be in implementing the regulations once they're
15 implemented in terms of the P2 program, more specifically,
16 within that box of expanding P2.

17 So again, this is more of an illustrated thing
18 that we are trying to figure out how to kind of put
19 ourselves in the right position to be able to advance the
20 Green Chemistry Initiative more broadly and trying to make
21 sure that we prioritize our staff and our resources to
22 align with the broader framework of green chemistry.

23 So some basic slides. What is pollution
24 prevention? Pollution prevention is reducing or
25 eliminating waste at the source. Source reduction is sort

1 of at the core of pollution prevention activities. And
2 what does that mean? It means modifying production
3 processes. It means promoting the use of nontoxic or less
4 toxic substances. It means implementing conservation
5 techniques. It means reusing materials rather than
6 putting them in the waste stream. Again, this is not an
7 exhaustive list. This is just the core, the basic of what
8 is pollution prevention or what we call pollution
9 prevention more broadly in our department, more broadly in
10 the P2 broader world.

11 In contrast to most pollution control strategies,
12 would seek to manage a pollutant after it's formed and
13 reduce its impact upon the environment. The pollution
14 prevention approach really seeks to increase the
15 efficiency of a process, thereby reducing the amount of
16 pollution generated at its source. This is not about
17 treatment or looking for solutions after the fact. These
18 are principles that are very consistent with the Green
19 Chemistry Initiative here at DTSC.

20 So broadly, the office administers mandatory
21 programs and voluntary activities that protect public
22 health and the environment from adverse effects of
23 hazardous waste and products. This will be very quick on
24 this part of it. Key programs as part of the packet from
25 the last week I believe that Kathy forwarded to all of

1 you. There is a one-and-a-half page here on our division
2 and programs more specifically. So this will be a fairly
3 quick slide.

4 Our Pollution Prevention Branch is headed by Karl
5 Palmer, who will be presenting, as well has some key
6 programs. One is implements SB 14 and SB 1916, which are
7 the hazardous waste, source reduction, and management
8 review acts. SB 14 is a mandatory pollution prevention
9 planning program for large quantity generators of
10 hazardous waste. They look at identifying strategies as
11 well as look at companies must generate a source reduction
12 plan to reduce the generation of hazardous waste clearly
13 in their companies and report on progress to date based on
14 that plan.

15 SB 1916 is a sector-based voluntary technical
16 assistance and outreach program that we have, and it looks
17 at focusing on areas and projects that will kind of reduce
18 broader P2 issues on a voluntary basis. I'll go through
19 some particular programs in a future slide.

20 With the 1916, we have a P2 Advisory Committee,
21 and we work with them in coordinating efforts. The
22 Statutory Committee provides consultation and guidance for
23 the implementation and evaluation of our source reduction
24 programs and makes recommendations regarding our program
25 activities and priorities. And they're one of our

1 advisory committees that really doesn't form where we're
2 going and where we should prioritize our work.

3 Just to give you a flavor of some of our
4 recommendations that the Advisory Committee has given us
5 in the past is looking at expanding P2 beyond simply the
6 focus of hazardous waste. In other words, how do we
7 change the emphasis of voluntary sector-based hazardous
8 waste source reduction to a more multi-media Pollution
9 Prevention Program. Again, this is also very consistent
10 with GCI principles.

11 How can we make sure that we expand -- one of the
12 things we want to look at is how can we expand the pool of
13 business sectors to which to develop pollution prevention
14 projects. And again, Karl will talk about one of our
15 specific projects, the Green Business Program, which is
16 the next bullet down there. So there will be more details
17 about that in a bit.

18 Our other two branches within P2 -- it's not P2
19 anymore. OPPGT is the Green Technology Branch, which Bob
20 Boughton is a part of. And this branch looks at
21 evaluating. It's kind of our consulting branch. It
22 evaluates and provides objective information on innovative
23 environmental technologies through research, demonstration
24 projects, data analysis, a technology performance
25 evaluation. Sample programs in there, we have the green

1 mediation program, which is looking at working with
2 industry, other state governments, or international
3 governments. That's looking at creating frameworks for
4 incorporating sustainability principles and practices
5 within remediation activities as one example.

6 The Toxics and Products Branch, which Sherri is
7 the Branch Chief for, focuses on reducing toxic chemicals
8 in product through implementing statutory restrictions,
9 regulations, research, education, and outreach efforts to
10 industry, working with local partners and other
11 stakeholders to reduce toxic materials in products.
12 Sample activities in that branch include the mercury and
13 thermostat program, which is a fairly recent program which
14 started July 1st of last year, which is looking at working
15 with our local hazardous waste programs at collecting
16 thermostats with mercury in it from wholesalers and other
17 types of -- excuse me -- construction companies.

18 The E-Waste Program, which is looking at working
19 with the Department of CalRecycle now, the E-Waste Program
20 and working with providing technical assistance on our
21 piece of toxic materials within the E-Waste Program. I'll
22 stop there on the TIC Branch as we like to call it.

23 But really at the core of besides the laundry
24 list of programs that we have at P2, you know, how do we
25 really get our work done? What is really our kind of core

1 activities and core efforts within all of our programs,
2 P2, toxics and products and green technology? What do we
3 do and how do we do it? First and foremost, technical
4 assistance and support. We assist businesses in
5 identifying and implementing measures that reduce or
6 eliminate pollution at its source. An example of that,
7 for example, is within our Green Technology Branch, I was
8 working with Jeff Wong, our Chief Scientist, on assessing
9 impacts of the nanotechnology industry. So we provide
10 that staff support to Jeff in our efforts to work with
11 industry in identifying potential issues and concerns
12 regarding the nanotechnology industry.

13 Partnerships, partnerships, partnerships; we're
14 all about leveraging collaborative efforts and other
15 programs to work. And we add value to our broader project
16 and leverage our expertise and someone else's expertise to
17 the same greater good.

18 Our bioplastics work in our Green Technology
19 Division Branch is a partnership with U.C. Berkeley and
20 Stanford looking at reviewing and oversight of a
21 comprehensive life cycle assessment that compares various
22 bioplastic technologies.

23 Our Toxics and Products Branch is working with
24 the toxics and packaging clearinghouse, which is a
25 consortium of member states and industry that provides

1 guidance and recommendations for implementing toxics and
2 packaging laws.

3 Our multi-media fuels program, we are
4 participating or an interagency team within our Cal/EPA
5 world to evaluate the environmental impact of alternative
6 fuels and fuel additives. We are providing expertise in
7 waste management, life cycle thinking and contaminant
8 transport issues related to multi-media fuels.

9 Education and outreach, for much of our work,
10 we're a clearinghouse of tools for real solutions to real
11 problems. One of the things that we're doing within our
12 P2 branches, for example, in implementing SB 14 and SB
13 1916 is looking at working on transferring knowledge of
14 known practices to actual businesses. So, for example, we
15 conduct site visits and on-site training for industries
16 who want to learn more about how to reduce waste and
17 hazardous material production within their system.

18 We provide outreach materials to the same
19 businesses or a broader community so they can learn more
20 about hazardous waste reduction and what they can do in
21 the community. We're providing information on our website
22 and try to continuously provide updates so we have usable
23 information for people to be able to take action on their
24 own.

25 The last thing is something that comes from my

1 past when I hear my old boss talk about what's the role of
2 government, the role of government is primarily three
3 things: We're a funder. We're a regulator. And we're a
4 facilitator convener. And one of the big hurdles we have
5 at P2 is a facilitator and convener is bring together
6 whether it's our federal partners or state and local
7 programs, NGOs, businesses, and industry and others to
8 collaborate on P2 issues and programs.

9 One of the programs that we are currently working
10 on that Karl's branch is spearheading with Matt McCarron,
11 the head of our Green Business Program, is working with
12 the nail salons. Called the Nail Salon Collaborative.
13 We're working with seven State agencies: The Department
14 of Public Health, OSHA, OEHHA, ARB, and the State
15 Compensation Insurance Board, U.S. EPA, the Healthy Nail
16 Salon Collaborative. And we're working to look at how can
17 we make nail salons greener where it's safer for workers,
18 when we look at alternative products, et cetera, in terms
19 of how do we establish what a green nail salon could look
20 like in the future.

21 In addition, just given my own background and
22 contacts within the broader public health world, one of
23 the things I'm working on is trying to make the stronger
24 connection between our department and our P2 or green
25 chemistry work more broadly and the Department of Public

1 Health.

2 Kevin Reilly, who is the Chief Deputy of the
3 Department of Public Health, is very interested and kind
4 of doing everything from trying to do everything from how
5 do we engender some information exchange. As some of you
6 know, the Safe Cosmetics Act provided them some latitude
7 to collect information regarding cosmetics ingredients,
8 for example. How can we share that information? How can
9 we look at developing symposia of -- for example,
10 something like a working title we currently have is green
11 chemistry through our public health lands. How do we
12 broaden the tent to really talk about green chemistry
13 through another lens or from another place?

14 And so those are kind of the ways that we're
15 playing facilitator and convener of various issues and
16 currently department's programs activities to leverage all
17 what we want to do to leverage what we are mutually
18 beneficial and mutually shared goals and objectives to to
19 move forward with the Green Chemistry Initiative more
20 broadly, more specifically P2 activities and efforts.

21 And now I will turn to Karl Palmer, who will give
22 you kind of more flavor of one of our programs, the Green
23 Business Program, to kind of show and illustrate what some
24 of the work we're doing around partnerships and looking at
25 green business and how we measure some of our green

1 businesses in California.

2 BRANCH MANAGER PALMER: Thank you, Trina.

3 Can you hear me?

4 Good morning. Thanks. It's a pleasure to be
5 here.

6 I wanted to note for the record that is a
7 goldfish on the slide, and that's a tribute to Kelly
8 Moran's interest in ecotoxicity.

9 I'm going to try to bore it down a little bit
10 into highlighting a specific program, our Green Business
11 Program, and talk a little bit about how we're focusing
12 our efforts in that area and I think most importantly the
13 value of the collaboration that's going on in that area as
14 well as the development of tracking and metrics database
15 which provides all of us from state to local government to
16 the businesses themselves information on how well they're
17 doing at green business and actually providing some
18 information on the value of what we're doing.

19 So what is green and what is a green business?
20 Of course, that's very easy. All you have to do is look
21 at the label. So I'm not going to talk much about
22 branding and labeling. But I do want to highlight that
23 there are a multitude of Green Business Programs
24 throughout the country at different states and
25 municipalities. And this is one model, but we think it's

1 a good one.

2 So I'm going to give you some specifics on that.
3 Basically, the Green Business Program at its heart is a
4 collaboration of state government, local government, and
5 local businesses as well as utilities and other business
6 organizations to establish a program that agrees on some
7 standards on what it means to be a green business in a
8 specific sector. It is beyond compliance program where we
9 are assuming that everyone that gets certified to be green
10 is in compliance with all environmental and health
11 regulations. It's comprehensive. It's not just looking
12 at hazardous waste or energy or water. It's looking at
13 all of those things, because essentially businesses are
14 responsible for all these things and care about all these
15 things, not just our little world of hazardous waste.
16 We'll talk more about that.

17 And it's also really focused on small and medium
18 size businesses, businesses that don't necessarily have
19 the resource technical expertise to hire someone to come
20 in and do an EMS system or look at their operations and
21 see how they can actually make things happen on their
22 level.

23 How does it work? Like most Green Business
24 Programs, it's checklist oriented by sector. These are
25 some examples of the types of things we're looking at when

1 we look at a business. And the checklist system is
2 designed so to be certified you have certain mandatory
3 measures that you must do. So, for example, you have to
4 have an industry audit. But then there are a list of
5 multiple measures that you might be able to do. And if
6 you score high enough, then you can be certified. That's
7 a simplification. We'll get more into it. But
8 essentially it's looking at these different sectors and
9 saying what are the things you can do in the real world in
10 your business to green your operation.

11 We have over 20 different specific sectors that
12 we certify and we're working on a few others. And for the
13 most part, you can see that these businesses are
14 businesses that provide services to consumers. There are
15 people that do manufacturing and other more basic
16 production type operations, but most of them are service
17 oriented. And there are a lot of commonality between
18 them. So the janitorial products list is similar in
19 multiple sectors.

20 So here's one of the key points. The way it
21 works in California is that's really centered on the local
22 government coordinator. I'll get to that in a minute.
23 But basically bringing all the different resources
24 together and all the agencies that are responsible for
25 different media. So it's not just one entity looking at

1 energy and looking at hazardous waste and solid waste, but
2 we're bringing in all the responsible agencies to
3 participate and use their expertise, their authority, and
4 their programs to develop a relationship at the local
5 level so that business brings all these resources to bear
6 on how they can improve their business in each of these
7 media. So that's the real strength of the program.

8 So the energy utility is going to be the one that
9 determines what does the energy audit look like. What are
10 the specific measures this business might do to save
11 energy and additionally what programs they bring to bear,
12 whether that's incentives or technical resources to help
13 people actually make real changes in their business, not
14 just talk about the concept. So we bring all these people
15 to bear. And these agencies are committed to participate
16 and they spend their time and resources helping the
17 specific business improve.

18 The key to the whole process is really the local
19 coordinator, which is typically housed in Environmental
20 Agency, whether that's the hazardous waste inspectors or
21 the environmental health department. Some POTWs are key
22 players. But basically, this person or persons is the one
23 that makes the program work. They contact the businesses.
24 They help them through the checklist process. They answer
25 their direct questions. They work with them on marketing

1 and branding. Once they're certified, they recognize them
2 either through their board of supervisors or their city
3 council. They're in the community where this business
4 works.

5 And so the key thing is they're really
6 establishing a relationship. It's like having your own
7 consultant. Again, these are mostly small businesses and
8 they aren't hiring these people. They're getting the
9 benefit of their expertise in their own community and
10 bringing all the other players in. So that is really key.

11 I think the other key part of the program is this
12 coordinator also is the one that verifies they're doing
13 what they say they're going to do. The checklist isn't
14 just an exercise that they check off and is on paper.
15 There is an audit. They verify they are actually
16 implementing these measures, very important. And that
17 especially speaks to the credibility of the certification.

18 What's DTSC's role? Essentially, our role is
19 two-fold. One is that we provide technical support. Over
20 the years in various sectors, many agencies, ours, U.S.
21 EPA, other states, have developed fact sheets, information
22 on specific processes, whether it's at a vehicle service
23 repair shop talking about aqueous versus solvent parts
24 washers, training videos, fact sheets, what are the
25 technical aspects of a business, how can you change your

1 business model to be greener, to be safer, and to improve
2 the triple bottom line. These technical resources we
3 develop and we pull others from elsewhere and we bring
4 them to the local coordinators to work directly with the
5 business so they can utilize those tools. It's great to
6 produce these fact sheets. But if you can't get it to the
7 person who needs it and who's going to understand it and
8 make it work, it doesn't have a whole lot of value.

9 We also are trying to coordinate statewide the
10 growth of this program. This program started about 15
11 years ago in the San Francisco Bay Area and has grown Bay
12 Area wide and more in southern California. We're moving
13 into the valley. So we're trying to get other local
14 agencies and partners to adopt the system and participate.

15 And then lastly, and importantly, we've helped
16 develop a tracking and metrics database. Again, this has
17 been a hugely collaborative effort. I want to acknowledge
18 the many local government agencies that have spent massive
19 amounts of time and energy working with us to make this
20 database real and effective. And I'll talk about that in
21 a minute.

22 So why does it work? Certainly, the partnership
23 is key. We have limited resources. Local government has
24 limited resources. Businesses have limited resource. So
25 we're using everyone's expertise in the best way we can.

1 We're also leveraging our expertise because this is an
2 important concept so that many people might -- businesses
3 might not care so much about the toxicity in a product
4 they use. They're more concerned about their energy bill.
5 We speak to that and that's the entrance into their world
6 and getting them to affect changes that work. And then we
7 bring the toxics issues at the same time. And to get
8 certified, you have to address all the different media.
9 So we leverage all the different areas.

10 Funding, this is free to local businesses. Some
11 jurisdictions are considering fees, and that's a function
12 in part of the popularity of this program. People want to
13 be in this program. We have a backlog. So we have an
14 opportunity perhaps to start charging some people for some
15 services.

16 Credibility; our criteria are out there. All the
17 checklists are transparent. Everyone knows what the rules
18 are. We audit. We verify. And our certification -- and
19 this is one of the unique parts about it has government
20 agencies and the people responsible for those different
21 sectors saying yes, they are doing these measures. They
22 are green. And that's one of the challenges in the market
23 today, what is green and how do I know if I'm going into
24 this business versus that business that they're really as
25 green as they say they are.

1 Performance -- and this is key. We are in the
2 process of developing a database that will collect real
3 data and give us feedback on what the outcomes are. And
4 that can be used by business to determine that these
5 behavioral changes that they're making actually have
6 value. It's not just a feel good concept that they can
7 say if we did this, this is how much energy we save. This
8 is how much waste is reduced and this is how much water we
9 save. The bottom line oftentimes being money and consumer
10 demand. Also we have a certifiable program that creates
11 some branding that gives businesses an advantage in the
12 market to say yes, we are what we say we are and we're
13 better for you as a consumer and better for our community.

14 The database, we spent a couple years working on
15 this extensively. The details are not important on the
16 slide. The main thing is that this is a web-based program
17 that allows a business to apply directly into the program.
18 It lets the local coordinator see the application, start
19 processing it, contact the entity that wants to be a
20 participant and work through the process online. This
21 saves a lot of paper and it's saving time.

22 Additionally, it is a tool for us to work on
23 metrics. And one of the things we've done is spent a lot
24 of time working on bringing in calculator tools and others
25 into the database so it makes some assumptions. And there

1 is a variety of them. They're all researched. But
2 basically this is an example that if you change out your
3 T-12 florescent lamps to T-8s and don't know how much we
4 did, we have a calculation that says you're going to save
5 this many kilowatt hours per lamp per year and that
6 translates into the metrics of the savings by your
7 activity. So that's a very important part.

8 This is sort of an example of how we've in the
9 past done metrics, which is you take a few examples of
10 some businesses and what data you can get and then you
11 extrapolate and think this looks good. This is okay. But
12 this is based on a lot of assumptions. The beauty of the
13 database is that it's using real data, real changes that
14 have happened. And you can compare that to the bottom
15 line.

16 So measuring success, what we'll be able to do is
17 each program, each business, the State will be able to
18 look for any given time frame in any given criteria that
19 the savings that we've made in terms of money, the savings
20 in energy and water, the reductions of waste. And so
21 that's a real good thing for us to show the value of our
22 collaborations and our efforts. And it's a great thing
23 for the business so they can justify actually effecting
24 change. You know, the bottom line for P2 is often
25 behavioral change. So we think the value of this is it

1 shows that you can have a back up to making change for the
2 good.

3 So here's where we are right now. In California,
4 there is 15 counties, two cities that are currently in the
5 program. We have the city of Los Angeles is currently
6 coming online, which is big, and Mendocino County. And
7 then we have other counties who we're working with to try
8 to get into the program. Roughly about now we probably
9 cover about 30 percent of California's population centers.
10 And we hope we'll continue to grow. The challenges are,
11 of course, for everyone from state and local level
12 resources is a very popular program. And if it were not
13 for collaborative efforts, we wouldn't be where we are
14 today. And we hope to continue this in the future and
15 continue collecting information about why P2 works and
16 have actual metrics to show the outcomes. So that's a
17 snapshot of that.

18 DEPUTY DIRECTOR GONZALEZ: So what we have is now
19 that's kind of the end of our part of the morning show in
20 terms of what we're doing. So we kind of want to give you
21 more flavor of the snapshot of broadly what our programs
22 and activities are, not only what they are but how we do
23 it. Wanted to give you a quick snapshot of one of our
24 programs we're very proud of, the Green Business Program,
25 which I think is a very real program where I used the word

1 recently in an interview it's kind of a three-for. How do
2 you help the environment? How do you help health? And by
3 the way, you can save money in the bottom line. And
4 that's very attractive to businesses, especially small and
5 medium businesses in California.

6 And so on that broad level of who are we, what we
7 do, we kind of wanted to take it back to the counsel, to
8 the panel and really talk about what are some of the
9 feedback that we would like to have from you in terms of
10 questions, in terms of how we're going to position P2 in
11 terms of the plank of expanding P2 with the Green
12 Chemistry Initiative, but dovetailing on Director
13 Movassaghi's statement from yesterday.

14 We are in a transition. That's the mode that
15 everyone is going to be in, and we want to make sure that
16 we both leverage our expertise that we have around us,
17 including obviously this esteemed panel, to help us
18 develop priorities. How do we align those resources to
19 those priorities to make sure that we make sure that P2
20 programs not only continue but obviously in support of the
21 broader green chemistry initiative?

22 So go ahead, Debbie. I'm done.

23 CO-CHAIRPERSON RAPHAEL: Thank you, Trina.

24 So Trina, if you could take a seat, because our
25 next part is public comment, which I'm going to turn this

1 over to --

2 MS. MILLER: The floor is now open for public
3 comment. We do have several members of the public in
4 attendance today. Do any of you have comments to relay to
5 the panel?

6 It looks like we don't have any public comments
7 from people in attendance today and we also have not
8 received any e-mails.

9 In the future, for people who are watching our
10 webcast, if they did have comments, they could please
11 submit them to green.chemistry@dtsc.ca.org. Thank you.

12 CO-CHAIRPERSON RAPHAEL: Thank you.

13 So I would like to ask -- yes, Trina, I need you
14 more visible, and also Sherri and Paula -- Paula, you are
15 there somewhere behind hiding. Yes. If you guys could
16 just -- it would make me feel more like we're having a
17 discussion if you all could move chairs around Bob and
18 everyone, because there is a microphone over there and you
19 can weigh in. And, Trina, if you're comfortable staying
20 there, that's fine. If you want a pull a chair up, I'll
21 leave that to you.

22 So just looking at the schedule for the morning,
23 we have a sort of a natural break in this sense that we've
24 got an hour in the morning somewhat, an hour after the
25 break. And in looking at those questions that are before

1 us, to me, there's sort of a major -- the bigger
2 distinction is between the third question and the first
3 two. So what I'm going to propose is that we spend the
4 first hour or so talking about -- reacting to what we hear
5 drawing on our experience of the work we've all done here,
6 whether we've considered ourselves in the field of
7 pollution prevention or not. I think if you look at their
8 definition of pollution prevention on an earlier slide, it
9 was pretty broad.

10 I mean, I think pollution prevention is reducing
11 or eliminating waste at the source by modifying production
12 processes, promoting the use of non-toxic or less toxic
13 substances. That's alternatives assessment; implementing
14 conservation techniques and reusing materials rather than
15 putting them into the waste stream. When I hear that, I
16 think many of the principles of green chemistry are in
17 there. Alternatives assessment is absolutely key. So
18 that to me is relevant to every single person around this
19 group here.

20 So with that, when we look at the first
21 question -- can we go back to that last slide? Thanks.
22 What efforts and activities can DTSC undertake to further
23 promote green chemistry principles and how can
24 alternatives assessment be used outside of AB 1879?

25 So I think the way I interpret these two

1 questions as a whole is thinking about the group that's
2 sitting there, their expertise, their limited resources,
3 using the Green Business Program as perhaps an example of
4 leveraging expertise and partnerships and thinking about
5 Trina's wonderful three-some of what can government do,
6 which is regulation, funding, and convening as sort of the
7 frame. I'm wondering if what comes up for you when you
8 think about pollution prevention, the department, AB 1879,
9 alternatives assessment, and how we move forward.

10 Does anyone want to kick off those?

11 Lauren.

12 PANEL MEMBER HEINE: Thank you so much for the
13 presentation. It's wonderful -- I know my roots are in
14 pollution prevention and green chemistry. And sometimes
15 we package things and sometimes there is a breakthrough.
16 And I'm curious -- I have one question just about the
17 level of engagement about growth and interest in these
18 activities and how you reach out to people. And then I
19 have a couple of comments.

20 I am wondering if it might be possible for you to
21 target retailers given that the last recommendation was
22 moved toward a cradle to cradle economy. And that had a
23 focus on retailers. So how might the Pollution Prevention
24 Program sort of close that circle by working with the
25 retailers and focusing on some of the work -- that one

1 initiative we haven't really discussed. And if targeting
2 retailers might begin activity to move toward the cradle
3 to cradle economy. I think that's all.

4 Oh, I just wanted to make one little comment.
5 When I was in Portland, Oregon, there was a Pollution
6 Prevention Program that provided matching funds. But it
7 was from the Portland Development Commission as opposed to
8 the Environmental Commission. And it was viewed as a form
9 of business development because it ended up saving these
10 companies so much money that the PDC provided matching
11 funds. And the company could match either time or
12 investment in new technology or funds themselves.

13 So in terms of accessing new resources, it might
14 be possible to view business development as a new partner
15 for you. And again, that question about if I could ask a
16 question about the extent of involvement, like the type of
17 growth. How do people get engaged in this program?

18 CO-CHAIRPERSON RAPHAEL: So this is not -- there
19 is no gag rule here like yesterday. So those of you who
20 weren't here, you guys weren't here, but we had very
21 strict rules about not allowing to ask the DTSC staff a
22 single question. So that is not today. Today is very
23 different. So when I was hearing Lauren's comments, I was
24 going, oh, yeah. I need to make sure you know you can
25 answer.

1 So Lauren, I heard ask you about involving
2 retailers and -- can you explain what you mean by
3 involving retailers? Like on selling greener products?

4 PANEL MEMBER HEINE: Well, looking at the
5 certifications that you have and there is a suite of them.
6 Some of them -- well, there's a lot of different types of
7 businesses. But in the policy recommendations for the
8 Green Chemistry Initiative move toward a cradle to cradle
9 economy was pretty much focused on retailers as I read it.
10 So I'm wondering if your group could begin to make that
11 link to the retailers, since they are the gatekeepers for
12 so many products that come out to consumers.

13 CO-CHAIRPERSON RAPHAEL: Introduce yourself.

14 TOXICS AND PRODUCTS BRANCH CHIEF LEHMAN: I'm
15 Sherri Lehman, Branch Chief for Toxics and Products
16 Branch.

17 A different angle besides retailers, the toxic
18 and packaging clearinghouse, which is a national
19 organization, we are one of 19 member states participating
20 in pretty much implementing a regulatory and national
21 program for reducing the amount of lead cadmium, hex
22 chrome, and mercury in packaging product. And the
23 activities we've been doing is working more toward the
24 manufacturer or the producer from the source, whether the
25 materials are going into the packaging before it even gets

1 to the retailer. Again, this isn't a product, but it's
2 the packaging. And it's been very successful. We started
3 with about 3,000 potential manufacturers/producers that we
4 were looking at. We've narrowed it down to about 200 that
5 we have certifications for. And those companies are now
6 reducing or trying to eliminate those four metals from the
7 packaging process. It's been a really positive way to
8 actually get it from the top end of the chain before it
9 even gets to the retailer and on the shelf.

10 CO-CHAIRPERSON RAPHAEL: Lauren, if you want to
11 follow up later. I have Ann, Roger, Bob, Art, Kelly, Ken,
12 Dale. So let's go with Ann.

13 POLLUTION PREVENTION ASSISTANT DEPUTY DIRECTOR
14 BATARSEH: Pauline Batarseh, Assistant Deputy Director for
15 Pollution Prevention.

16 I really like the concepts wrote up with
17 expanding on the work that we already do. The Green
18 Business Program, we wanted to highlight this program
19 because it's really where the rubber hits the road. And
20 with the cradle to cradle economy using the metrics we
21 already have, I think we can do even better down the road
22 and expand on it to really have a footprint calculator
23 that leads us more into implementation of policy
24 recommendation number six.

25 But this is a really good start to us working

1 with businesses and incorporating all the environmental
2 approaches with solid waste hazardous waste, energy and
3 water so we can move closer to a cradle to cradle economy.
4 But we do have more work to do to move it that way.

5 CO-CHAIRPERSON RAPHAEL: Karl, do you want to --

6 BRANCH MANAGER PALMER: Yeah. Sort of on the
7 concrete level is businesses often provide a service or
8 they may be a retailer selling something, but there's
9 different aspects of the certification. Part of it is how
10 they operate their business. But another part is EPP. So
11 they are looking at the product they use in their business
12 and they may look at the products they sell to make
13 decisions about doing their alternatives analysis to say
14 we provide this service, we use this solvent, and we clean
15 the parts or we provide this product. They are encouraged
16 to look at alternatives in purchasing the things they sell
17 as well so it does translate to the consumer by saying we
18 offer a better product, a greener product. And we've gone
19 through that. And it's in the structure of the whole
20 system.

21 CO-CHAIRPERSON RAPHAEL: Bob.

22 MR. BOUGHTON: Bob Boughton from the Pollution
23 Prevention Program.

24 Just to add a quick thing that has to do with
25 kind of the marketing angle. Traditionally, pollution

1 prevention is defined as we've gone into service sector
2 entities and worked within the fence line. It hasn't been
3 product oriented. Now we know we need to expand into
4 products more. And when you get into talking about
5 retailers, you're right. We need to work both sides for
6 designers to create market push and we need to work at
7 retailer level or the sales level to create the market
8 pull. Because you can't always push these things down and
9 you can't always create something out of nothing. So we
10 do need to work both sides and start figuring out how to
11 do that.

12 PANEL MEMBER HEINE: And as convener, you can
13 pull them together.

14 MR. BOUGHTON: Right.

15 CO-CHAIRPERSON RAPHAEL: Ann.

16 PANEL MEMBER BLAKE: Well, as with many people
17 around this table, my roots are in pollution prevention,
18 but specifically in this Pollution Prevention Branch. So
19 I'm so delighted to hear about all the work you're doing
20 and particularly the Green Business Program. It's kind of
21 dating me. But I remember the early days of it, as Kathy
22 does. So to have actual measures, congratulations.

23 So obviously I'm very excited about this in
24 linking the two -- yesterday's conversation to here. But
25 I will try to honor Debbie's thing about focusing on the

1 first question and go through my laundry list fairly
2 quickly.

3 The two things that I see the way the Pollution
4 Prevention Program can contribute to the implementation of
5 1879 is a lot of the experience that you already have, the
6 years and years of expertise and experience can inform
7 very much the practical implementation of 1879 as we were
8 starting to get into yesterday.

9 One of them is Kelly and I were talking this
10 morning about the tiered alternatives assessment approach
11 that we proposed yesterday to me parallels very much the
12 SB 14 call in program that there's different stages of it.
13 There's sort of the initial call-in and then the deeper
14 focus. So there is a lot of experience there that I think
15 can be translated into implementation of the alternatives
16 assessment piece of this.

17 Another piece that I see specifically is -- and
18 haven't thought about the model of the Green Business
19 Program until this morning, that would mean I should
20 have -- is that we were talking yesterday about the
21 different kinds of LCA expertise that are going to be
22 needed to perform alternatives assessment, but also to
23 review them. So I think that's an area where you can
24 definitely start expanding your expertise within the
25 Pollution Prevention Program, but have it be very much

1 like the green business partnership at the county level.
2 Have different pieces of expertise from different agencies
3 come in and help you with the expertise you're going to
4 need to review alternatives assessments as they come in.

5 And also the second piece of it. So one is
6 informing implementation of AB 1879, but the second piece
7 is educating people. And you have huge experience in
8 this, taking tools, developing tools, and getting them out
9 to businesses that may not have the ability to deal to do
10 their own alternative assessment or make the choices they
11 have.

12 And so I think an easy way to do this is to
13 educate businesses that you already have contact with or
14 could have contact with on green chemistry solutions to
15 some of their problems. And you're perfectly situated to
16 take tools that are being developed, things like the Green
17 Screen that Lauren and many of us have been working on and
18 other approaches, tools that I just heard about, including
19 the iSTAIN from John Warner is beyond benign, which is
20 helping R&D chemists. So this may or may not be relevant
21 to the service sector in green business, but may be
22 relevant to other sectors but helping them implement --
23 changing their manufacturing processes and design
24 processes based on the principles of green chemistry.

25 So I think I will stop there for now.

1 CO-CHAIRPERSON RAPHAEL: Thank you, Ann.

2 Roger.

3 PANEL MEMBER MC FADDEN: Thank you.

4 Roger McFadden, Staples, as retailer.

5 Wanted to compliment your team on what you're
6 doing here. And I think it does, if you think about it,
7 aligns quite nicely to green chemistry, because one of the
8 twelve principles is prevent waste. And there's probably
9 some other principles within the green chemistry twelve
10 that fit here as well. Communicating success or value is
11 extremely important.

12 So one suggestion would be that if you have case
13 studies, and it sounds like you have a number of real
14 successes here that have occurred, to communicate those
15 successes, publish those, and let other businesses see the
16 value of these efforts so that they will want to do it as
17 well.

18 Also, best practices. I notice in the write up,
19 there's work on best practices in capturing best
20 practices. Sharing those best practices with other
21 businesses, both inside the state and outside the state
22 will encourage others to want to participate as well. And
23 I'm suggesting you don't do those things, because I don't
24 know if you do. But if you do, you're going to tell me in
25 a minute I'm sure.

1 And then mandating on the EPP side, mandating we
2 found even with our suppliers works a lot better than
3 preferring. And so in EPP, whenever you can -- and I know
4 there's certain restrictions to the regulations that
5 prevent that from being done. But whenever you can
6 require that green products be certified for green
7 products, mandated, that is very valuable.

8 Thank you very much.

9 CO-CHAIRPERSON RAPHAEL: So I just wanted to give
10 DTSC staff -- you've heard from Ann and Roger. Does
11 anything come up for you based on what you've heard that
12 you want to talk about? Pauline.

13 POLLUTION PREVENTION ASSISTANT DEPUTY DIRECTOR
14 BATARSEH: I actually want to say what I heard is music to
15 my ears. This is basically just hearing that we can use
16 the expertise that we built over the years to really
17 further the Green Chemistry Initiative is exactly what we
18 have been thinking of.

19 You know, we have excellent expertise not only
20 technically but also in the outreach.

21 And Mr. McFadden mentioned, you know, the
22 communication element is very important. And we need to
23 keep an eye on the technology and new tools for
24 communication where we can improve. But we also need to
25 make sure that our staff are trained adequately as we move

1 around in alternatives assessment and life cycle thinking.
2 And this is an element that we have been doing as well as
3 part of our plastics research work and other work we are
4 doing right now.

5 CO-CHAIRPERSON RAPHAEL: That's a great point.

6 POLLUTION PREVENTION ASSISTANT DEPUTY DIRECTOR

7 BATARSEH: I appreciate your comments.

8 CO-CHAIRPERSON RAPHAEL: That's a great point.

9 Bob.

10 PANEL MEMBER PEOPLES: Bob Peoples, BCS, Green
11 Chemistry Institute.

12 First, I'd like to begin by reiterating or
13 supporting Ann's very elegant comments about the
14 accomplishments and particularly the development of
15 metrics. For someone that's not in the state but on the
16 opposite coast, it's very rewarding to see that long-term
17 commitment reduced to both qualitative and quantitative
18 impacts. So to the extent you have that information going
19 forward, I think I want to build on Roger's comments with
20 respect to one of my favorite words, and that's
21 communication. Communication is fundamentally important
22 to everything we try to accomplish, and in particular,
23 effective communication takes a huge amount of time and
24 energy.

25 So to that extent, I also say that there's

1 probably a disconnect that may offer an opportunity here.
2 People pay taxes and they're not happy about paying taxes.
3 They know it goes to government. And they know government
4 does something with it and it's the programs that you're
5 describing here today which deliver really good benefits.
6 The problem is I think the communications gap is that
7 information doesn't make it back to the people that pay
8 the taxes. And it were and they could see the tangible
9 benefits coming out of this, the support would be better
10 and therefore you start to build that critical mass that
11 gets you momentum that goes forward.

12 So think creatively about how you can leverage
13 and amplify communications approaches. And one way to do
14 that is to reinforce your academic liaisons. That does
15 two things. Number one, it gives you an opportunity to
16 build case studies. And those can be used to both the
17 business community, and I would argue there is a good link
18 between the academic world and the media. They're always
19 looking for stories about students and programs and such.
20 So the students have a lot of energy and enthusiasm and
21 understanding about all these issues for sustainability.
22 That can be a free link to media coverage that helps close
23 that communication gap going forward.

24 And then, finally, the other element of that
25 communication is with that academic link, you're building

1 knowledge and understanding for the future citizens that
2 will have to support these programs that pay their taxes.
3 So I commend you for the work you've done and I think
4 there are some ways to amplify what you're doing for both
5 short term and long term return on investment.

6 CO-CHAIRPERSON RAPHAEL: Okay.

7 Art.

8 PANEL MEMBER FONG: Thank you, Chair.

9 Art Fong, IBM.

10 Tim Malloy yesterday raised the concern regarding
11 the inclusion or exclusion of potential worker exposure to
12 manufacturing and processing chemicals. And I know that a
13 number of industry groups have submitted comments opposing
14 the inclusion into the draft outline for the safer
15 consumer products.

16 It seems to me that when our colleague from DTSC
17 was talking about the Pollution Prevention Program, seems
18 like this is more of a benefit for addressing the question
19 of manufacturing and processing chemicals and worker
20 exposure. And I was wondering if Tim can comment about if
21 he thinks this is also a benefit.

22 And the other comment I have is related to
23 expanding your effort into that particular area that this
24 is just like really impressive, again just like the work
25 that was presented to us yesterday. Just amazing stuff.

1 Glad to see that for once my California tax dollars are
2 doing something that I like.

3 But one thing I notice is it's not immediately
4 obvious to me. If you have specific drivers -- I'm
5 sorry -- specific programs or activities that actually
6 drive innovation. And that might tie in with Tim and my
7 debate or discussion yesterday about alternative
8 assessments, how that might fit in, how you can expand
9 that and include the concerns about manufacturing and
10 processing chemicals. Because Ann mentioned about
11 changing and design and manufacturing processes using the
12 green chemistry principle. And I think that fits in
13 nicely here as opposed to the safer consumer products
14 discussion we had yesterday.

15 Thank you very much for your time.

16 CO-CHAIRPERSON RAPHAEL: Art, these are really
17 cool ideas.

18 So basically, I'm going to let Tim respond on the
19 worker safety issue. And I hear the larger question of
20 how to use the P2 efforts to drive innovation and how can
21 that be. If the regs may not do that sufficiently, how
22 can we use the P2 program? Is that what you meant?

23 PANEL MEMBER FONG: Yes. It seems to me like
24 this is -- and I don't know this program really well.
25 Seems like most of the activities or programs within this

1 seem to be voluntary in nature. Is that the case?

2 CO-CHAIRPERSON RAPHAEL: Can you speak to that?

3 MS. BARWICK: Essentially, yes, they are mostly
4 voluntary in nature. Our planning program is a mixture of
5 voluntary and mandatory. So businesses that generate
6 larger quantities of hazardous waste are required to go
7 through the planning process, which was similar to what
8 Ken was talking about yesterday. It's rather a process
9 oriented regulation mandate. So I call it the lead the
10 horse to water regulation, which says you've got to go
11 through this analytical process to look at alternatives,
12 but the decision to implement source reduction strategies
13 is up to you. So it's actually a very important and kind
14 of difficult sort of program to implement in the right
15 way, because if we beat people on the head with the
16 mandatory aspects of the program, they're less likely to
17 want to voluntarily implement source reduction. But it is
18 essentially voluntary in that they make those decisions
19 themselves.

20 TOXICS AND PRODUCTS BRANCH CHIEF LEHMAN: From a
21 different angle, a lot of my program has to do with
22 legislation bans or restrictions. Please excuse me voice.
23 I've had allergies and it went into a cold.

24 So we are pretty much mandated to do things like
25 reducing lead in jewelry, lead in wheel weights, lead in

1 plumbing, handling treated wood waste, e-waste, things
2 that the Legislature has deemed there's either something
3 chemical or metal or in there that we want to reduce or
4 ban its composition. So while not voluntary, we end up
5 doing a lot of education and outreach to reach the
6 producers and the consumers.

7 We're now starting to work on some life cycle
8 assessment work with Bob in regards to like lead in wheel
9 weights. Okay. So you take the weight away, is the
10 plastic one okay? Or is some kind of synthetic depending
11 on what the composition is, what are the problems with
12 that? So some of it is voluntary, but we do have
13 legislative bans and restrictions.

14 CO-CHAIRPERSON RAPHAEL: Interesting.

15 Tim, do you want to comment on the worker element
16 before I go to Kelly?

17 PANEL MEMBER MALLOY: Bill, doesn't it seem wrong
18 that someone on the panel can ask me a question?

19 (Laughter)

20 CO-CHAIRPERSON RAPHAEL: Whole new ballpark here.
21 Whole new ballpark.

22 CO-CHAIRPERSON CARROLL: Talk to your Chair.

23 PANEL MEMBER MALLOY: Just so I make sure I
24 understand the question, is the question whether the
25 availability of a voluntary P2 program that would reach

1 inside businesses and could address occupational
2 exposures, does that somehow soften or reduce the concerns
3 that one might have more a mandatory program under 1879
4 that doesn't reach occupational exposure?

5 PANEL MEMBER FONG: Specifically related to 1879.

6 PANEL MEMBER MALLOY: So I guess I'd say a couple
7 things about that.

8 One, I'm a big supporter of P2 programs and this
9 program. It seems like you have a very sophisticated,
10 active program. But I think there is kind of a self
11 selection aspect, too, given the voluntary nature of it.

12 So the concern I would have is the types of
13 businesses that would engage in a program like this that
14 would address occupational exposures, they're not the ones
15 that I would tend to be more worried about. I would be
16 more worried about the ones that don't enter into
17 voluntary programs and may have less of a focus for
18 whatever reason on occupational exposures. So I would
19 say, certainly, you know, in a second best world having a
20 voluntary program that addresses it is a definite plus,
21 but I don't think it's a replacement for including
22 occupational exposures into a comprehensive mandatory
23 program.

24 CO-CHAIRPERSON RAPHAEL: Thanks.

25 Kelly.

1 PANEL MEMBER MORAN: I should probably start out
2 by -- since the staff knows this but everyone else in the
3 room doesn't know this, I've been very closely engaged
4 with the Pollution Prevention Program for a long time.
5 Actually, Kathy Barwick is the reason I'm here in the room
6 today, because I got into pollution prevention in a
7 serious way after meeting her, oh, probably almost
8 20 years ago. But I was involved in the writing of the
9 legislation. The staff mentioned one of the bills, SB
10 1916, that established the Advisory Committee, which was
11 the first legislatively mandated external advisory body
12 for the department. This is the second. And actually
13 Chaired that Committee for the first I think four or five
14 years of its time. John Ulrich is maybe not still in the
15 room but is also a member of that Committee. So I've done
16 a lot of work with those folks. And I think there is a
17 real potential for a really great program.

18 One of the biggest challenges for this program in
19 my view is that it's tiny. There are probably -- what --
20 38 million Californians. We might have as many people
21 doing pollution prevention as there are one per million in
22 California. So the idea that we could actually get out
23 with this tiny group of people and really change the
24 overall nature of business in California to me isn't
25 possible at this funding level. And that's one of the

1 biggest problems.

2 And as the department is trying to figure out
3 where to go with the ideas that we're talking about today
4 and also trying to figure out how to fund its
5 implementation of 1879, it needs to be hand in hand with
6 its energy, is funding for this program. I think that the
7 department will be more successful in implementing 1879 if
8 it has a lot of help for business. And that means this
9 program really needs the funding to do that, that we will
10 achieve the goal of changing California, changing
11 California to make it a sustainable place in terms of
12 green chemistry only if we can really help especially our
13 smaller and mid-size businesses. And this is the group
14 that can do that. So that's my vision.

15 In terms of -- I want to call out a couple of
16 things. I actually saw in the presentation something that
17 made me shiver, which was that it said that P2 is about
18 preventing waste. And this is a struggle the Pollution
19 Prevention Committee had with the department since its
20 inception. And it's a credit to this administration I
21 think that you're seeing beyond waste for this program for
22 the first time.

23 But when we started the Pollution Prevention
24 Advisory Committee, one of the first pieces of advise that
25 we gave, because it was structured as a multi-media,

1 multi-agency committee, would be that department should be
2 working in a multi-media fashion and addressing pollutants
3 at the source across all media. And we actually made a
4 set of recommendations regarding having this be a
5 multi-environmental media program and another set of
6 recommendations that the department specifically target
7 pollution and consumer products. So it took another
8 ten years for the state to pass a law to do that.

9 But I think if the department -- it's time. It's
10 beyond time to do that. And I think you'll have the
11 support of Committee members to implement those things.
12 So I certainly see pollution prevention as preventing
13 pollution, not preventing waste. And I think the
14 department needs to change its slides and its pitch and
15 its thinking to do that. Now is the time to do that. Now
16 is the place. 1879 is the motivation. And I think the
17 staff are skilled and ready to take that on. It's the
18 leadership that needs to say that's what we're doing.
19 We're preventing pollution.

20 This group -- I actually was kind of bummed the
21 presentation didn't talk about a couple of the other
22 things that I think are most linked to what we're talking
23 about. This is the group of people at DTSC that walks
24 into businesses and talks with businesses about their
25 processes rather than about what's in the container that's

1 leaving to go to the dump. And so this group of people is
2 especially well positioned to be thinking about products
3 and how you're designing and manufacturing products so
4 that they're safer. They're the only ones who have been
5 really thinking upstream and talking upstream. So I think
6 they've got tremendous skills to bring our state in terms
7 of assisting businesses with the alternatives assessment
8 process and the transition to inherently safer products.

9 Also I think there is a really important
10 opportunity for the State and need -- we've talked a lot
11 about how smaller and mid-size businesses are going to
12 have trouble doing the alternative assessments. And we've
13 also talked about the idea that there's some sets of
14 challenges that are harder than others. So, for example
15 if somebody is putting lead paint on a baby toy, it's
16 pretty clear the lead paint can go. That's not
17 particularly challenging.

18 But there is a tremendous challenge associated
19 with flame retardants as a group. How are we going to
20 achieve flame retardancy and meet the State's needs? What
21 are all the various alternatives? How can we work through
22 that, since everything seems to be very problematic? It's
23 those kinds of challenges that this group is actually
24 really well suited to address. You've done them already.
25 You've been doing them before. Dry cleaning, solvent

1 substitutions, and paints are a few of the ones you all
2 have tackled. And this group has been really good in
3 working through the problems and seeing all the trade-offs
4 and finding good solutions for California businesses to
5 implement.

6 So I guess the last thing I would say is that as
7 having been involved with the 1916 program for a long
8 time, I think we learned a lot of things about how that
9 program works. And its voluntary nature hasn't worked out
10 so well. Neither has the idea that the State with its
11 small number of employees would directly assist individual
12 businesses. And so I think at this time -- and the
13 Advisory Committee has talked about this. And I would be
14 very pleased to work with that Advisory Committee to
15 advise the State about some potential legislative changes
16 to better integrate the two programs. But I think now
17 would be a really great time for the State to take a look
18 at revising the SB 1916 mandated program to instead be one
19 that really integrates with this alternatives assessment
20 piece for helping small and mid-size businesses and that
21 quest for better solutions to the more challenging
22 problems that we face as a state.

23 And finally, I just want to say, I love the
24 voluntary stuff. I was a big fan of that ten years ago.
25 But I think the mandate behind the 1879 and directing

1 these limited resources and hopefully more resources
2 toward helping people through the mandate will get better
3 change than continuing existing voluntary programs in some
4 of these areas. That is not to undercut particularly the
5 Green Business Program which I think is a fabulous
6 investment for the state. But I'm undercutting the 1916
7 program a bit.

8 With that, I think it would be better to
9 reorganizing toward implementing 1879 solutions. Thanks.

10 CO-CHAIRPERSON RAPHAEL: Wonderful. Thanks,
11 Kelly.

12 Okay. Ken.

13 CO-CHAIRPERSON GEISER: Yes, I also want to just
14 congratulate you. California's Pollution Prevention
15 Program has long been seen as one of the leading programs
16 in the United States. And many of the things that you've
17 initiated have been read and modeled in other states. So,
18 again, it's just nice to see the staff and see the work
19 that you're doing.

20 I think that, you know, in thinking about the
21 relationship between the Pollution Prevention Program and
22 1879 and what we're trying to do here, I'm going to follow
23 some of the things that Kelly says because those are
24 really important points. It seems to me that if 1879 is
25 an innovative program that historically will be

1 recommended for things for advancing things, there's three
2 big areas that we're advancing.

3 One is how do you prioritize. So that's a big
4 thing to keep your eye on.

5 Secondly is a product focus. Learning how to do
6 a product focus particularly at the state level and move
7 from chemical focuses to a product focus.

8 And the third has to do with this alternatives
9 assessment work that we're launching in California. And
10 Maziar yesterday so well said that this is one of the
11 leading places for this discussion to take place. So if I
12 were in the Pollution Prevention Program and listening to
13 the kind of work that you're doing, I would think about
14 what is the assets that pollution prevention brings that
15 this program, this initiative doesn't have and could use.

16 And one of the big things that's already been
17 said several times is on the ground activity. 1879, all
18 we're going to be doing with it is still a bit spacy.
19 It's still up in the air. It's about things at a high
20 policy level, whereas the Pollution Prevention Program is
21 really on the ground, workshops, technical assistance,
22 realtime activity with real firms, known executives, all
23 the kind of thing that makes pollution prevention such a
24 happy and fun things to do. So I just urge you to sort of
25 maybe begin to see yourself as kind of some of the ground

1 agents of 1879, the people who are really taking it down.

2 And there are four areas that I just want to
3 mention that I think are important ways to think about
4 collaboration or integration. The first has to do with
5 this prioritization. Hopefully, here in the next period
6 of time, DTSC is going to identify some chemicals of high
7 concern and move toward priority chemicals and then move
8 toward priority products. It seems to me that one thing
9 that the Pollution Prevention Program should do is follow
10 that very carefully. And that is when those chemicals are
11 identified to make those priority chemicals for the
12 Pollution Prevention Program as well. So that the
13 Pollution Prevention Program is working on the chemicals,
14 the same chemical focus that is being drawn out for the
15 firms that are trying to do alternatives in the products
16 themselves. In other words, use this as a prioritization
17 system for pollution prevention as well as for the safer
18 products. So that would be one area I think.

19 A second is the alternatives assessment itself.
20 What we hope is this alternatives assessment process is
21 going to require these firms to produce alternatives
22 assessment. And in that case, there's going to be a lot
23 of new information on the relationship between different
24 chemicals in products. And all that leads to what is it
25 that makes a safer alternative. And somebody has to be

1 collecting all that information. And there should be a
2 repository of all the alternatives assessments or
3 repository of all of the things that we're learning from
4 those alternatives assessments that then can be defused to
5 the many other firms that don't have to perform through
6 1879.

7 So it seems to me an inventory of the
8 alternatives assessments, safer alternatives for products,
9 could be an interesting thing for thinking about safer
10 alternatives for production and safer alternatives all the
11 way through the process. Someone should be doing that
12 Pollution Prevention Program. Looks like a good place for
13 that.

14 Looks like inversely I think to the degree that
15 the 1879 basically establishes an alternatives assessment,
16 that alternatives assessment should be a real attractive
17 tool for other nontoxics, non-chemical uses and working on
18 alternatives assessments with firms around energy, water
19 consumption, around some of the non-toxic solid waste
20 issues. Someone ought to be taking all these lessons
21 we're learning around alternative assessment and carrying
22 those who are not in the universe of 1879. And it seems
23 to me that the Pollution Prevention Program would do well
24 there.

25 My last thought here -- and this comes from Meg

1 Schwurzman's comments yesterday, which was very well
2 taken, which is right now 1879 doesn't have a requirement
3 for evaluation for what you would call tracking and
4 monitoring. And in some ways, it might be very
5 interesting to take what you folks know about how you
6 measure and how you track and how you evaluate and use
7 that as the basis of competence for thinking about how
8 we're going to track performance under 1879. That is, if
9 we really identify 20, 25 chemicals, whatever that we're
10 really focused on and all this kind of thing, how are we
11 going to know that has an effect on the ground in the
12 retail operation, in the production operations, in
13 California? Someone should be tracking that. And you
14 folks have much more capacity to do that at this point
15 than a lot of others do. And it seems to me there is a
16 real possibility of using that competence that you have
17 and expanding it. I would think what you're doing with
18 the green business tracking I would be interested to take
19 a closer look at that. Are you asking questions about
20 chemical use and chemical use reduction in that as well?
21 And maybe that's a place to build out some of that as
22 well. So four points there that I think might be really
23 interesting areas.

24 Thank you very much. Good luck.

25 CO-CHAIRPERSON RAPHAEL: Any questions or

1 comments?

2 Okay. Thank you. Those are wonderful.

3 Dale, Jae, Mike, Tim, and Rich, Meg.

4 Dale.

5 PANEL MEMBER JOHNSON: Okay. First of all, this
6 is really an amazing program, you guys. I mean, it just
7 really makes you feel good to hear this. One of the
8 things -- because I've been involved in starting up
9 companies in the biotech world and so forth. And one of
10 the things that we talk secretly about is the term
11 "optics." And we have various ways to define that. But
12 the key thing there is you could take -- in a very easy
13 way, you can take your long-range vision and put it into
14 something that puts you into the future. And it's a very
15 important thing. It's a very important thing from a
16 business standpoint.

17 And to me, as I was listening to this and I was
18 listening to what we were doing yesterday, extremely
19 important to be able to think that you're headed and
20 you're fostering innovation, as Bob was commenting
21 yesterday.

22 And one of the issues you always have as we were
23 talking yesterday, you can't wait and let a system
24 percolate through a number of years to think that you can
25 foster innovation. And so the key here to me is how you

1 actually turn something because you want to foster
2 innovation. How do you turn something on that long range
3 vision into something very easy that can be identified and
4 established today?

5 So I'll give you a little example. As I was
6 thinking of this last night -- this is not a real example.
7 But I don't see in any of these programs that we're
8 talking about that anybody is giving awards to the green
9 chemistry innovators of the year. And to me, that's kind
10 of a shame. And whether that could come from the
11 department, but it could come from the panel. So, for
12 instance, we could establish an annual Green Chemistry
13 Innovator of the Year Award. And it could go into
14 different types of categories. It could go into
15 businesses, academics, NGO, or whatever or different
16 segments. That could be something that could be applied
17 for through just a web approach. Here's what we've done
18 over the years. Since you're working directly with
19 businesses, it may be that it would better come from the
20 panel. And we would get that, do that.

21 Then what that is from an optics standpoint is
22 you've turned something to say that you're aware of a
23 long-range vision. It becomes very -- from a media
24 standpoint, it becomes very nice. Press conference, press
25 releases, the company is able to give a press release.

1 It's simple. It costs basically nothing. So it's kind of
2 this approach for an optic that turns whatever you're
3 doing into a long-term vision.

4 And so I'm going to make a suggestion today that
5 the panel consider that and then probably come up with the
6 annual award near the end of the year or October or
7 something like that and figure out what that award happens
8 to be. So that just turns the issue into the fact that we
9 all have the vision that we're fostering innovation. And
10 so we want to keep that in mind, the future aspect of
11 that. So that's one part of it.

12 Now the other part that we always kind of deal
13 with is the innovators and the people that are going to
14 create demand are the next generation. And so, for
15 instance, as we've discussed at U.C. Berkeley, the people
16 that are really the chemists that are really involved in
17 green chemistry are not the chemists that are practicing
18 today, but it's the chemists that are going to graduate
19 and go into the future and be part of that. So the key
20 there is to design a curriculum in a way that educates the
21 chemists for the future.

22 So now from a consumer demand standpoint, this is
23 going to come from the next generation from our next
24 generation. So it actually comes from the secondary
25 schools. So I had discussions with several groups in

1 Michigan and what I'm hearing from them is the demand is
2 coming up from the children and it's the children
3 demanding to their parents that they should be doing
4 something extreme. So I think there's something along
5 with this if you've talking about an educational approach,
6 there should be some kind of an approach into secondary
7 schools in relationship to this.

8 We did this a couple years ago from how do you
9 get kids interested or how do you get the next generation
10 of people that are going to make innovations and finding
11 and developing new cures or treatments for cancer. So you
12 can do it -- you can obviously do it at the university
13 level. But then we decided to do it at the secondary
14 school level in Oakland. And then went in with some
15 various -- there was a few of us who were cancer
16 researchers and we went in and talked to the kids and
17 showed the importance how to do it. And I can't tell
18 you -- I mean, the amazing thing that came from that was
19 the connection of some kids in junior high and high school
20 into mentors within the biotech industry. It was just
21 amazing. So I think part of this when you talk education,
22 I think you've got to go -- there has to be an approach
23 into the secondary schools.

24 So that's where I'll end.

25 CO-CHAIRPERSON RAPHAEL: Thanks.

1 So, Dale, it sounds like you have an action item
2 to the panel. And what's actually very cool about that is
3 the panel's sole purpose is not just the regs. I mean,
4 it's really looking at that whole plank. So I think this
5 is the first time of how we've heard thoughts about how
6 the panel can engage beyond just giving our sage advise
7 all the time on things. So I like that. Thank you.

8 Jae. And I'm just going to do a time check --
9 sorry, Jae. It's 10:25. Now, the schedule says that we
10 end at 10:30 and take a break and then we would come back
11 and talk about metrics. I've got six people who haven't
12 spoken. And what we can all tell from the flavor of this
13 is these are not brief comments. These are something that
14 we are all passionate about and spend our whole lives
15 thinking about.

16 So what I'm going to do is take the break when we
17 said we were going to, but I'm going to allow us to finish
18 these before we get into metrics. Because I think the
19 metrics discussion will be a different flavor than, dare I
20 say, these pontifications.

21 Jae.

22 PANEL MEMBER CHOI: I was going to speak about
23 30 minutes.

24 (Laughter)

25 PANEL MEMBER CHOI: But I think there is

1 philosophical as well as visionary discussions as well.
2 But I think ACS has that kind of program. I know the
3 Society of Plastic Engineers are working on those kind of
4 green chemistry of things like that every year they do.

5 Thank you for sharing, you know, the things that
6 I didn't know, that you have a nice program, which I can
7 tell my company when I go back. Hey, indeed, state of
8 California is still pioneering many areas in environmental
9 and green chemistry.

10 You know, one comment related to Bob and Roger.
11 You know, the city four or five years -- I don't know
12 exactly what year -- you know, I along with corporate
13 attorneys and lobbyists here in Sacramento worried about
14 SB 14. Do you have SB 16 also?

15 POLLUTION PREVENTION ASSISTANT DEPUTY DIRECTOR
16 BATARSEH: 1916.

17 PANEL MEMBER CHOI: 1916. Okay. So I think we
18 an as electronic devices manufacturer and you know we were
19 very concerned about that proposal at the beginning. So I
20 was (inaudible) in terms of dealing with whatever the
21 state of California coming out as legislation.

22 However, afterwards, I haven't heard anything
23 here today, you know, one of your slide in terms of Santa
24 Cruz County you know what kind of wonderful work and have
25 a direct impact. As Bob said, I think business I think we

1 really always make sure that return on investment, ROI, is
2 really keeping very high. Because in that way, the
3 funding is always flowing in. So I think the number three
4 question how do you measure it. I think this is one of

5 CO-CHAIRPERSON RAPHAEL: Are you getting into
6 number three?

7 PANEL MEMBER CHOI: Oh -- we are not going to --
8 sorry about that.

9 Anyway, I think the important thing is in terms
10 of communication, as Roger and Bob said, my recommendation
11 is, you know, you can take entire list of Santa Cruz or
12 you can take one by one and use as like a news release you
13 know, electronic -- there are so many daily news release
14 as well as news alerts such as the printsector.com. For
15 example, you know today's printcircular.com, they release
16 news every day. So use that and say, okay, we save waste
17 delivered from landfill X number.

18 So I think you can do entirety the list you have
19 or one by one so that -- you know, the industry like I
20 working for know the fee we're paying for the state of
21 California all -- you know, these are the accomplishments
22 we see. So that person like me, I can persuade my company
23 doing more so-called internal innovations with respect to
24 pollution and the green chemistry, you know. And then as
25 a consequence of that actually helping you people. Also

1 the corporate, if funding can flow in, so enable you to do
2 the kind of things you wanted to do. So that's one
3 comment I have.

4 The other one, one of the electronic industries
5 that we are concerned about is that SB 134 and all these
6 state of California, which is going to affect other state
7 in the United States and eventually, you know, other
8 countries globally. So something that I think we can talk
9 more about the metrics. But something that I saw you are
10 tracking also. But here again, whatever you do, make sure
11 that your accomplishment with respect to dollar should be
12 communicated rightly and timely.

13 CO-CHAIRPERSON RAPHAEL: Thank you, Jae.

14 So I'm thinking that one of the themes that keeps
15 arising here is celebration of champions and the
16 importance of communicating that to both reward, foster
17 innovation, and such.

18 And in keeping with that theme and our timing, I
19 think we have a champion that we're going to be
20 celebrating here; is that correct? Kathy. So I'll bring
21 the mike over to you and you can tell us how we celebrate
22 that champion.

23 MS. BARWICK: It's a very special birthday today.
24 Mike O'Dochary's birthday is today. And Cynthia --

25 (Applause)

1 MS. BARWICK: We procured a cake to celebrate his
2 birthday. I believe it's right outside the foyer. So
3 help us celebrate his birthday on the break.

4 (Thereupon a recess was taken.)

5 CO-CHAIRPERSON RAPHAEL: Okay. So DTSC staff,
6 are you ready to get the pearls of wisdom coming your way?

7 With that, Mike Wilson, you're on.

8 PANEL MEMBER WILSON: Okay. Thank you, Debbie.

9 Mike Wilson at U.C. Berkeley.

10 I just had a couple thoughts about the existing
11 program and the program as it can and maybe should become.
12 I think it seems that one of the strengths of what you've
13 been doing has been how the work integrates all of the
14 different needs of a small, medium-size business. So
15 you're trying to help them deal with their energy
16 questions, water, hazardous waste, solid waste, recycling,
17 so forth, which is exactly what businesses need, as
18 compared to the media specific approaches that we've often
19 done in the past. And so that seems to be a real
20 strength. And I've always felt that.

21 And we became fairly involved with the program in
22 Alameda County actually with Pam Evans when she was doing
23 the automotive repair shop certified green businesses in
24 that county. And we were dealing with the problem of
25 switching over from the chlorinated solvents to the

1 non-chlorinated ones. And the non-chlorinated solvents,
2 many of them were formulated with hexane and acetone. And
3 we were finding cases of automotive mechanics with
4 peripheral neuropathy from exposure to the hexane acetone
5 blends. So it was a pollution prevention strategy that
6 was dealing with the chlorine contamination in the used
7 oil supply, but it introduced this new occupational hazard
8 in the workplace.

9 And we ended up finding 14 mechanics in the Bay
10 Area that were disabled from peripheral neuropathy and
11 that hexane-induced peripheral neuropathy. And that is
12 now a large epidemiological study that Kathy Hammond is
13 running looking at the extent of neurological damage in
14 this workforce from the use of these solvents.

15 And so as I understand it and through the work of
16 HESIS (phonetic), and occupational health branch and so
17 forth, there is an occupational health component to the
18 work you're doing. And I think that's hugely important.

19 And so also looking at the list of certification,
20 the program has expanded a lot from where it was a few
21 years ago when I was last sort of tuned into what was
22 happening. And it seems that you've done that with three
23 real fairly serious barriers. You've expanded the program
24 despite some of these barriers. The first being that we
25 have product sale and usage in California that we have

1 virtually no information oversight and so forth. And yet,
2 the ARB's numbers are that we're using about
3 four-and-a-half pounds per person per day in California of
4 chemical products based on their consumer product survey.
5 Most of that -- of course, individual consumers aren't
6 using four-and-a-half pounds per day. So most of that is
7 going into commercial uses by businesses, you know,
8 cleaning products and so forth. And so obviously the use
9 of consumer products in California is a large occupational
10 health problem and it's sort of appearing in your arena in
11 the use of products in these small and medium-size
12 businesses. And so we have this massive amount of product
13 moving into these small and medium-size businesses and
14 with all the problems that 1879 is actually trying to get
15 at with the use of those products and understanding them.
16 So that's been sort of a barrier for the program.

17 The second has been it's a voluntary program.
18 And we ended up capturing or getting the participation of
19 the leading companies. And I think as Tim and others have
20 said, we just never reached the laggards. And it may be
21 that the laggards are the majority. We don't know at this
22 point. And the third is that the program is
23 extraordinarily small relative to the size of the
24 businesses across California. And so it may be that it
25 would be hundreds of years before you could actually visit

1 every business in California and try to enlighten them to
2 the benefits of pollution prevention. And then, of
3 course, there's new business coming on line every day in
4 California.

5 And so in light of those barriers, three
6 questions for you about what this program -- it's a
7 promising program that's had its hands tied behind its
8 back and its feet tied to its hands in various ways. And
9 that is --

10 CO-CHAIRPERSON RAPHAEL: Great visual, Mike.

11 PANEL MEMBER WILSON: Thank you.

12 Three questions. One is that, you know, looking
13 at the Green Business Program certification's slide, if
14 you could give us an estimate of what is the percentage of
15 participation across those various sectors just in a
16 range. You know, not having to go to each individual
17 sector, but what the range of classifications -- range of
18 participation is. And that's the first question.

19 And then the second is do you have -- I think,
20 Karl, you started to describe this. Do you have data that
21 is actually able to show savings that these businesses are
22 incurring or gaining benefiting from? And are there
23 metrics within 1879 that would help you -- help you
24 generate additional data on business savings and the use
25 of products, for example?

1 And then the third question is what do you think
2 is needed to expand this program? From your experience,
3 what are the tools that you need? And I would just think
4 about whether it's -- if there is a regulatory piece of
5 that or if it's -- I'm not sure -- incentive. What would
6 it be that would give you the tools to really expand this
7 beyond the leaders within the sectors?

8 CO-CHAIRPERSON RAPHAEL: So I think these are
9 really good questions. And what I'm going to ask you,
10 Karl, is to write down the first two, but hold them
11 because I think they're going to be relevant when we get
12 metrics. They're exactly the right questions.

13 So for the third one, which is a broader one,
14 what does the department need to expand the Green Business
15 Program? Why don't you just --

16 PANEL MEMBER WILSON: The first question was the
17 percent participation.

18 CO-CHAIRPERSON RAPHAEL: And again how many
19 people are participating. Is it just the leader or --

20 BRANCH MANAGER PALMER: Well, I think we don't
21 have a great idea about what the range is. We have right
22 now about 2400 businesses certified in California only and
23 over 600 probably more than that in the backlog. So by
24 any stretch of the imagination, we're only talking a small
25 percentage of any given sector. And those tend to be

1 people who are progressive and interested in doing those
2 things.

3 The hope is that that will grow, in part because
4 we'll be more effective in outreach but also because the
5 market will demand that. And we'll get the value of the
6 certification and their competitors will see there's
7 value. And then we can help them understand how the
8 things they can do add value to their bottom line. But we
9 don't know the actual percentage.

10 Data is -- again, the database is just up and
11 running. And I've got to give a lot of credit to the many
12 local government coordinators who were basically helping
13 us: One, get this built; and two, implemented. And it's
14 sort of in transition. We're committed for another year
15 of funding to make it work. And the metrics will be in
16 there to the extent that we can get everyone to
17 participate. And the basic model is one that they're
18 specific to each business. And what they do is put in the
19 database, but there are assumptions. If you, for example,
20 have a business that pays for its own --

21 CO-CHAIRPERSON RAPHAEL: Okay. Stop. I told you
22 not to answer his second question, and you are. Okay.
23 We've got cards that I really want to get to.

24 POLLUTION PREVENTION ASSISTANT DEPUTY DIRECTOR
25 BATARSEH: I'd like to add to what Karl mentioned is

1 obviously having specific regs or more funding, more
2 resources would always help. But lack of these, too, I
3 think we need to focus on the question of what is our role
4 as a convener and facilitator.

5 And, actually, this morning we heard quite a few
6 good comments that will help us basically get more benefit
7 for the value for the work that we do. I really
8 appreciate the comment by Dale regarding having an award
9 and recognition system.

10 But the question here is how can we expand not by
11 simply focusing on the good performance, but how can we
12 take that information and expand to the people who really
13 need help the most?

14 One of our most successful programs have been the
15 chemical industry challenge program, and just recently we
16 did the awards. And what's really phenomenal for that
17 recognition program is that for the very limited resources
18 that we had, the value and the benefit to the industry was
19 great.

20 I'd like to acknowledge the support of John
21 Ulrich in this program that basically the cost savings
22 were great. The reductions in hazardous waste were great.
23 And one of the awards we granted dealt with products
24 basically roadside reflectors and getting heavy metal out
25 of roadside reflectors. So it went beyond, you know, the

1 waste. It looked also at products. So I really
2 appreciate the support that this panel is giving us. And
3 if we think of the Green Chemistry Initiative and think of
4 incentives, think of recognition programs and also think
5 of the people who need information most in our
6 communication strategy and using innovative and creative
7 tools together to get the word out to provide technical
8 assistance, I think this is where we can succeed the most.

9 MS. BARWICK: I wanted to make one more comment
10 about your specific question about what do we need to
11 expand the Green Business Program. And it's iterative,
12 the more data that we get showing both the environmental
13 value and the business value, it's easier to do this,
14 which is to make sure that local elected officials, boards
15 of supervisors, and other CUPA directors, POTW directors,
16 the people that are making the decisions as to how the
17 resources and the local agencies do their work, if these
18 people don't think there is a value to that program, it's
19 not established in that local agency. So that is -- and I
20 realize it's iterative. We need the data. We need to
21 show the value in order to make the case.

22 But one of the things that has to happen, it
23 doesn't have to be in any particular kind of local agency.
24 It can be in a business development organization. It can
25 be in a regional business development, like the SBDCs. It

1 would be in the local environmental health department. It
2 would be in the city planning department. But it doesn't
3 really matter. But if you don't have their support and
4 they're convinced that they're providing value to their
5 communities, then it's really hard to establish. I think
6 that's one of the really important pieces of that.

7 CO-CHAIRPERSON RAPHAEL: Sherri.

8 TOXICS AND PRODUCTS BRANCH CHIEF LEHMAN: I'd
9 like to hit it from a different angle. We have a lot of
10 mandated programs that we're doing. And in addition to
11 that, because of basically where our heart has been at is
12 we've gone into new activities implementing part of the
13 Green Chemistry Initiative before the regulations are even
14 going into effect. Over the last 12 years, however,
15 because of budget, because of different administrations --
16 just for example, I have had 45 staff, down to 26 now,
17 about 16, with a couple of vacancies to be able to
18 continue doing the mandated programs. All the innovative
19 fun things that we really want to do and to carry things
20 as far as optics into the future, we're going to need more
21 qualified people. And those qualified people need to be
22 compensated.

23 Currently, the scientists' salaries are not at
24 parity. So when we advertise, we get people who are
25 marginally qualified or don't have a lot of experience.

1 And we are competing with industry who are plucking the
2 really qualified people. Yes, we're in a budget
3 situation. It's tough. It's tight. But if this is a
4 direction we really need to go to and we really want to
5 implement AB 1879, expand these programs, we're going to
6 need more people to do it. We're going to need qualified
7 people to do it and having incentives for those people to
8 come in and work for government.

9 We are doing things for the people. I'm a
10 taxpayer, too. And the things that we accomplish are here
11 to help everybody.

12 I caught Debbie really briefly, and we had a
13 business outreach unit that was going to do a lot of these
14 communication things you're talking about. It was
15 disbanded. We don't have the people to actually go out
16 and do that. So we're taking scientists and putting
17 things on the web. We're sending out fax sheets. We're
18 meeting with businesses. We are doing the communication.
19 But we're not doing it as effectively as could be. So
20 yes, there is a budget situation, but where do we really
21 want to go.

22 CO-CHAIRPERSON RAPHAEL: And I would just say as
23 a person who works in local government with limited
24 resources, one of the ways to get resources is to
25 articulate a central mission to the needs of the

1 department. And hopefully that's what we're going to be
2 doing here today is help you with that language so that
3 Trina can go back in her high level meetings and
4 articulate the key role that you guys play in 1879, which
5 is clearly near and dear to the hearts of people at DTSC
6 and beyond. So thank you for that feedback.

7 I'm going to move on to our next speaker, who is
8 Tim.

9 PANEL MEMBER MALLOY: Thank you.

10 Tim Malloy from UCLA. I think that's the first
11 time I've introduced myself. Hi, everybody.

12 I'm a little more pessimistic about things
13 generally. And I guess there's three or four things I
14 wanted to say. One is think I think we need to address
15 that 800-pound gorilla that's in the room.

16 One of my comments was funding. And I don't see
17 how you can make a program like this work in a
18 transformative way if you don't have adequate funding. In
19 the Green Chemistry Initiative final report, if you dig
20 down into the CD with the appendices and you have the team
21 reports, the one on pollution prevention, the second
22 recommendation was that there has to be adequate funding.
23 And there's not. There's not adequate funding. But I'm
24 pessimistic about the idea that by articulating a mission,
25 honestly, Debbie, then you could go back and get the

1 funding, because it's important to 1879.

2 Because guess what? There's no funding for 1879
3 either, right? So this bill was passed. There was a
4 clear -- it was creating a huge resource need and there
5 was no funding. And if you go back and read the Senate
6 Environmental Committee report accompanying the bill, they
7 acknowledge that and said we can get through reg
8 development and then we'll re-visit it when it's time to
9 implement. Well, it's getting to be time to implement and
10 doesn't appear there's really any funding. So I think
11 that's a key for both 1879 and for the pollution
12 prevention activities. I think somebody is going to need
13 to address that funding.

14 I can't stress how strongly I feel that, you
15 know, this is a problem that -- you see problems die, not
16 because of articulated opposition or clear lobbying
17 efforts or court cases, but because they wither on the
18 vine because of a lack of funding. I think that's a
19 problem that's facing us.

20 There was another recommendation in the
21 appendices to the report which suggested that in order for
22 the program to really have an effect on a large scale
23 basis, it has to be linked up with mandatory type
24 approaches to regulation. There is just so much
25 literature in the business management area, the

1 environmental policy area, the literature on diffusion of
2 innovation that just shows time and time again there are
3 enormous obstacles within firms and within socioeconomic
4 environments in which firms operate that are barriers to
5 the adoption of alternatives, innovative alternatives,
6 including innovative alternatives that have a net positive
7 effect on the bottom line of the firm. So energy
8 efficiency is a great example of that.

9 So while I'm a supporter of celebrating champions
10 and press releases and so on and so forth, the fact is
11 that in many firms you have a competition for resources
12 within that firm and voluntary programs tend to drop out,
13 even when they could create a net benefit; right? Because
14 they're competing against other core operations within the
15 firm which are also going to generate a net benefit.

16 So recommendation number three in this report
17 talked about trying to link the P2 program more clearly
18 with the regulatory program. And I think that ought to be
19 re-visited. The notion was, look, you generate these
20 alternatives. You work with industry, with smaller
21 industry. Also larger is suggested. You hope by the
22 efforts that you undertake it's going to lead to a spread
23 to this stuff. But currently, the paradigm now is if the
24 spread doesn't occur, we move onto the next sector or we
25 continue to nip at the edges of the existing sector that

1 you just worked with.

2 The shift, the recommendation was, look, when you
3 get to the point that you've developed you think what
4 these alternatives are, they have a broad application. If
5 the fusion is not occurring through kind of voluntary
6 efforts, there ought to be a link to a mandatory
7 regulatory program that would require the implementation
8 of these things. And I think that kind of a linkage
9 between 1879 and P2 ought to be expressed in the
10 regulations. It's something to think about in terms of
11 how would programs that you've developed kind of feed into
12 the mandatory alternatives assessment and regulatory
13 adoption requirements in 1879. So I think that's
14 something that DTSC should be thinking through.

15 Another recommendation in the report was the
16 notion of expanding California's accident release program
17 to incorporate, along with risk management planning to
18 incorporate inherently safer design principles, your
19 pollution prevention principles looking into the
20 processes.

21 Contra Costa County has already done this. So
22 there is a model in place where they incorporated --
23 inherently safer design is another manifestation of green
24 chemistry, cleaner production, pollution prevention. This
25 notion that we ought to be looking for risk prevention

1 rather than risk management. I think they have a good
2 model.

3 There's also a good model in New Jersey and this
4 does address occupational exposure.

5 So Art's gone. But if Art were here, I would say
6 to him if we adopted a program that actually required
7 inherently safer design reviews of industrial operations
8 that might go a long way to addressing occupational
9 exposure concerns I've addressed. And this is another
10 proposal that's been sitting in this final report for some
11 time and I haven't really heard very much about it. But I
12 would say that's something depending on obviously you need
13 to be working with other agencies there. But that's
14 something else to be thinking about. And it's another
15 effort to take pollution prevention and main stream it
16 into a regulatory structure.

17 And I understand there's trade-offs there because
18 you get this issue of once it's not voluntary maybe you
19 get less -- a smaller number of people running to embrace
20 it. So I think you obviously have to try to do it in a
21 way that's not going to reduce the number of people coming
22 to embrace it on a voluntary basis, but to not do it
23 because it will scare people away from the voluntary
24 system. When we've got a very small percentage of people
25 coming into the voluntary system I think is not a reason

1 to not move forward on a regulatory.

2 Now on a more positive note, let me just say I
3 really like Dale's point about getting -- bringing it
4 down, this notion of green chemistry, green thinking, life
5 cycle thinking, bring it down, the hierarchy and
6 education, to the secondary schools. I think it ought to
7 actually come down to the primary schools in the sense of
8 not so much creating the capacity to do green chemistry
9 but creating demands for green products and green
10 processes.

11 And a good example of this would be what's been
12 going on with food. So there is a number of programs out
13 there where people are focusing on obesity issues and
14 selection of healthy foods and so on and so forth at the
15 primary school level trying to change the norms with the
16 kids, right. And my wife was involved in a program like
17 this in Ventura School District, a very successful program
18 that went school-wide. And one of the things they found
19 when they went into schools and did integrated education
20 in the sense of teaching kids about healthy foods and
21 letting them experiment with them and they build it into
22 their cafeterias, what they found when they evaluated the
23 programs was the kids became agents of change in their
24 families. Clearly, right?

25 So if we can try to think about ways to start at

1 the youngest ages where they're paradigm to be informed
2 and get them thinking about green in the broad way which
3 you were thinking about green. I think that's something
4 that not only does that get them into high school and
5 college thinking about green chemistry and other things,
6 but it gets them talking to mom and dad and the
7 grandparents and their neighbors. So that's a slow thing
8 you've probably thought about that and you clearly don't
9 have the resources to do it.

10 But when I think about partners, I think we might
11 all find there is a wide range of partners who might be
12 interested in that kind of an effort. And it's a
13 different kind of effort than maybe you've been doing. I
14 think that is a positive thing we can do.

15 Thank you. And I apologize for being so long.

16 CO-CHAIRPERSON RAPHAEL: Thank you, Tim.

17 We have Anne, Meg, and Joe. And I would love to
18 finish in ten minutes. So if you guys can think about
19 being concise. If not, I'm not going to cut you off
20 because I didn't cut anyone else off.

21 PANEL MEMBER WALLIN: Maybe instead of just being
22 concise, I'll just be fast. Because I had more time to
23 think about my comments and I keep coming up with more
24 ideas.

25 You folks have a fabulous program. And I think

1 there was a lot of additional insight and detail in
2 Trina's comments that wasn't really reflected even in the
3 executive brief or the presentation. So my suspicion is
4 there is a lot more breadth and depth to what you have
5 going on than what's reflected. So some of my comments
6 may be somewhat moot.

7 I think in the face of a lot of the challenges
8 that you have, the fact that you have that fabulous
9 program -- and I was dismayed at the map at the end, quite
10 frankly. But you really need to take a pretty hard look,
11 a pretty brutal and candid look about what you do and how
12 you do it in light of the reality that you're in. And the
13 fact that maybe you need to do things differently.

14 And I would urge you to take advantage of the
15 vast majority of change management knowledge and
16 strategies and tools that are out there about how you take
17 a look at that.

18 I think the certification program is great. But
19 what's apparent to me is it's highly dependant on local
20 government stepping up to the plate and getting engaged
21 and putting time and resources against that. If that's
22 not practical to the vast majority of those cities and
23 counties that are missing, can you work a different way?
24 Can you engage with local businesses? And maybe you don't
25 give them the certification, but you get them engaged and

1 give them tools. Can you work with associations? Can you
2 work through the Chamber of Commerce? I would challenge
3 you to think about trying to work in a different mode than
4 maybe what you've done in the past to be able to reach a
5 greater audience, because I think you've got an incredible
6 program.

7 I agree with a number of the comments that have
8 been made that you folks I think can be an incredible
9 source of assistance on alternatives assessment. You know
10 how to do tools. You know how to line up experts. You
11 create models and templates. You can share learning among
12 different groups. All of that is going to be really
13 critical to an effective implementation of alternatives
14 assessment. So I would urge you to step into that space.

15 In terms of some of the other questions you
16 asked, I think it would be helpful to have -- create
17 tools, templates, whatever, so that folks take a very
18 systematic look at green engineering and green chemistry
19 principles and how they're using them. If I go talk to a
20 lot of the R&D folks in our company and I ask them about
21 green chemistry, they'll -- "Oh, I don't do that." And
22 I'll feign shock, and I'll say, "Really? You're making it
23 more toxic and less efficient." Well, no, of course not.
24 So what they're missing is the very systematic look at how
25 they use those principles to guide their thinking, drive

1 their innovation and ultimately what they deliver.

2 I would urge you to look at iSTAIN. That's \$200
3 for a copy. It's a relatively inexpensive tool. It's
4 quite easy to use. It may not serve the needs of a lot of
5 organizations. It really is designed for folks in the
6 lab. I'm choosing route A or B. I've got this solvent or
7 that solvent. It's there to help them guide. It's very
8 easy to use and very quick and very intuitive.

9 I also think you talked about a couple of
10 collaborations with universities. But I'm wondering to
11 what extent you have tapped engineers either for their
12 senior year projects or master's projects to go in and
13 work with businesses. Engineers are trained to think in
14 terms of systems. And so they're ideally suited to do a
15 lot of the work that you're doing.

16 I know that's something that's been done in the
17 state of Michigan where they've been able to leverage best
18 practices in small businesses for certain processes. It's
19 been very successful.

20 The other thing that I was not clear is to what
21 extent you may be have tapped the retiree base. And,
22 again, Michigan has set up a program on that, not
23 necessarily specific to green chemistry and engineering,
24 but again very knowledgeable skilled base of folks that I
25 believe that's a volunteer program there who can go and

1 work with businesses and get a little creative. If
2 there's no more money showing up, how can you get more
3 work done?

4 I would also urge you to focus on all waste
5 reduction and look at a byproduct synergy model or network
6 that's kind of I guess the industrial version of the
7 garage sale. One man's trash is another man's treasure.
8 And to what extent can you set up something like that so
9 that we're using materials more efficiently. U.S.
10 Business Council on Sustainable Development runs a number
11 of those in the United States, if you wanted some help in
12 terms of a model and ways that you set that up and get
13 industry engaged to support that.

14 I would also urge you to think about what you can
15 do to help the rehearsed logistics efficiency, for lack of
16 a better term. One of the ironies I think of those of us
17 who are manufacturers is that the more efficient we get in
18 what we do, the harder it is to actually use materials at
19 end of life because we haven't spent nearly the efforts in
20 terms of supply chain efficiency on the back engine as we
21 have moving material to market. And then facilitation of
22 materials for recycled markets, what can you do to help
23 incentivize or help create those markets so those
24 materials have some value.

25 To promote life cycle thinking, one of the things

1 I think I would give a lot of thought to simple screening
2 tools. We've developed some in-house where we get them to
3 say is it about the same? Is it a lot worse or better?
4 And then get them to think in terms of a few categories at
5 each life cycle assessment. You can't do a life cycle
6 assessment for everything. It's just too resource
7 intensive. So that's one way to do it.

8 I think identifying some of those rules of
9 enthusiasm or surrogates that are out there -- the
10 Wal-Mart packaging scorecard is essentially an example of
11 that. But things like increasing durability,
12 reparability, recyclability, efficiency and the use phase,
13 particularly things that use water or energy, total cost
14 of ownership. There are some concepts that tend to hold
15 true without having to do that robust LCA.

16 The other thing would be is there a role for you
17 or maybe again with an industry association to look at a
18 generic LCA by category. You don't really need to get
19 into the details of laundry detergent to know that the
20 opportunities for greenhouse gas and energy is all about
21 cold water wash. It's not about this or that builder or
22 package. It's the hot water used to wash the clothes. So
23 you may find some opportunities there to drive innovation
24 and practices within the industry.

25 And with that, I'll close.

1 CO-CHAIRPERSON RAPHAEL: Thank you, Anne.

2 Okay. So Meg and then Joe.

3 PANEL MEMBER SCHWURZMAN: I think I can actually
4 be quite brief.

5 There were three things I just wanted to do since
6 we were told it is helpful to do me toos. There were
7 three ideas that I wanted to echo.

8 One is that we've heard a bunch of is that the
9 importance of making mandatory requirements and how
10 historically we've seen benefit from the very top leaders
11 in response to voluntary programs, but they're extreme
12 limits. So I'd just like to put in a vote for that one.

13 But anyway, I know that you can't just change the
14 statute under which you're operating. And so you're
15 working with your current situation. But potentially the
16 ties with AB 1879 are ways to think about making some of
17 the work that you do in pollution prevention fall under
18 other mandatory requirements, including around the idea of
19 what the regulatory response is to an alternatives
20 assessment that develops a safer substitute.

21 Also to echo what Ken and others have said about
22 I think there would be tremendous loss. Or the flip side,
23 is there is a huge opportunity for building a really
24 formalized link between the practices that are done under
25 pollution prevention in individual businesses or business

1 sectors and the alternatives assessment provisions in
2 1879. So that shouldn't be ad hoc. There should be a
3 repository, established ways of communicating the outcome
4 of those business practices that have been developed under
5 pollution prevention and their adoption through the
6 regulatory processes of 1879. It would be a huge loss if
7 those solutions that are developed in pollution prevention
8 aren't adequately communicated. And I think that it
9 really needs to not be ad hoc. So it has to be some kind
10 of focused established clear link.

11 And the final thing I wanted to echo was the
12 potential for leverage that you have if you want to
13 further develop case studies and get the word out about
14 some of these successes and also then potentially identify
15 places that are not taking on those practices, that there
16 are lots of levels of people within the university. I
17 have a handful of students who would be really interested
18 in writing up and publishing case studies. Everybody is
19 always asking for the good news and the success stories.
20 And so we could really help you with that and it's all but
21 free. Just for a small price.

22 The final thing point I wanted to make actually
23 was around this issue of occupational health protection.
24 And, again, Art isn't here anymore. But just that it's on
25 the record -- is that I think a lot of people feel the

1 same way.

2 Also that the issue of getting worker protections
3 into 1879 is that element -- what 1879 does -- one of the
4 things it does, the first one that Ken named is
5 prioritization. And where workers as a population belong
6 in 1879 is that identification of chemicals that are of
7 concern in the workplace. And there is no substitute for
8 that. There is no substitute for having worker exposures
9 in occupational health concerns being a criteria for
10 identification of hazards, because there's some hazards
11 that are unique to the workplace. And they don't matter
12 once they're in the consumer product and they don't matter
13 to the sensitive sub-population of kids or something,
14 unless it's because a worker is exposed, a pregnant woman
15 at work and the in utero exposures that are associated
16 with that.

17 So while I think there is tremendous potential
18 benefit through pollution prevention in businesses to
19 workers in those especially because they're so
20 service-sector oriented and that this needs to be
21 happening in every way possible, it is absolutely no --
22 it's no substitution -- no substitute for workers being
23 considered as a prioritization -- a community for whom
24 exposures need to be prioritized.

25 CO-CHAIRPERSON RAPHAEL: Thanks, Meg.

1 Joe.

2 PANEL MEMBER GUTH: Well, maybe it's time for me
3 to introduce myself also, Tim. I'm Joe Guth, Science and
4 Environmental Health Network.

5 I have just a small -- just one comment, really.
6 And I really support everything that Tim said and Kelly
7 and also Meg about the importance of mandatory programs,
8 regulatory programs. And I think that the Green Chemistry
9 Initiatives offered DTSC an opportunity here that's a rare
10 one that it should embrace and it has been embracing. And
11 that is it's difficult for agencies to suggest or advocate
12 for legislative changes because their job usually is to
13 implement statutes that the Legislature has passed.
14 That's generally their job. And a lot of people feel it's
15 not their position to get involved in the political issues
16 of what should new legislation be. However, I think the
17 Green Chemistry Initiative has opened up an opportunity
18 here because the Governor's embraced it and there's
19 clearly legislative implications for the green chemistry
20 final report. After all, 1879 and SB 509 drew out of that
21 report and DTSC was instrumental in conceptualizing and
22 designing those two statutes.

23 And I've had the opportunity to see Maziar give
24 presentations in public, and he always talks about the six
25 planks. And 1879 and 5089 are not the be-all and end-all

1 of those six planks. And I don't think he's necessarily
2 implying there needs to be a piece of legislation for each
3 plank, but I think the implication is there very well
4 ought to be.

5 So the opportunity that I think you all have is
6 to really do some visioning of what it would take to
7 actually drive the work you're doing into the larger
8 economy and what kinds of mandate authorities would be
9 necessary to do that. Maybe there's some things that are
10 a smaller level -- I mean, I'm very unfamiliar with SB 14
11 or 1916. But maybe there are things that are in your way
12 that could be tweaked or slightly expanded in those bills.
13 And there can also be much broader initiatives. And I
14 think that sort of there is this window of opportunity for
15 you guys to do that. And it may take some time before
16 it's implemented.

17 Obviously, you need to find the legislative
18 champion and political will to pass these bills. But I
19 think this is an opportunity to get these things on the
20 table as ideas. And once you start to do that, I mean,
21 who knows what you'll come up with. It could actually be
22 not so burdensome to everybody. That's my suggestion.

23 CO-CHAIRPERSON RAPHAEL: Thank you.

24 So before we move to metrics, I'm just wondering
25 if any DTSC staff want to close this discussion or react

1 or have any thoughts?

2 So with that, we're going to turn now to looking
3 at the very interesting and important area of so how do
4 you measure impact? How do you judge the fact that your
5 efforts have been successful? It's not simply how many
6 businesses heard your spiel, but how many actually did
7 something with that information. Not how many pamphlets
8 have you produced, but what kind of change happened as a
9 result of the information in that pamphlet. And I think
10 for government, this is a long road that we have to try to
11 come up with this.

12 And the system that Karl was talking about is one
13 example of that attempt at trying to quantify change. So
14 he didn't go into all the detail and the background of
15 what's underneath that system. But I can tell you as one
16 of the local governments that has worked for a couple
17 years on this that it's not easy to do and yet it's
18 ultimately what everybody wants of us. So I think in this
19 last 25 minutes I'm wondering if there are experiences
20 that people can bring to bear.

21 And I see some cards up on this already -- that
22 DTSC can use in its quest for quantifying change. So
23 George and then Kelly.

24 PANEL MEMBER DASTON: So I thought that the list
25 that Karl had put up was a very good list and the

1 quantitations that you had started with seemed to be
2 reasonable quantitations.

3 I think that you could probably augment those in
4 a pretty easy way by looking at the criteria that people
5 are commonly using and life cycle assessment and the
6 metrics used in those as additional ways to look at your
7 success. A lot of this is going to have to be done by
8 assumptions and models rather than actually measurements.
9 But I think that's okay. Particularly in a voluntary
10 program, I think you're going to get credible
11 participation and credible answers as to what people are
12 doing, how they've changed their behavior. At least I
13 think so. It's not as though they're going to be punished
14 for trying and failing. So I think that's reasonable.

15 But I guess more important to me in terms of the
16 success of the program is the metrics are probably only
17 useful if you have goals for what the measures should be.
18 And I think that, you know, I'm assuming that you already
19 have enough experience under your belt. And the reason
20 I'm thinking that is that you actually had numbers up
21 there associated with your numbers, like number of trips
22 to the dump. So you can start to: A, evaluate which
23 aspects of the program work and which ones really only
24 gives you trivial gains. And the second is to really use
25 that kind of information to help you establish what sorts

1 of goals you want for the program and we've heard a lot of
2 things that are pessimistic and optimistic. And I think
3 you kind of combine them in putting goals together and
4 recognizing that, you know, if you could have limited
5 resources, there might be places where you can get a lot
6 of bang for your buck. But I think if you don't stretch
7 yourselves and actually target goals, then the program
8 will continue to go on in a way that it is and be
9 successful in the way it has, but probably won't reach the
10 next level.

11 So my sense is that if you set goals, you would
12 really end up targeting areas where you knew that with the
13 framework that you have right now and the kinds of
14 infrastructure that you have that you could make the
15 biggest gains.

16 CO-CHAIRPERSON RAPHAEL: So I'm going to --
17 sorry, Kelly -- use the Chair's prerogative to allow Karl
18 to finish his sentence that I so rudely cut him off.

19 And I also want to just point out that what Karl
20 is talking about is one way to do metrics for one program,
21 right? So the bigger question that's also here is how do
22 you measure prevention? That's kind of for the health
23 care industry a challenge. We probably have a lot of
24 lessons to learn there as well. So we're going to spend
25 this precious time thinking about the specific and also

1 the more general.

2 So Mike, do you need to reiterate your question?

3 Or, Karl, do you know the question?

4 BRANCH MANAGER PALMER: I remember, more or less.

5 I think a couple things.

6 One, in the Green Business Program, it's very
7 specific to each business in some sense in terms of what
8 their priorities are, and then they have flexibility after
9 they get through mandatory measures to see what works for
10 them based on their business and what they think they can
11 do and what their priorities are. But in terms of
12 measurement, the system does accommodate the uniqueness of
13 different types of businesses.

14 So, for example, if you are in a business
15 partnership and you don't pay your garbage or you can't
16 keep your garbage bill, there's ways to have estimates for
17 that. And yet there's ways to put the specific data in
18 there, too. And so the green business system is set up to
19 get as good data as we can get from that specific
20 business. But Debbie's point is good in that in terms of
21 what we're actually preventing and the benefits from that
22 is a much harder thing to do, particularly when it comes
23 to toxics and exposures and things like that. It's much
24 easier to say we've saved this much water or this many
25 kilowatt hours. We've reduced this volume of waste. But

1 when you look at the actual benefits and particularly when
2 you start looking at things -- there's overlap in all
3 these things at the business.

4 Worker safety is directly tied to all these
5 factors. So it's maybe the toxics in the materials
6 they're using and janitorial products, but it's also are
7 they biking to work and are they healthy. And there's
8 many factors that comes into play. And there's no one
9 methodology that we know of that fits that very well. So
10 you're really left often with making assumptions about the
11 values of something.

12 The bottom line for the system is that if we can
13 show those things for which we can quantify and translate
14 into dollars saved, that's always a benefit for the
15 business. But in terms of the health impacts we've still
16 faced with that general challenge of how do we quantify
17 prevention. We would love to hear your recommendations
18 and thoughts on ways that we might capture that. Everyone
19 is struggling with the same.

20 MS. BARWICK: I just want to add a very short
21 list of things that affect our ability to measure the
22 outcomes of our program. I'm talking now about the
23 general -- the general program, not the specific data that
24 Karl's program is collecting. And that is that we know
25 that there are multiple things that affect a firm's

1 decision to make a change. And while we may contribute
2 significantly to that decision, it's one of many things
3 that cause that decision to be made.

4 Another problem is that there is this temporal
5 displacement between the time that we might have an
6 interaction or provide information to a firm and that
7 firm's decision to make a change. And it could be
8 20 years. They just invested in a piece of equipment they
9 just can't throw out the door because a better idea came
10 along.

11 And the third thing I wanted to mention, those
12 things cause a lot of difficulty in establishing cause and
13 effect when we look at the information. So the longer the
14 time period between the intervention and the multiplicity
15 and the more factors that affect a decision, then the
16 strength of your argument that your program is effective
17 becomes weaker.

18 Now, you have a stronger argument for that
19 effectiveness when you have a program of direct
20 intervention that has someone going back out to see what
21 happened. And for a state the size of California, once
22 you start moving from you have a strong connection, cause
23 and effect, you lose significance because it's very
24 resource intensive to get that information. So if you
25 want to have a significant impact, you lose the assurance

1 that your program is causing the change.

2 I'll stop there. I think those are the big
3 challenges that we have when we try to look at is our
4 program effective.

5 CO-CHAIRPERSON RAPHAEL: Kelly.

6 PANEL MEMBER MORAN: Sure. I think Kathy just
7 articulated really well two really important points here.
8 It's really hard to measure what didn't happen. And it's
9 the design of this program, because it's such a small
10 number of people for such a huge state that it is doing a
11 lot of partnering and leveraging of resources which makes
12 it really hard to trace it as the cause of change when it
13 occurs. And those are huge challenges for the State.

14 I've advised the State at some length on some of
15 those questions. And I'd say the one place where I think
16 they're really good is when they're designing an
17 individual pollution prevention strategy. They're doing a
18 really good job in the design, integrating how they're
19 going to measure outcomes and see the benefits of it. So
20 I really want to commend the staff for that.

21 Rather than continue advice I've already given
22 the department in the past, I just want to make one point,
23 and it's a reiteration of something I said yesterday. We
24 talked yesterday, and I think Meg raised it and several
25 other people said, yeah, that it's really going to be

1 important in the regulations for 1879 to be integrating in
2 an evaluation step to make sure that the reports that are
3 done that are provided so after the alternatives
4 assessment when the change is being made that those
5 clarify for the department how much lead is no longer
6 being sold and used on to paint children's toys. They
7 should be able to add all those up and tell the public
8 here's the sum total. That kind of stuff I think is an
9 important way of showing the benefits of pollution
10 prevention in California.

11 So I'm bringing that up again today for this
12 program because everybody is cringing as soon as I say
13 lead in paint on children's toys. That's the point is
14 that people will know that their products are safer if the
15 department gets reports that say here's what we changed,
16 and thereby you can actually quantify what's no longer
17 happening. And that I think integration will help also
18 with showing the benefits of the integration of the
19 Pollution Prevention Program into the implementation of
20 1879.

21 So I will leave it at that.

22 CO-CHAIRPERSON RAPHAEL: Thank you.

23 Jae.

24 PANEL MEMBER CHOI: All right. I have to --

25 CO-CHAIRPERSON RAPHAEL: Sherri, did you have a

1 response?

2 TOXICS AND PRODUCTS BRANCH CHIEF LEHMAN: I was
3 just going to give a little bit more information on some
4 of the metrics that we're tracking for some of the bans
5 and restrictions. Again, it's hard to extrapolate it into
6 how many people are being impacted or how many pieces of
7 jewelry are no longer being manufactured that have lead in
8 it. But because of mandated projects all the way back to,
9 say, 2002 and the mercury area, we've reduced mercury in
10 medical supply equipment. We've reduced mercury in
11 automotive switches, other switches and relays, currently,
12 mercury lamps as well as mercury thermostats. And we can
13 actually have pieces of data that show numbers as to how
14 many lamps are being recycled or how many of these
15 thermostats we're calling out. However, to extrapolate
16 that to say it's impacted X number of people, it would be
17 everyone. We're all benefiting from that.

18 In toxics in packaging, we have certificates of
19 compliance again for over 200 companies. They're
20 certifying they have reduced the amounts of lead, cadmium,
21 mercury, hex chrome. It's effecting all of us in
22 packaging materials. We don't have the number of
23 packaging materials, but we do have companies that are
24 certified. So if you can tell us or give us some ideas on
25 directions that we can go to actually capture that goal of

1 how are we impacting the public or if you can suggest
2 models that may take the data that we do have and
3 extrapolate to that, that would be interesting.

4 CO-CHAIRPERSON RAPHAEL: Thanks.

5 Jae.

6 PANEL MEMBER CHOI: You know, my personal
7 anecdote in terms of the story of lead-free as well as
8 flame retardants, which I was in Bell Labs, you know, what
9 I'm saying is that 1990s or late 1980s, I mean there was
10 no rohaus (phonetic) or Dell (phonetic).

11 But I think what I'm trying to say is in order
12 for me to have some measurement of benefit, I and my team
13 still using so-called ill effect of not doing it. Because
14 if I tried to convince my management to saying what I'm
15 trying to do is really good and good number 1, 2, 3, 4, 5,
16 but of course they believe that, well, you are going to
17 push the product. You aren't saying all that.

18 But the other side of coin, my approach going to
19 be, okay, if you don't, then these are the cost to you.
20 It's like cost of equality when it comes to design new
21 product, design new chemical additives. So that's one
22 thing that I like to suggest. That in a way you just
23 mentioning in terms of is there any packaging, okay, don't
24 use the plastics. Why? Well, if you don't use like
25 this -- just like if we don't meet lead free or flame

1 retardants, then the cost is we don't sell our product.
2 Now, of course, I use that to say we -- in five years, you
3 may as a company should expect that you are not going to
4 have any revenue in such and such a product.

5 So in terms of measurement, it is like
6 calculating mean time to failure or mean time between
7 failure. So you can, you know, add a certain
8 categorization using those are the kind of -- you can have
9 that -- let's say basic in-use equations. Still you can
10 apply to your justification to calculate the numbers.
11 Sometimes it could be relative numbers. Okay.

12 So something that you can establish a matrix in
13 terms of all the list you have on Santa Cruz, the table
14 you have. You can expand the numbers, put it in our
15 in-use equations, and then say, okay. These are the
16 benefit you're going to have next five years. Okay.

17 So I would suggest two ways. Number one:
18 Without doing it, what kinds of cost the public has or
19 your companies going to have? And the follow-up by, you
20 know, so-called costing you or either saving you a
21 company. Either way. Those are three ingredients I think
22 you may consider to use.

23 CO-CHAIRPERSON RAPHAEL: That's great. Thank
24 you, Jae. Learned a new phrase.

25 Anne.

1 PANEL MEMBER WALLIN: Anne Wallin, Dow Chemical.

2 I appreciate the challenges that you all are
3 facing. We face similar ones as well.

4 I think sometimes we get really tangled up with
5 trying to make a robust link of cause and effect versus
6 trying to say we had some role in this happening. And I
7 think as long as you're clear that you're not trying to
8 draw a cause/effect link and conclusion, you can
9 successfully use some metrics that otherwise would be very
10 difficult. And for what you're trying to communicate,
11 it's good enough. I think you have a good list of
12 environmental metrics.

13 And I would echo your challenge on dealing with
14 what I would call social metrics. And the academics that
15 I talked to, you know, sort of hang their heads and say,
16 yeah, there are probably 20, 30 years behind the
17 environmental metrics. We don't have them. We don't have
18 the data for the baselines. It's a real struggle.

19 The other thing I would urge you to think about a
20 little bit is your list and who the audience is. Because
21 I think you may want different ones if you have a
22 different audience. So if I look at the slide, for
23 example, on the results from Santa Cruz County, to me
24 that's probably targeted at the residents of Santa Cruz.
25 But if what you were trying to do is entice other

1 businesses in Santa Cruz to get engaged, I think you'd
2 want to put those metrics in a different context. They
3 would love to know what that's going to save them. What's
4 the dollar savings in energy? In landfill cost? In
5 insurance? How much are people savings in terms of raw
6 materials? You might even find differences in OSHA
7 recordables or workers' compensation. Those are the kinds
8 of things that would motivate business to sign onto a
9 program and say, all right, this is going to help make me
10 successful.

11 And I think a lot of us that are on this panel
12 particularly from industry are convinced that good for the
13 planet is good for business. So anything you do to really
14 help cement that for them would get to the next thing,
15 which is think may be is a metric toward how effective you
16 are almost as an internal measure. And that's your market
17 penetration.

18 And I will suggest this, but metrics are one of
19 those things that can become incredibly resource-intensive
20 to maintain. So I'll suggest these, but I think actually
21 could be difficult. You could start talking about
22 percentage of eligible businesses who are participating or
23 percentage of sales. Now, percents are always nice, but
24 the bottom line is to find the denominator. And that
25 could be pretty hard. You could put them in terms of

1 absolute. What are the dollars of businesses who are
2 participating or the number of businesses who are
3 participating? And obviously you'd want to show that
4 trajectory over time that you've got broader and broader
5 engagement.

6 CO-CHAIRPERSON RAPHAEL: Those are excellent.
7 Thank you, Anne.

8 Ken.

9 CO-CHAIRPERSON GEISER: I think my message here
10 is just to not get too precious about this. And this is
11 always a funny business, and I know we've been at this for
12 some years trying to figure out how to measure pollution
13 prevention impacts and all.

14 To the degree this little table that Anne just
15 noted I think it's a good table on Santa Cruz County,
16 because it's trying to give some raw figures in a way
17 about being accountable and sort of saying we've reduced
18 this much energy. We've reduced this much. And it's a
19 way to defend the program.

20 And goes back to George's points I think why are
21 we collecting the data to begin with. And if the reason
22 for trying to collect this data demonstrate this, is to
23 show our sponsors, be they the Legislature or the people
24 of a county or whatever, that we are being effective or at
25 least accountable that we are trying to measure things, I

1 think that's a good use of this kind of data.

2 But as soon as we start to get out into more
3 causal and also more cost effectiveness kind of questions
4 about our programs, pollution prevention in particular
5 turns out to be really complicated. One, the causality
6 question has already been mentioned. And it works both
7 ways, that it's hard to figure out what the treatment that
8 is pollution prevention treatment caused. But it's also
9 unclear what else it might have caused that you weren't
10 able to measure. So you may actually be under-measuring
11 what happened in ways.

12 And here it's always important to remember -- and
13 I stress this a little bit. And that is we're working
14 not -- our analysis is not just a firm or even an industry
15 in what we're trying to do. Our unit -- that makes it
16 simple to do. But that's not really the way the world
17 works. The world works in systems and in markets. And
18 when we change something, when we reduce the uses of
19 chemicals in one place, we can assume that those chemicals
20 or some other things is happening somewhere else.

21 And so, for instance, the issue about the lead.
22 I mean, the little studies we have with regards to
23 mercury -- we took mercury out of thermometers and other
24 things. The question is where did the mercury go? The
25 mercury turned out to go really nasty places.

1 And with the lead thing, basically I think we
2 could say generally the same thing. I've tried to follow
3 this a little bit in Massachusetts. And that is as we
4 took lead out of certain production operations, we had
5 more lead on the market. The price of lead went down, and
6 therefore the lead could penetrate other uses that it
7 wasn't competitive in.

8 So you know, it's important to not get too
9 precious about saying, well, we took lead out of there and
10 therefore aren't we good, if we aren't really paying
11 attention to the system itself and how we changed the
12 system. And particularly with heavy metals which are a
13 nice example because they don't go away anywhere. They
14 have to go somewhere. It becomes a kind of chasing after
15 numbers that really satisfy you kind of at the moment on
16 accountability, but they don't satisfy you in the longer
17 term on feeling like you're really improving health and
18 safety in the environment.

19 So my recommendation is to keep it simple, be
20 able to tell our sponsors to what degree we are actually
21 trying to do the things they are asking us to do, make
22 sure our goals are clear. But don't get overly tight
23 because it's just once you start to do it, our methods
24 can't match our expectations.

25 Thank you.

1 CO-CHAIRPERSON RAPHAEL: Interesting.

2 Dale.

3 PANEL MEMBER JOHNSON: Mine is similar to that I
4 think. But one of the issues with a certain amount of
5 work you want to do and then resources and changing
6 resources, the key is to not tie an individual metric
7 let's say to a goal. And I say that in terms of, you
8 know, a very efficient way of doing it is to establish a
9 series of milestones. And the nice thing about a
10 milestone as opposed to a goal, a milestone has a time
11 line related to it and a certain level of achievement.
12 And then you make the milestones multi-faceted in
13 relationship to certain types of metrics. So, for
14 instance, so then sitting with a group of milestones and a
15 series of metrics, you've just defined the portfolio of
16 what you're trying to do. Now your resources shift. And
17 this is why you keep it multi-faceted, the resources
18 shift.

19 So now you're looking at milestone one. You have
20 ten metrics associated with that. Now you make a decision
21 how you're going to either eliminate some of those
22 metrics, what's involved with those. But by eliminating
23 some, it still allows you to achieve the milestone. And
24 you achieve it and then you use the metrics as an
25 illustration of how you achieve a certain type of

1 milestone. So you see --

2 CO-CHAIRPERSON RAPHAEL: You know, Dale. I need
3 more concrete -- Ken is nodding that's right, and other
4 people. But some of our brains may be not. So can you
5 give an example of a multi-faceted milestone?

6 PANEL MEMBER JOHNSON: I will tell you frankly
7 this is the way you develop drugs or certain types of
8 biotechnology products within a certain scheme of a
9 disease or a certain type of biological pathway that
10 you're going after. So you never put all of your money on
11 a single approach. You come in with a multi-faceted
12 approach. You see how it's developed over time, but then
13 the resources change. And particularly if you're in a
14 small biotech company, funding stops. But you still have
15 to keep up the process of actually getting there. So you
16 can -- it allows you then to maintain exactly what your
17 purpose is and what you're attempting to do by just
18 adjusting the resources in a certain way.

19 So because I was listening to when you were
20 describing you had -- I forgot what it was. You had 200
21 people and you're down to 28 people and going down.
22 There's the reality of every single unit everywhere,
23 whether it's in academics or R&D or anything else,
24 everything adjusts by that. So then, you know, it's up to
25 the -- it's up to the people who are running the

1 organization or the managers to be able to adjust with
2 that and still achieve the milestones within the time
3 frame you're attempting to achieve.

4 And then -- but the key is never -- never to have
5 a single metric define a milestone. The single metric has
6 to illustrate the time for the milestone. Then that's how
7 you deal with shifting resources. But what it also allows
8 you to do is take something that's occurring at one county
9 as a level of a milestone that applies it in a broader
10 sense and to -- is that me? My time is up?

11 CO-CHAIRPERSON RAPHAEL: No. But I mean, you're
12 the final comment.

13 PANEL MEMBER JOHNSON: So that's my suggestion to
14 you is to think in those particular terms. It makes it
15 much easier to be able to adjust a portfolio of resources
16 and goals in a way that actually makes sense. And you can
17 deliver the message in exactly the same way at the end.

18 POLLUTION PREVENTION ASSISTANT DEPUTY DIRECTOR
19 BATARSEH: You know, Dale, one thing that might be helpful
20 if we focused a discussion on a specific project we're
21 forking on -- and from what we heard this morning, I heard
22 quite a few people say we need to make the link between
23 the AB 1879 alternatives assessment and the work that we
24 are doing in P2. And it's obvious that down the road we
25 really need to show the value of our work one way or

1 another.

2 So one thing you know and this panel is rich in
3 the knowledge of AB 1879 and the green chemistry
4 initiative holistically. We might want to choose that
5 specific area to look at multi-faceted milestones and
6 design something in line with that. Because if we don't
7 begin with the end in mind and if we don't design projects
8 or even regs thinking ahead what do exactly we want to
9 accomplish and how can we go when we got there, it's going
10 to be really hard for us to do that.

11 And, historically, that has also been the
12 challenge with our P2 projects. We haven't really
13 designed them with the goals in mind as much. Then we
14 know that we're doing good work. But we haven't been able
15 to really quantify it. And we don't really need to have
16 metrics and numbers and all that.

17 But ultimately at the end of the day, we really
18 need to show the value of our work. We need to show
19 whether the regs are successful or whether it be our
20 changing behavior or not. So we need to look forward.
21 And this is an opportunity for us with the AB 1879
22 alternatives assessment to re-design our approach to
23 projects with new approaches that makes sense to pollution
24 prevention and green chemistry.

25 CO-CHAIRPERSON RAPHAEL: Thanks, Pauline.

1 As a close, I would like to give the final word
2 to Trina, who is charged with leading this wonderful group
3 of folks. So can you just summarize what you've taken
4 away?

5 DEPUTY DIRECTOR GONZALEZ: I want to thank
6 everyone for their very robust discussion this morning and
7 appreciate the help on that.

8 Of course, this is always an iterative process.
9 Some of you talk more than others, but clearly in terms of
10 wanting to create a continuous dialogue and continuous
11 partnerships with all of you in your various roles, we
12 know where you live. So please call us.

13 So just some final thoughts in terms of kind of
14 putting into categories buckets of things that I heard.
15 And obviously it's not an exhaustive list, just a bucket
16 of themes that I heard this morning.

17 One that I heard fairly early on was about
18 communication, communication, communication. How do we
19 tell our story and to whom do we tell the story to?
20 Whether it is to our thunders, in this case the Governor's
21 office or Legislature, for example, to other local
22 governments, to elected officials to be able to support
23 our local programs and the health world at HHS. We don't
24 do the work. We pay the bills. The work is really done
25 at the local level. So how do you develop those

1 priorities and those activities that support local
2 activities as well as the other way around?

3 And then broadly, of course, the general public
4 in terms of the value of the work that P2 does. So
5 communication, communication, communication was heard. I
6 heard that very loud and clear this morning.

7 The second thing is in relation to particularly
8 AB 1879 and implementation of 1879 is leveraging the P2
9 expertise within the larger AA world and more broadly in
10 how that feeds into the AA piece, particularly the piece
11 of 1879 implementation of our regulations. But also
12 leveraging the P2 expertise what's this going to look like
13 eventually for the department.

14 Another thing I heard was mandatory versus
15 voluntary and kind of looking again at some of our --
16 whether it be large issues for actual policy change or
17 technical issues around making sure we have potentially
18 statutory support to kind of look more broadly beyond
19 dovetailing on Kelly's point earlier on the hazardous
20 waste kind of mantra or screen that we traditionally look
21 through and more of a multi-media screen by which we're
22 looking at our work was another thing I heard this
23 morning.

24 And the last thing I'll put in this bucket is the
25 education link. I believe it was Joe -- or I don't

1 remember who made the linkage on schools and obesity.
2 Obviously, I worked on obesity prevention for so long at
3 HHS and the link between how do you from a social
4 marketing campaign -- one of the basic talking points we
5 use on obesity prevention, we look at the tobacco model of
6 Tobacco Association in California in the last 25 years.
7 There was a very clear funding source. That was something
8 that was very different. How can you measure and how can
9 you look at associated marketing, in this case broad
10 social marketing campaign to impact change or on the
11 ground level? And the Tobacco Control Program has been
12 one of those very successful California programs or
13 investments.

14 Actually, speaking of measurements, there was a
15 report an article from last year by Stan Glantz, who's a
16 researcher at the Tobacco Research Program at U.C.
17 San Francisco, that showed and backed up some of the keep
18 it simple measurement pieces that you talked about this
19 morning. The link between how does a -- in this case, a
20 25 year, one billion dollar social marketing campaign
21 impact health care costs. And through his model he
22 developed, he was able to show that the link between this
23 25-year social marketing effort has lead to \$86 billion
24 cost savings for health care expenditures in California.
25 Those kinds of things, while more long term, are some of

1 the models that we can look at in terms of how can
2 prevention, a broad level of either statewide perspective
3 or even the countywide perspective, which could be
4 difficult depending on your scale how can you show the
5 value there?

6 On the metrics piece, I heard keep it simple,
7 keep it simple, keep it simple. How do we make those
8 links and without getting too obsessed with whether it's
9 robustness or the causality of metrics. Making it
10 reasonable. Because we obviously have audiences that we
11 have to answer to, including the Legislature just as one
12 example. Keeping it reasonable, because we need to make
13 sure we communicate what we do and how we do it and what
14 our impacts and what we do to the broadest community.
15 We're looking at other links to kind of think about more
16 broadly the feeling on what Jae said this morning on what
17 are the impacts of not doing something as another way of
18 thinking more broadly how do we measure success or how do
19 we measure the programs and our activities. So that's
20 kind of the buckets which I heard this morning.

21 Obviously, we all took detailed notes and there's
22 more than that. But I want to encapsulate what I heard
23 this morning. Please work on the continuous dialogue one
24 on one. Give us a call. We want to make this an
25 iterative process and are planning in terms of

1 priorities -- obviously, this is only one of many funnels
2 from which we're gathering information to help inform what
3 we're going to do and we're going to prioritize for the
4 given year. So again, thank you for the opportunity. And
5 I look forward to continuing this dialogue as we go
6 forward.

7 CO-CHAIRPERSON RAPHAEL: Thank you, Trina.

8 So as we bring this wonderful day-and-a-half to a
9 close, Kathy, do you have outgoing announcements?

10 MS. BARWICK: I just have one thing I want to say
11 and we'll close the meeting. We do have a meeting
12 scheduled for July 22nd and 23rd. I believe that's the
13 right date. Ken was just looking at that. So we're still
14 planning to have a meeting at that time. We're not very
15 far along in the planning process. So just wanted to
16 remind you of that.

17 And, Debbie, would you like to adjourn the
18 meeting? And after we're adjourned, I have a few
19 announcements to make.

20 CO-CHAIRPERSON RAPHAEL: I want to thank
21 everybody for coming and thank my two co-chairs for their
22 outstanding leadership.

23 And with that, meeting is adjourned. We are now
24 off the record.

25 (Thereupon the hearing concluded at 12:05 p.m.)

1 CERTIFICATE OF REPORTER

2 I, TIFFANY C. KRAFT, a Certified Shorthand
3 Reporter of the State of California, and Registered
4 Professional Reporter, do hereby certify:

5 That I am a disinterested person herein; that the
6 foregoing hearing was reported electronically by JOHN COTA,
7 and thereafter transcribed into typewriting by me,
8 Tiffany C. Kraft, a Certified Shorthand Reporter of the
9 State of California.

10 I further certify that I am not of counsel or
11 attorney for any of the parties to said hearing nor in any
12 way interested in the outcome of said hearing.

13 IN WITNESS WHEREOF, I have hereunto set my hand
14 this 25th day of May, 2010.

15

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