



# TOWN OF PORTOLA VALLEY

7:00 PM – Special Meeting of the Town Council  
Wednesday, March 22, 2017  
Community Hall at Town Center  
765 Portola Road, Portola Valley, CA 94028

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## SPECIAL MEETING AGENDA

### 7:00 PM - CALL TO ORDER AND ROLL CALL

Councilmember Derwin, Councilmember Aalfs, Councilmember Wengert, Vice Mayor Richards and Mayor Hughes

### ORAL COMMUNICATIONS

Persons wishing to address the Town Council on any subject may do so now. Please note however, that the Council is not able to undertake extended discussion or action tonight on items not on the agenda.

### CONSENT AGENDA

The following items listed on the Consent Agenda are considered routine and approved by one roll call motion. The Mayor or any member of the Town Council or of the public may request that any item listed under the Consent Agenda be removed and action taken separately.

1. **Approval of Minutes** – Town Council Meeting of March 8, 2017 (3)
2. **Approval of Warrant List** – March 22, 2017 (15)
3. **Appointment by Mayor** – Member to the Cultural Arts Committee (24)
4. **Recommendation by Public Works Director** – Adoption of Resolution for the 2016/2017 Street Resurfacing (26)  
Project – Surface Seals Project No. 2017-PW01
  - (a) Adoption of a Resolution of the Town Council of the Town of Portola Valley Approving Plans and Specifications and Calling for Bids for the 2016/2017 Street Resurfacing Project Surface Seals No. 2017-PW01 (Resolution No. \_\_)
5. **Recommendation by Public Works Director** – Adoption of Resolution for the Portola Road Shoulder Widening (31)  
Project at Farm Road Project No. 2017-PW02
  - (a) Adoption of a Resolution of the Town Council of the Town of Portola Valley Approving Plans and Specifications and Calling for Bids for the Portola Road Shoulder Widening Project No. 2017-PW02 (Resolution No. \_\_)
6. **Recommendation by Administrative Services Manager** – Revisions of the Personnel Policies Manual (35)

### REGULAR AGENDA

### COMMITTEE REPORTS & REQUESTS

7. **Recommendation by Conservation Committee** – Rodenticide Policy (43)
  - (a) Adoption of a Resolution of the Town Council of the Town of Portola Valley Urging Local Businesses and Residents to Discontinue the Sale and Use of Rodenticides, and Promoting Integrated Pest Management of Rodents on Town Properties and Throughout Portola Valley (Resolution No. \_\_)
8. **PRESENTATION** – Proposed Open Space Fund Guidelines (144)

### STAFF REPORTS AND RECOMMENDATIONS

9. **Recommendation by Town Manager** – Automatic License Plate Readers – Policy, Purchase, and Installation (147)
  - (a) First Reading, Waive further Reading and Introduce an Ordinance of the Town Council of the Town of Portola Valley Adding Chapter 9.02 [Public Safety Information] to Title 9 [Public Peace Morals and Welfare] of the Portola Valley Municipal Code (Ordinance No. \_\_)

**10.Recommendation by Town Attorney** – Ordinance Amending Title 2 of the Portola Valley Municipal Code (198)

- (a) First Reading, Waive further Reading and Introduce an Ordinance of the Town Council of the Town of Portola Valley Amending Chapter 2.32 [General Municipal Elections] of Title 2 [Administration and Personnel] of the Portola Valley Municipal Code to Comply with Senate Bill 415 (Ordinance No.\_\_\_\_)

**11.TOWN COUNCIL COMMUNICATIONS** – (205)

**Request for Donation** - San Mateo County Jobs for Youth

**12.COUNCIL LIAISON COMMITTEE AND REGIONAL AGENCIES REPORTS** (207)

**Report by Town Council Members** – Brief announcements or reports on items of significance for the entire Town Council arising out of liaison appointments to both in-town and regional committees and initiatives. *There are no written materials and the Town Council does not take action under this agenda item.*

**13.Town Manager Report** (208)

**WRITTEN COMMUNICATIONS**

**14.Town Council Digest** – March 10, 2017 (209)

**15.Town Council Digest** – March 17, 2017 (217)

**ADJOURNMENT**

**ASSISTANCE FOR PEOPLE WITH DISABILITIES**

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Town Clerk at (650) 851-1700. Notification 48 hours prior to the meeting will enable the Town to make reasonable arrangements to ensure accessibility to this meeting.

**AVAILABILITY OF INFORMATION**

Copies of all agenda reports and supporting data are available for viewing and inspection at Town Hall and at the Portola Valley Library located adjacent to Town Hall. In accordance with SB343, Town Council agenda materials, released less than 72 hours prior to the meeting, are available to the public at Town Hall, 765 Portola Road, Portola Valley, CA 94028.

**SUBMITTAL OF AGENDA ITEMS**

The deadline for submittal of agenda items is 12:00 Noon WEDNESDAY of the week prior to the meeting. By law no action can be taken on matters not listed on the printed agenda unless the Town Council determines that emergency action is required. Non-emergency matters brought up by the public under Communications may be referred to the administrative staff for appropriate action.

**PUBLIC HEARINGS**

Public Hearings provide the general public and interested parties an opportunity to provide testimony on these items. If you challenge any proposed action(s) in court, you may be limited to raising only issues you or someone else raised at the Public Hearing(s) described in this agenda, or in written correspondence delivered to the Town Council at, or prior to, the Public Hearing(s).

**PORTOLA VALLEY TOWN COUNCIL REGULAR MEETING NO. 945, MARCH 8, 2017**

**CALL TO ORDER AND ROLL CALL**

Mayor Hughes called the Town Council's Regular meeting to order at 7:00 p.m. and led the Pledge of Allegiance. Ms. Hanlon called the roll.

Present: Councilmembers Mary Ann Moise Derwin. Jeff Aalfs, Ann Wengert; Vice Mayor John Richards, Mayor Craig Hughes.

Absent: None

Others: Jeremy Dennis, Town Manager  
Leigh Prince, Town Attorney  
Debbie Pedro, Planning Director  
Sharon Hanlon, Town Clerk

**ORAL COMMUNICATIONS**

- (1) Presentation – Garrett Kuramoto, Branch Manager for Portola Valley and Woodside Libraries; Library Update

Mr. Kuramoto provided an update regarding accomplishments, statistics, programs, plans for the future, and the last fiscal year annual report for the library. He said there were 119,000 visits to the library, more than 100,000 items were checked out, 14,000 people attended programs (12,000 of those were children), and they served 1,500 children through the summer learning program. He said the increase in these statistics are in part due to the Woodside Library being closed for most of the last fiscal year, but there are other reasons for the increased success of the Portola Valley Library – being very responsive to the community in providing timely and relevant programming including the increase in family programming, building a relationship between the staff and community through a series of clubs, building calendar-based and seasonal programming, focusing on current trends such as the Pokeman hunting, outreach and program enhancement beyond the library walls, sharing resources with the County library system, borrowing and lending staff among the other libraries for programs, and being bold in trying new ideas and revisiting old ideas. He said they are able to be so bold with their experimentation in large part due to the support from the Friends of the Library. Mr. Kuramoto credits the Friends of the Library, as well as the supportive Town staff, for the library's increasing successes. He discussed their progress in achieving the goals developed in last year's strategic planning process.

Mayor Hughes called for questions from the Council.

Councilmember Wengert congratulated and gave high commendations to the Library staff. She asked how much day-to-day pressure they felt relative to the capacity they have in their current building in the ability to serve even more people with expanded programs. Mr. Kuramoto there are times when the library is quiet and cozy and other times when it can be pretty chaotic, which is a balance they are comfortable with. He said they recognize that a vibrant space with a lot of energy is a good thing when it's also combined with quietness. He said they are more often finding that they are hosting programs that are at capacity. He said they try to plan appropriately but sometimes they hit a home run when they were expecting a double and so learn from that experience for the next time.

Councilmember Aalfs asked if they've been in contact with the Town Center Master Plan Committee regarding what the Library might need going forward. Mr. Kuramoto said Sue Crane, who is on the Committee, has been advocating for the Library and he expects more interaction moving forward.

Councilmember Aalfs asked how many people are visiting the library for wi-fi or internet access and if the bandwidth was adequate. He said he does not have the statistics with him, but said the bandwidth is

adequate. He said the patrons are satisfied with the speed and ability to easily get both wired and wireless access.

Mayor Hughes invited questions and comments.

Sue Crane, Friends of Portola Valley Library, said it has been wonderful to work with the Library and to see the magic that happens with the money that they give. She said when the Council gets to the Master Plan and all the reports, they will see how well the space is used and the plans for space in the future. She said it is exciting and wonderful to see what this Library can do.

Mayor Hughes thanked Mr. Kuramoto for the update. He said the Library is clearly one of the anchor stores of the campus and is a tremendous benefit to the community. He said moving forward through the Master Plan process, they look forward to staying engaged and continuing to make that work.

### **CONSENT AGENDA** [7:17 p.m.]

- (2) Approval of Minutes: Town Council Regular Meeting of February 22, 2017.
- (3) Approval of Warrant List: March 8, 2017, in the amount of \$414,497.53.

Councilmember Derwin moved to approve the Consent Agenda. Seconded by Vice Mayor Richards, the motion carried 5-0, by roll call vote.

### **REGULAR AGENDA**

#### **STAFF REPORTS AND RECOMMENDATIONS**

- (4) Recommendation by Town Manager – Appointment of Members to the Sustainability and Environmental Resources Committee
  - (1) Bacon, Virginia
  - (2) Loader, Jayne
  - (3) McClintock, Meredith
  - (4) Salah, George
  - (5) Strong, Anne-Laure
  - (6) Unnasch, Stefan

Town Manager Dennis said that upon approval of the creation of the new Sustainability and Environmental Resources Committee (SERC), the total number of members was left open to Council decision. He said all seven previous members of the Water Conservation Committee have been appointed to continue to serve on the new Committee. Six members of the public have applied to be members of the new committee.

Mayor Hughes asked for questions from the Council.

In response to Councilmember Derwin's question, Town Manager Dennis said Sustainability & Special Projects Manager Brandi de Garmeaux would be attending all the meetings and have a lot of participation, but there will be a Committee Member who will chair the meetings.

Councilmember Derwin asked if the Committee would have a prescribed list of activities as directed from the Council. Town Manager Dennis said, given the expertise and energy the Committee members bring to all of the Committees, they want to ensure that their ideas are heard and developed. He said the intention is to have very active staff participation and align all the Committees more with Council priorities as needed.

With no further questions, Mayor Hughes began the interview process. He said they would first conduct the interviews, then decide on whether they will select two or four new members.

Virginia Bacon – Ms. Bacon described her interest and qualifications to be a member of SERC. She said she is a member of the League of Women Voters, and Silicon Valley Association of Realtors Local Government Relations Committee, which helps promote affordable housing and transportation goals. She said she's been working since 2007 with the Town Historian to create video histories of early residents. She said rapidly changing technology is a big factor in collecting and accumulating information and the mission needs to adapt to these changes, because communication is everything. She said the amount of information that can be communicated is limited to attention span. She said in looking at the tasks before us on the Sustainability calendar, she would like an online approach developed. She believes audio deserves more attention because it is often easier to listen to something while multitasking. She hopes the Town will eventually have an online blog that they can help to create and manage, to be used as a tool for residents to access new or changing information that will work in conjunction with the Town's main website page. She said the Town's turnover of housing stock is low and personal contact is a great opportunity for neighbors to talk to neighbors to share Portola Valley's values and volunteer opportunities. She said she believes it's time to be both mobile and personal. She said the challenge is clear and she's up to it.

Mayor Hughes called for questions for the candidate.

Councilmember Derwin asked the candidate how an online approach and audio would specifically relate to working on the SERC. Ms. Bacon said it would address the biggest challenge, which appears to be communication with the residents.

Councilmember Wengert asked the candidate if there was a particular sustainability issue in which she has a greater interest or expertise. Ms. Bacon said one example would be how ADA issues work with the Town policies.

Vice Mayor Richards asked what the candidate thought was the most important contribution the SERC could give to the Town. Ms. Bacon said it appeared the Committee was trying to do a lot of things. She said the sustainability element is quite complex and affects almost everything done in Town.

Councilmember Aalfs asked the candidate if there was any part of sustainability where she thought the Town was not living up to the potential. She said she was interested in the ADA aspect, access to trails and paths, and how that it is prioritized in the development of a properties.

Mayor Hughes asked if the meeting schedule would work for her. Ms. Bacon said it would.

Jayne Loader – The Council read a letter Ms. Loader submitted in lieu of being able to attend tonight's meeting.

Meredith McClintock – Ms. McClintock was unable to attend in person and called in. Ms. McClintock said she has been heavily involved in environmental and sustainability activities for 14 years and it has always been a personal interest. She said the solar company that she founded is the only one that has been founded and operates in Portola Valley. She said she is currently working on increasing her focus in the sustainability and environmental area, moving to a nonprofit focus, particularly in the area of climate, conservation, and habitat, of which sustainability is a big part. She said she is attracted to the new Committee because the Town has a fantastic history of volunteerism and focusing on important issues in the sustainability area.

Councilmember Wengert asked the candidate what priorities she would focus on, given this Committee has a broad charter. She asked how the candidate would prioritize areas that she thought would potentially be the most profitable, in a broad sense of the word, for the community. Ms. McClintock said it is important to look at what the Committee and community are doing about the Town's top environmental

issues, including climate and water conservation, as well as more local issues such as building materials and low-impact landscaping. She said it is also important they serve as an example to other communities to show what is possible.

Councilmember Aalfs asked if the candidate sees any innovations or risks coming from the sustainability industry that the Town should think about as an opportunity or something to worry about moving forward. Ms. McClintock said she sees mostly opportunities in things such as the viability of residential energy storage, micro-generators, and water conservation technologies.

Councilmember Derwin asked if Ms. McClintock was working on a nonprofit right now. Ms. McClintock said she is not, but is transitioning her career in that direction and is looking for a role in either renewable energy or conservation. She said she is currently doing some consulting, but cannot be involved in residential solar industry in order to avoid potential conflict.

Vice Mayor Richards asked the candidate if the meeting schedule would fit for her. She said she can accommodate the meeting schedule.

George Salah – Mr. Salah was unable to attend in person and called in. He said has helped build many buildings and is extremely aware of the challenges in building with truly sustainable results, and the tremendous amount of information and decisions to consider. He said he has been fortunate to have a great amount of experience working with the best throughout the industry in commercial and residential. He said he is passionate about not just the idea of sustainability, but the fact is buildings are being built today for people today, and it matters more who will fill in that building tomorrow and the effect it will have on their individual health and the environment of the community.

Councilmember Aalfs asked if the candidate saw opportunities in building in Portola Valley where sustainability can be increased, maybe even above or beyond the Building Code or the Green Building Ordinances. Mr. Salah said it is challenging because there are many choices and decisions to be made and it is important to know where to find the appropriate and accurate information to help in making those decisions. He said not everyone wants to build with high bar results as he did, but he does not think people are aware enough about how bad the building environment is for their health and the better materials choices that are available. He said there needs to be good incentives and educational opportunities for people to learn more about making better choices.

Councilmember Wengert asked if the candidate's experience on the Conservation Committee has been positive, considering he said on his application that he thought the SERC Committee would be a better fit for him. She also asked if the meeting schedule for the SERC would create a challenge for him. Mr. Salah said he works part-time at home and is available to be an active participant of SERC. He said he is not an expert in conservation, but does care about it a lot and he enjoyed his time on the Conservation Committee, but his expertise is more of a match to the SERC.

Councilmember Derwin said this Committee does not do glamorous work and asked if he could be happy working on things like advising on the garbage contract or fuel switching. Mr. Salah said he realizes that there are a lot of people just living in the community and not building homes. He said he has also had responsibilities for the day-to-day matters – security, food services, transportation services, recycling programs, and it all matters.

Anne-Laure Strong – She said it is really important for her to contribute and be an involved member of her new community.

Councilmember Derwin asked the candidate if her job with the City of Palo Alto's Utilities Department was a paid position. Ms. Strong said it was. Councilmember Derwin asked regarding the candidates' responsibilities there. She said she worked on solar projects, electric vehicles, and energy storage reports. Councilmember Derwin asked if the candidate had worked with volunteers on committees. Ms. Strong said she has served on many volunteer committees on the Stanford campus.

Councilmember Aalfs said building and planning is a big function in Portola Valley. He asked the candidate if she had any ideas as far as making the Town's building process and products of it more sustainable. Ms. Strong said many people have no idea how to go about making their homes more energy efficient so the first step would be energy audits, reaching out to people and having entities that could do energy audits, providing education and information. He asked how Palo Alto was able to encourage more energy audits. Ms. Strong said Palo Alto has a lot of low income programs that are subsidized.

Councilmember Wengert asked if the candidate had direct dealings with the utilities as part of her job in Palo Alto. Ms. Strong said she was hired by the utility. Councilmember Wengert asked if, because of that experience, she would be comfortable dealing directly with the utilities in Portola Valley, such as Cal Water. Ms. Strong said she has experience in working with the various utilities.

Mayor Hughes asked the candidate, since she is such a new resident, if she had been to any Portola Valley community or committee meetings to get a sense of how Portola Valley works. She said she has not attended any meetings in person but reads Next Door and the local email list regularly, which has given her a sense of the community culture. She said it could be seen as an advantage to have an outsider's perspective with no preconceived ideas.

Stefan Unnasch – He said there are three pillars of sustainability – environmental, workplace, and economic. He said we are primarily talking about environmental here – energy, greenhouse gas emissions, etc. He said he was the leader of the metrics committee on the Sustainability Committee seven years ago and helped develop the Town's first initial greenhouse gas inventory based on working with PG&E bills as well as data on auto traffic, making projections for changes in housing stock, looking at what the greenhouse gases were and where they were headed based on those housing stock changes, changes in fuel mix, etc., and identified measures including the obvious ones such as lights, energy audits, and things like that. He said that network needs to continue and the inventory reviewed. While on the Sustainability Committee, he said he also reviewed the PG&E energy saving program and various outreach programs. He said big thinking ideas include local solar, such as covered parking at Alpine Hills. He said there is also an issue of species extinction, such as salamanders. He said native plant education is important. He said the committee could study some of the new exciting prospects for partnerships, for example, with food waste collectors who use offsite anaerobic digesters to produce CNG.

Councilmember Derwin said Mr. Unnasch was a very valuable member of the Climate Protection Task Force and the Sustainability Committee.

Vice Mayor Richards said he is concerned about candidates becoming bored and their longevity on the Committee. Mr. Unnasch said he understands this is a small town and the committee may be providing information such as cooking organic vegetables or composting, which may not be as exciting as figuring out how to put together a \$10 million solar parking lot for Alpine Hills, but it's all part of the Committee.

The Council agreed to select four additional members for the SERC.

Councilmember Wengert said she would like to explore what it is about this position that garnered so many applications.

The Council voted by paper ballot. The votes were counted by Town Clerk Hanlon.

The Council appointed Meredith McClintock, George Salah, Anne-Laure Strong, and Stefan Unnasch to the Sustainability & Environmental Resource Committee (SERC).

Mayor Hughes thanked all applicants and invited those not selected to get involved with the Committee and come to the meetings.

## **COMMITTEE REPORTS & REQUESTS**

(5) Presentation – Town Center Master Plan Committee Update

Ted Driscoll thanked Planning Director Pedro for the preparation of the presentation. He presented the Town Center Master Plan Committee Update and Mission, describing their efforts at outreach, the feedback received, and the key tasks completed to date, as detailed in the staff report. The Committee requested that the Council provide feedback and discuss the Committee's work plan going forward. The Committee requested the use the budget allocation to engage an architect, such as Larry Strain, to review the project ideas and advise regarding the feasibility, impact, time, and cost of projects. Mr. Driscoll said they can then come back to the Council with that information and discuss prioritization. Town Manager Dennis said the Council is also being asked to adopt the newly drafted goals.

Councilmember Derwin asked the extent of information the architect would provide. Mr. Driscoll said the architect would advise on what the physical impact would be of the various project ideas.

Vice Mayor Richards asked if they were talking about a schematic approach, spatial use only. Mr. Driscoll said they were talking basically schematic.

Councilmember Wengert said they've struggled with Spring Down. She said if that acreage is available for any potential usage that will be critical to whatever schematic gets created. She said a starting point for creating an efficient schematic would be fully understanding Spring Down, because some of the proposed uses may or may not be appropriate. Mr. Driscoll said Spring Down was purchased with a lot of constraints embedded in the deed and there would need to be care taken not to violate them. Councilmember Wengert said, for example, she recalls they were not happy about the idea of a dog park because of the proximity to horses. She said those types of issues should be sorted out before a global schematic is initiated. She suggested discussing if there were some proposals that by definition should have a higher priority because they correct deficiencies, such as parking, so they can provide clear direction to someone designing a schematic.

Councilmember Aalfs said there are ideas and then there are the guiding principles and goals. He said there might also be some problem statements. He said the library does need more space, as does the Town Hall, and that feels like a more urgent need. He would suggest crafting guidance for the architect instead of just providing ideas and principles. Mr. Driscoll suggested bringing Mr. Strain in to hear the Council's comments. Councilmember Aalfs suggested there may need to be a second session to create some type of guidance for an architect.

Councilmember Wengert asked Mr. Driscoll if the Committee developed any comprehensive recommendation as to what the Town could or couldn't do on Spring Down. Mr. Driscoll said he didn't think the Committee actually got the legal language around the purchase of the property and consequently is providing a general notion of that. Town Manager Dennis said another element to Spring Down has some language relative to passive recreational activity that is open to some level of interpretation and leaves room to have a further conversation about what that actually means. Town Attorney Prince said she will definitely be looking at it.

With no further questions, Mayor Hughes invited public comment.

Sally Ann Reiss, Golden Oak. She said there were a lot of meetings and Mr. Driscoll did a very good job trying to pull everything together. She said the Parks & Recreation Committee put out a survey, and one of the things that came up is that once you start asking people what they want, the list becomes unreasonable. She said it's good to get input, but that may start to create expectations, and it all comes down to space. She said there is a need for more programs, not just for the young people. She said those things cannot necessarily be delegated to Parks & Recreation. She said they can identify them but they cannot manage the administration side of it. She said perhaps it is appropriate to think outside the box a little bit and consider a building where they could run classes and programs to serve all ages in the community.



Councilmember Aalfs asked how booked the Community Hall is these days. Town Manager Dennis said there is limited opportunity to expand programs into the buildings because they are all fairly full.

Vice Mayor Richards said he got a bit of a mixed message from the Library presentation, hearing that it is very full but they're okay. Mayor Hughes said the message he got was that it was tight but manageable now, but it's growing and may get beyond tight. Town Manager Dennis said last year the Council authorized monies to investigate doing some work within the envelope related to meeting space. He said he and Mr. Kuramoto have had conversations related to that. He said there are specific types of things they simply cannot do in the Library. He said the Teen Alcove is nice but not much more than a small space next to a wall with a bookcase and a lot of teens come in and take over the Learning Center. He said it would be a good idea to have some additional space dedicated to some of their needs. The space in the back where they hold children's programming needs to be larger. As more and more tutors use the Library, the few spaces dedicated for individual meetings or meetings outside of the main space are used for hours.

Steve Toben, Santa Maria Avenue. He expressed gratitude to Mr. Driscoll, Planning Director Pedro, and the Committee for doing an exemplary job in reaching out to the community and sifting through an enormous volume of material. He said it will be difficult to select projects based solely on the guiding principles and goals because they do not provide much guidance regarding how to choose projects. He said it might be worth considering adding language or an additional guidance document explaining how to choose among projects or maybe the degree of alteration to current popular uses. He said other considerations might be cost and to what extent the new use would bring in population that are currently underserved, such as teens, singles, etc. He said suggested directing the architect to develop alternative scenarios because not everything will fit.

Mr. Toben said 10 years ago he was tasked with mediating a conversation among diverse stakeholders on whether to open the entire expansion of the creek. He said there was a contingent in Town who thought it was a golden opportunity to open up the 700 feet of the creek which would be wonderful for the Town. He said there was another group that was very against slicing the campus into two, creating a gully in the middle of the Town Center. He said they finally arrived at a compromise to open a portion of the Town Center property directly in front of the buildings. He said neither side was enthusiastic about it, but it was sufficient to give some sense that the Town was serious about the commitment to natural resources and the value of the creek. Mr. Toben suggested the Council be very mindful that this will be a very controversial issue and will challenge the Council with regard to the extent in which a dramatic new use would alter the current uses that many community members already appreciate. He said he supports the idea of thoughtful brainstorming with the use of a talented professional like Larry Strain, who has served the Town extremely well. He said Mr. Strain has a lot to contribute in the way of visual alternatives to consider.

Alex Von Feldt, Creek Park Drive. She said she was with Mr. Driscoll at the Town picnic and also heard everyone saying the Master Plan was fine as it was and didn't need to change. She said, particularly as a member of the Planning Commission, while we need to be mindful of everyone's needs and wants, it is important to think about the next 20 years and not just react to the latest new craze. She said it is important to put something in place defining intentions, and not necessarily specific projects or priority lists. She supports the next steps recommended by the Committee. She said they spent 1-1/2 years gathering as much information as they could from the public and we now need to determine if those ideas are feasible. She agreed that we should look at different versions of a project, if it is feasible and how it impacts the other pieces on-site. She said there should be parameters, for example specifying that a project could not be done at the expense of, for example, the softball or soccer fields. She said there could be some grant funding available to help support the larger projects. She said, as someone who often has to look for grants, it is helpful to have something already in writing as part of a plan, which is usually one of the first questions lenders will ask. She said to have a conceptual design to review with either foundations or individuals is also extremely important.

Beth Rubuczewski, Alpine Road, Portola Valley. She encouraged the Council to think about the quantity of people who opined their wants and needs about the Town Center this time versus the first time. She

encouraged considering needs versus wants. She said there were a lot of people who donated the first time around to a very specific plan and people were particular in their donations during the fundraising, with specific criteria based on explicit architectural designs. She said if this was occurring 20 or 25 years from now, she wouldn't have an issue about changing things, but said the Council needs to be very cautious about changing things seven or eight years after a lot of the original donations were made very specific to specific designs. She asked where all the money for these projects was coming from.

Town Manager Dennis said the budgeted amount for the Master Plan project is primarily around visioning. He said the Committee has worked for the last 1-1/2 years to create a blueprint and plan for 20 years of potential changes based on what could occur here. He said the Committee has spent a considerable amount of time on specific items that could be included on the list and would subsequently be programmed in some way. He said of equal importance is that it is a blueprint for future Town staff, Town Councils, and the community to understand that these changes and their impacts had been considered and are in place for a conversation around potential development. He said from staff's perspective, they did not anticipate that once this process was complete there would suddenly be a number of projects being initiated. He said this was to be a plan available to staff so that as ideas come forward, they can be checked against what the Committee had done. He said those ideas that came up specifically during the process would be programmed into what he would normally call a capital projects budget.

Planning Director Pedro said the Committee developed the mission statement which states: "The plan will set forth development priorities, where individual projects will be implemented through capital improvement budgeting and fundraising efforts." She said there is currently no money set aside for any particular projects. She said the Council did approve \$65,000 at the formation of the Committee, the bulk of which is still available. Town Manager Dennis said the Town has been incredibly successful in engaging its residents in the fundraising process and he suspects that will continue to be the case. He said there are very caring, giving people here and for any ideas that come out of the process that can't be budgeted by the Town through General Fund or otherwise, he suspects there will be some sort of process

In response to Councilmember Derwin's question, Town Manager Dennis said there a little more than \$500,000 available to the Library in the donor funds.

In response to Ms. Reiss' question, Councilmember Derwin explained there are three Libraries (Portola Valley, Atherton and Woodside) in the library system who bring in more taxes than they spend and that excess money goes into a fund called the Donor Fund. Town Manager Dennis said that is some of the money the Town has been able to put aside to help with some of the things in the Library and when he talked about some internal changes they may be able to make, that comes out of the Donor Fund money.

Ms. Reiss said it would be great to have somebody like Larry Strain come in, a facilities guy, but she really wanted to stress the need for programs. She said they should think about programs and what would fill up those space opportunities as opposed to a "build it and they will come" approach. She said she would love to see somebody running programs.

Mr. Toben said there are generous people in Town but they need to be activated by an agent who will knock on their doors. He said during the last process there was a big effort augmented by a committee of volunteers for the fundraising, but that past stroke of good fortune cannot be counted on. He said wallets are great but you need a catalyst to get those wallets to open.

With no further comments, Mayor Hughes brought the issue back to the Council for discussion. He suggested they begin with the community goals, thinking about this partly as a 25-year plan but also, if they were to retain Mr. Strain or somebody else, the type of information to provide to that resource.

Councilmember Wengert thanked the Committee, Mr. Driscoll, and Planning Director Pedro for all their hard work. She said they all want to get something moving forward, particularly considering all the work put into this. She said she particularly appreciated Mr. Toben's comments about the criteria for multiple conceptual designs. She said it is important to understand how much of a factor the original donor criteria

should be incorporated into whatever is considered. She said there should be discussion about opportunities for additional outreach and then layer on Spring Down. She said if that extra acreage is available, they may be able to think outside of the box and do some things they haven't thought about before. She suggests the Committee bring that information back to the Council and then layer the budgetary constraints, at which point they can start to build priorities.

Mayor Hughes said there is a limit to the technical expertise and cost expertise of what the Committee members can do. He said they've collected a lot of information and gotten this to a certain point where it does need a professional touch to go through and help. Drawing multiple schematics will provide a sense of the what ifs, and then the costs and timelines can be looked at. He said he's not sure the Committee would be the best venue to do that without something for them to react to, even rough schematics.

Councilmember Aalfs said the next step may be to draft a set of instructions along with the donor criteria and the things that are possible needs.

Mr. Driscoll suggested meeting with Mr. Strain, getting him up to speed with what's going on and explaining that there have been changes in uses in the past eight years. He said having the Spring Down property was not part of this then.

Councilmember Wengert said it is important to provide Mr. Strain with the criteria about what the Town is looking for. She said maybe that is a job for the Council.

Vice Mayor Richards said there have been excellent suggestions tonight that perhaps the Council could request that staff try to put in some kind of logical order.

Councilmember Aalfs asked Mr. Driscoll if he thought it would be valuable to sit down with Mr. Strain before a criteria list was adopted. Mr. Driscoll said it would be valuable. He said there has been increased demand and changes in use and he would like to at least make Mr. Strain aware of that. He said he would then bring Mr. Strain and the Committee before the Council to flesh out the set of criteria.

The Council decided that the criteria need to be developed before bringing it to Mr. Strain. Councilmember Wengert said they need to know what Town Attorney Prince will bring back regarding possibilities for Spring Down. Councilmember Wengert said it is also important to understand if there are expectations from the donors. Mayor Hughes said that while considering those things, they need to factor in the potential timeline. He said it is quite reasonable for people that gave money seven years ago to expect that major changes to the things they really cared won't happen; however, there would probably not be much objection to improving parking. He said in 25 years they may feel less strongly about the color of the backboard. Vice Mayor Richards said changes should not affect really heavily used areas.

Councilmember Aalfs said before this comes back to the Council, Town Attorney Prince needs to do some research on things like the fundraisers. Town Manager Dennis said they were only looking for direction tonight.

Mr. Driscoll asked to engage someone like Mr. Strain to help the Committee quantify and qualify their suggestions. Councilmember Wengert said she agreed but wanted to make sure he received the right direction.

Mayor Hughes said the Council has learned a lot from the work of the Town Center Master Plan Committee, and other Committees that have been involved with this, about doing surveys, how to engage people, and how to collect opinions. He said it has been helpful for this process particularly, as well as generally for the other things done in Town.

Council directed staff to bring this back to the Council after some research of Spring Down with a criteria list.

(6) COUNCIL LIAISON COMMITTEE AND REGIONAL AGENCIES REPORTS

Councilmember Derwin – Attended the Council of Cities meeting with Councilmember Wengert where there was a presentation about immigration and discussion of the Truth Act and how it affects towns and cities with jails. She attended the ASCC study session where they discussed Design Guidelines and home security measures. She attended the joint ASCC/Planning Commission meeting with Mayor Hughes and Vice Mayor Richards, where the Brown Act and Roberts Rules were reviewed and they discussed the General Plan and public safety. Town Manager Dennis said it is not common and is in fact very rare to have commentary on public safety issues in a General Plan. Councilmember Derwin said Los Altos Hills has it. Town Manager Dennis said there are a few that do, but it is not typical. He said you tend to see it a bit in prefaces in the Zoning Code or Design Guidelines, but not typically in the General Plan. He said staff is bringing back material regarding lighting. Mayor Hughes said the material regarding running their meetings more efficiently and how to be consistent among the applicants was well received.

Councilmember Aalfs – Peninsula Clean Energy is doing enrollment in April and the first notices went out in the end of February, based on meter read dates. With 230,000 accounts going in, it will be the largest single enrollment done by a CCA to date. He said they have six staff people now and are interviewing for three more positions. They signed their first four contracts, one being a 200-megawatt facility in Merced County, and are interviewing more bidders next week. He said they could have close to a gigawatt of capacity in the next three or four years. He said they are now profitable. He attended the Silicon Valley Leadership Group Competition and Innovation Program.

Councilmember Wengert – She and Councilmember Derwin attended a meeting with Supervisor Don Horsley and Town Manager Dennis to discuss affordable housing. She was unable to attend the Parks & Recreation Committee meeting, but understood it was well attended and they discussed changes they will be making in some of the events. She said that Committee needs more members.

Vice Mayor Richards – Attended the Conservation Committee meeting, where they discussed the ban on poison bait, which will be coming before the Council. He said the Broom Pull was successful, even in rain and hail. He said they want a copy of the checklist for development of projects. He attended the ASCC/Planning Commission meeting and commented that a Town exists to control private property. Mayor Hughes said it was pointed out that the maximum numbers were not a guarantee that someone can always build to that maximum. Vice Mayor Richards said at one time the ASCC went on a tour of the Town and looked at projects that were good examples of meeting the Design Guidelines and it might be a good idea to do that again.

Mayor Hughes – He attended the PCE meeting in February, sitting in for Councilmember Aalfs. He said there were new members due to the election cycle. He said they were moving into temporary space and will move into their permanent office space in June or July. He said there was a lot of things going on in the regulatory sphere, including Cal CCA, which is essentially a trade association of the CEOs of the active CCAs. He said the Citizens Advisory Committee is reactivating. He said decided that not all members of the Committee need to be residents of the County so there can be some focus on the commercial customers. He attended BPTS meeting where a resident who lives on the corner of Corte Madera and Alpine commented about traffic flow during school drop-off because, probably more than usual due to the rain. They discussed the Windy Hill signs. He said people were still not parking off the road because it was so swampy, but as it dries up they want the Sheriff to start enforcement. He said they will be moving ahead with Phase 1 of the County Alpine Road project over the next couple of months, which will include installation of flashing crosswalks at Ladera on Alpine Road. He said that may have an impact on traffic going in and out of Town as well as BPTS in terms of Portola Valley people wanting the same thing here. The BPTS will be looking at various issues about the crosswalks in Town.

(7) Town Manager Report – Town Manager Dennis reported that he has the communication audit draft and has been meeting with the consultant over the last week to get it to a point where it can be brought to the Council, possibly in April. He toured the new jail, which was fascinating. He said the amount of programming into that facility is a testament to what San Mateo County thinks about their approach to housing inmates. He was impressed with some of the smaller touches such as naming the

wings and painting in colors to make it feel less institutional. He said rather than have family visitation face-to-face, which is somewhat dangerous and takes staff time, they now use cameras. He invited the Councilmembers to contact him if they want to tour the facility. He said staff asked the Sheriff's Office to look at the issues around Corte Madera School in the morning to see if people were going through stop signs or speeding, so there may be some increase in ticketing around there. He said the ASCC/Planning Commission joint study session was very successful and worthwhile. He said he, staff, and Planning Director Pedro are having individual meetings with each of the Commissioners over the next couple of weeks to see what they got out of it and reinforce some of the helpful things they heard. He said they are receiving very positive feedback from the Commissioners. Mayor Hughes said there was useful feedback for staff and good questions from staff about how to better support the Commissioners in terms of the structuring of staff reports. Town Manager Dennis said some of that work had already started prior to that meeting. He said he met with Planning Director Pedro last week regarding staff report formatting, including a table that shows what's going on with a project, what's allowed, maximums, the delta, and more specific information about findings. He said there were some complaints about the rocks at the Windy Hill parking area because they were only halfway through the project and said those rocks will be covered with mulch and wood. He said next weekend is the inaugural for Little League and they are moving the mud and debris they pulled off Alpine Road this week and early next week. He said at a future Council meeting they will present a rodenticide policy that came out of the Conservation Committee. He said because that work was going on, he asked staff to look at other places where chemicals were being used, particularly around trails and fields. He said there is more mechanical work being done on the trails and they will not be spraying. He said they are experimenting on the fields with one using 100 percent organic, one 50/50 organic, and the rest using what they have in stock right now. He said they will eventually move to something 100 percent organic or free of chemicals. He said the Town is hosting two PCE events Thursday and Saturday night, with the Saturday session having more focus on solar. Town Manager Dennis said he received call from the Chair of the Parks & Recreation Committee with specific concerns around holding Zots to Tots and the Town Picnic at the same time. He said staff had asked to do that because they thought there would be more people attending. But because of the precarious situation of the Committee, and the amount of time that any one individual could put into it, they requested the events be split up. He said he agreed and it was decided that there will be a picnic in June and Zots to Tots in September. Councilmember Derwin said there will be a lot of complaints about that. Town Manager Dennis said the alternative is having staff put it on, essentially administering the aspects of it. He said staff is going through a major internal process right now around how these things are done with the staff as it relates to events. He said if the Council directs that they want those two events held on the same day, he will direct staff to spend time on it, but that will mean it has to be decided what other task will not happen. Councilmember Derwin said they could advertise for a Community Events Committee, possibly for next year. She said that group used to handle this kind of thing, but the committee went away and it ended up as an additional task for Parks & Recreation. Councilmember Wengert supported that idea. Town Manager Dennis said Simone LaValle, Co-Chair of Parks & Recreation Committee, said they could not do both events in September. Town Manager Dennis said they will look into creating a committee that handles events. Councilmember Derwin said she knows staff has to do a lot of work and must still be involved, but in the past there were some very hardworking volunteers on that committee.

#### **WRITTEN COMMUNICATIONS** [9:58 p.m.]

(8) Town Council Digest – February 24, 2017

None.

(9) Town Council Digest – March 3, 2017

None.

#### **ADJOURNMENT** [10:00 p.m.]

Mayor Hughes adjourned the meeting.

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Mayor

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Town Clerk

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State/Province Zip/Postal	Invoice Number			Check Amount

AT&T (2)	March M/W	18429	03/22/2017	
			03/22/2017	
P.O. BOX 5025	877		03/22/2017	0.00
CAROL STREAM	BOA	51459	03/22/2017	0.00
IL 60197-5025				66.89

GL Number	Description	Invoice Amount	Amount Relieved	
05-52-4152	Emerq Preparedness Committee	66.89	0.00	

Check No.	51459	Total:	66.89
Total for	AT&T (2)		66.89

AT&T	February Statements	18428	03/22/2017	
			03/22/2017	
P.O. BOX 9011	441		03/22/2017	0.00
CAROL STREAM	BOA	51458	03/22/2017	0.00
IL 60197-9011				303.19

GL Number	Description	Invoice Amount	Amount Relieved	
05-64-4318	Telephones	303.19	0.00	

Check No.	51458	Total:	303.19
Total for	AT&T		303.19

THOMAS BUCKHOLTZ	Refund Deposit, 157 Westridge	18435	03/22/2017	
			03/22/2017	
157 WESTRIDGE DRIVE	0645		03/22/2017	0.00
PORTOLA VALLEY	BOA	51460	03/22/2017	0.00
CA 94028				612.02

GL Number	Description	Invoice Amount	Amount Relieved	
96-54-4207	Deposit Refunds, Other Charges	612.02	0.00	

Check No.	51460	Total:	612.02
Total for	THOMAS BUCKHOLTZ		612.02

C+C, SOCIAL MARKETING & PR	Drought Communications, PCE	18460	03/22/2017	
			03/22/2017	
Colehour + Cohen, Inc.	1605		03/22/2017	0.00
1011 WESTERN AVENUE	BOA	51461	03/22/2017	0.00
SEATTLE	6432			2,643.75
WA 98104				

GL Number	Description	Invoice Amount	Amount Relieved	
05-64-4335	Sustainability	2,643.75	0.00	

Check No.	51461	Total:	2,643.75
Total for	C+C, SOCIAL MARKETING & PR		2,643.75

CITY OF REDWOOD CITY (IT)	February IT Support	18438	03/22/2017	
			03/22/2017	
P.O. BOX 3629	586		03/22/2017	0.00
REDWOOD CITY	BOA	51462	03/22/2017	0.00
CA 94064	BR43306			2,163.17

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City	Bank	Check No.	Check Date	Discount Amount
State/Province Zip/Postal	Invoice Number			Check Amount

GL Number	Description	Invoice Amount	Amount Relieved	
05-54-4216	IT & Website Consultants	2,163.17	0.00	

Check No.	51462	Total:	2,163.17
Total for	CITY OF REDWOOD CITY (IT)		2,163.17

CITY OF SAN MATEO	Dinner Mtg/Derwin	18462	03/22/2017	
			03/22/2017	
CITY CLERK'S OFFICE	0331		03/22/2017	0.00
SAN MATEO	BOA	51463	03/22/2017	0.00
CA 94403				50.00

GL Number	Description	Invoice Amount	Amount Relieved	
05-64-4327	Educ/Train: Council & Commissn	50.00	0.00	

Check No.	51463	Total:	50.00
Total for	CITY OF SAN MATEO		50.00

COUNTY OF SAN MATEO	FY 16-17 Annual Contribution	18431	03/22/2017	
Airport Comm Roundtable Fund			03/22/2017	
JENNY SPATARO, FOS	0420		03/22/2017	0.00
REDWOOD CITY	BOA	51464	03/22/2017	0.00
CA 94063				750.00

GL Number	Description	Invoice Amount	Amount Relieved	
05-64-4322	Dues	750.00	0.00	

Check No.	51464	Total:	750.00
Total for	COUNTY OF SAN MATEO		750.00

SONIA DHILLON	Refund ASCC Fee, 10 Grove	18440	03/22/2017	
			03/22/2017	
10 GROVE DRIVE	0670		03/22/2017	0.00
PORTOLA VALLEY	BOA	51465	03/22/2017	0.00
CA 94028				690.00

GL Number	Description	Invoice Amount	Amount Relieved	
05-20-3132	Architectural Review Fees	690.00	0.00	

Check No.	51465	Total:	690.00
Total for	SONIA DHILLON		690.00

ED DIVITA	Refund Deposit, 117 Pinon	18430	03/22/2017	
			03/22/2017	
117 PINON DRIVE	1010		03/22/2017	0.00
PORTOLA VALLEY	BOA	51466	03/22/2017	0.00
CA 94028				5,000.00

GL Number	Description	Invoice Amount	Amount Relieved	
96-54-4205	C&D Deposit	5,000.00	0.00	

Check No.	51466	Total:	5,000.00
Total for	ED DIVITA		5,000.00



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State/Province Zip/Postal	Invoice Number			Check Amount

LORRAINE R. DUVAL	Neighborhood Watch Coordinator	18439	03/22/2017	
	Svcs, 2/20/17 - 3/5/17		03/22/2017	
340 GOLDEN OAK DRIVE	0652		03/22/2017	0.00
PORTOLA VALLEY	BOA	51467	03/22/2017	0.00
CA 94028				320.00

GL Number	Description	Invoice Amount	Amount Relieved
05-54-4214	Miscellaneous Consultants	320.00	0.00

Check No.	51467	Total:	320.00
Total for	LORRAINE R. DUVAL		320.00

GO NATIVE INC	PVTC Vegetation Mgmt/Maint	18446	03/22/2017	
	February		03/22/2017	
P.O. BOX 370103	632		03/22/2017	0.00
MONTARA	BOA	51468	03/22/2017	0.00
CA 94037	3006			1,740.00

GL Number	Description	Invoice Amount	Amount Relieved
05-66-4342	Landscape Supplies & Services	1,740.00	0.00

Check No.	51468	Total:	1,740.00
Total for	GO NATIVE INC		1,740.00

GRANITE ROCK COMPANY	Base Rock, Roads	18452	03/22/2017	
		00006441	03/22/2017	
P.O. BOX 50001	0322		03/22/2017	0.00
WATSONVILLE	BOA	51469	03/22/2017	0.00
CA 95077-5001	1016945			799.93

GL Number	Description	Invoice Amount	Amount Relieved
20-60-4260	Public Road Surface & Drainage	799.93	872.00

Check No.	51469	Total:	799.93
Total for	GRANITE ROCK COMPANY		799.93

HAYWARD LUMBER CO	Materials for Various Repairs	18450	03/22/2017	
			03/22/2017	
429 FRONT STREET	1237		03/22/2017	0.00
SALINAS	BOA	51470	03/22/2017	0.00
CA 93901-3609	37108978-00, 37109140-00			221.44

GL Number	Description	Invoice Amount	Amount Relieved
05-60-4267	Tools & Equipment	42.61	0.00
05-66-4340	Building Maint Equip & Supp	52.88	0.00
20-60-4260	Public Road Surface & Drainage	92.62	0.00
20-60-4268	Street Signs & Striping	33.33	0.00

Check No.	51470	Total:	221.44
Total for	HAYWARD LUMBER CO		221.44

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INTERSTATE TRAFFIC CNTRL	Signs, Road Signage	18449	03/22/2017	
			03/22/2017	
1700 INDUSTRIAL ROAD, STE B	564		03/22/2017	0.00
SAN CARLOS	BOA	51472	03/22/2017	0.00
CA 94070	216733			192.48

GL Number	Description	Invoice Amount	Amount Relieved
20-60-4268	Street Signs & Striping	192.48	0.00

Check No.	51472	Total:	192.48
Total for	INTERSTATE TRAFFIC CNTRL		192.48

INT'L INSTITUTE OF MUNI CLERKS	2017 Dues, Hanlon	18457	03/22/2017	
			03/22/2017	
8331 UTICA AVENUE	635		03/22/2017	0.00
RANCHO CUCAMONGA	BOA	51471	03/22/2017	0.00
CA 91730				160.00

GL Number	Description	Invoice Amount	Amount Relieved
05-64-4322	Dues	160.00	0.00

Check No.	51471	Total:	160.00
Total for	INT'L INSTITUTE OF MUNI CLERKS		160.00

JORGENSON SIEGEL MCCLURE & FLEGEL	February Statement	18456	03/22/2017	
			03/22/2017	
1100 ALMA STREET	0089		03/22/2017	0.00
MENLO PARK	BOA	51473	03/22/2017	0.00
CA 94025				18,262.50

GL Number	Description	Invoice Amount	Amount Relieved
05-54-4182	Town Attorney	17,300.00	0.00
96-54-4186	Attorney - Charges to Appls	962.50	0.00

Check No.	51473	Total:	18,262.50
Total for	JORGENSON SIEGEL MCCLURE &		18,262.50

MARIE KLEMCHUK	Refund Fees, 45 Granada	18433	03/22/2017	
			03/22/2017	
21820 MONTE COURT	0669		03/22/2017	0.00
CUPERTINO	BOA	51474	03/22/2017	0.00
CA 95014				1,140.00

GL Number	Description	Invoice Amount	Amount Relieved
05-14-3060	Building Permits	1,140.00	0.00

Check No.	51474	Total:	1,140.00
Total for	MARIE KLEMCHUK		1,140.00

KUTZMANN & ASSOCIATES	February Plan Check	18441	03/22/2017	
			03/22/2017	
39355 CALIFORNIA STREET	0090		03/22/2017	0.00
FREMONT	BOA	51475	03/22/2017	0.00
CA 94538				1,650.90

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State/Province Zip/Postal	Invoice Number			Check Amount

GL Number	Description	Invoice Amount	Amount Relieved
05-54-4200	Plan Check Services	1,650.90	0.00

Check No.	51475	Total:	1,650.90
Total for	KUTZMANN & ASSOCIATES		1,650.90

LYNX TECHNOLOGIES, INC	EnerGov, GIS Host Fee - Feb	18447	03/22/2017	
			03/22/2017	
1350 41ST AVENUE	0294		03/22/2017	0.00
CAPITOLA	BOA	51476	03/22/2017	0.00
CA 95010	8145			250.00

GL Number	Description	Invoice Amount	Amount Relieved
05-68-4539	Permit Tracking Software	250.00	0.00

Check No.	51476	Total:	250.00
Total for	LYNX TECHNOLOGIES, INC		250.00

MCCLLENAHAN CONSULTING, LLC	CIP Road Widening, Inspection	18442	03/22/2017	
			03/22/2017	
1 ARASTRADERO RD	832		03/22/2017	0.00
PORTOLA VALLEY	BOA	51477	03/22/2017	0.00
CA 94028	2354			175.00

GL Number	Description	Invoice Amount	Amount Relieved
05-68-4537	SMTA Road Project	175.00	0.00

Check No.	51477	Total:	175.00
Total for	MCCLLENAHAN CONSULTING, LLC		175.00

NANCY ORCHARD	Refund Deposit-Facility Rental	18434	03/22/2017	
	Girl Scout Troop #32859		03/22/2017	
141 SANTA MARIA	1220		03/22/2017	0.00
PORTOLA VALLEY	BOA	51478	03/22/2017	0.00
CA 94028				250.00

GL Number	Description	Invoice Amount	Amount Relieved
05-00-2561	Community Hall Deposits	250.00	0.00

Check No.	51478	Total:	250.00
Total for	NANCY ORCHARD		250.00

PERS HEALTH	April Health	18459	03/22/2017	
			03/22/2017	
VIA EFT	0108		03/22/2017	0.00
	BOA	51479	03/22/2017	0.00
				13,911.06

GL Number	Description	Invoice Amount	Amount Relieved
05-50-4086	Health Insurance Medical	13,911.06	0.00

Check No.	51479	Total:	13,911.06
Total for	PERS HEALTH		13,911.06

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State/Province Zip/Postal	Invoice Number			Check Amount

PG&E	February Statements	18455	03/22/2017	
			03/22/2017	
BOX 997300	0109		03/22/2017	0.00
SACRAMENTO	BOA	51480	03/22/2017	0.00
CA 95899-7300				1,633.28

GL Number	Description	Invoice Amount	Amount Relieved
05-64-4330	Utilities	1,633.28	0.00

Check No.	51480	Total:	1,633.28
Total for	PG&E		1,633.28

RAMONA'S SECRETARIAL SERVICES	Transcription Svcs, Feb 2017	18458	03/22/2017	
			03/22/2017	
18403 WATTERS DRIVE	1370		03/22/2017	0.00
CASTRO VALLEY	BOA	51481	03/22/2017	0.00
CA 94546	5938			1,320.00

GL Number	Description	Invoice Amount	Amount Relieved
05-54-4188	Transcription Services	1,320.00	0.00

Check No.	51481	Total:	1,320.00
Total for	RAMONA'S SECRETARIAL SERVIC		1,320.00

ROTO-ROOTER PLUMBERS	Sewer Line Drain Pipe Repair	18444	03/22/2017	
			03/22/2017	
5672 COLLECTION CENTER DR	360		03/22/2017	0.00
CHICAGO	BOA	51482	03/22/2017	0.00
IL 60693	19319459188			393.00

GL Number	Description	Invoice Amount	Amount Relieved
25-66-4346	Mechanical Sys Maint & Repair	393.00	0.00

Check No.	51482	Total:	393.00
Total for	ROTO-ROOTER PLUMBERS		393.00

SAN MATEO CO INF SERVICES	February M/W	18432	03/22/2017	
			03/22/2017	
455 COUNTY CENTER, 3RD FLOOR	0307		03/22/2017	0.00
REDWOOD CITY	BOA	51483	03/22/2017	0.00
CA 94063	1YPV11702			76.00

GL Number	Description	Invoice Amount	Amount Relieved
05-52-4152	Emerq Preparedness Committee	76.00	0.00

Check No.	51483	Total:	76.00
Total for	SAN MATEO CO INF SERVICES		76.00

SHARP BUSINESS SYSTEMS	February Copies	18454	03/22/2017	
			03/22/2017	
DEPT. LA 21510	0199		03/22/2017	0.00
PASADENA	BOA	51484	03/22/2017	0.00
CA 91185-1510	C937469-541			337.69

**INVOICE APPROVAL LIST REPORT - DETAIL WITH GL DIST**

03/22/2017

Date: 03/17/2017

Time: 10:31 am

Page: 7

TOWN OF PORTOLA VALLEY

Vendor Name	Invoice Description1	Ref No.	Discount Date	
Vendor Name Line 2	Invoice Description2	PO No.	Pay Date	
Vendor Address	Vendor Number		Due Date	Taxes Withheld
City	Bank	Check No.	Check Date	Discount Amount
State/Province Zip/Postal	Invoice Number			Check Amount

GL Number	Description	Invoice Amount	Amount Relieved
05-64-4308	Office Supplies	337.69	0.00

Check No.	51484	Total:	337.69
Total for	SHARP BUSINESS SYSTEMS		337.69

SIERRA PACIFIC TURF SUPPLY INC	Field Fertilizer	18451	03/16/2017	
		00006442	03/16/2017	
P.O. BOX 84	842		03/16/2017	0.00
CAMPBELL	BOA	51485	03/22/2017	0.00
CA 95009	0497044-IN			1,103.04

GL Number	Description	Invoice Amount	Amount Relieved
05-58-4240	Parks & Fields Maintenance	1,103.04	1,103.04

Check No.	51485	Total:	1,103.04
Total for	SIERRA PACIFIC TURF SUPPLY IN		1,103.04

SMALL BUSINESS BENEFIT PLAN TR	April Dental/Vision	18437	03/22/2017	
			03/22/2017	
	0132		03/22/2017	0.00
BELMONT	BOA	51486	03/22/2017	0.00
CA 94002-0156				2,644.40

GL Number	Description	Invoice Amount	Amount Relieved
05-50-4090	Health Ins Dental & Vision	2,644.40	0.00

Check No.	51486	Total:	2,644.40
Total for	SMALL BUSINESS BENEFIT PLAN		2,644.40

STAPLES CREDIT PLAN	Office Supplies, 2/6/17-3/1/17	18453	03/22/2017	
			03/22/2017	
DEPT. 31 - 0000306219	430		03/22/2017	0.00
PHOENIX	BOA	51487	03/22/2017	0.00
AZ 85062-8004				275.93

GL Number	Description	Invoice Amount	Amount Relieved
05-64-4308	Office Supplies	275.93	0.00

Check No.	51487	Total:	275.93
Total for	STAPLES CREDIT PLAN		275.93

THERMAL MECHANICAL, INC	HVAC Bi-Monthly Service, Jan	18443	03/22/2017	
			03/22/2017	
425 ALDO AVENUE	955		03/22/2017	0.00
SANTA CLARA	BOA	51488	03/22/2017	0.00
CA 95054	68805			1,495.00

GL Number	Description	Invoice Amount	Amount Relieved
05-66-4346	Mechanical Sys Maint & Repair	1,495.00	0.00

Check No.	51488	Total:	1,495.00
Total for	THERMAL MECHANICAL, INC		1,495.00

**INVOICE APPROVAL LIST REPORT - DETAIL WITH GL DIST**

03/22/2017

Date: 03/17/2017

Time: 10:31 am

Page: 8

TOWN OF PORTOLA VALLEY

Vendor Name	Invoice Description1	Ref No.	Discount Date	
Vendor Name Line 2	Invoice Description2	PO No.	Pay Date	
Vendor Address	Vendor Number		Due Date	Taxes Withheld
City	Bank	Check No.	Check Date	Discount Amount
State/Province Zip/Postal	Invoice Number			Check Amount

TMT ENTERPRISES, INC	Infield Mix, Ford and Town	18448	03/22/2017	
	Center Fields	00006438	03/22/2017	
1996 OAKLAND ROAD	0494		03/22/2017	0.00
SAN JOSE	BOA	51489	03/22/2017	0.00
CA 95131	89192			840.15

GL Number	Description	Invoice Amount	Amount Relieved	
05-58-4240	Parks & Fields Maintenance	840.15	823.78	

Check No.	51489	Total:	840.15
Total for	TMT ENTERPRISES, INC		840.15

VERIZON WIRELESS	February Cellular	18436	03/22/2017	
			03/22/2017	
P.O. BOX 660108	0131		03/22/2017	0.00
DALLAS	BOA	51490	03/22/2017	0.00
TX 75266-0108	9780992689			282.29

GL Number	Description	Invoice Amount	Amount Relieved	
05-64-4318	Telephones	282.29	0.00	

Check No.	51490	Total:	282.29
Total for	VERIZON WIRELESS		282.29

Total Invoices:	33	Grand Total:	61,753.11
		Less Credit Memos:	0.00
		Net Total:	61,753.11
		Less Hand Check Total:	0.00
		Outstanding Invoice Total:	61,753.11

**TOWN OF PORTOLA VALLEY**  
**Warrant Disbursement Journal**  
**March 22, 2017**

Claims totaling \$61,753.11 having been duly examined by me and found to be correct are hereby approved and verified by me as due bills against the Town of Portola Valley.

Date \_\_\_\_\_

\_\_\_\_\_  
Jeremy Dennis, Treasurer

Motion having been duly made and seconded, the above claims are hereby approved and allowed for payment.

Signed and sealed this (Date) \_\_\_\_\_

\_\_\_\_\_  
Sharon Hanlon, Town Clerk

\_\_\_\_\_  
Mayor

**From:** webmaster@portolavalley.net [mailto:webmaster@portolavalley.net]

**Sent:** Thursday, March 09, 2017 5:42 PM

**To:** Sharon Hanlon <shanlon@portolavalley.net>

**Subject:** Portola Valley, CA: Committee Application CAC / Welch

A new entry to a form/survey has been submitted.

**Form Name:** Committee Application

**Date & Time:** 03/09/2017 5:41 PM

**Response #:** 46

**Submitter ID:** 3215

**Time to complete:** 11 min. , 4 sec.

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### Survey Details

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Page 1

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Committee applications are submitted to Portola Valley's Town Clerk, Sharon Hanlon. Please feel free to forward a letter of interest or resume with your application as well. Sharon can be reached at (650) 851-1700 ex210, or you may email her at [shanlon@portolavalley.net](mailto:shanlon@portolavalley.net).

**Name of committee which I am interested in serving on (please note that only committees currently seeking volunteers are listed):**

Cultural Arts

#### Applicant Information

<b>Full Name</b>	Jerrie Welch
<b>Email Address</b>	
<b>Street Address</b>	10 Paso Del Arroyo
<b>City/Zip</b>	Portola Valley, CA 94028
<b>Number of years in Portola Valley</b>	21
<b>Cell Phone</b>	
<b>Home Phone</b>	
<b>Other Phone</b>	Not answered

#### Preferred Phone Contact Number

Home

#### I prefer to receive Town communications via

E-mail (recommended)

**Please state why you have an interest in this committee, and state any background or experience you may have that may be useful in your service to this committee.**

I wish to serve on the Cultural Arts Committee as I have a Bachelor of Art Degree in Fine Arts with emphasis in the areas of Anthropology and Archeology. I have been an educator for over 50 years and feel my background and training but be useful to continuing the work of this committee.



Having helped set up art displays and working with a member of the Cultural Arts Committee on occasion, I was asked to come to a meeting. I have attended the past two monthly meetings and have been participating in the planning for our upcoming events. I have made the personal commitment to serve on this committee, taking on some of the tasks for our April and summer events.

**Do you have any personal or financial interest that could be perceived by others as a conflict of interest relative to your service on the committee? If so, please describe.**

No, there is no personal or financial interest that would be a conflict of interest.

**TIME COMMITMENT: Generally committees meet monthly and require a significant time commitment and participation at regular meetings. Please consider this level of commitment when evaluating your interest in serving on one of the Town's Committees.**



# MEMORANDUM

## TOWN OF PORTOLA VALLEY

---

**TO:** Mayor and Members of the Town Council

**FROM:** Howard Young, Public Works Director

**DATE:** March 22, 2017

**RE:** **2016/2017 Street Resurfacing Project- Surface Seals  
Project #2017-PW01**

### RECOMMENDATION

1. Adopt the attached resolution approving plans and specifications for the 2016/2017 Street Resurfacing project and calling for sealed bids for this project.
2. Authorize the Town Manager to award the project to the lowest responsible bidder with a total contract and change order amount not to exceed \$528,000. This would include authorization to add to (or subtract from) the project, additional work as recommended by the Public Works Director if the allocated amount allows, in an effort to maximize paved areas and utilize the entire allocated amount.

### DISCUSSION

The preparation of construction documents for this year's street resurfacing program is completed. This project will include extensive repair to the roadway base and apply a preventative maintenance surface seal (slurry seal) on sections of Portola road as listed on Exhibit A. Also included are bid additive alternate sections of Portola Road which can be selected if the budget allows. Bid award will be based on the base bid amount.

The street sections selected for treatment this year were based on the Town's Pavement Management System and field surveys. A copy of the Plans and Specifications are available for review at Town Hall in the office of the Town Clerk.

The following is our anticipated project schedule for this project weather dependent:

Town publicly advertises for the project:	Week of March 27, 2017
Bid Opening:	Week of April 18, 2017
Town Manager awards contract:	Week of May 8, 2017
Construction begins:	Week of May 22, 2017
Construction completed:	Week of June 30, 2017

**FISCAL IMPACT**

The estimated cost of the base bid of this street resurfacing project is \$527,628 including a 10% construction contingency. The base bid estimate cost does not include the additive bid alternates. Additive bid alternate one is estimated at \$49,656 and additive bid alternate two is estimated to be \$28,018 as shown on Exhibit A. The bid alternates or portions of, will only be executed if the project budget allows. The adopted 2016/2017 Capital Improvement Plan (CIP) budget for the Annual Street Resurfacing project is \$528,000.

**ATTACHMENTS**

- 1. Exhibit A – Street sections for base bid and bid alternates
- 2. Resolution

Approved by Jeremy Dennis, Town Manager



**Exhibit A**

2016/2017 Street Resurfacing Project  
Street sections for base bid and additive bid alternates

	<b>Base Bid</b>	<b>Road</b>	<b>From approximately</b>	<b>To approximately</b>	<b>Engineers estimate with 10% contingency</b>
<b>1</b>	Base Bid 1	Portola Road	Town limits with Woodside	886 Portola Road	\$ 527,628
		Portola Road	Willowbrook Drive	Portola Green Circle	
	<b>Additive Bid Alternates</b>				
	(at Towns option if applicable)				
<b>2</b>	Additive Bid Alternate 1	Portola Road	886 Portola Road	765 Portola Road	\$ 49,656
<b>3</b>	Additive Bid Alternate 2	Portola Road	765 Portola Road	725 Portola Road	\$ 28,018
	Adopted CIP budget \$528,000				

**RESOLUTION NO. \_\_\_\_\_ 2017****RESOLUTION OF THE TOWN COUNCIL OF THE TOWN  
OF PORTOLA VALLEY APPROVING PLANS AND  
SPECIFICATIONS AND CALLING FOR BIDS FOR THE  
2016/2017 STREET RESURFACING PROJECT SURFACE  
SEALS NO. 2017-PW01**

The Town Council of the Town of Portola Valley does RESOLVE as follows:

Section 1. The Town Council hereby approves and adopts plans and specifications for the work in the Town of Portola Valley known as the 2016/2017 Street Resurfacing Project – Surface Seals No. 2017-PW01.

Section 2. Due to public interest and convenience, the Town Council hereby orders that the work and improvements, as set forth and described in said plans and specifications, be performed. The Town Council further orders that all of the work and improvements will be done under the direction of and to the satisfaction of the Public Works Director; and all of the work shall be done in accordance with the plans and specifications.

Section 3. Not less than the prevailing rate of per diem wages and holiday and overtime work shall be paid for any work proposed to be performed in the performance of the public work under the plans and specifications.

Section 4. The Town Clerk of the Town is hereby directed to post by two successive postings in the three public places that have been designated by ordinance as the places for posting public notices, there being no newspaper published in the Town, and not less than five days apart, a notice inviting sealed proposals or bids for the construction of the work and improvements and referring to the plans and specifications on file in the Office of the Town Clerk, the first of which postings shall be at least ten days prior to the time fixed for opening bids.

Section 5. All proposals or bids shall be accompanied by a certified check payable to the order of the Town, or cash, amounting to ten percent (10%) of the bid, or by a bond in said amount and payable to the Town, signed by a corporate surety or by the bidder and two sureties who shall justify before any officer competent to administer an oath, in double said amount and over and above all statutory exemptions. The check shall be forfeited, or the bond shall become payable to the Town, if the bidder does not, after the contract has been awarded, and within the time specified in the plans and specifications, enter into a contract with the Town, in the form set forth in the specifications. The faithful performance of the contract shall be assured by an undertaking in the amount of one hundred percent (100%) of the amount so bid, with sureties satisfactory to the Town, and which shall be accompanied by a payment bond (labor and materials) in a sum not less

than one hundred percent (100%) of the amount of the bid.

Section 6. The sealed proposals or bids shall be delivered to the Public Works Director of the Town on or before 11:00 a.m., on the 18th day of April, 2017, or other later date as directed by the Public Works Director, at the Office of the Town Clerk in the Town Hall, 765 Portola Road, in the Town, said time being not less than ten days from the time of the first publication of said notice. Bids will be publicly opened, examined, and the Town Manager will take action awarding the contract or rejecting all bids not later than 45 days after the expiration of the time prescribed for the receipt of bids; provided the award may be made after the expiration of the specified times, if the bidder shall not have given to the Town notice in writing of the withdrawal of such bid on proposal. The Public Works Director is authorized to add or subtract work to comply with budget requirements.

Section 7. The Town Council of the Town hereby reserves the right to reject any and all bids.

PASSED AND ADOPTED this 22<sup>nd</sup> day of March 2017.

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Mayor

ATTEST:

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Town Clerk



# MEMORANDUM

## TOWN OF PORTOLA VALLEY

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**TO:** Mayor and Members of the Town Council

**FROM:** Howard Young, Public Works Director

**DATE:** March 22, 2017

**RE:** **Portola Road Shoulder Widening Project at Farm Road  
Project No. 2017-PW02**

### RECOMMENDATION

1. Staff recommends that Town Council adopt the attached resolution approving plans and specifications for the Portola Road Shoulder Widening Project and call for sealed bids.
2. Authorize the Town Manager to award the project to the lowest responsible bidder with a total contract and change order amount not to exceed \$150,000. This would include authorization to add to (or subtract) from the project, additional work as recommended by the Public Works Director if the allocated amount allows, in an effort to maximize and utilize the entire allocated amount.

### DISCUSSION

The Portola Road at Farm Road shoulder widening project has been discussed and prioritized by the Town Council at the recommendation of the Bicycle, Pedestrian, and Traffic Safety (BPTS) Committee which wrote a competitive San Mateo County Transportation Authority (SMTA) grant application in 2014 to address a shoulder pinch point on Portola Road at Farm Road. Widening of the paved shoulder would occur on both sides of Portola Road from the Towns Centers northern driveway to Farm Road. The SMTA funding agreement currently requires that projects be completed by October 2019.

The project will widen the paved shoulders to a minimum of 5' wide on a short section of Portola Road in front of Town Center as an improvement for cyclists. Due to the widening, it is necessary to remove six trees that are currently adjacent to the road shoulder. Best efforts will be made to preserve trees if possible during construction. As part of the Towns internal review process, the Public Works Director consulted with both the Architectural Site Control Commission's (ASCC) Chair and Conservation Committee Chair and performed a site visit to

review the scope. The ASCC Chair indicated that the scope of the project did not warrant formal ASCC review and could be handled under oral reports. At the ASCC's November 28, 2016 and February 27, 2017 meetings, the Planning Director provided oral reports and updates on the proposed project. The Conservation Committee Chair provided a description and update of the project at its November 22, 2016 meeting with no comments.

The preparation of construction documents for this project is completed. The project will widen the paved shoulder of both sides of Portola Road from the Town Centers northern most driveway to Farm Road by extending the pavement road section, removing trees, and modification of drainage facilities. A copy of the Plans and Specifications are available for review at Town Hall in the office of the Town Clerk. A copy of the plans has also been provided to the ASCC Chair.

The following is our anticipated project schedule for this project weather dependent:

Town publicly advertises for the project:	Week of March 27, 2017
Bid Opening:	Week of April 17 27, 2017
Town Manager contract award:	Week of May 8, 2017
Construction begins:	Week of May 29, 2017
Construction completed:	Week of June 30, 2017

### **FISCAL IMPACT**

The majority of this project is funded by the SMTA grant. The estimates contained within the SMTA applications submitted in January of 2014 were preliminary estimates without the benefit of any preliminary studies or design. The projects were:

1. Alpine Road at Arastadero Road Shoulder Widening: Completed October 2015.
2. Portola Road at Farm Road Shoulder Widening: Current project

SMTA Grant funding allocated \$309,500 in Measure A funds with \$138,000 in local match and staffing for a total of \$447,500 in funds for both projects. Project #1 was completed for \$256,322. The remaining funds of \$132,214 in SMTA Measure A funds and \$58,964 in local match for a total of \$191,178 are available and budgeted for design and construction of the current project #2.

The current estimated cost for the construction portion of this project is \$122,000 including a 10% construction contingency. Adequate funds have been placed in the current 2016/2017 budget.

### **ATTACHMENT**

1. Resolution

Approved by Jeremy Dennis, Town Manager





**RESOLUTION NO. \_\_\_\_\_ 2017**

**A RESOLUTION OF THE TOWN COUNCIL OF THE  
TOWN OF PORTOLA VALLEY  
APPROVING PLANS AND SPECIFICATIONS AND  
CALLING FOR BIDS FOR THE  
PORTOLA ROAD SHOULDER WIDENING PROJECT  
No. 2017-PW02**

The Town Council of the Town of Portola Valley does RESOLVE as follows:

Section 1. The Town Council hereby approves and adopts plans and specifications for the work in the Town of Portola Valley known as the Portola Road Widening Project No. 2017-PW02.

Section 2. Due to public interest and convenience, the Town Council hereby orders that the work and improvements, as set forth and described in said plans and specifications, be performed. The Town Council further orders that all of the work and improvements will be done under the direction of and to the satisfaction of the Public Works Director; and all of the work shall be done in accordance with the plans and specifications.

Section 3. Not less than the prevailing rate of per diem wages and holiday and overtime work shall be paid for any work proposed to be performed in the performance of the public work under the plans and specifications.

Section 4. The Town Clerk of the Town is hereby directed to post by two (2) successive postings in the three (3) public places that have been designated by ordinance as the places for posting public notices, there being no newspaper published in the Town, and not less than five (5) days apart, a notice inviting sealed proposals or bids for the construction of the work and improvements and referring to the plans and specifications on file in the Office of the Town Clerk, the first of which postings shall be at least ten (10) days prior to the time fixed for opening bids.

Section 5. All proposals or bids shall be accompanied by a certified check payable to the order of the Town, or cash, amounting to ten percent (10%) of the bid, or by a bond in said amount and payable to the Town, signed by a corporate surety or by the bidder and two sureties who shall justify before any officer competent to administer an oath, in double said amount and over and above all statutory exemptions. The check shall be forfeited, or the bond shall become payable to the Town, if the bidder does not, after the contract has been awarded, and within the time specified in the plans and specifications, enter into a contract with the Town, in the form set forth in the specifications. The faithful performance of the contract shall be assured by an undertaking in the amount of one

hundred percent (100%) of the amount so bid, with sureties satisfactory to the Town, and which shall be accompanied by a payment bond (labor and materials) in a sum not less than one hundred percent (100%) of the amount of the bid.

Section 6. The sealed proposals or bids shall be delivered to the Public Works Director of the Town on or before 11:00 a.m., on the 20th day of April, 2017, or other later date as directed by the Public Works Director, at the Office of the Town Clerk in the Town Hall, 765 Portola Road, in the Town, said time being not less than ten (10) days from the time of the first publication of said notice. Bids will be publicly opened, examined, and the Town Manager will take action awarding the contract or rejecting all bids not later than forty five (45) days after the expiration of the time prescribed for the receipt of bids; provided the award may be made after the expiration of the specified times, if the bidder shall not have given to the Town notice in writing of the withdrawal of such bid on proposal. The Public Works Director is authorized to add or subtract work to comply with budget requirements.

Section 7. The Town Council of the Town hereby reserves the right to reject any and all bids.

PASSED AND ADOPTED this 22<sup>nd</sup> day of March 2017.

---

Mayor

ATTEST:

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Town Clerk



# MEMORANDUM

## TOWN OF PORTOLA VALLEY

**TO:** Mayor and Members of the Town Council

**FROM:** Susan Cope, Administrative Services Manager

**DATE:** March 22, 2017

**RE:** Revisions of the Personnel Policies Manual

### RECOMMENDATION

Staff recommends changes to the Policy to include information regarding the 9/80 alternate schedule and additional leave of absence information.

### BACKGROUND

Section 7 of the Policy contains information regarding Attendance and Leave of Absences.

Staff recommends additions to Sections 2.21, 2.22 and 7.1 regarding the definition of Calendar Week and Workweek for the 9/80 alternate schedule; and additions to Sections 7.4, 7.5 and 7.6 to define sick, holiday and vacation hours and pay for the 9/80 alternate schedule.

Staff also recommends an addition to Section 7.13 to allow an employee to pay premiums on benefits while on a leave of absence.

### FISCAL IMPACT

None.

### ATTACHMENTS

1. Personnel Policy Manual

Approved by Jeremy Dennis, Town Manager

A handwritten signature in black ink, appearing to read 'Jeremy Dennis', is written over a horizontal line.

- 2.13 “Supervisor” or “Supervisory Employee”: Any individual having the authority to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward, or discipline other Employees, or the responsibility to direct them, or to address their grievances, or effectively to recommend any of these actions. Supervisor or Supervisory Employee includes, but is not limited to, Management Employees.
- 2.14 “Suspension”: The temporary separation from Town service, without pay, for disciplinary purposes, of an Employee.
- 2.15 “Temporary Employee”: An Employee of limited duration.
- 2.16 “Termination”: The separation of an Employee from Town service because of retirement, resignation, layoff, death or at-will termination.
- 2.17 “Town”: The Town of Portola Valley.
- 2.18 “Town Manager”: The Employee appointed by the Town Council to assume full management responsibility for all Town operations, which, for purposes of this Manual, includes direct supervision over all Employees.
- 2.19 “Town Council”: The elected legislative body of the Town.
- 2.20 “Transfer”: A change of an Employee from one position to another position in the same class or in a comparable class with the same maximum rate of pay.
- 2.21 “~~Workweek~~Calendar Week”: The work period beginning Sunday at midnight and ending the following consecutive Sunday at midnight. The Town Manager may assign a different workweek-calendar week when it is deemed to be beneficial to the Town.
- 2.22 “Workweek”: A seven-day (168 consecutive hours) period that is established to calculate overtime for those working on a 9/80 schedule. The workweek begins at 1:00 p.m. on Friday and ends at 12:59 p.m. on the following Friday (1 hour lunch). The workday begins at 1:00 p.m. on any given day and continues until 12:59 p.m. on the following day. The 9/80 schedule is consistent and repeatable every two weeks. This use of a 9/80 work schedule is voluntary

### SECTION 3 MANAGEMENT RIGHTS

## SECTION 7 ATTENDANCE AND LEAVES OF ABSENCE

### 7.1 CALENDAR WEEK AND WORKWEEK WORKWEEK

Calendar Week – 40 hours per week: The normal workweek for Employees in a Full-Time Position is forty (40) hours, worked in units of eight (8) hours per workday.

Workweek – 9/80 Schedule: Employees using the 9/80 alternate work schedule are required to work nine hours (for example from 7:30 a.m. to 5:30 p.m.) for eight work days, and eight hours on a ninth work day. Employees participating in a 9/80 work schedule will have alternate Fridays off. In all departments, it is expected that employees participating will have different Fridays off in order to ensure adequate office coverage.

Effect on Overtime: For employees working a 9/80 schedule, the workweek thus defined herein continues to provide for a normal work schedule of 40 hours in a workweek although the employee would work 44 hours in one calendar week and 36 hours in the second calendar week of the two-week payroll period. Overtime would not be paid unless an employee exceeded 40 hours of work in the workweek (not the calendar week).

### 7.2 ATTENDANCE REQUIREMENTS

Employees must be in attendance at their work locations during the hours assigned by the Town Manager. Any unauthorized absence may be cause for disciplinary action, up to and including termination.

The Town provides several types of leave accruals as a benefit for Regular Employees. Employees are responsible for the management and appropriate use of their leave balances.

Except in extraordinary circumstances, an Employee who is unable to report for work at the beginning of his or her established workday or shift must notify his/her immediate Supervisor or the Town Manager with as much notice as possible before commencement of the shift.

3. Before using sick leave, an Employee must notify his/her Supervisor prior to commencement of his/her shift, unless s/he is unable to do so because of circumstances beyond his or her control. In addition, if the Employee is absent on sick leave for more than one (1) day, the Employee must keep the Supervisor informed as to the date s/he expects to return to work, unless the Employee is unable to do so because of circumstances beyond his or her control.
4. The Town Manager or designee has the discretion to place Employees on sick leave when in his/her judgment the presence of the Employee at work would endanger the health and welfare of other Employees or the Employee's illness or injury interferes with the performance of the Employee's duties.

5. 9/80 Schedule Sick Leave –

- a. **Partial Day Absences:** Partial day absences that occur as a result of illness will require charging the number of hours (to the nearest ¼ hour) the employee was absent.
- b. **Absences of One Full Day, But Less Than a Full Week:** Full day absences that occur as a result of illness will require charging the number of hours the employee was normally scheduled to work on the specified day (e.g., an employee is scheduled to work 9 hours and is absent due to illness, must have 9 hours of sick time deducted from his/her leave accruals).

## 7.5 HOLIDAYS

Each Employee of the Town is entitled to the following holidays with pay:

- |  |                             |
|--|-----------------------------|
| 1. New Year's Day  | January 1                   |
| 2. Martin Luther King Jr. Day                                  | Third Monday in January     |
| 3. Presidents' Day   | Third Monday in February    |
| 4. Memorial Day  | Last Monday in May          |
| 5. Independence Day  | July 4                      |
| 6. Labor Day   | First Monday in September   |
| 7. Thanksgiving Day  | Fourth Thursday in November |
| 8. Day after Thanksgiving                                      | Fourth Friday in November   |
| 9. Christmas Day   | December 25                 |
| 10. The business days between Christmas Day and New Year's Day |                             |

If any holiday falls on Sunday, the Monday following is treated as the holiday. If the holiday falls on Saturday, the Friday preceding is treated as the holiday. If a non-Management Employee is required to work on a holiday, the Employee will be compensated for hours worked on the holiday, in addition to the holiday pay. When Christmas falls on Tuesday, the Monday preceding will be an additional holiday. No Employee is entitled to compensation for any holiday unless s/he is employed by the Town or is on paid leave, on the workday preceding and the workday following the holiday.

7.5.1 9/80 Schedule Holiday - A holiday is an 8-hour day. For any week in which there is a scheduled holiday, Town offices are closed. An employee working a 9/80 work schedule will work their normally scheduled work days (except for the holiday off), and will be paid for 80 hours.

**(a) Holidays - Occurring on an Employee's Regularly Scheduled Flex**

**Day:** When a paid holiday falls on an employee's regularly scheduled day off, the employee will be paid eight hours holiday pay AND be given an alternate eight-hour day off during the same workweek as the holiday. If the alternate scheduled workday is greater than eight hours, the employee may:

- o elect to use either vacation or compensatory time earned to make up for the time in excess of the 8 hours that the employee was originally scheduled to work; or
- o elect to forego compensation for the difference; or
- o if the department director approves, an employee may work additional hours during the same workweek as the holiday, in lieu of using accrued leave.

**(b) Holidays - Occurring on an Employee's Regularly Scheduled**

**Workday:** When a paid holiday falls on an employee's regularly scheduled workday, the employee will be paid eight hours (or the prorated amount if less than full time) holiday pay. No additional day will be given. If the regularly scheduled workday is greater than 8 hours, the employee may:

- o elect to use either vacation or compensatory time earned to make up for the time in excess of the 8 hours that the employee was scheduled to work; or
- o elect to forego compensation for the difference; or

- o if the department director approves, an employee may work additional hours during the same workweek as the holiday, in lieu of using accrued leave.

## 7.6 VACATION

The purpose of annual vacation leave is to enable each eligible Employee to return to his/her work mentally and physically refreshed. All Regular Employees are entitled to annual vacation leave with pay. Vacation time is credited on the first payroll date of employment and every pay period thereafter for each Regular Employee.

Vacation leave is earned at a monthly pro-rated amount depending upon years of service and full or part time status as described in section 8.5.2. Employees are eligible to take vacation as soon as they have accrued it, unless otherwise authorized by the Town Manager. Vacation leave is credited as follows:

<u>Years of Service</u>	<u>Days of Vacation Accrued</u> <u>Annually</u>
1 through 5	10
6 through 10	15
11 +	20

All vacation leave must be pre-approved by the Town Manager or designee. Vacation is approved on a first-come, first served basis. Vacation leave may be denied if the Town Manager or designee determines that it would negatively impact normal operation of Town functions. Approval of vacation leave does not indicate that the Employee has available leave hours. The Employee is responsible for ensuring that the leave hours are available prior to requesting approval from the immediate Supervisor. The Town Manager may grant an Employee one exception per year to vacation leave that will result in a leave balance deficit. If a deficit exists, those hours are reduced from the Employee's payout upon separation.

Use of vacation leave earned in a given year may be deferred to the following year. However, at no time may an Employee accrue more vacation days than double the Employee's current annual accrual rate. When the Employee reaches the allowed maximum accrual, s/he will cease earning vacation until the vacation leave balance falls below the maximum accrual amount.

The Town Manager has the authority to provide credit for past public service to new hires for the sole purpose of determining vacation accrual rates.



### 7.6.1 9/80 Schedule Vacation Leave –

(a) **Partial Day Absences:** Partial day absences that occur as a result of vacation will require charging the number of hours (to the nearest ¼ hour) the employee was absent.

(b) **Absences of at Least One Full Day, But Less Than a Full Week:** Full day absences that occur as a result of vacation will require charging the number of hours the employee was normally scheduled to work on the specified day (e.g., an employee is scheduled to work 9 hours and is absent due to a vacation, must have 9 hours of vacation time deducted from his/her leave accruals).

### 7.6.17.6.2 SALE OF ACCRUED VACATION HOURS

Employees may elect, once per calendar year, to sell back to the Town accrued, but unused vacation. The election must be made on or before April 30<sup>th</sup> of each calendar year and payout will occur no later than May 31<sup>st</sup> of the same calendar year.

The Employee will be compensated for such vacation hours at the compensation rate in effect for that Employee at the time the hours are sold to the Town.

The minimum number of hours that can be sold to the Town annually for the cash equivalent is ten (10) hours, and the maximum number of hours that can be sold is the total number of hours the Employee is eligible to accrue in a one-year period.

## 7.7 JURY DUTY AND WITNESS LEAVE

Every Employee who is called or required to serve as a juror is entitled to be absent during the period of jury service. Under these circumstances, the Employee will be paid their full salary for up to fifteen (15) workdays of jury service.

An Employee who is subpoenaed to appear in court in an official capacity as a Town Employee is allowed to do so without loss of compensation. An Employee subpoenaed to appear in court in a matter unrelated to his or her official capacity

### 7.13 LEAVE OF ABSENCE WITHOUT PAY

Upon the request of the Employee, the Town Manager may grant a leave of absence without pay to an Employee. Requests for leave of absence without pay must specifically state the reason for the request, the beginning date of the leave, and the date of return. A leave of absence without pay may be granted for a period not to exceed two months. The Town Manager has absolute discretion to deny the request or grant leave for a shorter period of time when any additional leave would pose a hardship to the Town's operations.

Leave of absence without pay is not construed as a break in service or employment, and rights accrued at the time the leave is granted are retained by the Employee. However, vacation leave, sick leave, all other paid leaves, holidays and fringe benefits, service credits and other similar benefits are not accrued to an Employee granted leave during the period of unpaid absence, except as provided otherwise by law or this policy. Nor is the Town required to maintain contributions toward group insurance or retirement coverage, except as provided otherwise by law or this policy. The employee may, if the employee desires to maintain the group insurance or retirement coverage, pay for all or a portion, as appropriate, of the premiums during their absence. During the period of leave without pay, all service and leave credits are retained at the levels existing as of the effective date of the leave. However, time counted toward an Employee's anniversary date is deferred for the time of the leave without pay.

The Employee is reinstated to his or her former position or to an available comparable one if the former position is eliminated during the period of leave and the Employee would otherwise not have been laid off.

### 7.14 VOLUNTARY LEAVE TRANSFER

When an employee's paid leave balance has been exhausted during a personal or family medical emergency, the employee may be eligible to receive voluntary leave transfers from fellow Employees of paid leave to be included in his/her sick leave balance. There is no limit on the amount of donated annual leave a leave recipient may receive from the leave donor(s). However, any unused donated leave must be returned to the leave donor(s) when the medical emergency ends. .



# MEMORANDUM

## TOWN OF PORTOLA VALLEY

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**TO:** Mayor and Members of the Town Council

**FROM:** Conservation Committee

**DATE:** March 6, 2017

**RE:** Rodenticide Policy  
[Attachments Page](#)

### RECOMMENDATION

It is recommended that the Town Council:

- 1) Adopt a resolution urging local businesses and residents to discontinue the sale and use of rodent poisons and instead use safer and more effective integrated pest management to control rodents via exclusion, trapping with mechanical and battery-operated traps, and encouraging natural predators such as barn owls. (Attachment 1)
- 2) Direct staff to develop and implement a pilot program at the Town's softball field to use poison-free methods of rodent control on Town properties through such means as mechanical trapping and, where suitable, installation of barn owl nest boxes, or other integrated pest management approaches.

### BACKGROUND

Rodenticides are poisons that kill rodents, but they also cause "non-target" poisonings, meaning that they harm or kill other mammals, including wildlife, pets, and children, and they can affect birds. Non-target poisoning occurs through direct ingestion of rodenticide, secondary poisoning (i.e., an animal feeds on a poisoned animal), or even tertiary poisoning as the poison moves up through the food chain. The scope of harm to wildlife from rodenticides has been comprehensively reviewed by the California Department of Pesticide Regulation (CDPR), by staff of the California Department of Fish and Wildlife (CDFW), and by other groups (Attachments 2 and 3). A wildlife hospital in Marin County recently found that of 95 expired or euthanized animals representing 10 wildlife species, 82 (86%) tested positive for presence of rodenticide. The affected wildlife included many natural predators of rodents that could help control rodents naturally, such as barn owls, red-tailed hawks, red-shouldered hawks, coyotes, and gray foxes. By poisoning those predators, rodenticide use creates a destructive cycle in which there is ever more dependent on poisons to reduce rodent abundance.

There are three distinct classes of rodenticide:

1. **First-generation anticoagulant rodenticides (FGARs)** kill through hemorrhaging; the animal bleeds to death because blood-clotting is disabled. Developed in the 1940s, FGARs require several doses to kill a rodent, and they were so widely used that some rodents evolved resistance.
2. **Second-generation anticoagulant rodenticides (SGARs)** were subsequently developed to combat growing resistance to FGARs; SGAR also cause hemorrhaging but are retained much longer in an animal's system.
3. **Acute Toxicants**, the third class of rodenticide, are chemically diverse poisons that kill by various means: seizures, paralysis, renal failure, respiratory failure, gastrointestinal disruption, circulatory collapse.

All rodenticides poison non-target animals, but the most severe problems have been from SGARs. SGARs are more potent than FGARs and can kill a rodent with a single dose, but the effect is delayed, allowing a rodent to continue ingesting this highly potent poison, building up super-lethal concentrations. SGARs persist in organs such as the liver for up to a year. This means there is a long window during which a massively poisoned rodent (or non-target animal), whether dead or weakened, can be consumed by a predator, scavenger, or pet. In 2008 the United States Environmental Protection Agency (US EPA), after years of scientific review, issued a Risk Mitigation Decision which concluded that the number of rodenticide exposure incidents in children was “unacceptably high” and that for wildlife, “widespread exposures to second-generation anticoagulants are occurring wherever those rodenticides are being used”<sup>1</sup>. A review by CDPR of wildlife incidents and mortality in California covered nearly 500 animals from 1995 to 2011. They concluded there was “overwhelming evidence of wildlife weakened or killed by SGARs”<sup>2</sup>.

### Regulatory History

Recent regulations have achieved a partial ban on SGARs. The US EPA tightened restrictions on SGARs, and, in 2014, CDPR designated all SGARs as California-restricted materials, a ruling that bans their use by consumers, but not by professional exterminators. CDFW reported in April 2016, “Unfortunately, even after stricter regulations on rodenticides were enacted, wildlife continue to be exposed to second-generation anticoagulant rodenticides.... If consumers hire pest control companies, they should know that the materials the firms use could poison local wildlife”<sup>3</sup>.

<sup>1</sup> US EPA. 2008. Risk Mitigation Decision for Ten Rodenticides, see pages 7-8 in [http://emerginglitigation.shb.com/Portals/f81bfc4f-cc59-46fe-9ed5-7795e6eea5b5/rodenticides\\_mitigation\\_decision.pdf](http://emerginglitigation.shb.com/Portals/f81bfc4f-cc59-46fe-9ed5-7795e6eea5b5/rodenticides_mitigation_decision.pdf)

<sup>2</sup> California Department of Pesticide Regulation. FREQUENTLY ASKED QUESTIONS about rodents and rodenticides (see page 1). [http://www.cdpr.ca.gov/docs/dept/factshts/faq\\_rodents\\_rodenticides.pdf](http://www.cdpr.ca.gov/docs/dept/factshts/faq_rodents_rodenticides.pdf)

<sup>3</sup> CDFE Conservation Education. April 2016. When it comes to rodent control, consider alternatives to poison. <https://cdfgnews.wordpress.com/2016/04/27/when-it-comes-to-rodent-control-consider-alternatives-to-poison/>

In September 2014, AB 2657 banned all SGARs from California state parks, state wildlife refuges, and state conservancies (Attachment 4). But even in these areas, there continues to be a substantial threat to wildlife from rodenticide use in illegal marijuana cultivation.

Recognizing the ongoing threats, in February 2016, State Assembly Member Bloom introduced AB 2596, the California Natural Predator Protection Act of 2016. Its goal was to “ensure that aquatic, terrestrial and avian wildlife species remain a fully functional component of the ecosystems they inhabit and move through in California.”<sup>4</sup> AB 2596 would have banned nearly all rodenticides throughout California, except as specified for agricultural activities by the Food and Agricultural Code. Defeating AB 2596 topped the Pest Control Operators of California’s list of legislative issues in 2016. AB 2596 was not brought to the floor during the session.

## **DISCUSSION**

A resolution by the Town to approach rodent problems through Integrated Pest Management is in keeping with the guidelines of the US EPA, CDFW, CDPR, and Portola Valley’s existing policy that “whenever practicable, the Town will manage pest problems through prevention and physical, mechanical and biological controls and contract only with pest control providers that possess an Integrated Pest Management Certification...” (Attachment 5). Other towns have enacted resolutions (Attachments 6 and 7) similar to our proposal, and have crafted policies to deal with challenges such as finding poison-free methods of keeping athletic fields free from gophers and ground squirrels (Attachment 8).

Key elements of the Conservation Committee’s proposal are: 1) it urges voluntary action, 2) it calls on the Town to adopt measures similar to those of residents and businesses, 3) it recommends a pilot program for Town properties rather than an overnight switch to poison-free methods, and 4) it recommends boosting predator abundance by installing barn owl nest boxes where appropriate.

A rodenticide-free environment is right for Portola Valley for several reasons: the Town places a strong emphasis on sustaining the natural environment and maintaining a rural ambiance; there are extensive protected natural areas nearby whose wildlife move through Portola Valley and may be poisoned if rodenticides are used within the town; and there is already progress in going rodenticide-free. Portola Valley Ranch does not permit rodenticide use on private property or association land, whether by a resident or by a professional pest control operator (Attachment 9). Rodenticide use has also stopped at The Sequoias on a pilot basis.

Members of the Conservation Committee have worked with Town staff and asked for feedback on this proposal from all of the homeowners’ associations in Portola Valley

<sup>4</sup>California Legislative Information: AB-2596 Pesticides: use of anticoagulants  
[http://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=201520160AB2596](http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB2596)

and from the Parks and Rec committee. We found these groups generally supportive of a poison-free approach to controlling rodents, though with varying levels of concern about whether rodents could be controlled sufficiently to keep athletic fields free of holes. That is why we recommend a pilot program starting with one Town property, and why the experience with poison-free methods in other towns should be helpful, including experience with athletic fields.

Town staff proposes a pilot program for the softball field in the coming year to examine the ability of mechanical trapping as a way to replace the use of rodenticides. Staff will also examine the possibility of installing a barn owl nest box at Town Center. After one year of the pilot program, staff will return to the Conservation Committee with its findings. Although the buried traps will be marked, there is minor risk of the traps being uncovered and tampered with by field users.

Staff will utilize existing materials from UC Davis and the National Park Service to share with residents on alternatives to the use of rodenticides (Attachment 10)<sup>5</sup>.

### FISCAL IMPACT

The cost associated with replacing the use of rodenticides with mechanical trapping at the softball field and purchasing and installing an owl box is negligible and within the current Public Works budget. The estimated increased cost to support the pilot program is \$200/month; the additional time to support the pilot is an additional 4 trips by the pest control contractor.

Current Process	Current Cost	Recommended Process	Cost for pilot program	Cost Difference
Rodenticides at 4 visit per month to Town Center	\$50.00/month (this figure is extrapolated from a lump sum and results from travel and cost savings while treating all Town facilities)	Mechanical trapping at 2 potential visits per week. Once to set trap and once to check, dispose, and reset. Results in 4 additional visits a month. (Total of 8 visits)	\$250/month	+\$200/month There would be cost savings if the Town decided to implement 100% mechanical trapping for all Town facilities.

### ATTACHMENTS

1. [Resolution](#)
2. [Calif. Dept. of Pesticide Regulation. 2013. Second-generation anticoagulant rodenticide assessment.](#)

<sup>5</sup> <https://www.wildlife.ca.gov/living-with-wildlife/rodenticides>

3. Stella McMillin, CDFW. 2013. Anticoagulant Rodenticides: Secondary Poisoning of Wildlife in California.
4. AB 2657 - Wildlife habitat areas: use of anticoagulants. California Legislative Information.
5. Environmentally Preferable Purchasing and Practices, adopted by Portola Valley Town Council, Sept. 2016.
6. Menlo Park Staff Report on resolution to “Encourage Menlo Park Residents and Businesses to Avoid Poison Rodent Bait.”
7. Simi Valley “Adoption of a Resolution urging Businesses to Discontinue the Sales and Use of, and the Public to Discontinue the Use of Anticoagulant Rodenticide.”
8. Palo Alto Integrated Pest Management Plan for Gophers, see pages 7-8 for athletic fields.
9. Portola Valley Ranch Rodenticide Documents
10. UC Davis and National Park Service resident educational materials

Approved by Jeremy Dennis, Town Manager

A handwritten signature in black ink, appearing to read "Jeremy Dennis", is positioned to the right of the approval text.

RESOLUTION NO. \_\_\_\_\_

**RESOLUTION OF THE TOWN COUNCIL OF THE TOWN  
PORTOLA VALLEY URGING LOCAL BUSINESSES AND  
RESIDENTS TO DISCONTINUE THE SALE AND USE OF  
RODENTICIDES, AND PROMOTING INTEGRATED PEST  
MANAGEMENT OF RODENTS ON TOWN PROPERTIES  
AND THROUGHOUT PORTOLA VALLEY**

**WHEREAS**, rodenticides are poisons used to exterminate a variety of rodents, including rats, gophers, and ground squirrels; and

**WHEREAS**, rodenticides contain lethal substances that pose a danger to children, domestic animals, and wildlife and put them at grave risk if rodenticide is ingested; and

**WHEREAS**, studies carried out by the National Park Service, by WildCare, and by the University of California at Davis find significant poisoning and death of wildlife in California by rodenticides; and

**WHEREAS**, in July 2014, the California Department of Pesticide Regulation (CDPR) imposed a statewide ban on second-generation anticoagulant rodenticide use by consumers, restricting use of them to professional applicators; and

**WHEREASE**, in April 2016, the California Depart of Fish and Wildlife advised that even after the 2014 CDPR ban on consumer use of second-generation anticoagulant rodenticide went into effect, wildlife continue to be exposed because of use by pest control companies; and

**WHEREAS**, in recognition of the threat of rodenticides to wildlife, in 2014, the State of California banned all second-generation rodenticides from California state parks, state wildlife refuges, and state conservancies; and

**WHEREAS**, the Town of Portola Valley has placed a strong emphasis on sustaining the natural environment and maintaining a rural ambiance, and has a rich abundance of wildlife within and traveling through the town; and

**WHEREAS**, it is the policy of the Town of Portola Valley, whenever practicable, to manage pest problems through prevention and physical, mechanical, and biological controls and contract only with pest control providers that possess; and

**WHEREAS**, several entities in town, including Portola Valley Ranch and The Sequoias, have discontinued use of rodenticides because of the dangers they pose; and



**WHEREAS**, other towns and cities in California have adopted resolutions discouraging the sale and use of rodenticide, and have acquired experience they can share about controlling rodents on athletic fields.

**NOW, THEREFORE**, the Town Council of the Town of Portola Valley does **HEREBY RESOLVE** as follows:

1. The Town of Portola Valley urges local businesses to discontinue the sale and use of, and residents to discontinue the use of rodenticides, and instead use safer and more effective integrated pest management to control rodents.
2. The Town of Portola Valley will undertake a pilot program to use non-rodenticide methods of rodent control on one or more Town properties through such means as mechanical trapping and, where suitable, installation of barn owl nest boxes, or other integrated pest management approaches.
3. The Town of Portola Valley reserves the option to use rodenticide if deemed necessary in a circumstance of extreme risk of rodent damage to public infrastructure or of danger to public health and safety.

**PASSED AND ADOPTED** this \_\_\_\_ day of March, 2017.

INTRODUCED:

PASSED:

AYES:

NOES:

ABSTENTIONS:

ABSENT:

By: \_\_\_\_\_  
Craig Hughes, Mayor

ATTEST:

\_\_\_\_\_  
Sharon Hanlon, Town Clerk

TO: Ann Prichard, Chief  
Pesticide Registration Branch  
916-324-3931

FROM: Deborah Daniels, DVM  
Senior Environmental Scientist

DATE: June 27, 2013

SUBJECT: SECOND GENERATION ANTICOAGULANT RODENTICIDE ASSESSMENT

In a July 2011 memorandum, the California Department of Fish and Game (CDFG) requested that the Department of Pesticide Regulation (DPR) designate all second generation anticoagulant rodenticides as California restricted materials. This paper represents DPR's assessment, based on available data, of the potential and actual risk to non-target wildlife from second generation rodenticides.

### **Executive Summary**

Commensal mice and rats pose a significant economic and health risk to people. The rodenticides that are utilized to control them need to be efficacious while being relatively safe for humans, pets, and non-target wildlife. Rodenticides currently registered for use in California fall into three categories: first generation anticoagulant rodenticides (chlorophacinone, diphacinone and warfarin), second generation anticoagulant rodenticides (brodifacoum, bromadiolone, difenacoum, and difethialone), and non-anticoagulant rodenticides (bromethalin, cholecalciferol, and zinc phosphide).

Compared to first generation rodenticides, second generation anticoagulant rodenticides are considered to be more effective as they only require a single feeding and no resistance has been reported. Based on animal LD<sub>50</sub>s, second generation anticoagulant rodenticides have significantly longer half-lives in target and non-target wildlife, and are more toxic to birds and mammals.

DPR analyzed wildlife incident and mortality data between 1995 and 2011, and rodenticide use and sales data between 2006 and 2010. The data indicate that exposure and toxicity to non-target wildlife from second generation anticoagulant rodenticides is a statewide problem. In addition, the data suggest that the problem exists in both urban and rural areas. Research data from various locations throughout California indicate that exposure is occurring in many taxa and in various ecosystems (urban, suburban, rural, and natural/wild areas). While the data show exposure, they do not link specific uses, or location of use of second generation anticoagulant rodenticide (i.e., indoors or outdoors, homeowners or professionals) to exposure.

Of the 492 animals analyzed between 1995 and 2011, approximately 73% had residues of at least one second generation anticoagulant rodenticide. Brodifacoum residues were found in

approximately 69% of the 492 animals, and brodifacoum was likely involved in 13% of animal mortalities. Bromadiolone residues were found in approximately 37% of the animals analyzed, and bromadiolone was likely involved in approximately 3% of animal mortalities. Difethialone residues were found in approximately 8% of the animals analyzed. Due to its relatively new entrance into the marketplace, animals were not analyzed for difenacoum residues. While no animal mortalities can be directly attributed to difethialone or difenacoum, based on half-life and toxicity data, these two chemicals appear to be similar to brodifacoum and bromadiolone. Animals that tested positive for second generation rodenticides include bobcats, mountain lions, coyotes, foxes, skunks, hawks, crows, and owls.

The data also show that exposure of wildlife to second generation anticoagulant rodenticides can lead to sub-lethal effects. The sub-lethal effects reduce the fitness of wildlife at a time when wildlife are already meeting numerous challenges. Riley et al's (2007) study of bobcats is an example of the sub-lethal effects of rodenticides. The bobcats died due to *Toxoplasma gondii* mange. Mange was not previously known as a significant pathogen in wild felids. However, exposure to rodenticides appears to have contributed to the disease process, and hence, the mortality of the bobcats.

Based on the data reviewed, DPR finds that the use of second generation rodenticides presents a hazard related to persistent residues in target animals resulting in impacts to non-target wildlife.

### **Background**

Commensal mice and rats pose a significant economic and health risk to people, as they can damage homes, destroy crops, contaminate food, and directly spread eleven diseases (Center for Disease Control (CDC, 2011(b)) and indirectly spread fifteen diseases (CDC, 2012(a)) that threaten people's health and lives. Therefore, controlling them is considered a priority.

Rodenticides are pesticides that are designed to kill rodents, including mice and rats. For the purposes of this document, rodenticides will be divided into anticoagulant rodenticides (first and second generation) and non-anticoagulant rodenticides (including bromethalin, cholecalciferol, and zinc phosphide). Strychnine will not be discussed as its only labeled use is for below-ground gopher control.

First generation anticoagulant rodenticides - chlorophacinone, diphacinone, and warfarin - were developed and marketed beginning in 1950. However, by the 1970's, resistance to warfarin was noted in Norway rats, roof rats, and mice in Europe and North America. The warfarin-resistant strains of mice and rats prompted the development of second generation anticoagulant rodenticides, including brodifacoum, bromadiolone, difethialone, and difenacoum. Brodifacoum was developed in 1975, registered with the United States Environmental Protection Agency (U.S. EPA) in 1979, and registered with DPR in 1983. DPR first registered bromadiolone in 1982. The remaining two second generation rodenticides are relatively new. DPR first registered difethialone in 1997 and difenacoum in 2008.

Both first and second generation anticoagulant rodenticides are vitamin K antagonists that cause mortality by blocking an animal's ability to produce several key blood clotting factors. The result is a lag time between ingestion and death. The chemicals are likely to be additive in their effect (Gabriel et al (2012) and Riley et al (2007)), and can be treated with vitamin K (Merck Sharp & Dohme Corp (2011)). However, they differ in several key ways. First generation anticoagulant rodenticides require consecutive days of intake to accumulate a lethal dose and if the animal survives or doesn't like the taste or effects, it may develop bait shyness. If an animal consumes an anticoagulant rodenticide is eaten by a predator, the predator can become affected by the rodenticide (Townsend et al, 1984). However, the ability of first generation rodenticides to bioaccumulate in target and non-target animals is considered low (Eason and Ogilvie, 2009). The half-life (the amount of time it takes a substance to reduce its concentration by half) of most first generation anticoagulants in both target and non-target wildlife is generally hours to days, compared to the half-lives of second generation anticoagulants which are generally days to months. See Table 1 (below).

Second generation anticoagulant rodenticides have the same mechanism of action, but they have a higher affinity for the target enzyme (epoxide reductase enzyme), the ability to disrupt the vitamin K(1)-epoxide cycle at more points, and significantly longer half-lives in blood and liver (Watt et al, 2005) than first generation anticoagulant rodenticides. In general, rodents require only one feeding of bait to receive a lethal dose, although bromadiolone and difenacoum may require multiple feedings. Because it takes several days for the rodent to die, animals often eat multiple doses, allowing for super-lethal concentrations of the rodenticide to accumulate in its body. Second generation anticoagulant rodenticides become established in the animal's liver, with liver half-lives of four months to a year. If an animal that consumes a second generation anticoagulant rodenticide is eaten by a predator, the predator can become affected by the rodenticide. Because of their long half-lives, these rodenticides bioaccumulate in non-target wildlife (Annex I- Norway, 2007). See Table 1 (below).

The three non-anticoagulant rodenticides belong to three different chemical classes and differ from each other in their modes of action. Bromethalin is a neurotoxin that causes increased intracranial pressure and depending upon the dose, vomiting, seizures, paralysis, and death. Cholecalciferol is a sterol of vitamin D that, when converted in the liver into the active form, causes renal failure, cardiac abnormalities, hypertension, central nervous system depression, and gastric system distress (anorexia, vomiting, and constipation). Zinc phosphide is an inorganic rodenticide that converts to phosphine gas in the stomach, causing gastrointestinal distress (including vomiting and pain), hypotension, and cardiovascular collapse. See Table 1 (below) for the half-lives of rodenticides in the blood and liver of rats.

Table 1. Half-life (in days) of a single dose of rodenticides in the blood and liver of rats<sup>1, 2</sup>.

Class of Rodenticide	Rodenticide	Dose (mg ai/kg)	Half-life (in days) in Blood	Half-life (in days) in Liver
Second Generation Anticoagulant Rodenticides	Brodifacoum	0.02 to 0.35	6.5 to 91.7 <sup>7</sup>	113.5 <sup>3</sup> to 350
	Bromadiolone	0.2 to 3.0	1.0 to 2.4	170 to 318
	Difenacoum <sup>4</sup>	1.2	NA	118
	Difethialone	0.5	2.3	126
First Generation Anticoagulant Rodenticides	Chlorophacinone	4 to 5	0.4	Less than 2
	Diphacinone	0.32	NA	Between 2 and 3 <sup>1, 3</sup>
	Warfarin	NA <sup>9</sup> , 1 <sup>3</sup>	0.7 to 1.2 <sup>1</sup>	7 <sup>1</sup> to 26.2 <sup>3</sup>
Non-anticoagulant Rodenticides <sup>2</sup>	Bromethalin <sup>5</sup>	NA <sup>9</sup>	5.5	NA
	Cholecalciferol <sup>6</sup>	NA <sup>9</sup>	1	~19 <sup>8</sup>

1 Data summarized from Erickson and Urban, 2004, except where noted.

2. Data is not available for zinc phosphide, so it is not included on the chart.

3. Fisher et al, 2003.

4. U.S. EPA, 2007.

5. Spaulding and Spannring, 1988.

6. Marrow, 2001.

7. Vandenbroucke et al, 2008.

8. Body half-life (instead of liver half-life).

9. NA is defined as Not Available.

In 1999, CDFG requested that DPR place pesticide products containing the second generation anticoagulant rodenticide brodifacoum into reevaluation based on concerns regarding adverse effects to non-target wildlife. (Reevaluation is a process that allows DPR to evaluate the human health and environmental impacts of currently registered pesticide products.) After evaluating the data on file, DPR presented an issue paper recommending a number of mitigation measures and proposed that rodenticide baits containing brodifacoum, bromadiolone, and difethialone (difenacoum was not yet registered) be restricted to indoor structural use only. However, based on comments from representatives of the pest control industry expressing concern over the restriction, including comments from food processors noting that federal law requires rodent control to take place outside the building, DPR reconsidered its proposal.

DPR then became aware that the U.S. EPA was conducting risk assessments on numerous rodenticides. DPR decided to focus its reevaluation in coordination with U.S. EPA. In 2004, U.S. EPA (listed as Erickson and Urban, 2004) completed its *Potential Risks of Nine Rodenticides to Birds and Nontarget Mammals: a Comparative Approach*. In May 2008, U.S. EPA announced its final *Risk Mitigation Decision for Ten Rodenticides (RMD)*. At the time, all ten rodenticides came in various bait forms, including loose grains, pellets, and place packs, and only required the use of a bait station if the product could not be applied in locations out of reach of children. Most second generation anticoagulant rodenticides were labeled for use to

control rats and mice in and around homes, industrial, commercial, agricultural and public buildings, transport vehicles, and similar structures in urban areas. In addition to being labeled to control commensal rodents around homes, industrial sites, etc., first generation anticoagulants were labeled for agricultural uses, below-ground mole and pocket gopher control and vole control. While both first and second generation anticoagulant rodenticide were labeled for the residential marketplace, second generation anticoagulant rodenticides had the bulk of the residential market share.

The RMD describes U.S. EPA's risk mitigation decision for rodenticide products containing the following ten active ingredients: brodifacoum, bromadiolone, bromethalin, chlorophacinone, cholecalciferol, difenacoum, difethialone, diphacinone (and its sodium salt), warfarin (and its sodium salt), and zinc phosphide. The RMD includes two major components: (1) reducing children's exposure to rodenticide products used in the home, and (2) reducing wildlife exposures and ecological risks. To minimize children's exposure to rodenticide products used in homes, U.S. EPA's RMD requires that all rodenticides intended for use above ground by residential consumers be sold as solid formulations with a bait station. To reduce wildlife exposures and ecological risks, U.S. EPA imposed sales, package size, and use site restrictions to reduce the availability of second generation anticoagulant products to the residential consumer market. The RMD also requires the use of bait stations for most outdoor, above-ground uses of the ten rodenticides.

The terms and conditions of sale/distribution specified in the RMD and in U.S. EPA's notice of registration/reregistration prohibit the sale of second generation anticoagulant rodenticides in stores oriented towards residential consumers such as grocery, drug, hardware, home improvement stores, and other standard retail outlets. Sale and distribution of the products were restricted to agricultural, farm, and tractor stores or directly to pest control operators and other professional applicators. In addition, according to U.S. EPA's RMD, second generation anticoagulant products can only be sold in packages that contain eight or more pounds of bait. Products containing eight to sixteen pounds of bait are labeled only for use inside and within 100 feet of agricultural buildings and man-made agricultural structures vulnerable to rodent infestations. These products cannot be used in and around homes and residential sites. Products labeled for 16+ pounds of bait can be used in and within 100 feet of man-made structures (including homes and other residential areas) that are vulnerable to rodent infestations. The RMD initially restricted use to within 50 feet from buildings, but in a U.S. EPA memo dated March 14, 2012, the distance for all non-homeowner rodenticide products was increased to 100 feet and the definition of "building" was expanded to include man-made structures such as trash receptacles which are often placed farther than 50 feet from buildings. As stated above, these larger size quantities of second generation rodenticides are intended for distribution and sale at agricultural, farm, and tractor stores or directly to pest control operators and other professional applicators. The intent is to remove the product from general consumer access, while still having the products available to poultry and livestock producers and professional users, such as licensed pest control applicators. However, in California, numerous homeowners

live on the urban/rural edge and in rural areas on “ranchette” style properties (one to five acres of land per home). Due to the location and size of their property, people living in these areas, including ranchette owners, may shop at farm stores for supplies. Under current federal requirements, such individuals could purchase and use the 8 to 16 pound plus quantities of second generation anticoagulant rodenticides, even though they are not a “professional pesticide user.”

It is also important to note that not all second generation anticoagulant registrants complied with U.S. EPA’s mitigation measures. Six second generation anticoagulant products, targeted for the residential consumer market, are still registered for sale in California to residential consumers in grocery, drug, hardware, home improvement stores, and other standard retail outlets. On November 2, 2012, U.S. EPA took steps under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) to cancel these noncompliant products by issuing a draft Notice of Intent to Cancel and convening a FIFRA Scientific Advisory Panel (SAP) at the end of November 2012. On February 5, 2013, the U.S. EPA issued a “Notice of Intent to Cancel Registrations of, and Notice of Denial of Applications for, Certain Rodenticide Bait Products”. However, to date, the outcome of these federal actions has not been determined. In addition, U.S. EPA existing stocks provisions for all consumer-use second generation anticoagulant rodenticides allow continued sale of such products from consumer oriented retail stores until supplies are exhausted.

A review of current California registered rodenticide labels shows that first generation anticoagulant and non-anticoagulant rodenticides are available to, and for use by, residential consumers (only in packages  $\leq 1$  pound of bait) to control rats and mice indoors and outdoors within 50 feet of homes or buildings. These consumer based products must be in a block/solid formulation, and be sold with, and used in, a bait station. First generation anticoagulant and non-anticoagulant products geared towards professional users ( $\geq 4$  pounds of bait) can be used in and within 100 feet of buildings (including residential buildings) and inside of transport vehicles. For these products, bait stations are required for all outdoor, above-ground uses and indoors where children, pets, or non-target wildlife may be exposed. Some of these products are also labeled for baiting of rat burrows.

DPR also registers first generation anticoagulant and non-anticoagulant rodenticides that are labeled for use outdoors for manual below-ground burrow baiting to control pocket gophers and moles. Rodenticides containing diphacinone and chlorophacinone, and the non-anticoagulant rodenticide zinc phosphide have approved uses to control ground squirrels. Certain chlorophacinone, diphacinone, and zinc phosphide products can also be used in agricultural areas (orchards, fields, as well as landscaped areas such as parks and golf courses) and as tracking powders. However, all agricultural and tracking powder uses are designated as restricted use pesticides and can only be purchased and used by a California certified/licensed applicator or under their direct supervision. Liquid formulations of diphacinone sodium salt can be diluted and used indoors in non-residential areas by professional applicators.

DPR currently registers 72 end use products containing second generation anticoagulant rodenticides. As mentioned above, there are six second generation anticoagulant products targeted for use by homeowners in and around homes. Of the remaining 66 second generation anticoagulant rodenticide products currently registered, about half are labeled for use only inside and within 100 feet of agricultural buildings and other man-made agricultural structures. The other half are labeled for use inside and within 100 feet of man-made structures such as homes, food processing facilities, industrial and commercial buildings, trash receptacles, agricultural and public buildings, and transport vehicles and are intended for use by professional applicators (such as pest control operators, public health officials, federal, state, and municipal employees charged with rodent control). Certain products are also labeled for use in rodent burrows, alleys, and sewers. Bait stations must be used indoors when children, domesticated animals, or non-target wildlife may be exposed. Bait stations are required for all outdoor, above ground placements. Currently, there are no second generation anticoagulant rodenticides labeled for agricultural field use.

### **Evaluated Data**

DPR considered data from multiple sources, including CDFG, private agencies and individuals, and available journal articles and other resources. Utilizing all of these resources, DPR was able to obtain information on almost 1,300 animals.

From that data set, DPR removed approximately half of the animals and multiple studies because the data were collected from outside California and placed the information in Appendix I. From the remaining 630 California animals, DPR removed an additional 41 animals (including 37 geese, 3 other birds, and 1 mammal) because all were related to a specific incident where chlorophacinone was used in artichoke fields after chopping or cut-back of artichoke plants. To address the problem, the product's label was amended to prohibit the application of chlorophacinone "for a period of 30 days before or after chopping or cut-back of artichoke plants." DPR also removed 26 rodents (including Norway (or brown) rats, roof (or black) rats, "rats" without a specified species, and all mice) as these are "target" animals. Four hawks, and a fox were also removed because only summary data were available (i.e., results on individual animals and for the individual rodenticides were not available. A snake (which contained difethialone) and a bobcat fetus (which contained residues of brodifacoum and diphacinone) were removed because there are no standards (i.e., LD<sub>50</sub> data on reptiles or bobcat fetus) against which to compare these animals. In addition, in each case only a single individual was available. When making scientific assessments, one usually wants data on more than one individual in order to assure that the data are not an anomaly. DPR placed summary information regarding the above animals in Appendix II. Also not included in DPR's main analysis are data on 58 fishers and 6 badgers that only recently became available. This new data is summarized in Appendix III.



Even though for scientific or timing reasons, DPR did not include the animals identified above in its main data analysis, the data still provide important information, and therefore, are summarized in Appendices I, II, and III.

DPR included all of CDFG's data in its main analysis, even though, in some cases, CDFG only reported animals that were positive for rodenticide residues (i.e., negative animals were excluded and the total number of animals analyzed was unknown). While including all of the CDFG data may result in an over representation of positive samples, DPR believes that the data provide value and do not over represent positive values for second generation anticoagulant rodenticides. Of the 492 animals included in DPR's analysis, 350 were from data sets that included both negative and positive samples. DPR compared the two data sets using statistical analysis (Chi-squared and Fisher's Exact with a level of significance of 0.05; using Preacher (2001)), and determined that the data sets (in regards to the second generation anticoagulant rodenticides, using the number of samples) are not significantly different. Therefore, DPR is comfortable including all CDFG data in its analysis.

### **Analysis**

The data included in this analysis were collected between 1995 and 2011, and came from the following: WildCare's data (WildCare (2011)), CDFG's data (CDFG (2011), CDFG (2012a), CDFG (2012b)), and McMillin et al (2008)), Lima and Salmon's paper (Lima and Salmon (2010) and Lima and Salmon (2012)), Seth Riley's coyote data (Riley (2012)), and Riley et al's paper (Riley et al (2007)). The analysis includes 492 non-target animals (including 194 birds (primarily raptors) and 298 mammals (primarily San Joaquin kit fox, bobcats, mountain lions, coyotes, and foxes)).

The livers (and/or blood, in a few cases) of each animal were analyzed for at least six anticoagulant rodenticides. The animals were analyzed for the first generation - warfarin, chlorophacinone, and diphacinone - and second generation - brodifacoum, bromadiolone, and difethialone - anticoagulant rodenticides. In some cases, additional analyses were conducted, and those were reported where applicable. Two rodenticides not registered for use in California were also found, but will not be discussed. Those were coumachlor and pindone. In addition, because of its relatively recent entry into the rodenticide market, none of the 492 animals included in DPR's analysis were tested for difenacoum residues. Therefore, the lack of data showing difenacoum residues in animals is not indicative of a lack of toxicity.

Of the 492 non-target animals analyzed, approximately 75% had residues of one or more rodenticide, approximately 73% (359) had residues of at least one second generation anticoagulant rodenticide, and approximately 25% (124) were negative.

Brodifacoum residues were found in approximately 69% of the animals, bromadiolone residues were found in approximately 37% of the animals, and difethialone residues were found in approximately 8% of the animals. Of the animals that tested positive for at least one rodenticide,

approximately 98% had residues of at least one second generation anticoagulant rodenticide. Table 2 summarizes these results.

Table 2. Number (and percent) of the rodenticides among all animals (n=492) and among the positive animals (n=368)<sup>1</sup>.

Total	Number	Second Generation Anticoagulant Rodenticides			First Generation Anticoagulant Rodenticides		
Samples	492	359 (72.9%)			65 (13.2%)		
Positives	368	359 (97.6%)			65 (17.7%)		
Total	Number	Brodifacoum	Bromadiolone	Difethialone	Chlorophacinone	Diphacinone	Warfarin
Birds	194	124 (63.94%)	42 (21.7%)	10 (5.2%)	1 (0.5%)	5 (0.3%)	0 (0.0%)
Mammals	298	215 (72.2%)	141 (47.3%)	31 (10.4%)	17 (5.7%)	48 (16.1%)	4 (1.3%)
Total	492	339 (68.9%)	183 (37.2%)	41 (8.3%)	18 (3.7%)	53 (10.8%)	4 (0.8%)
Positives	368	339 (92.1%)	183 (49.7%)	41 (11.1%)	18 (4.9%)	53 (14.4%)	4 (1.1%)

1. Animals may be positive for more than one rodenticide.

This table indicates that exposure of non-target animals to second generation anticoagulant rodenticides far exceeds exposure to first generation anticoagulant rodenticides. In addition, brodifacoum residues were found in a large percentage of the animals (almost 70%).

Tables 3 and 4 show the bird and mammal data down to the species level.

Table 3. Number of each bird (n=194) species that was positive for a rodenticide, that was positive for a first or second generation anticoagulant rodenticide, and that was for each rodenticide<sup>1</sup>.

Species	n	Positive	2nd generation	Brodifacoum	Bromadiolone	Difethialone	1st generation	Chlorophacinone	Diphacinone	Warfarin
American Crow	1	1	1	1	0	0	0	0	0	0
American Kestrel	6	5	4	3	0	1	1	0	1	0
Bald Eagle	1	1	0	0	0	0	1	0	1	0
Barn Owl	49	29	29	28	15	2	0	0	0	0
Black Crowned Night Heron	1	0	0	0	0	0	0	0	0	0
Brown Pelican	2	0	0	0	0	0	0	0	0	0
Burrowing Owl	1	0	0	0	0	0	0	0	0	0
Canada Goose	1	0	0	0	0	0	0	0	0	0
Cooper's Hawk	17	14	14	14	3	0	1	0	1	0
Dark eyed junco	1	0	0	0	0	0	0	0	0	0
Golden Eagle	11	8	8	8	0	0	0	0	0	0
Great Horned Owl	21	17	17	16	8	1	1	0	1	0
Gull (any)	3	0	0	0	0	0	0	0	0	0
Hawk (unknown species)	1	1	1	1	1	1	0	0	0	0
Long-eared Owl	1	1	1	1	0	0	0	0	0	0
Northern Harrier	1	0	0	0	0	0	0	0	0	0
Prairie Falcon	1	0	0	0	0	0	0	0	0	0
Red-shouldered Hawk	22	17	16	16	8	1	0	0	0	0
Red-tailed Hawk	32	23	23	22	5	3	1	1	0	0
Sharp-shinned Hawk	9	6	6	6	0	1	0	0	0	0
Spotted Owl	2	1	1	1	0	0	0	0	0	0
Swainson's Hawk	1	1	1	1	0	0	0	0	0	0
Turkey Vulture	6	5	5	5	2	0	1	0	1	0
Western Screech Owl	3	1	1	1	0	0	0	0	0	0
Total	194	131	128	124	42	10	6	1	5	0

1. Animals may be positive for more than one rodenticide.

Table 4. Number of each mammalian (n=298) species that was positive for a rodenticide, that was positive for a first or second generation anticoagulant rodenticide, and that was for each rodenticide<sup>1</sup>.

Species	N	Positive	2nd generation	Brodifacoum	Bromadiolone	Difethialone	1st generation	Chlorophacinone	Diphacinone	Warfarin
Badger	3	1	0	0	0	0	1	1	1	0
Black Bear	3	3	3	3	3	0	2	2	2	0
Bobcats	41	36	35	31	26	11	15	1	13	1
Coyotes	44	36	33	33	12	4	8	4	6	1
Deer	1	0	0	0	0	0	0	0	0	0
Gray fox	9	7	7	7	4	1	2	0	2	0
Mountain Lions	28	28	28	27	26	11	18	3	17	2
Pig (Feral)	1	1	0	0	0	0	1	0	1	0
Raccoons	6	4	4	4	4	0	1	0	1	0
Red fox	37	35	35	30	25	2	4	0	4	0
San Joaquin kit fox	110	76	76	70	35	2	7	6	1	0
Skunk (any)	7	5	5	5	4	0	0	0	0	0
Squirrel (any)	5	2	2	2	0	0	0	0	0	0
Virginia Opossum	3	3	3	3	2	0	0	0	0	0
Total	298	237	231	215	141	31	59	17	48	4

1. Animals may be positive for more than one rodenticide.

### Comparisons to Wildlife LD<sub>50</sub>s

A LD<sub>50</sub> is the dose (in mg/kg of body weight) of a chemical that a species consumes in a single dose that is lethal to 50% of the animals of that species tested. A LC<sub>50</sub> is the concentration (in parts per million (ppm) or as mg/kg of body weight/day) of a chemical that produces mortality in 50% of the animals to which it is exposed (normally in the air, water, or food) in a given period of time. U.S. EPA has established guidelines for the LD<sub>50</sub>s and LC<sub>50</sub>s.

Table 5. Descriptive toxicity categories for wildlife compared to the LD<sub>50</sub>s and LC<sub>50</sub>s.

Descriptive Term	Mammal and Avian LD <sub>50</sub>	Mammal and Avian LC <sub>50</sub>
Extremely Toxic	< 10 mg/kg	< 50 ppm
Highly Toxic	10 – 50 mg/kg	50 – 500 ppm
Moderately Toxic	50 - 500 mg/kg	500 – 1,000 ppm
Slightly Toxic	500 – 2,000 mg/kg	1,000 – 5,000 ppm
Relatively Non-Toxic	> 2,000 mg/kg	> 5,000 ppm

Based on these descriptive categories, a rodenticide that is “extremely toxic” is toxic to 50% of the animals of that species tested at <10mg/kg of the chemical. However, there can be an apparent difference in sensitivities in the LD<sub>50</sub>s between species and even individuals. For example, the most sensitive LD<sub>50</sub> for brodifacoum is 0.26 mg/kg, is in a mallard. However, the Ring-necked pheasant has an LD<sub>50</sub> of 10 mg/kg (Erickson and Urban, 20004).

To equilibrate all of the finding, the most sensitive LD<sub>50</sub>s were used. Table 6 lists the LD<sub>50</sub>s and the descriptive toxicities (based on the U.S. EPA’s Pesticide Assessment Guidelines) for the nine rodenticides for the most sensitive birds and mammals.

Table 6. Most sensitive LD<sub>50</sub> and descriptive toxicity<sup>1</sup> for birds and mammals for nine rodenticides<sup>2</sup>.

Type of Rodenticide	Rodenticide	Most sensitive LD <sub>50</sub> for Birds (in mg/kg)	Descriptive Toxicity for the most sensitive Birds LD <sub>50</sub>	Most sensitive LD <sub>50</sub> for Mammal (in mg/kg)	Descriptive Toxicity for the most sensitive Mammal LD <sub>50</sub>
Second Generation Anticoagulant Rodenticides	Brodifacoum	0.26	Extremely Toxic	0.13	Extremely Toxic
	Bromadiolone	138	Moderately Toxic	0.56	Extremely Toxic
	Difenacoum	66 <sup>3</sup>	Moderately Toxic	0.45 <sup>3</sup>	Extremely Toxic
	Difethialone	0.26	Extremely Toxic	0.29	Extremely Toxic
First Generation Anticoagulant Rodenticides	Chlorophacinone	>100	Moderately Toxic	0.49	Extremely Toxic
	Diphacinone	96.8 <sup>4</sup>	Moderately Toxic	0.2	Extremely Toxic
	Warfarin	620	Slightly Toxic	2.5	Extremely Toxic
Non-Anticoagulant Rodenticides	Bromethalin	4.6	Extremely Toxic	2.0	Extremely Toxic
	Cholecalciferol	>600	Slightly Toxic	5.5	Extremely Toxic
	Zinc phosphide	8.8	Extremely Toxic	26	Highly Toxic

1. From the EPA Pesticide Assessment Guidelines (U.S. EPA, 2011).
2. Data summarized from Erickson and Urban, 2004, except where noted.
3. U.S. EPA, 2007.
4. Rattner et al, 2011.

The data indicate that the second generation anticoagulant rodenticides brodifacoum and difethialone are extremely toxic to both birds and mammals. The second generation anticoagulant rodenticides bromadiolone and difenacoum are moderately toxic to birds, but extremely toxic to mammals.

It is important to note that LD<sub>50</sub> tests are run in a laboratory setting, where the animals are not subject to the need to forage, or to predation or pathogen pressures. Additionally, the LD<sub>50</sub> considers only one endpoint: mortality. Multiple studies (Eason et al (1996), Fisher (2009), and Naz et al (2011)) have shown that even sub-lethal doses can cause clotting, biochemical (including glucose and liver function markers), and physiological abnormalities (including

statistically significant decreased body weight, increased liver size, increased heart size, and increased kidney size), which could or did cause mortality in the laboratory setting.

Field and epidemiological studies can provide additional information about what happens in non-laboratory situations. Dowding et al (1999) analyzed brodifacoum concentrations in the livers of cats, rabbits, and birds found dead or euthanized on Motuihe Island following a Norway rat and house mouse eradication operation in August 1997. Three cats found dead had liver brodifacoum concentrations of 0.91 to 1.38 ppm. Five rabbits found dead on the island had liver concentrations of 0.05 to 2.01 ppm. Twenty-nine non-target birds (including ducks, raptors, and songbirds) that were found dead had liver concentrations of 0.12 to 2.31 ppm. The incidence of mortality 2 weeks after the eradication was 49% in the pukeko flock (order: Gruiformes; a coot) and 60% in the paradise shelduck flock (order: Anseriformes; a duck). It is likely, given their behavior and eating habits, that the rabbits and paradise shelduck directly consumed the bait, while the cats and raptors would most likely have consumed prey items that had consumed the bait. Depending upon the species, circumstances, and individual involved, the songbirds and pukeko may have directly consumed the bait and/or consumed prey that consumed the bait.

Riley et al (2007) found that all 19 of the bobcats that died due to severe notoedric mange were exposed to second generation anticoagulant rodenticides, with brodifacoum ranges from trace to 0.56 ppm. Morbidity or mortality due to notoedric mange had not previously been reported as a significant pathogen in wild felid. The study demonstrated that where the levels of second generation anticoagulant rodenticides were more than 0.05 ppm, the correlation to mange (and mortality) was “highly significant” with a p-value < 0.01.

In the laboratory, second generation rodenticides are also known to cause lethargy, shortness of breath, anorexia, bloody diarrhea, changes in behavior, potential heart damage, and tenderness of the joints (Cox and Smith (1992), Housenger and Melendez (2011), IPCS (2010), Littin et al (2000), Merck Sharp & Dohme Corp (2011), Munday and Thompson (2003), Naz et al (2011), Rahmy (1993), Shlosberg and Booth (2001), Valchev (2008), and Woody et al (1992)). Therefore, even sub-lethal exposure to anticoagulants may contribute to the ill thrift of the animal. U.S. Fish and Wildlife Service (2010) stated that, “Even in cases where the proximate cause of death has been identified as automobile strike, predation, or disease, toxicologists and pathologists have attained sufficient toxicological evidence to conclude that rodenticide-induced blood loss increased animal vulnerability to the proximate cause of death.”

The concentration of brodifacoum in the liver (which is in ppm), while not always an accurate reflection of the amount of brodifacoum ingested (which is in mg/kg), demonstrates exposure and when a necropsy is conducted, is often used in conjunction with everything else to assess the potential mortality based on the liver residues of the rodenticide. For example, Eason et al (1996) dosed the Common Brushtail Possum (*Trichosurus vulpecula*) with 0.1 mg/kg and found mean liver concentrations of 0.100 ppm 14 days after dosing, 0.109 ppm 63 days after the dosing, and 0.075 ppm 126 days after dosing. Fisher et al (2003) dosed rats with 0.1 mg/kg brodifacoum and

found the mean liver residue concentration after one week to be 1.27 ppm, after 18 weeks to be 0.59 ppm, and after 24 weeks to be 0.49 ppm. Additionally, Eason et al (1999) dosed pigs with brodifacoum in single dietary doses of 0.57 ppm, 0.96 ppm, and 1.94 ppm and then analyzed their livers on the fifth day. When the pigs consumed approximately 0.57 mg/kg, 0.96 mg/kg, and 1.94 mg/kg, the resulting brodifacoum concentration in the liver was 1.13 ppm, 1.08 ppm, and 1.05 ppm, respectively. If the whole body concentration of brodifacoum were analyzed, instead of just the concentration in the liver, the concentration would be significantly lower. Because the liver essentially collects the rodenticide, the liver is analyzed, which allows for the determination of exposure. However, because the liver collects the rodenticide, the rodenticide can be found at a higher concentration in the liver than in the animal at a whole.

Of the 492 animals included in this analysis, 368 (approximately 75%) had residues of at least one first and/or second generation anticoagulant rodenticide. Table 7 quantifies the number and percent of samples that had residues (including trace residues), those which had measurable (i.e., non-trace) residues, and those which had residues above the most sensitive LD<sub>50</sub>.

Table 7. Number (and percent) of animals that had anticoagulant rodenticide residues (including trace residues), had measurable (i.e., non-trace) residues, and that had anticoagulant levels above the most sensitive LD<sub>50</sub> (n=492)<sup>1</sup>.

Rodenticide		Avian	Mammal	Total
Any	Total Number of samples	194 (100%)	298 (100%)	492 (100%)
	Total Number with no residues <sup>2</sup>	63 (32.5%)	61 (20.5%)	124 (25.2%)
	Total Number of positive samples <sup>3</sup>	131 (67.5%)	237 (79.5%)	368 (74.8%)
Brodifacoum	Total Number with no residues <sup>2</sup>	70 (36.1%)	83 (27.9%)	153 (31.1%)
	Total Number of positive samples <sup>3</sup>	124 (63.9%)	215 (72.1%)	339 (68.9%)
	Number with measurable residues <sup>4</sup>	107 (55.2%)	199 (66.8%)	306 (62.2%)
	Number above the most sensitive LD <sub>50</sub> <sup>5</sup>	26 (13.4%)	85 (28.5%)	111 (22.6%)
Bromadiolone	Total Number with no residues <sup>2</sup>	152 (78.4%)	157 (52.7%)	309 (62.8%)
	Total Number of positive samples <sup>3</sup>	42 (21.6%)	141 (47.3%)	183 (37.2%)
	Number with measurable residues <sup>4</sup>	26 (13.4%)	111 (37.2%)	138 (28.0%)
	Number above the most sensitive LD <sub>50</sub> <sup>5</sup>	0 (0.0%)	38 (12.8%)	38 (7.7%)
Difethialone	Number with no residues <sup>2</sup>	184 (94.8%)	267 (89.6%)	451 (91.7%)
	Total Number of positive samples <sup>3</sup>	10 (5.2%)	31 (10.4%)	41 (8.3%)
	Number with measurable residues <sup>4</sup>	5 (2.6%)	4 (1.3%)	9 (1.8%)
	Number above the most sensitive LD <sub>50</sub> <sup>5</sup>	5 (2.6%)	4 (1.3%)	9 (1.8%)
Chlorophacinone	Number with no residues <sup>2</sup>	193 (99.5%)	250 (83.9%)	439 (89.3%)
	Total Number of positive samples <sup>3</sup>	1 (0.5%)	17 (5.9%)	18 (3.7%)
	Number with measurable residues <sup>4</sup>	0 (0.0%)	11 (3.7%)	11 (2.2%)
	Number above the most sensitive LD <sub>50</sub> <sup>5</sup>	0 (0.0%)	3 (1.0%)	3 (0.6%)
Diphacinone	Number with no residues <sup>2</sup>	189 (97.4%)	250 (83.9%)	439 (89.3%)
	Total Number of positive samples <sup>3</sup>	5 (2.6%)	48 (16.1%)	53 (10.8%)
	Number with measurable residues <sup>4</sup>	3 (1.5%)	17 (5.7%)	20 (4.1%)
	Number above the most sensitive LD <sub>50</sub> <sup>5</sup>	2 (1.0%)	10 (3.4%)	12 (2.4%)
Warfarin	Number with no residues <sup>2</sup>	194 (100.0%)	294 (98.7%)	488 (99.2%)
	Total Number of positive samples <sup>3</sup>	0 (0.0%)	4 (1.3%)	4 (0.8%)
	Number with measurable residues <sup>4</sup>	0 (0.0%)	2 (0.7%)	2 (0.4%)
	Number above the most sensitive LD <sub>50</sub> <sup>5</sup>	0 (0.0%)	0 (0.0%)	0 (0.0%)

1. Animals may be positive for more than one rodenticide.
2. The number of samples with no residues is the number of samples that did not have trace or measurable amounts in it. It can be added to the Number of Total Number of positive samples to get the Total Number of samples.
3. The samples that tested positive for a sample may have had trace (i.e., when the rodenticide is known to be present but its level is so low that it cannot be quantified) or measurable (i.e., when the amount of a rodenticide can be put into a number) amounts of the rodenticide. It can be added to the Number of samples with no residues to get the Total Number of samples.
4. The number of samples with measurable or quantifiable residues includes only the samples where the amount of a rodenticide can be put into a number (i.e., it does not include the trace detections). This is part of the Total Number of



positive samples, but does not include the trace samples (i.e., the Total Number of positive samples minus Number with measurable residues will equal the number with trace residues). For this reason, this number should not be added to any of the other categories.

5. The number of samples above the LD<sub>50</sub> includes only those samples that have measurable residues and that are above the most sensitive LD<sub>50</sub> (a measurable amount) for the species (listed in Table 6). This is part of the Number with measurable residues, but lacks those that are not above the LD<sub>50</sub> (i.e., the Number with measurable residues minus the Number above the most sensitive LD<sub>50</sub> will equal the number that fell between those that had measurable detections and those that were above the LD<sub>50</sub>). For this reason, this number should not be added to any of the other categories.

This table indicates that number of non-target animals that had second generation anticoagulant rodenticide residues (including trace residues), had measurable (i.e., non-trace) residues, and that had anticoagulant levels above the most sensitive LD<sub>50</sub> (n=492)<sup>1</sup> exceeds the numbers for first generation anticoagulant rodenticides. Brodifacoum residues were found in approximately 69% of samples and in those samples brodifacoum residues were above the most sensitive LD<sub>50</sub> approximately 23% of the time. Bromadiolone residues were found in approximately 37% of samples and in those samples bromadiolone residues were above the most sensitive LD<sub>50</sub> approximately 8% of the time. Difethialone residues were found in approximately 8% of samples and in those samples difethialone residues were above the LD<sub>50</sub> approximately 2% of the time. While liver residues above the LD<sub>50</sub> (or sometimes even below) indicates that some of these animals could have died due to the concentrations of the rodenticide seen in their liver, it is difficult to definitely correlate exposure to the cause of death of an individual, without evidence of coagulopathy at necropsy.

### Necropsies

Out of the 492 animals analyzed, 211 necropsies (including 124 birds and 87 mammals) were conducted. The 80 necropsies presented to DPR for evaluation were conducted by veterinarians (including both those with advanced training in pathology and those without advanced training in pathology) and non-veterinarians, and were assessed accordingly. The remaining necropsies were present in Lima and Salmon's and Riley et al's papers.

Multiple difficulties can arise when conducting a necropsy, including a freeze-thaw artifact, a decomposing body, and/or if predated body. In many cases, necropsies on animals with these problems were excluded or were assessed more carefully.

Of the 211 necropsies, 38 (approximately 19%) indicate that anticoagulant rodenticides contributed to or could be correlated to morbidity (i.e., disease), but were not the cause of death, or more information or analysis was needed to establish the cause of death. Thirty-three (33) of the necropsies (approximately 16%) indicate that anticoagulant rodenticides were likely a cause of death or the cause of death. Of the 33 cases where anticoagulant rodenticides were the most likely cause of death, second generation rodenticides were involved in 29 cases (approximately 14%). Specifically, brodifacoum was involved in 28 cases (approximately 13%), and brodifacoum was likely the sole or primary cause of death in 20 cases (approximately 9%).

Additionally, bromadiolone was involved in 7 cases (approximately 3%). Table 8 summarizes the results.

Table 8. Summary of the rodenticides identified as the likely cause of death (based on the analysis of the necropsies), the concentration(s) of the individual rodenticide(s), and the total rodenticides concentration in the liver of the animal.

Birds (n=124)	Mammals (n=87)	Number (n=211)	Primary Rodenticide(s) Involved	Rodenticide Concentration (ppm)	Total Rodenticide Concentration
9 (7.3%)	11 (12.6%)	20 (9.5%) <sup>1</sup>	Brodifacoum	Trace to 11.0	Trace to 11.0
4 (3.2%)	2 (2.3%)	6 (2.8%) <sup>2</sup>	Brodifacoum Bromadiolone	0.07 to 0.57 0.065 to 1.27	0.38 to 1.84
1 (0.8%)	0 (0.0%)	1 (0.5%) <sup>3</sup>	Bromadiolone	0.38	0.38
1 (0.8%)	1 (1.1%)	2 (1.0%) <sup>4</sup>	Brodifacoum Diphacinone	0.002 to 0.08 0.169 to 1.30	0.171 to 1.38
2 (1.6%)	0 (0.0%)	2 (1.0%) <sup>5</sup>	Diphacinone	Trace to 3.5	Trace to 3.5
0 (0.0%)	2 (2.3%)	2 (1.0%) <sup>6</sup>	Chlorophacinone	0.4 to 1.2	0.4 to 1.2
17 (13.7%)	16 (18.4%)	33 (15.6%) <sup>7</sup>	Total		

1. The 9 birds were a Cooper's Hawk, a Turkey Vulture, 2 Barn Owls, 2 Great Horned Owls, and 3 Golden Eagles. The 11 mammals were a mountain lion, an opossum, a red fox, an endangered San Joaquin kit fox, 2 bobcats, 2 fox squirrels, and 3 coyotes.
2. The 4 birds were 2 Barn Owls and 2 Great Horned Owls. The 2 mammals consisted of 2 mountain lions.
3. The bird was a Barn Owl.
4. The bird was a Barn Owl. The mammal was a coyote.
5. The 2 birds were a Bald Eagle and Turkey Vulture.
6. The 2 mammals were a coyote and a bobcat.
7. The 17 birds were a Bald Eagle, a Cooper's Hawk, 2 Turkey Vultures, 3 Golden Eagles, 4 Great Horned Owls, and 6 Barn Owls. The 16 mammals were an opossum, a red fox, an endangered San Joaquin kit fox, 2 fox squirrels, 3 bobcats, 3 mountain lions, and 6 coyotes.

Of the 29 necropsies where second generation anticoagulant rodenticides were the likely cause of death, the overall levels of second generation anticoagulant rodenticides ranged from trace to 11.0 ppm. In the 20 cases where brodifacoum was the primary or sole compound that caused mortality, brodifacoum residues ranged from trace to 11.0 ppm.

### Animal Information, Diet, and Habitat

The Migratory Bird Treaty Act of 1918 prohibits the take of native birds (including killing or causing the death of a bird) without a permit. Additionally, Bald and Golden Eagles are further protected by the Bald and Golden Eagle Protection Act of 1962. The majority of the birds analyzed in this paper are carnivores that are likely exposed to rodenticides either by secondary or tertiary exposure. The Barn Owl and the Great Horned Owl are nocturnal raptors. The Barn Owl prefers to hunt in open country and along the edges of woods (in rural and natural areas),

but also lives in urban and suburban areas. They primarily eat rodents, but will also eat other small mammals, birds, and invertebrates (Rocha et al (2011) and Pezzo and Morimando (1995)). Great Horned Owls prefer wooded (natural) and forested areas, but will live in natural, suburban, rural and urban areas. They primarily eat small to medium mammals (such as rabbits, and rodents), but will also eat larger mammals, birds (including other raptors), reptile, amphibian, and fish (Marti and Kochert (1996)).

Bald Eagles, Cooper's Hawks, Golden Eagles, Red-shouldered Hawks, Red-tailed Hawks, and Turkey Vultures are diurnal raptors. Bald Eagles tend to live among trees near water, and prefer natural or rural areas (Guinn (2004)). They primarily eat fish, but will also eat carrion, mammals, avian (including other raptors), reptiles, amphibians, and invertebrates (Peterson (1986)). Cooper's Hawks are agile fliers that fly through thick cover (including trees, vegetation, and buildings) to catch its prey. They prefer wooded and forested areas, but live in urban, suburban, rural, and natural areas. They primarily prey upon on birds, but will also eat mammals (Roth and Lima (2003)). Golden Eagles prefer nesting on mountains and hunting in open areas, such as rural areas (non-agricultural) and natural areas (Carrette et al (2000) and Marzluff et al (1997)). They primarily eat rabbits and squirrels, but will take prey weighing 1 to 15 pounds, including mammals, birds (including other raptors), reptiles, amphibians, fish, insects, and carrion (Bloom and Hawks (1982), and Steenhof and Kochert (1998)). The Red-shouldered Hawk prefers to live in woodlands (natural areas), especially near rivers or swamps, but will live in suburban and rural areas. They primarily prey upon small mammals (especially rodents), but will also consume reptiles, amphibians, birds, and crayfish (Jacobs and Jacobs (2002)). The Red-tailed Hawk prefers to live in open (rural or natural) areas, but also live urban and suburban areas. They primarily prey upon rodents, but will also consume other mammals (including predators), birds (including other raptors), reptiles, amphibians, and insects (Gatto et al (2005), and Steenhof and Kochert (1998)). Turkey Vultures prefer open areas, such as rural and natural areas. Their diet is almost exclusively composed of carrion, including small and large mammals, birds, reptiles, and fish (Hiraldo et al (1991a) and Hiraldo et al (1991b)).

Some of the mammals analyzed in this paper included bobcats, mountain lions, coyotes, red foxes, San Joaquin kit foxes, fox squirrels, opossum, and skunks. Bobcats and mountain lions are solitary animals and strict carnivores (normally only eat meat). Mountain lions tend to found primarily in rural and natural areas. A mountain lion's diet is primarily composed of ungulates (primarily deer), although they will also eat rodents, insects, and predators (including coyotes), depending upon location, season, and abundance (Blakenship (1995), Iriarte et al (1990), and Riley et al (2007)). They are most likely to be exposed to rodenticides by tertiary (i.e., the animal eats an animal that ate an animal that ate the rodenticide) exposure, although secondary exposure is possible. Bobcats prefer woodland (natural areas), but will live in rural areas, in some suburban areas, as well as on the edges of urban areas. They primarily consume rodents and rabbits, although they will also consume insects, reptile, and larger prey (including deer), depending upon availability, season, and preference (Blakenship (1995) and Litvaitis (1981)). They are most likely to be exposed by secondary exposure, although tertiary exposure is possible.

Coyotes are a medium sized generalist predator that can live in urban, suburban, rural, or natural environments. They primarily eat small mammals (such as rodents, rabbits, and squirrels), but will also eat birds, snakes, deer, seed, and fruit (Blakenship (1995)). There are three red fox species in California: the Sacramento Valley red fox, the Sierra Nevada red fox, and the non-native red fox (Sacks et al (2010)). Although the subspecies can differ in distribution, appearance, and behavior, the red fox will, in general, live in urban, suburban, rural, and natural environments. They are crepuscular animals that primarily eat rodents, but their diet also includes birds, insects, other mammals (including other predators), small deer, fish, fruit, carrion, and refuse (Lariviere and Pasitschniak-Arts (1996), and Papakosta et al (2010)). The San Joaquin kit foxes are a small (approximately five pounds) canid that is federally listed as endangered. They are only found in the San Joaquin Valley and Central Coast of California, but they live in urban (including downtown Bakersfield), suburban, rural, and natural areas. They primarily eat rodents (including kangaroo rats), rabbits, and squirrels, but will also consume reptiles, insects, birds, carrion, fruit, and refuse (Frost (2005)), McGrew (1979)) and Warrick et al (2007)), depending upon season, availability, and location. Coyotes and foxes most likely ingest rodenticides secondarily (by ingesting a rodent or squirrel), although they could be exposed via tertiary exposure or by directly consuming it.

Fox squirrels prefer forested areas, but can be found in urban, suburban, rural, and natural environments. They consume tree seeds, tree buds, tree flowers, bird eggs, and mushrooms (Lee et al (2001)) and Koprowski (1994)). They are most likely exposed to rodenticides through direct ingestion. Virginia opossums are a marsupial. They can live in urban, suburban, rural, and natural environments. Opossums are opportunistic omnivores, eating insects, plants, fruit, mammals (dead or alive), birds, reptiles, and refuse (McManus (1974)). They are most likely exposed to rodenticides by direct consumption or secondary exposure. Skunks live in urban, suburban, rural, and natural areas. They are crepuscular omnivores that eat primarily insects, but will also eat vertebrates, carrion, eggs, fruit, leaves, grains, nuts, and refuse (Kasparian et al (2002) and Wade-Smith and Verts (1982)). They most likely ingest rodenticides by secondary exposure, but may also be exposed by tertiary exposure or direct ingestion the rodenticide.

### **Location & Land Use**

Of the 492 animals, counties were provided for 491 of them and more precise locations (i.e., urban, rural, natural/wild area based on population and/or land use) were provided for 248 animals. DPR looked at the location where each of the animals analyzed were found to determine whether the animals were found in predominately urban, rural, or natural (wild areas) settings.

The 492 animals came from at least 35 California counties, including Alameda, Colusa, Contra Costa, El Dorado, Fresno, Glenn, Kern, Kings, Los Angeles, Madera, Marin, Mendocino, Merced, Monterey, Napa, Orange, Placer, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Cruz, Sonoma, Solano, Stanislaus, Sutter, Tulare, Ventura, and Yolo.

The map below shows all the counties from which animals were analyzed.



Figure 1. Counties in California from which animals were analyzed, as indicated by a +.

The data indicate that animal's positive for anticoagulant residues were found in urban and rural settings, as well as nature preserves. For example, Lima and Salmon's (2010) data indicate that residues of second generation anticoagulant rodenticides were found more often in raptors in San Diego County, than in raptors from the Central Valley. See Table 9.

Table 9. Number of raptors analyzed that had anticoagulant rodenticide residues (including trace residues) by region from 2006 to 2009 (n = 96 raptors)<sup>1,2</sup>.

Region	Number of samples analyzed	Second Generation Anticoagulant Rodenticides			First Generation Anticoagulant Rodenticides		
		Brodifacoum	Bromadiolone	Difethialone	Chlorophacinone	Diphacinone	Warfarin
San Diego County	53	49 (92.4%)	22 (41.5%)	8 (15.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Central Valley	43	25 (58.1%)	5 (11.6.0%)	0 (0.0%)	1 (2.3%)	0 (0.0%)	0 (0.0%)
Total	96	75 (78.1%)	28 (29.2%)	8 (8.3%)	1 (1.0%)	0 (0.0%)	0 (0.0%)

1. Animals may be positive for more than one rodenticide.
2. Data differs from Lima and Salmon's Table 3.

In San Diego County, there was no statistical difference between the percentage of animals with residues of brodifacoum, bromadiolone, and difethialone in rural areas (as defined by population) and urban areas (using Preacher (2001)), even though bromadiolone residues were found in a higher percentage of urban samples than in the rural samples. See Tables 10 and 13, below.

Table 10. Number of raptors analyzed that had anticoagulant rodenticide residues (including trace residues) by population density/land use within San Diego County from 2006 to 2009 (n=53 raptors)<sup>1,2</sup>.

Population Density	Number of Animals	Brodifacoum	Bromadiolone	Difethialone
Urban	17	16 (94.1%)	9 (52.9%)	3 (17.6%)
Unknown	1	0 (0.0%)	0 (0.0%)	0 (0.0%)
Rural	35	33 (94.3%)	13 (37.1%)	5 (14.3%)
Total	53	49 (92.5%)	22 (41.5%)	8 (15.1%)

1. Samples may be positive for more than one rodenticide.
2. None of the samples were positive for a first generation anticoagulant rodenticide.

San Joaquin kit foxes are federally listed as an endangered species and state listed as threatened. According to the U.S. Fish & Wildlife Services, ““Endangered” means a species is in danger of extinction throughout all or a significant portion of its range.” Although the number San Joaquin kit fox living in Bakersfield *might* be as high as 400 individuals, this number has not been deemed sufficient to keep them from going extinct, especially since “a century ago, more than 12,000 if the foxes roamed the San Joaquin Valley (Cypher (2010)).”

In their “5-Year Review: Summary and Evaluation” the U.S. Fish and Wildlife Service (2010) found that

Pesticides, and specifically rodenticides, pose a threat to kit fox through direct or secondary poisoning. For example, kit fox may be killed if they ingest rodenticide

in a bait application, or if they consume rodents that have consumed bait... Secondary exposure to SGARs is particularly problematic due to the high toxicity of the compounds and their long persistence in body tissues. For example, brodifacoum, a common SGAR, is persistent in tissue, bioaccumulates, and appears to impair reproduction... Even in cases where the proximate cause of death has been identified as automobile strike, predation, or disease, toxicologists and pathologists have attained sufficient toxicological evidence to conclude that rodenticide-induced blood loss increased animal vulnerability to the proximate cause of death (USEPA 2008)... the Service expects that effects of rodenticide exposure could have substantial population level effects where exposure is present, especially where kit fox populations are small and where they rely on target species, such as ground squirrels and murid rodents, for prey.

DPR found that of the samples, approximately 73% were positive for second generation anticoagulant rodenticides, and out of 110 San Joaquin kit foxes that were sampled, approximately 64% of the animals were positive for brodifacoum and approximately 33% were positive for bromadiolone, which includes 13 kit fox in the relatively isolated Lokern area (an isolated area where only animals had residues for bromadiolone). For instance, in 2009, of the 4 animals that were analyzed, all 4 were found in Bakersfield and 3 of the 4 had brodifacoum residues. And, in 2011, of the 4 animals that were analyzed, all 4 were found in Kern County and all 4 had brodifacoum and bromadiolone. Since 2009, 7 of the 8 animals (87.5%) have had second generation rodenticides, specifically brodifacoum. Additionally, there was likely at least 1 mortality that was most likely caused by brodifacoum. Of the approximately 400 animals in Bakersfield, this indicates that between 293 and 350 might have residues for a second generation rodenticide. Based on the analysis by U.S. Fish and Wildlife Service, the exposure to second generation anticoagulant rodenticides can cause take, including mortality, which could have “substantial population level effects” on an endangered species that is “in danger of extinction.”

Additionally, of the 120 animals analyzed from the San Joaquin kit fox data (CDFG (2011) and CDFG (2012b)), including 110 San Joaquin kit fox, 1 badger, 1 bobcat, 2 coyotes, 2 skunks, and 4 red foxes, approximately 80% of the animals from Bakersfield (an urban area) had residues of brodifacoum. Only 30% of the animals had residues of brodifacoum from “other locations” in Kern, San Benito, San Luis Obispo, and Tulare counties (which could include urban, suburban, rural, agricultural, and/or natural areas) and none of the animals from Lokern (a 40,000 acre natural area, designed to provide quality brush scrub habitat for threatened and endangered plants and animals) had residues of brodifacoum. While, one animal collected from Lokern (in 2007) was positive for bromadiolone, there was a significant difference between the number of animals in the urban and rural areas that were positive for brodifacoum and bromadiolone. See Tables 11 and 13, below.

Table 11. Number of animals analyzed that had anticoagulant rodenticide residues (including trace residues) by location (land use and County) from 1999 to 2011 (n=120)<sup>1,2</sup>.

Location (Land use/type)	County	Number	Second Generation Anticoagulant Rodenticides			First Generation Anticoagulant Rodenticides	
			Brodifacoum	Bromadiolone	Difethialone	Chlorophacinone	Diphacinone
Bakersfield (Urban)	Kern	75	60 (80.0%)	29 (38.7%)	0 (0%)	6 (8.0%)	2 (2.7%)
Unknown	Kern	10	7 (70.0%)	8 (80.0%)	2 (20.0%)	1 (10.0%)	0 (0%)
Other <sup>3</sup>	Various	20	6 (30.0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Lokern (Natural Area)	Kern	15	0 (0%)	1 (6.7%)	0 (0%)	0 (0%)	0 (0%)
Total		120	73 (60.8%)	38 (31.7%)	2 (1.7%)	7 (5.8%)	2 (1.7%)

1. Samples may be positive for more than one rodenticide.
2. None of the samples were positive for warfarin.
3. "Other" includes areas in Kern, San Benito, San Luis Obispo, and Tulare counties which could include urban, suburban, rural, agricultural, and/or natural areas.

Multiple studies have been conducted on coyotes, bobcats, and mountain lions, in Los Angeles and Ventura Counties, in urban and rural areas, including in the Santa Monica Mountains National Recreation Area (SMMNRA). The SMMNRA preserve is over 150,000 acres in the Santa Monica Mountains, between the Pacific Ocean and the inland valley. It contains many individual parks and open spaces, and is administered by the National Park Service (NPS), in conjunction with multiple state and local agencies and groups. While some parks and spaces within the park do not use second generation anticoagulant rodenticides, at least one facility in the NPS uses bromadiolone inside tamper-proof boxes (Miller, 2012).

Of the 28 mountain lions found in eight counties that were tested between 1997 and 2011, 100% tested positive for a second generation rodenticide, approximately 96% tested positive for brodifacoum, 93% tested positive for bromadiolone, and 39% tested positive for difethialone (almost all of the mountain lions were positive for more than one rodenticide). In their study of mountain lions and bobcats in the Santa Monica Mountains (including in the SMMNRA) and Simi Hills of Los Angeles and Ventura Counties, Riley et al (2007) found that mountain lions were "less urban-associated than bobcats... but both mountain lions... diagnosed with anticoagulant intoxication died after spending the bulk of their last month in the most developed parts of their home ranges." Additionally, a mountain lion's diet is primarily composed of ungulates (primarily deer), although they will also eat rodents, insects, and smaller predators, depending upon location, season, and abundance (Iriarte et al (1990) and Riley et al (2007)). However, Riley et al (2007) found that "coyotes made up 15% and 7% of the kills for the 2 lions that died of anticoagulant intoxication." This suggests that the mountain lions that died due to anticoagulant toxicity spent more time in the developed part of their home ranges and were consuming more coyotes than the mountain lions that died due to other causes.



Of the 41 bobcats found in five counties and analyzed between 1995 and 2010, approximately 85% tested positive for second generation rodenticides, 76% tested positive for brodifacoum, 63% tested for bromadiolone, and 26% tested positive for difethialone (most of the coyotes tested positive for more than one rodenticide). Between 1995 and 2003, Riley et al (2007) analyzed 35 bobcats in the Santa Monica Mountains (including in the SMMNRA) and Simi Hills of Los Angeles and Ventura Counties. Approximately, 94% tested positive for second generation rodenticides, 82% tested positive for brodifacoum, 71% tested for bromadiolone, and 29% tested positive for difethialone. All nineteen bobcats that died due to severe notoedric mange also tested positive for second generation anticoagulant rodenticides, with brodifacoum ranging from trace to 0.56 ppm. In bobcats with levels of more than 0.05 ppm, the association to mange (and mortality) was “highly significant,” with a p-value < 0.01 (using a Mann-Whitney U test or a Fisher’s Exact test). Bobcats are considered strict carnivores and primarily consume rodents and rabbits, although they will also consume insects, reptile, and larger prey (including deer), depending upon availability, season, and preference (Litvaitis (1981)).

Of the 44 coyotes found in seven counties and analyzed between 1998 and 2010, approximately 75% tested positive for second generation rodenticides, 75% tested positive for brodifacoum, 27% tested for bromadiolone, and 9% tested positive for difethialone. Coyotes found in the SMMNRA (a natural area), in “urban” areas of Los Angeles and Ventura Counties, and unknown areas of Los Angeles and Ventura Counties between 1997 and 2003 were analyzed for rodenticides (Riley, 2012). Out of 25 coyotes, 76% tested positive for brodifacoum, 32% tested positive for bromadiolone, and 16% tested positive for difethialone. There was no statistically significant difference (using Chi-square) between the urban and the natural areas. Tables 12 and 13 summarize the results.

Table 12. Number of coyotes analyzed that had anticoagulant rodenticide residues (including trace residues) by location (land use) within Los Angeles and Ventura Counties from 1997 to 2003 (n=25)<sup>1,2</sup>.

Land type/ Population Density	Number of Coyotes	Second Generation Anticoagulant Rodenticide			First Generation Anticoagulant Rodenticide	
		Brodifacoum	Bromadiolone	Difethialone	Chlorophacinone	Diphacinone
Urban	14	11 (78.6%)	6 (42.9%)	4 (28.6%)	1 (7.1%)	2 (14.3%)
Unknown	5	4 (80%)	1 (20%)	0 (0%)	0 (0%)	0 (0%)
SMMNRA (Natural Area)	6	4 (66.7%)	1 (16.7%)	0 (0%)	0 (0%)	2 (33.3%)
Total	25	19 (76%)	8 (32%)	4 (16%)	1 (4%)	4 (16%)

1. Samples may be positive for more than one rodenticide.
2. None of the samples were positive for warfarin.

DPR analyzed the coyotes from Los Angeles and Ventura Counties, Lima and Salmon’s raptor study, and the San Joaquin kit fox study, as a group so that the results could be compared. DPR

analyzed the animals by location (using land use and/or population density) for rodenticides. See Table 13, below.

Table 13. Number of animal analyzed that had anticoagulant rodenticide residues (including trace residues) by land use and/or population density from 1997 to 2011 (n=209)<sup>1,2</sup>.

Land type/Population Density	Number	Second Generation Anticoagulant Rodenticides			First Generation Anticoagulant Rodenticides	
		Brodifacoum	Bromadiolone	Difethialone	Chlorophacinone	Diphacinone
Urban <sup>5</sup>	116	96 (82.8%) <sup>4a</sup>	46 (39.7%) <sup>4a</sup>	7 (6.0%) <sup>4a</sup>	8 (6.9%)	4 (3.4%)
Unknown <sup>6</sup>	16	11 (6.9%)	9 (56.3%)	2 (12.5%)	1 (6.3%)	0 (0%)
Other <sup>7</sup>	20	6 (30.0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Rural <sup>8</sup>	35	33 (94.3%) <sup>4a</sup>	13 (37.1%) <sup>4a</sup>	5 (14.3%) <sup>4a+</sup>	0 (0%)	0 (0%)
Natural <sup>9</sup>	23	6 (26.1%) <sup>4b</sup>	2 (8.6%) <sup>4b+</sup>	0 (0%) <sup>4b+</sup>	1 (4.3%)	3 (13.0%)
Total of these animals <sup>3</sup>	248	152 (61.3%)	70 (28.2%)	14 (5.6%)	10 (4.0%)	7 (2.8%)
Average of the evaluated data <sup>3</sup>	492	339 (68.9%)	183 (37.2%)	41 (8.3%)	18 (3.7%)	53 (10.8%)

1. Animals may be positive for more than one rodenticide. No animal was positive for warfarin.
2. Using a Chi-square test (with a Yates correction for continuity when appropriate (i.e., at least 20% of the cells had a frequency of less than 5 (per (a) Preacher (2001), (b) calculation, and/or (c) both))), the three second generation anticoagulant rodenticides (as a group, using the actual numbers in the table (i.e., not the percentages)) were analyzed at each land use type/the animal's location. When the notations are the same (eg, 2a and 2a) the locations did not differ statically significantly ( $p > 0.05$ ) from each other (Preacher (2001)). When they differ (eg, 2a and 2b), they are statically significantly different ( $p < 0.05$ ) from each other.
3. "Average data" is the cumulative data (from Tables 2 and 7) and is there for comparison to the total data.
4. Using a Chi-square test (with a Yates correction for continuity when appropriate, Preacher (2001)), the three second generation anticoagulant rodenticides (individually, using the actual numbers in the table (i.e., not the percentages)). When the notations are the same (4a-4b), the locations did not differ statically significantly ( $p < 0.05$ ) from each other. When they differ, they are statically significantly different ( $p < 0.05$ ) from each other. + indicates that because the number was so low, Yates was may have been used and/or it might have been inappropriate to utilize Chi-square.
5. The urban animals include: 1 badger, 1 skunk, 2 Cooper's Hawks, 2 Red-tailed Hawks, 2 Sharp-shinned Hawks, 4 Red-shouldered Hawks, 4 red foxes, 7 Barn Owls, 24 coyotes, and 69 San Joaquin kit foxes.
6. The animals from Unknown areas include: 1 Great Horned Owl, 5 coyotes, and 10 San Joaquin kit foxes.
7. The animals from Other areas include: 1 bobcat, 1 skunk, and 18 San Joaquin kit fox. Other Locations were designated by the study authors and include areas in Kern, San Benito, San Luis Obispo, and Tulare counties and could include urban, suburban, rural, agricultural, and/or natural areas.
8. The animals from Rural areas include: 1 American kestrel, 1 hawk, 2 Great Horned owls, 2 Sharp-shinned hawks, 4 Red-tailed hawks, 7 Red-shouldered hawks, 8 Cooper's hawks, and 10 Barn owls.
9. The animals from Natural areas include: 1 black bear, 9 coyotes, and 13 San Joaquin kit fox.

Even though Table 13 only utilizes subset of the data, and does not include most of the bobcats, mountain lions, foxes, coyotes, or the raptors from the CDFG data, it does include the bobcats and mountain lions from Riley et al (2007), the raptors from Lima and Salmon (2010 and 2012), the coyotes from Riley (2012), and the San Joaquin kit fox study from CDFG (2011 and 2012b). The data also show a statistical difference between the percent of animals with brodifacoum and bromadiolone in the rural and urban environments compared to the natural environment. However, it shows that there is no significant difference in the occurrence of difethialone in rural and urban even though the rodenticide occurred less frequently in natural areas.

### **Rodenticide Sales/Use Rates**

Two DPR databases were used to determine rodenticide use rates in California: Pesticide Use Report (PUR) and “Report of Pesticide Mill Assessments in California” (also referred to as the Mill Assessment Database). All agricultural pesticide use must be reported monthly to County Agricultural Commissioners, who in turn, report the data to DPR. The PUR is a yearly compilation of this data, (reported in total pounds of active ingredient (a.i.)). In California, the term “agricultural use” includes pesticide applications to crops, parks, golf courses, pastures, landscape maintenance, and roadsides/right of ways. Although not considered “agricultural use,” all applications made by licensed applicators, including structural application, public health application, and home and garden applications, are included in the PUR database. The PUR does not include applications of pesticides by homeowners or other non-licensed persons, including home and garden use, most industrial uses, and most institutional uses. The Mill Assessment Database indicates pesticide sales (in dollars) and quantity (in pounds or gallons) of all registered pesticides sold in California.

Table 14 compares the average total pounds of first and second generation anticoagulant rodenticide active ingredients sold per year between 2006 and 2010 in California, to the average total pounds of reported use of the same active ingredients for the same years. DPR then subtracted the average annual pounds sold by the average annual pounds reported used to estimate the average annual pounds of rodenticides used by non-licensed persons. For purposes of this analysis, DPR assumed a zero percent error between sales and unlicensed use of anticoagulant rodenticides. However, sales and use are not directly related to each other as a person may buy rodenticide one year, but not necessarily use the rodenticide that year or at all.

Table 14. A comparison of the average per year (2006 to 2010) of rodenticides sold (in pounds a.i.) to the average per year (2006 to 2010) of pounds of rodenticides reported used (PUR) (in pounds a.i.) to an estimated pounds of use of rodenticides by non-licensed personnel (calculated by subtracting the PUR from the total sold).

Type of Rodenticide	Rodenticide	Total Sold <sup>1</sup> (lbs. of a.i. (%))	PUR <sup>2</sup> (lbs. of a.i. (%))	Estimated Non-licensed Use <sup>3</sup> (lbs. of a.i. (%))
Second Generation Anticoagulant Rodenticides	Brodifacoum	26.58 (6.54%)	3.07 (2.66%)	23.51 (8.09%)
	Bromadiolone	51.02 (12.56%)	32.48 (28.10%)	18.54 (6.38%)
	Difencoum <sup>4</sup>	0.25 (0.06%)	0.015 (0.01%)	0.235 (0.08%)
	Difethialone	4.49 (1.1%)	3.64 (3.15%)	0.85 (0.29%)
First Generation Anticoagulant Rodenticides	Chlorophacinone	66.54 (16.38%)	17.42 (15.07%)	49.12 (16.79%)
	Diphacinone	226.99 (55.9%)	56.70 (49.05%)	170.29 (58.57%)
	Warfarin	30.44 (7.49%)	2.27 (1.96%)	28.17 (9.69%)
Total Rodenticides		406.32 (100.00%)	115.595 (100.00%)	270.485 (100.00%)

1. From the Mill Assessment Database.
2. From the PUR database. The PUR includes pesticide applications on parks, golf courses, pastures, structural pest control, landscape maintenance, roadsides/right of ways, and crops, and all pesticide applications made by licensed applicators.
3. Calculated by subtracting the “PUR” Use from the Total Sold. Estimates the rodenticides applied by non-licensed applicators (i.e., homeowners, building and maintenance workers, custodians).
4. Two (2) year (2009 and 2010) average.

If the pounds of anticoagulant rodenticides sold or reported used in California per year seem low, please note that the figures are in pounds of “active ingredient,” not pounds of product containing the active ingredient. Most anticoagulant rodenticides contain around 0.002% to 0.005% active ingredient. Therefore, over 200,000 pounds of formulated product containing the active ingredient brodifacoum were sold or used in California per year.

When reporting pesticide use to DPR, applicators must indicate a “use site.” Table 15 demonstrates how much (both in pounds of a.i. and percent) of the reported use of each anticoagulant rodenticide, between 2006 and 2010, was identified as used on a “Public Health,” “Regulatory Pest Control,” “Structural Pest Control,” or “Vertebrate Pest Control” use site.

Table 15. Reported annual use for Public Health, Regulatory Pest Control, Structural Pest Control and Vertebrate Pest Control separated out in pounds of active ingredient (lb of a.i.) and percentage that each use represents of the a.i. for each rodenticide of the seven anticoagulant rodenticides between 2006 and 2010.

Type of Rodenticide	Rodenticide	Total PUR <sup>1</sup> (lbs. of a.i.)	Public health (lbs. of a.i.) (% of use)	Regulatory pest control (lbs. of a.i.) (% of use)	Structural pest control (lbs. of a.i.) (% of use)	Vertebrate pest control (lbs. of a.i.) (% of use)	Other Uses (lbs. of a.i.) (% of use)
Second Generation Anticoagulant Rodenticides	Brodifacoum	3.07	0.004 (0.12%)	0.01 (0.32%)	2.62 (85.45%)	0.10 (3.10%)	0.336 (10.94%)
	Bromadiolone	32.48	0.61 (1.86%)	0.003 (0.01%)	28.11 (86.54%)	0.48 (1.49%)	3.277 (10.09%)
	Difenacoum <sup>2</sup>	0.015	0 (0.00%)	0.001 (6.67%)	0.008 (53.33%)	0.001 (6.67%)	0.005 (33.33%)
	Difethialone <sup>3</sup>	3.64	0 (0.00%)	0 (0.00%)	2.08 (57.20%)	0.01 (0.36%)	1.55 (42.58%)
First Generation Anticoagulant Rodenticides	Chlorophacinone	17.42	0 (0.00%)	0 (0.00%)	1.50 (8.58%)	2.18 (12.54%)	13.74 (78.87%)
	Diphacinone	56.70	0.19 (0.34%)	2.53 (4.47%)	39.19 (69.12%)	10.38 (18.30%)	4.13 (7.28%)
	Warfarin	2.27	0.003 (0.12%)	0 (0.00%)	0.19 (8.50%)	1.70 (74.67%)	0.377 (16.61%)

1. From the PUR database. The PUR includes pesticide applications on parks, golf courses, pastures, structural pest control, landscape maintenance, roadsides/right of ways, and crops and pesticide applications made by licensed applicators.
2. Two (2) year (2009 and 2010) average.
3. In 2010, the PUR for difethialone was likely reported in gallons instead of pounds, so a 4-year average for the Structural Use data was utilized (2006 to 2009).

Between 2006 and 2010, of the four second generation rodenticides, bromadiolone was the highest in terms of average annual total of pounds of active ingredient sold and reported used. Approximately 51 pounds of bromadiolone were reported sold, and approximately 33 pounds were reported used. Of the 33 pounds of bromadiolone reported used, approximately 87% was for structural pest control. DPR estimates that 19 pounds of bromadiolone were used by non-licensed persons.

Brodifacoum was the second highest second generation anticoagulant rodenticide in terms of average annual pounds of active ingredient sold. However, it is third highest in terms of pounds reported used. An average of approximately 27 pounds of brodifacoum active ingredient was sold annually in California over the four years. However, only three pounds of brodifacoum were reported used. Based on the difference between sales and reported use, DPR estimates that 89% of brodifacoum use was by non-licensed persons (homeowners, building and maintenance workers, custodians, etc.).

This information is not surprising as the majority of products containing brodifacoum were marketed for use by homeowners and non-licensed personnel, whereas the structural pest control industry has favored the use of bromadiolone. As shown in Table 14, both chemicals have been used in structural pest control, just by different types of applicators (i.e., licensed vs. unlicensed).

As shown in Table 15, there have been relatively few sales and/or reported use in California of either difethialone or difenacoum. This may be a reflection of the fact that these are the most recent second generation anticoagulant rodenticides to receive registration in California, not that these rodenticides will not cause a problem for non-target wildlife.

### **Uncertainties**

The scope of DPR's analysis is limited to available data. The data show that exposure and toxicity from second generation anticoagulant rodenticides is occurring to non-target wildlife. However, the data do not tie that exposure/toxicity to any particular rodenticide use pattern (e.g., indoor versus outdoor use of rodenticide). As mentioned above, DPR attempted to separate use of second generation anticoagulant rodenticides by licensed (professional) versus unlicensed personnel by subtracting the average pounds reported use from the average annual pounds sold. However, sales and use are not directly related to each other as a person may buy a rodenticide one year, but not necessarily use the rodenticide that year or at all. In addition, it is not known how much of the "estimated use" of second generation anticoagulant rodenticides by unlicensed persons is for industrial, institutional, home/garden, or other uses, and how much is correctly applied, accidentally mishandled, or intentionally misused.

Morzillo and Mertig 2011(a) found that only 10% of residents who used rodenticides were aware of the potential non-target effects. Additionally, Morzillo and Schwartz (2011) found that residents attempt to control target animals, as well as non-target pests and non-target carnivores, San Joaquin kit fox, coyotes, and bats, particularly in single-family homes. Bartos et al (2012) found that residents in the San Fernando Valley and Bel Air-Hollywood used rodenticides to target rats and mice, as well as opossums, snakes, and raccoons up to 300 feet from structures (the limit is 100 feet). Only 42% of participants admitted knowing that rodenticides might affect wildlife. PCOs were primarily called about outdoor landscaping and primarily used snap traps to control rats and mice. Of the 7 that responded, 4 used exclusion, 3 used second generation rodenticides, and 2 used first generation anticoagulants.

Additionally, there are known cases of illegal use. In 2010, the Forest Service cleaned up and restored 335 illegal marijuana sites in national forests in California, removing more than 300 pounds of pesticides (Ferrell (2011) and USDA Forest Service (2011)), including rodenticides which are used to protect the marijuana plants from rodents. Ferrell stated that, "anticoagulant rodenticide... contamination could contribute to continued decline of the Fisher's population." Additionally, according to Gurrola (2010), in certain counties, medical marijuana "has had problems with outdoor growers using massive quantities of rodenticides to protect their crops from rodents," which can cause "secondary poisoning to non-target species and... (m)edical marijuana patients."

## Summary

The data clearly indicate that exposure and toxicity to non-target wildlife from second generation anticoagulant rodenticides is a statewide problem. Research data from various locations throughout California indicate that exposure is occurring in many taxa and in every ecosystem. Mammals, birds, and even a reptile, have tested positive for second generation rodenticides. Based on the data provided, DPR believes that the exposure of wildlife to second generation rodenticides is a problem in both urban and rural areas. While the data show exposure and that these exposures put San Joaquin kit fox “in danger of extinction,” they do not link specific uses, or location of use of second generation anticoagulant rodenticide (i.e., indoors versus outdoors, homeowners versus professionals) that resulted in the exposure.

Additionally, although brodifacoum was found less often in the natural areas, second generation anticoagulant rodenticides were still found in animals in natural areas. The data also indicate that brodifacoum and difethialone are extremely toxic to both birds and mammals. Bromadiolone and difenacoum are moderately toxic to birds, but extremely toxic to mammals.

Brodifacoum was first registered for use in California in 1983. An average of 27 pounds of brodifacoum active ingredient were sold each year for the last five years, 12 pounds of which were reported used by licensed pest control applicators. While brodifacoum accounts for approximately 7% of all anticoagulant rodenticides sold, residues of brodifacoum were found in approximately 68% of the animals that DPR analyzed, including coyotes, bobcats, mountain lions, endangered San Joaquin kit foxes, and federally protected raptors. Of the animals analyzed between 1995 and 2011, brodifacoum was likely involved in approximately 13% of animal mortalities and was solely responsible for 9% of animal mortalities.

Bromadiolone was first registered in California in 1982. An average of 51 pounds per year of bromadiolone active ingredient was sold in California between 2006 and 2010, approximately 63% of which was reported used by licensed pest control applicators. Of the rodenticides sold in California, bromadiolone accounted for approximately 13% of anticoagulant rodenticide use. Bromadiolone residues were found in approximately 36% of the animals analyzed, including coyotes, bobcats, mountain lions, endangered San Joaquin kit foxes, and federally protected raptors. Between 1995 and 2011, bromadiolone was likely involved in approximately 3% of animal mortalities.

Difethialone was first registered for use in California in 1997. Difethialone accounts for approximately 1% of anticoagulant rodenticide sales, with approximately 80% reported used by licensed pest control applicators. Residues were found in approximately 8% of the animals analyzed, including bobcats, mountain lions, coyotes, and federally protected raptors. While DPR has no data indicating that difethialone was directly involved in an animal mortality, the data do indicate that the percent of animals with difethialone residues above the most sensitive LD<sub>50</sub> is relatively high compared to the percent of difethialone sold. Based on its half-life and toxicity data, difethialone appears to be most similar to brodifacoum.

Difenacoum, the newest second generation anticoagulant rodenticide, was first registered with the DPR in 2008. Between 2009 and 2010, difenacoum accounted for approximately 0.3% of the anticoagulant rodenticide that was sold, almost all of which was sold for unlicensed use. In England, between 1998 and 2006, there were eight to 36 “wildlife incidents” per year involving difenacoum. The affected animals included raptors, song birds (i.e., passerines), game birds, domestic animals (dogs and cats), wild canids, and rodents (U.S. EPA, 2007). Based on its half-life and toxicity data, difenacoum appears to be most similar to bromadiolone.

The data also show that exposure of wildlife to second generation anticoagulant rodenticides can lead to sub-lethal effects. Multiple studies have shown that sub-lethal doses can cause lethargy, shortness of breath, anorexia, bloody diarrhea, and tenderness of the joints. Riley et al’s (2007) study of bobcats is an example of sub-lethal effects. Mortality in bobcats due to notoedric mange had not previously been reported as a significant pathogen in wild felid; mange has been strongly correlated to brodifacoum ( $p < 0.05$ ), but has not been shown to be caused by rodenticides. This shows that even sub-lethal exposures to anticoagulants may contribute to the ill thrift of the animal and hence the mortality in a wild animal. In addition, to date, very few studies have looked at rodenticide residues in fetuses or in newly whelped or hatched animals. Klein Sereiy’s (2012) data, which found residues in a bobcat fetus, indicate that rodenticides are able to pass the placental barrier. The sub-lethal effects of rodenticides reduce the biological fitness of wildlife.

### **Conclusion**

Based on the data above, DPR finds that use of two of the four second generation anticoagulant rodenticides--brodifacoum and bromadiolone-- present a hazard related to persistent residues in target animals resulting in impacts to non-target wildlife. Because they are similar in half-life and toxicity, DPR also find that if the use of difethialone and difenacoum were to increase, rodenticides containing those two second generation anticoagulant rodenticides may also present a hazard related to persistent residues in target animals.



# Anticoagulant Rodenticides: Secondary Poisoning of Wildlife in California



Stella McMillin

California Department of Fish and  
Game

Wildlife Investigations Laboratory

# What are Anticoagulant Rodenticides?

- Cause death by internal bleeding.
- Several days between exposure and death.
- Used in agricultural and residential settings.
- Nontarget exposure: primary and secondary.



# Two different kinds of ARs.

## 1<sup>st</sup> Generation

- Multiple feedings
- Less persistent in tissues
- Commensal and outdoor use
- Chlorophacinone, diphacinone, warfarin

## 2<sup>nd</sup> Generation

- Intended for single feeding (more toxic)
- More persistent in tissue
- Registered only for commensal use
- Brodifacoum, bromadiolone, difethialone, difenacoum

# Persistence of anticoagulants in liver tissue (USEPA)

**Bromadiolone:** 248 days

**Brodifacoum:** 217 days

**Difethialone:** 118 days

**Diphacinone:** 90 days

**Warfarin:** 35 days

# Acute Oral Toxicity to Dogs (LD50 values in mg ai/kg)

**Brodifacoum:** 0.25 -1

**Difethialone:** 4

**Bromadiolone:** 8.1

**Diphacinone:** 3 – 15

**Warfarin:** 20 - 50

**Chlorophacinone:** 50  
– 100



# Legal Use of SGARs

- Used indoor or outdoor
- Within 100 feet of structure
- Commensal rodents only

# Background

- In the early 1990's, DFG began receiving animals with signs of anticoagulant toxicosis. Symptoms include unexplained bleeding in the body cavities and subcutaneously and lack of clotting in blood.
- Mostly result of secondary exposure.
- In 1999, DFG requested that DPR place products with **brodifacoum** in re-evaluation based on 58 cases of exposure.
- USEPA was also considering issue so no action by DPR.

# Anti-Coagulants Residues in Wildlife (1992- 2000)

- Brodifacoum (66%)
- Bromadiolone (19%)
- Diphacinone (8%)
- Chlorophacinone (7%)
- Difethialone (1%)

Hosea, R. 2000. Exposure of Non-Target Wildlife to Anticoagulant Rodenticides in California. Proceedings of Vertebrate Pest Conference.



# Also sublethal impacts

- More toxic to embryos
- Susceptibility to disease
- Other?

# Species Exposed

- Golden Eagles
- Great-horned Owls
- Barn Owls
- Red-tailed Hawks
- Cooper's Hawks
- Canada Geese
- Coyotes
- SJ Kit Foxes
- Bobcats
- Kangaroo Rats
- Mountain Lions
- Turkey Vultures
- Martens
- Minks
- Fishers



# Summary of Monitoring Data



# San Joaquin Kit Foxes in Bakersfield

- San Joaquin Kit Fox (*Vulpes macrotis*) – permanent reproducing population in Bakersfield.
- Diet: rodents and rabbits.
- Federally endangered and State threatened.



# Results: Foxes with AR Detections

Pesticide	Bakersfield n=77	Lokern n=13
<b>Brodifacoum</b>	74%	0%
<b>Bromadiolone</b>	36%	8%
Chlorophacinone	8%	0%
Diphacinone	3%	0%
All ARs	79%	8%

# Mountain Lions in California



- DFG is required to necropsy mountain lions taken in California.
- Started analyzing livers for ARs a couple of years ago.
- Of the 14 lions analyzed in the last year, all 14 contained ARs (**Brodifacoum**, **bromadiolone**).

# Raptors in California

(Lima and Salmon 2010)

- Tested anticoagulant residues in livers of 96 birds of 11 raptor species in California. (Birds had died of other causes).
- 2 locations
  - San Diego (relatively urban)
  - Central Valley (more rural, agricultural use)



Lima, L. and T. Salmon. 2010. Assessing some potential environmental impacts from agricultural anticoagulant uses. Proceedings of Vertebrate Pest Conference.

# Raptors in California

(Lima and Salmon 2010)



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	San Diego	Central Valley
First generation ARs	0/53	2/43
<b>Second generation ARs</b>	49/53	37/43

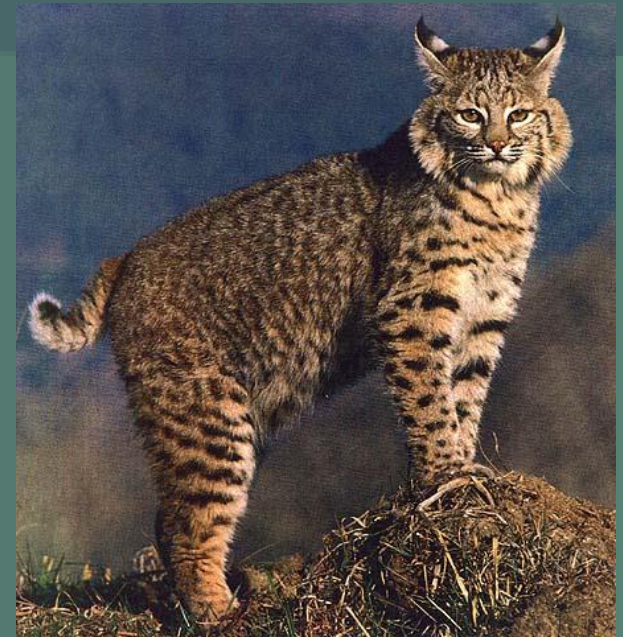
Lima, L. and T. Salmon. 2010. Assessing some potential environmental impacts from agricultural anticoagulant uses. Proceedings of Vertebrate Pest Conference.



# Bobcats and mountain lions in Southern California

Riley et al 2007

- Study area: Coastal mountain ranges around southern California (Santa Monica, Simi Hills, Santa Susana)
- Collected bobcats and mountain lions and analyzed livers for anticoagulants.
- 1997-2003.



Riley, S. 2007. Anticoagulant Exposure and Notoedric Mange in Bobcats and Mountain Lions in Urban Southern California. *Journal of Wildlife Management*.

# Bobcats and mountain lions in Southern California

Riley et al 2007

## Bobcats:

- 35/39 had ARs
- 27/39 had 2 or more ARs
- 31/39 had **Brodifacoum**

## Mountain Lions:

- 4/4 had ARs
- **Brodifacoum** and **Bromadiolone** in all 4
- 2 died of AR poisoning



# Fisher Project

- Fishers live in old growth forests in northern California.
- 2 small populations in California
- ~1,100 individuals
- Project to re-establish population of fishers. Radiocollaring and tracking.

# California Fishers (*Martes Pennanti*)

Page 100

CA Dept. Fish and Game Status: Species of Special Concern

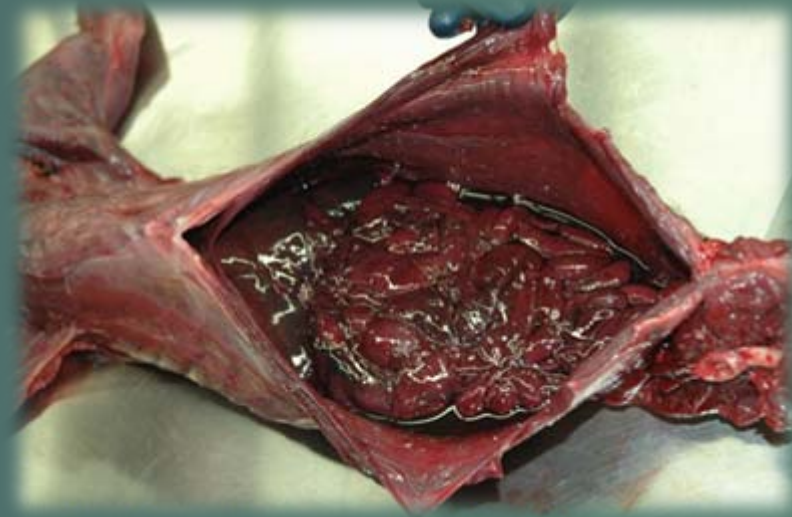
Federal Status: Endangered Species Act Candidate species

Mourad W. Gabriel, 2012 Unpublished Data

- Total of 58 California fishers tested
  - 46 of 58 (79%) exposed  $\geq 1$  AR
- FGAR: 13% of exposed fishers
- SGAR: 96% of exposed fishers
- Four Mortalities



# All Four Mortalities and exposures confirmed by Board-certified wildlife pathologist and toxicologist



Mourad W. Gabriel, 2012 Unpublished Data



# What do these studies tell us?

- **Widespread exposure of predators and scavengers**
- Mortalities caused by exposure
- Multiple exposure scenarios: Urban, Rural, Wilderness
- Illegal/Legal Use?

# Pot Farms



# Illegal vs. Legal Pesticide Use

## Loss due to illegal application

- Pesticide application not according to label
- Subject to prosecution by DFG and fines from CAC

## Loss due to legal application

- Due to normal (legal) use of pesticides
- Not subject to prosecutions or fines
- Monitor problem – modify use if necessary



# USEPA regulations

- 2008: Risk Mitigation Decision: 2<sup>nd</sup> Generation ARs not available for homeowner use. Will still be available to pest control companies. Took effect in 2011.
- **Loophole: availability at farm stores in large packages.**
- 2011: 3 pesticide companies refused to comply and USEPA is deciding whether to cancel their products.

# Here in California:

- CDFG has recommended that Department of Pesticide Regulation make 2<sup>nd</sup> Generation ARs Restricted Use Materials (need a license to buy or use).
- The goal of this recommendation is to reduce availability to the public.



# Alternatives to SGARs

- Habitat modification
- Trapping
- Other non-anticoagulant rodenticides:  
Bromethalin, zinc phosphide, cholecalciferol.  
Less risk of secondary poisoning.
- 1<sup>st</sup> generation anticoagulants:  
chlorophacinone and diphacinone – less  
toxic, less persistent.

# Questions?



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**Assembly Bill No. 2657**

## CHAPTER 475

An act to add Section 12978.7 to the Food and Agricultural Code, relating to fish and wildlife protection.

[ Approved by Governor September 19, 2014. Filed with Secretary of State September 19, 2014. ]

## LEGISLATIVE COUNSEL'S DIGEST

AB 2657, Bloom. Wildlife habitat areas: use of anticoagulants.

Existing law regulates the use of pesticides and authorizes the Director of Pesticide Regulation to adopt regulations to govern the possession, sale, or use of any pesticide, as prescribed. Existing law requires the use of any pesticide by any person to be in such a manner as to prevent substantial drift to nontarget areas. Existing law requires public property where public exposure is foreseeable to be posted with warning signs prior to pesticide applications, as specified. Existing law requires the director, and each county agricultural commissioner under the direction and supervision of the director, to enforce the provisions regulating the use of pesticides. A violation of these provisions is a misdemeanor.

This bill would prohibit, except as specified, the use of any pesticide that contains one or more of specified anticoagulants, including brodifacoum and bromadiolone, in wildlife habitat areas, as defined. The bill would direct state agencies to encourage federal agencies to comply with this prohibition.

To the extent the bill would impose additional duties on county agricultural commissioners, and because a violation of this provision would be a crime, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that with regard to certain mandates no reimbursement is required by this act for a specified reason.

With regard to any other mandates, this bill would provide that, if the Commission on State Mandates determines that the bill contains costs so mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: yes

## THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

**SECTION 1.** Section 12978.7 is added to the Food and Agricultural Code, to read:

**12978.7.** (a) Except as provided in subdivision (d), the use of any pesticide that contains one or more of the following anticoagulants is prohibited in a wildlife habitat area:

- (1) Brodifacoum.
- (2) Bromadiolone.
- (3) Difenacoum.
- (4) Difethialone.

(b) As used in subdivision (a), a "wildlife habitat area" means any state park, state wildlife refuge, or state conservancy.

(c) State agencies are directed to encourage federal agencies to comply with subdivision (a).

(d) This section does not apply to the use of pesticides for agricultural activities, as defined in Section 564.

(e) This section does not preempt or supersede any federal statute or the authority of any federal agency.

**SEC. 2.** No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution for certain costs that may be incurred by a local agency or school district because, in that regard, this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

However, if the Commission on State Mandates determines that this act contains other costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

## TOWN OF PORTOLA VALLEY

### Policy Concerning Environmentally Preferable Purchasing

#### 1.0 PURPOSE

This policy is intended to encourage the purchase and use of environmentally preferable products and services by Town staff, elected officials, volunteers, consultants and contractors.

This Policy is adopted in order to:

- Raise staff awareness about the environmental issues affecting procurement by providing relevant information and training;
- Conserve natural resources;
- Minimize environmental impacts such as pollution and use of water and energy;
- Eliminate or reduce toxics that create hazards to workers and our community;
- Support strong recycling markets;
- Reduce materials that are land filled;
- Increase the use and availability of environmentally preferable products that protect the environment;
- Encourage suppliers and contractors to offer environmentally preferable products and services at competitive prices;
- Encourage providers of services to consider environmental impacts of service delivery; and
- Create a model for successfully purchasing environmentally preferable products and services that encourages other purchasers in our community to adopt similar goals.

#### 2.0 DEFINITIONS

- 2.1 Environmentally Preferable: A product or service that has a lesser or reduced negative effect on human health and the environment when compared with competing products and services that fulfill the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and product disposal.
- 2.3 Practicable: Whenever possible and compatible with local, state and federal laws, without reducing safety, quality, or effectiveness and where the product or service is available at a reasonable cost in a reasonable period of time.
- 2.4 Recyclable Product: A product that, after its intended end use, can be diverted from the Town's solid waste stream for use as a raw materials in the manufacture of another product.

2.5 Recycled Content Product: A product containing recycled material.

2.6 Reusable Product: A product, such as a washable food or beverage container or a refillable ballpoint pen, that can be used several times for an intended use before being discarded or recycled.

### 3.0 POLICY

#### 3.1 General

3.1.1 It is the policy of the Town of Portola Valley to:

Purchase products and services that, to the greatest extent practicable, minimize environmental impacts, toxics, pollution, and hazards to workers and the community; and

Purchase products that include recycled content, are durable and long-lasting, conserve energy and water, use agricultural fibers and residues, reduce greenhouse gas emissions, use unbleached or chlorine free manufacturing processes, are lead-free and mercury-free and use wood from sustainably harvested forests.

3.1.2 Nothing contained in this policy shall be construed as requiring a purchaser or contractor to procure products that do not perform adequately for their intended use, exclude adequate competition, or are not available at a reasonable price in a reasonable period of time.

3.1.3 Nothing contained in this policy shall be construed as requiring the Town, purchaser or contractor to take any action that conflicts with local, state or federal requirements.

#### 3.2 Source Reduction

3.2.1 Whenever practicable and cost-effective, without reducing safety, workplace productivity and/or effectiveness, the Town will reduce waste, and purchase fewer products.

3.2.2 Whenever practicable, without reducing safety, workplace productivity and/or effectiveness, the Town will purchase remanufactured products such as laser toner cartridges, tires, furniture, equipment and automotive parts.



- 3.2.3 Whenever practicable, the Town shall require all equipment bought after the adoption of this policy to be compatible with source reduction goals as referred to in section 3.1.
- 3.2.4 Prior to purchasing products or services, the Town will consider their short and long-term costs in comparing alternatives. This includes evaluation of total costs expected during the period of ownership, including, but not limited to acquisition, extended warranties, operation, supplies, maintenance, disposal costs and expected lifetime compared to other alternatives.
- 3.2.4 Preference will be given to products that are durable, long lasting, reusable or refillable.
- 3.2.5 Vendors will be encouraged to take back and reuse pallets and packaging materials.
- 3.2.6 Whenever practicable, all documents shall be printed and copied on both sides to reduce the use and purchase of paper.

### 3.3 Recycled Content Products

- 3.3.1 Copiers and printers will be compatible with recycled content materials and supplies.
- 3.3.2 Whenever practicable, the Town will use recycled, reusable or reground materials when specifying asphalt concrete, aggregate base or Portland cement concrete for road construction projects.
- 3.3.3 Whenever practicable, the Town will specify and purchase recycled content transportation products, including signs, cones, parking stops, delineators, and barricades.

### 3.4 Energy and Water Savings

- 3.4.1 Where applicable, equipment will be purchased with the most up-to-date energy efficiency functions. This includes, but is not limited to, high efficiency space heating systems and high efficiency space cooling equipment.
- 3.4.2 Whenever practicable, the Town will replace inefficient lighting with energy-efficient equipment.
- 3.4.3 Whenever practicable, the Town will purchase products for which the U. S. EPA Energy Star certification is available. When Energy Star labels are not available, The Town will choose energy-efficient

products that are in the upper 25% of energy efficiency as designated by the Federal Energy Management Program.

3.4.4 Whenever practicable, the Town will purchase water-saving products.

### 3.5 Green Building - Construction and Renovations

3.5.1 Where appropriate, building and renovations undertaken by the Town will follow Green Building design, construction, and operation practices.

### 3.6 Landscaping

3.6.1 Whenever possible, all landscape renovations, construction and maintenance undertaken by the Town, including workers and contractors providing landscaping services, will employ Bay-Friendly Landscaping or sustainable landscape management techniques for design, construction and maintenance, including, but not limited to, integrated pest management, grass cycling, drip irrigation, composting, and procurement and use of mulch and compost produced from regionally generated plant debris and/or food waste programs.

3.6.2 Plants should be selected to minimize waste by choosing species that are appropriate to the microclimate, can grow to their natural size in the space allotted them, and are perennial rather than annual. Native and drought-tolerant plants that require no or minimal watering once established are preferred.

3.6.3 Wherever practicable, the Town will limit the amount of impervious surfaces in the landscape. Hardscapes and landscape structures constructed of recycled content materials are encouraged. Permeable substitutes, such as permeable concrete, asphalt or pavers are encouraged for walkways, patios and driveways.

### 3.7 Toxics and Pollution

3.7.1 Whenever practicable, no cleaning or disinfecting products (i.e. for janitorial or automotive use) will contain ingredients that are carcinogens, mutagens, or teratogens. These include chemicals listed by the U.S. EPA or the National Institute for Occupational Safety and Health on the Toxics Release Inventory and those listed under Proposition 65 by the California Office of Environmental Health Hazard Assessment.

- 3.7.2 The use of chlorofluorocarbon-containing refrigerants, solvents and other products will be phased out and new purchases will not contain them.
- 3.7.3 All surfactants and detergents will be readily biodegradable and, where practicable, will not contain phosphates.
- 3.7.4 Whenever practicable, the Town will manage pest problems through prevention and physical, mechanical and biological controls.
- 3.7.5 The Town will use products with the lowest amount of volatile organic compounds (VOCs), highest recycled content, and low or no formaldehyde when purchasing materials such as paint, carpeting, adhesives, furniture and casework.
- 3.7.6 Whenever possible, the Town will reduce or eliminate its use of products that contribute to the formation of dioxins and furans. This includes, but is not limited to:
  - 3.7.6.1 Purchasing paper, paper products, and janitorial paper products that are unbleached or that are processed without chlorine or chlorine derivatives.
  - 3.7.6.2 Prohibiting purchase of products that use polyvinyl chloride (PVC) such as, but not limited to, office binders, furniture, flooring, and medical supplies.
- 3.7.7 Whenever possible, the Town will purchase products and equipment with no lead or mercury. For products that contain lead or mercury, The Town will give preference to those products with lower quantities of these metals and to vendors with established lead and mercury recovery programs.
- 3.7.8 When replacing vehicles, The Town will consider less-polluting alternatives such as compressed natural gas, bio-based fuels, hybrids, electric batteries, and fuel cells, as available.

### 3.8 Forest Conservation

- 3.8.1 Whenever practicable, the Town will procure wood products such as lumber and paper that originate from forests harvested in an environmentally sustainable manner. When possible, the Town will give preference to wood products that are certified to be sustainably harvested by a comprehensive, performance-based certification system. The certification system will include

independent third-party audits, with standards equivalent to, or stricter than those of the Forest Stewardship Council certification.

### 3.9 Agricultural Bio-Based Products

3.9.1 Whenever practicable, vehicle fuels made from non-wood, plant-based contents such as vegetable oils are encouraged.

3.9.2 Whenever practicable, paper, paper products and construction products made from non-wood, plant-based contents such as agricultural crops and residues are encouraged.

## 4.0 IMPLEMENTATION

4.1 The Assistant Town Administrator shall implement this policy in coordination with other appropriate personnel.

4.2 Implementation of this policy will be phased based on available resources and Town priorities.

4.3 As applicable, successful bidders shall certify in writing that the environmental attributes claimed in competitive bids are accurate. Vendors shall be required to specify the minimum or actual percentage of recovered and postconsumer material in their products, even when such percentages are zero.

4.4 Vendors and contractors shall be encouraged to comply with applicable sections of this policy for products and service provided to the Town, where practicable.

4.5 If a vendor or contractor of the Town is no longer able to provide a product or service that meets the policy requirements, it shall notify the Assistant to the Town Administrator and provide written justification for why compliance is not practical.

## 5.0 EVALUATION

5.1 The Assistant Town Administrator shall evaluate the success of this policy's implementation on an annual basis.



## STAFF REPORT

**City Council**

**Meeting Date:** 10/20/2015

**Staff Report Number:** 15-161-CC

**Regular Business:** Encourage Menlo Park Residents and Businesses to Avoid Poison Rodent Bait

### Recommendation

The attached resolution is proposed by Mayor Carlton, based on similar resolutions in other Bay Area Cities.

### Policy Issues

This resolution is non-binding and encourages Menlo Park residents and businesses to avoid using poison rodent bait, in order to protect non-target species from possible exposure.

### Background

On August 25, 2015, the City adopted an updated Integrated Pest Management (IPM) policy, which included a prohibition for the City to use poison rodent bait (Attachment A).

### Analysis

The attached resolution encourages residents and businesses to follow the City's IPM policy lead. The Raptors Are The Solution (RATS) non-profit organization has worked with California City leaders to implement similar resolutions. More information can be found at the RATS ordinance webpage [www.raptorsarethesolution.org/city-rodenticide-resolutions](http://www.raptorsarethesolution.org/city-rodenticide-resolutions).

### Impact on City Resources

The proposed actions do not require additional resources at this time.

### Environmental Review

Environmental review under the California Environmental Quality Act (CEQA) is not required at this time.

### Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

**Attachments**

- A. Staff report on Integrated Pest Management policy from August 25, 2015
- B. Resolution

Report prepared by:  
Heather Abrams, Environmental Programs Manager



## STAFF REPORT

### City Council

**Meeting Date:** 8/25/2015  
**Staff Report Number:** 15-132-CC

**Regular Business:** **Authorize the City Manager to Approve Revisions of the Integrated Pest Management (IPM) Policy, Enter into a Contract not to Exceed \$86,000 to Provide a One Year Herbicide-free Parks Pilot upon Approval of the City Attorney, and Release a Request for Proposal (RFP) for Converting all City Maintained Parks to Herbicide-free Zones**

### Recommendation

Staff recommends that the City Council authorize the City Manager to:

1. Approve and sign the revised Integrated Pest Management (IPM) Policy
2. Enter into a contract not to exceed \$86,000 to provide a one year herbicide-free parks pilot upon approval of the City Attorney
3. Direct staff to release a Request for Proposal (RFP) to gather comparable proposals to convert all applicable City maintained parks into herbicide-free zones

After completing the pilot and receiving proposals, staff plans to bring the herbicide-free park maintenance program to City Council for consideration.

### Policy Issues

The IPM Policy is intended to reduce pesticide use by providing a decision making framework during maintenance of City parks and property. The City's current IPM Policy, enacted in 1998, must be updated to comply with the Municipal Regional Stormwater Permit (MRP) and the San Mateo County Water Pollution Prevention Program (SMCWPPP).

Community concerns with the use of herbicides, especially RoundUp (main ingredient glyphosate), have been raised in previous City Council and Environmental Quality Commission meetings. Proposed policy revisions were developed to address this concern.

Adoption of the IPM policy is required policy setting, appropriating funds for an herbicide-free park pilot is recommended to field-test this action under the policy, and the proposed RFP will allow staff to fully assess the costs of providing herbicide-free parks throughout the City.

### Background

The Environmental Protection Agency, under amendments to the 1987 Clean Water Act, imposed regulations that mandate local government to control and reduce the amount of stormwater pollution runoff into receiving waters of the United States. Under the authority of the Porter-Cologne Water Quality Act, the State Water Resources Control Board has delegated authority to its regional boards to invoke permitting requirements. In July 1991, the San Francisco Bay Regional Water Quality Control Board (Control Board)

notified San Mateo County Water Pollution Prevention Program (SMCWPPP) and all its incorporated cities of the requirement to submit a Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit application and to implement a Stormwater Management Plan.

Provision C9 of the NPDES permit requires the adoption of an Integrated Pest Management (IPM) policy and/or ordinance requiring use of IPM techniques in municipal operations. In 1998, the City of Menlo Park adopted the current IPM Policy (Attachment A) to comply with the NPDES requirements. In 2011, SMCWPPP released a standardized IPM Policy template (Attachment B), which a number of participating agencies adopted. The proposed City IPM Policy (Attachment C) is necessary to facilitate compliance with the NPDES Permit, streamline procedures used by City staff and contractors to document and report compliance, and reduce the application of herbicides near sensitive receptors.

Along with the adoption of the proposed IPM Policy, the Environmental Quality Commission (EQC) and Park and Recreation Commission (PRC) support (1) an herbicide-free pilot project within four City maintained parks in the east, central, and west areas of Menlo Park and (2) the release of a RFP to gather consistent estimates to convert all applicable City maintained parks into herbicide-free zones. Many of the EQC's recommendations have already been incorporated into the proposed IPM policy and staff procedures. Attachment D is the IPM presentation that staff delivered to the EQC in May and the PRC in June.

## Analysis

To address community concerns regarding the herbicide RoundUp Pro Max, the EQC recommended City staff conduct an experiment to find alternative methods of weed control. On June 25, 2014, Parks Maintenance staff developed a test site at the Corporation Yard that incorporated perennial grasses and broadleaf weeds. The methods of weed control included mulching, mowing, RoundUp Pro Max (conventional herbicide), Finalsan (Organic labeled herbicide), BurnOut II (Organic labeled herbicide), and a control area. The 6-month trial indicated:

- Each method was successful at removing weeds, but at varying levels
- Mulch/mow method required increased staff time
- RoundUp Pro Max resulted in the longest lasting effect and lowest cost
- Finalsan and BurnOut II required higher rates of application and increased cost per mix rate

Although Finalsan and BurnOut II were labeled organic, the toxicity classification and Personal Protective Equipment (PPE) required for applying these products is greater than RoundUp Pro Max. As a result, the EQC recommended mechanical weed removal and mulching as the preferred approach.

Staff then requested an estimate from Gachina, the City's current landscaping contractor, for an initial weed removal, monthly mechanical weed removal, and mulch maintenance of City maintained parks and center medians. The estimate totaled \$552,964.20 annually, which is more than five times what the City currently pays Gachina for maintenance. For comparison, staff requested an estimate from a separate landscape contractor which was far less. The significant difference in estimates is due to inconsistencies with contractor assumptions due to the informal scope process.

Staff recommends field-testing herbicide-free weed control methods with a pilot program including four (4) parks across the east, west and central areas of Menlo Park. Initiating this pilot program will provide residents an opportunity to use these facilities with the knowledge that no herbicides are used. Following the pilot program, staff recommends releasing an RFP for full implementation, to provide a standard scope and gain comparable estimates to the program cost.



## Impact on City Resources

Table 1 summarizes the estimated cost to pilot the four proposed herbicide-free parks.

Table 1: Estimate for pilot herbicide free parks			
Park name	Initial weed removal	Monthly mechanical/mulch maintenance	Cost for one year pilot
<b>Bedwell Bayfront</b>	In staff scope	In staff scope	In staff scope
<b>Fremont</b>	\$2,322.00	\$657.00	\$10,206
<b>Willow Oaks</b>	\$17,012.00	\$2,102.00	\$42,236
<b>Stanford Hills</b>	\$20,532.00	\$1,057.00	\$33,216
<b>Total</b>	<b>\$39,866.00</b>	<b>\$3,816.00</b>	<b>\$85,658</b>

Note: Cost for one-year pilot assumes initial weed removal plus monthly mechanical/mulch maintenance for 12 additional months.

As proposed, the associated IPM plan requires (1) an allocation of \$86,000 to pilot four herbicide-free parks at Willow Oaks Park, Fremont Park, Stanford Hills, and Bedwell Bayfront Park from the City's General Fund Reserve and (2) City staff time to develop and release a RFP for comparable estimates to convert all applicable City maintained parks into herbicide-free zones. Staff will return to the City Council for a future request for appropriation following solicitation of proposals for Citywide implementation.

## Environmental Review

The proposed action is exempt from the California Environmental Quality Act (CEQA), according to CEQA Guidelines Section 15308: Actions by Regulatory Agencies for Protection of the Environment.

## Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting.

## Attachments

- A. 1998 City of Menlo Park IPM Policy
- B. SMCWPPP IPM Policy Template
- C. Draft IPM Policy
- D. IPM presentation given to EQC and PRC

Report prepared by:

Sheena Marie Z. Ignacio, Environmental Services Specialist

Report reviewed by:

Heather Abrams, Environmental Services Manager

**CITY OF SIMI VALLEY  
MEMORANDUM**

April 20, 2015

**TO:** City Council

**FROM:** Office of the City Manager

**SUBJECT:** ADOPTION OF A RESOLUTION URGING BUSINESSES TO DISCONTINUE THE SALES AND USE OF, AND THE PUBLIC TO DISCONTINUE THE USE OF ANTICOAGULANT RODENTICIDE

**STAFF RECOMMENDATION**

It is recommended that the City Council adopt a resolution (page 4) urging businesses to discontinue the sales and use of, and the public to discontinue the use of anticoagulant rodenticide.

**CITY MANAGER'S RECOMMENDATION**

The City Manager recommends approval of the attached resolution.

**BACKGROUND AND OVERVIEW**

During the October 13, 2014 City Council meeting, Seth Riley of the National Park Service, and Joel and Kian Schulman of Poison Free Malibu made a presentation regarding the dangers of anticoagulant rodenticide to native species and domestic animals that are not the intended targets of the poison. Following this presentation, the City Council requested that an item be brought forward for consideration at a future meeting to bring awareness to the community regarding anticoagulant rodenticides.

**FINDINGS AND ALTERNATIVES**

Rodenticides are poisons commonly used to exterminate various types of rodents including, but not limited to, rats, gophers, and ground squirrels. Rodenticides that utilize anticoagulants have become a major cause for concern due to their potential for secondary effects to domestic animals and wildlife.

Anticoagulant rodenticides contain lethal substances and are manufactured in two different classes. The first generation class contains substances such as diphacinone, warfarin, or chlorophacinone, and requires multiple feedings before the poison is effective. The more toxic second generation class of anticoagulants take effect after a single feeding, and contain substances such as brodifacoum, difethialone, bromadiolone, or difenacoum. Both types of anticoagulant rodenticides are typically manufactured in small pellets or grains.

Although the second generation takes effect after the first feeding, the poison may not take effect immediately. Often times, the animal that consumes the poison may travel away from the point of ingestion to a location where it succumbs to the poison, and is eaten by a household pet or a wild animal, which may then become sick or die as a secondary victim. Wild animals such as mountain lions, coyotes, bobcats, owls, and hawks are vulnerable to the collateral damage of anticoagulant rodenticides.

For the last two decades, National Park Service scientists (NPS) have conducted studies on wildlife living in the Santa Monica Mountains. These studies have revealed a causal connection between the deaths of wildlife and their exposure to anticoagulant rodenticides. Scientists found that of the 140 bobcats, coyotes, and mountain lions examined, 88% tested positive for anticoagulants. One symptomatic feature of wildlife exposure to anticoagulants is the presence of mange, a parasitic disease affecting fur and skin which can ultimately lead to death. The natural occurrence of mange, especially in bobcats and mountain lions, is rare. NPS scientists suspect a link between exposure to anticoagulants and the increase cases of mange in wildlife (Attachment A, page 6).

### Current Law and Implications

#### Federal

After a four year study, the U.S. Environmental Protection Agency ruled that second generation rodenticides would be forbidden from consumer use due to their sub-lethal effects in 2008. The EPA found these poisons could result in “unreasonable risk” of accidentally poisoning children, domestic animals, and wildlife. To reduce wildlife exposure and ecological risks, the sale and distribution of second generation anticoagulants are prohibited for consumer use and restricted to agricultural use or pest control professionals. The EPA, however, did not ban consumer use of first generation rodenticides, but limited use to ready to use, tamper proof bait stations where the bait is already pre-contained in a block or paste form.

#### State

A 2011 study conducted by the California Department of Pesticide Regulation (DPR) and the California Department of Fish and Wildlife found that wild animal deaths had resulted from the use of anticoagulant rodenticides. The study deemed that exposure and toxicity was a Statewide problem. A Statewide ban went into effect on July 1, 2014 prohibiting the sale of second generation anti-coagulants directly to the general public. Second generation anticoagulants however can be purchased and used commercially by licensed professional applicators.

With great concern over its impact to domestic animals wildlife, a number of local cities have adopted resolutions regarding anticoagulant rodenticides, including Agoura Hills, Calabasas, Malibu, Moorpark, Ojai, and Westlake Village. All of these agencies oppose its use and call for residents and local businesses to voluntarily curtail their use and sale. Staff proposes a similar resolution (page 4).

Local jurisdictions do not have the authority to adopt and enforce a mandatory ban on rodenticides. The EPA and State Department of Pesticide Regulation have the sole discretion to regulate these products.

Pest Management by the City of Simi Valley

Simi Valley is surrounded by natural open space that is home to a variety of wildlife. While the City is dedicated to protecting its open space areas, and the wildlife therein, the City is also dedicated to protecting its residents and infrastructure from destructive and disease carrying rodents.

Recently, the City was utilizing rodent bait stations at the Simi Valley Public Library to address an infestation that was occurring at the time that the City assumed control of the Library from the Ventura County Library System. City staff is working with its landscape maintenance contractor to ensure its rodent abatement systems will be in compliance with the intent of the attached resolution, should the City Council adopt it.

The following alternatives are available to the City Council:

1. Adopt the attached resolution urging businesses to discontinue the sales and use of, and the public to discontinue the use of anticoagulant rodenticide;
2. Request a modification of the resolution;
3. Receive and file this report and take no action.

Staff recommends Alternative No. 1.

**SUMMARY**

During the October 13, 2014 City Council meeting, Seth Riley of the National Park Service, and Joel and Kian Schulman of Poison Free Malibu made a presentation regarding the dangers of anticoagulant rodenticide to native species and domestic animals that are not the intended targets of the poison. It is recommended that the City Council adopt a resolution (page 4) urging businesses to discontinue the sales and use of, and the public to discontinue the use of anticoagulant rodenticide.

  
 \_\_\_\_\_  
 Samantha Argabrite  
 Assistant to the City Manager

Prepared by: Samantha Argabrite, Assistant to the City Manager

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## RESOLUTION NO. 2015-27

## A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SIMI VALLEY URGING BUSINESSES TO DISCONTINUE THE SALES AND USE OF, AND THE PUBLIC TO DISCONTINUE THE USE OF ANTICOAGULANT RODENTICIDE

WHEREAS, anticoagulant rodenticides are poisons used to exterminate a variety of rodents, (including rats, gophers, and ground squirrels); and

WHEREAS, anticoagulant rodenticides are produced in bait form and contain lethal substances that pose a danger to children, domestic animals and wildlife; and

WHEREAS, domestic animals and wildlife are at grave risk when ingesting rodents who have consumed anticoagulant rodenticides; and

WHEREAS, the City of Simi Valley prides itself on being surrounded by natural open space; and

WHEREAS, in a recent study conducted by the National Park Service, anti-coagulant rodenticides have been a leading cause of poisoning and death of wildlife; and

WHEREAS, in 2008, the Federal Environmental Protection Agency restricted the sale and distribution of the more toxic second generation rodenticides to consumers and limited it to agricultural use and use by professional applicators; and

WHEREAS, in July 2014, the California Department of Pesticide Regulation imposed a statewide ban on second-generation anticoagulants for direct-to-consumer sale and limited its use to licensed professional operators.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SIMI VALLEY DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. The City urges businesses in the City of Simi Valley to discontinue the sales and use of, and the public to discontinue the use of anticoagulant rodenticide.

SECTION 2. The City will discontinue its use of anticoagulant rodenticides upon amending its current schedule of services with its landscape maintenance contractor.

SECTION 3. The City reserves the right to use anticoagulant rodenticides in circumstances of extreme risk of danger to the health and safety of its citizens or where severe damage to public infrastructure is at issue, and only for a limited time.

SECTION 4. The City Clerk shall certify to the adoption of this resolution and shall cause a certified resolution to be filed in the Office of the City Clerk.

PASSED and ADOPTED this 20<sup>th</sup> day of April 2015.

**Attest:**

\_\_\_\_\_  
Ky Spangler, Deputy Director/City Clerk

\_\_\_\_\_  
Robert O. Huber, Mayor of the City of  
Simi Valley, California

**Approved as to Form:**

**Approved as to Content:**

\_\_\_\_\_  
Lonnie J. Eldridge, City Attorney

\_\_\_\_\_  
Eric J. Levitt, City Manager

# Annual Integrated Pest Management Plan

## For Gophers

Calendar Year \_\_\_\_\_

Prepared By \_\_\_\_\_ Phone \_\_\_\_\_ Pager \_\_\_\_\_

Date Prepared \_\_\_\_\_ Email Address \_\_\_\_\_

Sites/Facilities Addressed by this Plan \_\_\_\_\_  
(names and locations)

Pest Species \_\_\_\_\_ Pocket Gopher \_\_\_\_\_ *Thomomys bottae* \_\_\_\_\_  
(common name) (scientific name)

**How To Use This Form:** This document provides a wide range of information about IPM options for monitoring and managing gophers. Each method is listed under a management category such as "monitoring" or "biological controls." The form is designed to assist City staff in quick development of annual IPM plans for key pests. Non-chemical methods are emphasized.

- Use the check-off boxes to indicate which individual methods you plan to integrate into your plan.
- If a method you plan to use is not included on the form, use the "other" category to describe it.
- Modify the form as needed.

Submit an annual IPM plan update by February 1 of each year to Julie Weiss, Environmental Compliance Office, Telephone: 650/329-2117; Fax: 650/494.3531; Email address: julie.weiss@cityofpaloalto.org

### 1.0 General Management Objectives

List your IPM objectives for solving gopher problems. (Examples: develop a monitoring program; establish treatment thresholds for priority sites; train 2 staff as trappers; coordinate with County Airport, etc.)

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### 2.0 Pest Identification

Pocket gophers are native species found at many locations in Palo Alto's parks, golf courses, and other open space areas. The gophers are thick-bodied rodents that range from 6 to 10 inches in length, with a short, sparsely haired tail. They weigh about a pound. The pocket gopher's head is small and flattened, and the neck is short and stout. Its broad, thick, and muscular shoulders and forearms are ideal for digging. The large front feet have long, robust claws used to dig, while the back feet are smaller, with short toes and claws. Their fur is generally a mottled brown; however, coloration can range from dark to almost white. They have external, fur-lined cheek pouches or "pockets" (hence the name pocket gopher) that they use to transport food, but not soil. Their large, perpetually growing front teeth (incisors) are used for cutting roots and other plant parts as well as for digging. Their lips close behind the incisors, which are always exposed, enabling the gopher to cut roots and use the incisors for digging without eating dirt. Gophers have weak eyesight, but strong hearing and a keen sense of smell, with which it identifies food.

### 3.0 Damage or Nuisance Activity

Gopher activity can be quite damaging to turf and ornamental plants in parks and on golf courses. Their underground gnawing and feeding activities can kill plants by destroying roots. Their mounds interfere with mowing, and with play of the ball on golf courses, can become trip hazards on playing fields and trails, and are unsightly in ornamental gardens and turf. Their tunneling can divert irrigation water and undermine canal banks, causing seepage and erosion. They also gnaw on and damage underground plastic irrigation pipes and cables.

It should be kept in mind, however, that there are also long term positive effects on soil and plants from these earthmoving activities. Gopher tunneling mixes, aerates, and loosens soil, moves mineral nutrients to the upper layers of soil where plants can access them, and increases soil moisture and organic content. These are reasons for tolerating gopher activity in natural areas and waste spaces where the long-term benefits on soil tilth and fertility might outweigh the short-term costs. Also, gophers are food sources for avian and mammalian predators.

List the problems gophers are causing at your facilities: \_\_\_\_\_

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### 4.0 Special Conditions

Describe any regulatory or other special conditions or activities that impact pest management at the sites with gopher infestations (e.g., regulatory issues, community concerns, etc.).

***Dam Inspection Report:*** A recent inspection report from the DWR Division of Safety of Dams found unacceptably high gopher populations on the dam located at Foothills Park.

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### 5.0 Biology/Behavior of Gophers

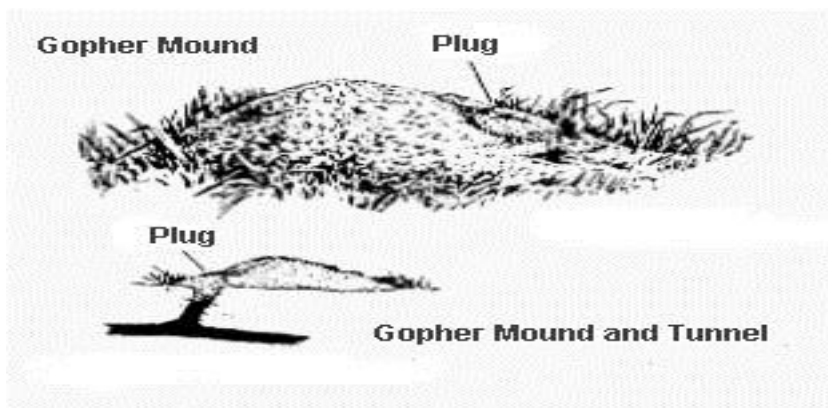
Successful gopher management programs use information about the biology and behavior of the species to reduce or eliminate the food, water, and habitat resources required by gophers for survival. This information is also used to time both cultural and lethal management practices to occur at optimal points in the lifecycle of the animals. The following background information on the life history of gophers is a keystone in development of this IPM plan.



**Gopher Activity and Habitat.** Pocket gophers live a solitary life. Normally there is only one gopher per tunnel system (except during mating and rearing of young), although there may be several tunnel systems (and pocket gophers) in one small area. Gophers are fiercely unsocial. If one accidentally tunnels into the system of a neighbor, it quickly repairs the hole. If two gophers accidentally meet, they engage in a savage fight to the death. Gophers are active year round in the Bay Area climate, and they feed or burrow at all hours of the day and night, resting between these activities. They emerge above ground occasionally to look for food near the tunnel entrance. Clipped vegetation around the entrance of the tunnel is a sign of gopher activity, although the appearance of fan-shaped soil mounds is the most common sign of gopher presence. Young pocket gophers are sometimes seen at dusk traveling above ground in search of a new burrow system. In non-irrigated areas, gopher numbers and activity are highest from about April through July when food is plentiful and juveniles are migrating. There is a second peak around October when gophers are storing additional food for the winter.

**Tunnels & Mounds.** Gophers have a high affinity for disturbed soils. The gopher's home is an extensive system of underground tunnels marked on the surface by mounds of excavated soil. Pocket gophers excavate tunnels by digging with their long curved front claws and clipping roots with their large incisors. A pocket gopher comes to the surface to push up excavated soil or to explore for food in the area around the tunnel exit. One estimate indicates a gopher can build an average of 3 mounds per day (70 or more per month) in good habitats. When it returns to the tunnel, the gopher replugs the opening with loosened soil. The depth of the main tunnel ranges from 4 to 12 inches below the surface, depending on soil type. Side tunnels frequently branch from the main tunnel and end at a plug or a mound on the surface. Some side tunnels are plugged at the point where they branch from the main tunnel, making them appear abandoned. These tunnels may be used for access to the surface for feedings, for storing food, or for disposal of excavated soil. Breeding and nesting chambers are found about a foot or more below the main tunnel. Nest chambers are spherical, about 10 inches in diameter, and lined with dried grasses. Enlarged chambers found along the main tunnel system are probably resting and feeding stations, since they contain no nesting material. Gopher tunnel systems cover an area approximately 0.02 to 0.1 acre (roughly 90 to 450 sq. ft.) in size.

Mounds of fresh evacuated soil are the best sign of active gopher presence. The mound is typically a fan-shaped pile. The pocket gopher pushes soil out of its slanting exit tunnel to the front, right, and left. The mouth of the exit tunnel is marked by a circular plug of earth, 1 to 3 inches in diameter, that is slightly lower than the rest of the mound surface. In contrast, mounds made by moles are "volcano-shaped" because moles push dirt out of the vertical exit tunnel and let it fall freely in all directions. No dirt plug marks the mouth of the moles tunnel. One gopher may create several mounds a day. In non-irrigated areas, mound building is most pronounced during spring or fall when the soil is moist and easy to dig. In irrigated areas such as lawns, flower beds, and gardens, digging conditions are usually optimal year round and mounds can appear at any time.



**Reproduction.** In non-irrigated areas, a male gopher climbs to the soil surface in late winter or early spring and moves around sniffing mounds until he detects a female in season. He digs down into her tunnel to mate and quickly retreats back to his solitary life. Pregnancy lasts approximately 4 weeks, resulting in 1 spring litter per year. In irrigated sites, up to 3 litters per year may be produced. Litters average 4 to 5 young (although litter size can increase to 11 or 12), born usually during March through June—or through late summer to fall in the case of multiple litters. At two months of age, young gophers are forced out of the nest to seek new housing—often an abandoned burrow of a dead gopher. They are sexually mature at 3 months of age.

**Food/Water.** Pocket gophers are voracious eaters, consuming up to half their weight in food each day. This is the purpose of their ceaseless tunneling. They are strict vegetarians that use a wide variety of plants for food, including both aboveground and belowground parts of forbs, grasses, shrubs, and trees. They feed on plants in 3 ways: (1) by feeding on fleshy roots and tubers they encounter while digging; (2) by pulling above ground vegetation into their tunnel, roots first; and (3) by surfacing and eating above ground plant parts very near the tunnel entrance. Tunnel openings used in this manner are called "feed holes" and are identified by the absence of a dirt mound and presence of a circular band of clipped vegetation around the hole. They obtain most of their water needs from the vegetation they consume.

Timing Management Actions to Pocket Gopher Biology												
MANAGEMENT TIMING	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	Dec
<b>Major Gopher Activity</b>												
ADULTS												
REPRODUCTION (irrigated site)												
REPRODUCTION (no irrigation)												
JUVENILE MIGRATION (irrigated)												
JUVENILE MIGRATION (no irrigation)												
<b>Best Time for Management Based on Biology &amp; Season</b>												
TRAPPING, FLOODING (irrigated)												
TRAPPING, FLOODING (no irrigation)												
FUMIGATION (irrigated)												
FUMIGATION (no irrigation)												
POISON PARRAFIN BAIT BLOCKS												

Key:

	High gopher activity or method efficacy
	Low/Moderate activity or method efficacy

## Monitoring and Management Methods

The following sections contain a comprehensive menu of available IPM monitoring and management methods for solving gopher problems in a wide variety of sites and conditions. The most effective management programs involve use of several methods within an integrated program of prevention and direct suppression of unwanted gophers. **To permanently reduce gopher damage at a site, more than 90% of the rodents must be permanently removed in order to prevent recovery of the gopher population within 1 year.** Recovery occurs from a combination of (1) larger litter sizes; (2) increased number of litters; (3) lower death rates due to reduced competition for resources; and (4) immigration of new gophers. To achieve this high level of management requires use of a wide range of methods.

[ x ] Place a mark in the boxes below to indicate which methods you plan to use at the facilities under your management. If these methods are not listed, please describe them in the "Other" section under the appropriate category.

## 6.0 Monitoring/Record-keeping

The purpose of monitoring is to track pest activity, properly time pest management actions, document methods and products used, and evaluate the effectiveness of pest management programs. Information gained from monitoring is used to fine-tune pest management methods and plan future actions. The monitoring methods described below are generally used (1) when gopher damage is likely to rise to levels of concern, or (2) the damage is occurring in areas such as athletic fields or golf courses where health and safety issues can arise.

It is useful to make a pre and post-treatment count of active gopher mounds in order to evaluate the effectiveness of your management program over time. Active mounds are those with fresh, moist soil at the surface. If there are a large number of active mounds, it is useful to flag them, apply the treatment, and return in 24 to 48 hours to see if the mound has been reopened. A baseline estimate of gopher populations and a map of their locations should be developed before management practices are implemented. Since gophers spend most of their time underground, counts of their aboveground mounds are made to estimate populations. Gophers are highly territorial and unsocial. Therefore, groups of mounds relatively close together are likely to belong to the burrow system of a single gopher (except during the breeding season). While counting the number of mounds can overestimate the number of actual gopher present, it does provide an accurate estimate of the level of damage or nuisance being caused by the animals.

Four methods for quantifying gopher presence and damage are described below. Time required and accuracy of the data is lowest with option 1 and highest with option 4. Check the method(s) you plan to use.

**Option 1: Photo Points.** Standing in the same position each time, take pre-and post-treatment photos of priority gopher-infested sites and store them in a photo binder along with a written log of the date, technician's name, site location(s) shown in the photos, IPM treatment methods used, results of the treatments, and any other relevant information. Update the information annually until the problem is solved.

**Option 2: Mapping Estimate.** Obtain a copy of an existing map of the site or sketch one out on grid paper. Using color pens or markers, indicate areas with gopher mounds. With a quick glance, roughly estimate the number of mounds present in a specific area and mark the map. Use different colors to mark areas with "low," "medium," or "high" numbers of mounds. For example, "Low" might roughly equal 1-10 mounds (this number often indicates only one gopher is present). This color-coded system can be adapted to quickly show where the priority areas are located, and to track decreases or increases of mounds over time.

**Option 3: Mound Counts.** A baseline estimate of gopher damage levels can be obtained by counting and mapping **active** gopher mounds—i.e., those with fresh, moist soil on the surface. This method is more accurate than "estimate mapping," but somewhat more time consuming.

**Option 4: Open Hole Monitoring.** Ideally, monitoring should begin in early spring before gophers have produced new litters. This can be accomplished by leveling existing gopher mounds, unplugging entrance holes and leaving them open for 2 to 3 days to monitor for re-infestation or to determine if a live gopher is still present. If the holes are re-plugged and new mounds appear, a gopher is still present in the system, or a new gopher has migrated in to take over a vacant burrow. Small numbers of mounds can be leveled with metal rakes or shovels. For large numbers of mounds, use a vehicle to drag a length of chain link fencing over the mounds.

This monitoring method provides a more accurate estimate of actual numbers of gophers present than is gained by counting unlevelled mounds. Monitoring should also include areas adjacent to the primary infestation (e.g., edges of turf or fields, fence lines, ditch banks, etc.) to locate potential sources of off-site gophers capable of re-infesting vacant burrows after gopher treatments have been applied.

**Other Monitoring Methods To Be Used:** \_\_\_\_\_

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## 7.0 Treatment Threshold

The "treatment threshold" (also known as the "tolerance level") is the maximum number of gopher mounds that can be tolerated in an area without causing unacceptable damage or nuisance. Once the number of mounds approaches the threshold, treatments are applied to prevent an increase in gopher numbers that will produce unacceptable damage.

Treatment thresholds are site specific, and may differ from one site to the next, and may change from year to year. For example, 1 active gopher mound on a soccer field or golf green may trigger treatment, while dozens or hundreds of mounds might be tolerated without triggering treatment in a nature preserve or woodland. Thresholds should be periodically updated as conditions change in response to management methods or other factors.

***Describe the treatment thresholds for gophers established at the facilities listed at the top of this form.***

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## 8.0 Biological Controls

- [ ] ***Predators:*** Barn owls (*Tyto alba*), coyotes, domestic dogs, feral cats, foxes, hawks, and raccoons are the primary predators of gophers in urban and suburban areas. Predation is probably most successful during spring mating when male gophers move aboveground to locate access to tunnels of females; in summer when young gophers emigrate out aboveground from maternal burrows; and anytime gophers feed aboveground or push soil to the surface. Mounting specially constructed barn owl nest boxes or hawk perches might be helpful in attracting these raptors to suburban facilities with large gopher infestations. This technique is used successfully in vineyards and orchards to help reduce high gopher populations. Barn owls and hawks feed where gophers are plentiful, but have a wide range of flight and are unlikely to kill all gophers in a single location. Plans for building barn owl habitats can be obtained from:

The Lindsay Museum, Walnut Creek, CA. Donation: \$10.00. Phone: 925/935-1978

- [ ] ***Other Biological Controls To Be Used:*** \_\_\_\_\_
- 
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## 9.0 Cultural Controls

"Cultural Controls" refers to making changes to the local habitat (vegetation, etc.) in order to reduce or eliminate conditions favorable to gophers.

[ ] **Food Source Reduction:**

[ ] **Option 1:** Although gophers have an appetite for a wide variety of vegetation, they tend to prefer plants with long, fleshy taproots such as dandelions, thistles, and bristly oxtongue. Removing these types of plants from areas with gopher infestations will reduce preferred gopher food sources and may cause the animals to move to less sensitive areas in search of an improved diet.

[ ] **Option 2: Gophers** are highly likely to move away from a location where the vegetation is removed and replaced with a deep mulch, perhaps underlain with weed barrier fabric.

[ ] **Option3:** Irrigated alfalfa fields have been protected from gopher invasions by planting 50-foot wide grain buffer strips to surround the field or separating it from adjacent land. Annual grains such as sorghum (an inexpensive sterile grain plant that does not produce viable seed) do not establish large underground root storage structures and thus there is insufficient food for gophers to survive year round. The buffer strip helps bar future gophers from invading the cash crop. This method might be adapted for protecting large turf areas, picnic areas, etc., from emigrating gophers.

[ ] **Other Cultural Controls To Be Used:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## 10.0 Physical/Mechanical Controls

[ ] **Exclusion To Protect Plants:** The bottoms and sides of vulnerable small planting beds can be screened with 1/4 or 1/2-inch galvanized welded hardware cloth or 3/4-inch mesh poultry wire to protect ornamental plants from gophers. Wire baskets can be used to protect individual plants. Cylindrical plastic Vexar® mesh tubes placed over the entire seedling, including bare root, can reduce damage to newly planted tree seedlings. Bare-root tree trunks can be protected during planting with cylinders of 1/2-inch galvanized hardware cloth sunk 12- inches underground (or as low as the root structure will accommodate) and rising 12-inches above the surface.

[ ] **Exclusion To Protect Irrigation Equipment:** One or more of the following options can be used to protect underground cables and irrigation tubing from gopher damage:

[ ] **Option 1:** Surround the underground lines with 6 to 8-inches of coarse gravel, 1-inch or more in diameter.

[ ] **Option 2:** Protect buried wires or irrigation lines by enclosing them in PVC pipe that is 3-inches in diameter. Gophers cannot open their mouths wide enough to cause damage to pipes of this size.

[ ] **Option 3:** Aboveground and underground electrical cables can be encased in 3-inch diameter PVC Pipe conduit or BX metal sheathing to protect them from gophers.

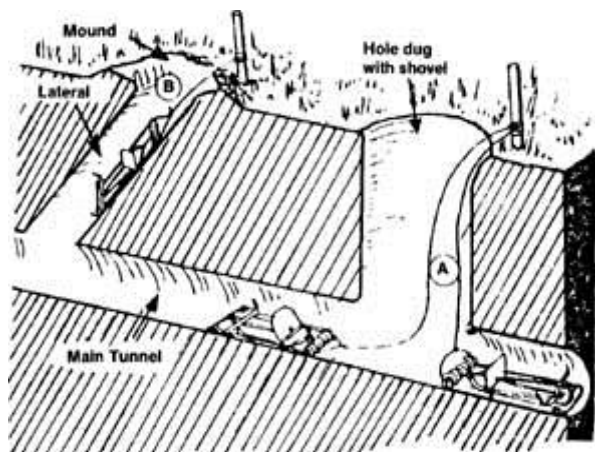
[ ] **Flooding:** Gophers are well-adapted to surviving shallow sprinkler irrigation, but can be killed by flooding their tunnels for approximately 15 to 30 minutes (depending on tunnel area) with water from a hose inserted into one excavated mound. All other mounds are plugged with tamped soil before water is applied in order to prevent gophers from escaping the water. In heavily infested areas that are relatively flat, temporary soil berms 12 inches in height can be constructed around the gopher mounds and flood irrigated to kill the gophers.

[ ] **Lethal Trapping:** Trapping is a very effective management method for gopher control. Since pocket gophers are active year-around, trapping can be done anytime, but is most successful when gophers are pushing up many fresh mounds—generally in the spring and fall. Early spring trapping is more likely to

capture females prior to their giving birth than is trapping later in the season. More than 90% of the gopher population must be killed in order to prevent recovery of the population within 1 year.

For large gopher populations damaging athletic fields, golf courses, or other large expanses of turf, the "Border Control" trapping strategy developed by Gilbert Proulx (see Bibliography) should be considered. This approach identifies the core area to be protected from gophers, plus a border around the core area approximately 50 feet in width. In early spring, an intensive trapping program is initiated to remove gophers before litters are produced. Gophers in the border area are trapped at the same time. The border area is monitored bi-weekly or less frequently depending on the reproductive stage of the gophers. When fresh mounds are found, traps are set and checked the following day to insure that immigrating gophers have been caught. By keeping the border area free of gophers, the high-value core area remains basically gopher-free. Over three years, this combination of early-season trapping to prevent litters, and routine border patrol and spot-trapping as needed, virtually eliminates the pool of potential immigrant gophers from surrounding areas, which is key to a long-term solution to gopher problems. This pro-active approach makes the method very cost-effective.

(A) Place two traps set in opposite directions in main tunnel; (B) set single trap in lateral tunnel from which soil plug has been removed. Wire each trap to a stake.



The three most common gopher traps are the wire trap with two-pronged pinchers (the Macabee Trap®, the Victor Easy-Set®); the body-gripping box trap; and the side-squeezing cinch trap. All types are lethal traps that are sprung by the gopher, or by soil that the gopher is pushing which is tripping a trigger.<sup>1</sup> It is not necessary to bait these types of gopher traps. Two traps should be placed in active, main runways, located by probing at a 45-degree angle from the fresh mound (described in Section 5.0). Photographs showing how to trap gophers using wire traps are available on the world wide web at the following address: [www.omegapestcontrol.com/gopher\\_removal.htm](http://www.omegapestcontrol.com/gopher_removal.htm).

[ ] **Deep Plowing To Destroy Tunnels:** Vacant tunnel systems can be destroyed by ripping them open to a depth of 10 to 20 inches or more using 1 to 3 ripping tongs mounted on the hydraulic implement bar of a tractor, or by digging up the burrow system with a pulaski-type pickaxe or other hand tools. This will prevent new gophers from occupying vacant burrows.

[ ] **Other Cultural Controls To Be Used:** \_\_\_\_\_

## 11.0 Reduced-Risk Chemical Controls

<sup>1</sup> The American Veterinary Medical Association (AVMA) publishes guidelines on methods of euthanasia for animals. These guidelines refer primarily to animals used in laboratory research, or animals trapped by commercial hunters for their meat or fur. Rodents such as ground squirrels are not referred to by species, but are covered by inference under the discussion of kill traps used to "...stop property damage, and to protect human safety..." In its 2000 Report, the AVMA Panel on Euthanasia recommended that the most humane lethal trap design be selected and individual traps be tested before use to insure they are in good working condition. The Report also advocated that traps be used in a manner that ensures "...selectivity, a swift kill, and minimal potential for injury of non-target species." The Panel further recommended that traps be checked at least once daily, and when an animal is wounded or captured but not dead, it be killed quickly and humanely.

In IPM programs, pesticides are used for two major purposes: (1) as temporary transition tools leading to pest management programs that primarily utilize non-chemical methods; and (2) as short-term tools for use during pest outbreak emergencies. Pesticides are not used as silver bullets. Instead they are used in combination with non-chemical methods to maximize long term, environmentally sound solutions to the pest problem.

To comply with the City of Palo Alto's IPM Policy, use of chemical controls should be considered only after non-chemical methods such as trapping gophers (in combination with other non-chemical methods) have been evaluated and found inadequate. When using a pesticide, efforts to identify non-chemical alternatives should continue until successful. Pesticides considered for use on City property are screened using the Tiered Hazard Rating System developed by Dr. Philip Dickey of the Washington Toxics Coalition.

The discussion of pesticide products presented below is provided for informational purposes only. State law requires that a written recommendation from a licensed pest control advisor (PCA) must be obtained in advance of any pesticide applications applied on city property by city staff or contractors. A copy of the pesticide label and Material Safety Data Sheet must be kept on file, and all label directions read and followed, including health and safety protocols. City applicators must hold a Qualified Applicators License (QAL) or be under the close supervision of a licensed applicator when applying a pesticide.

### **Category I Rodenticides**

A major goal of the Palo Alto IPM program is to eliminate use of USEPA Category I pesticides—the most acutely hazardous category. (Category II, III, and IV products are less acutely hazardous). One of the three EPA-registered rodenticides commonly used against gophers falls within the Category I hazard ranking. This is the fumigant aluminum phosphide (Fostoxin®). It is commonly used for large-scale gopher treatment campaigns during the wet season (or in irrigated areas during the dry season) when other registered rodenticides are not effective (see discussion on "fumigants," below).

Proposed use of any Category I rodenticide must be discussed with Julie Weiss, Environmental Compliance Office (650/329-2117) before any applications are made. In addition, a permit must be obtained from the County Agricultural Commissioner's office prior to use.

**TOXIC ANTICOAGULANT BAITS:** Anticoagulants interfere with the clotting mechanism of the blood and cause a painless death from internal bleeding three to four or more days after the bait is eaten. Anticoagulant poisons are available in prepared grain baits as extruded pellets, loose meal or in a liquid concentrate that can be mixed with grain. They are also available in a paraffin bait block formulation. To be effective, a gopher must consume more than one meal of an anti-coagulant bait over a two or three-day-period. Many experts consider baits to be more effective than fumigants, which gophers can avoid by plugging tunnels with soil.

**Grain bait formulations of either chlorophacinone or diphacinone anticoagulants are effective only in summer through fall when vegetation is dried and gophers normally eat seeds (grain). The bait is not effective in the wet season or in irrigated areas where gophers prefer green vegetation to grain.**

- [ ] ***Chlorophacinone Multiple Dose Anticoagulant Grain Bait (Rozol Pocket Gopher Bait®)***  
EPA Category III; signal word CAUTION. Although this bait is considered by many to be less effective than diphacinone, it is useful to alternate use of this bait with the more commonly used diphacinone in order to slow development of resistance by gophers to anticoagulant baits.
- [ ] ***Diphacinone Multiple Dose Bait Blocks (Eaton's Answer®)***  
EPA Category III; signal word CAUTION. This product overcomes a shortcoming of grain baits, which can degrade in the moist soils inside gopher tunnels. It is blended with a water-resistant paraffin material and formulated in bait blocks. The blocks provide long-term control because the bait remains effective in moist environments after killing resident gophers, so that newly invading gophers may also be eliminated.

**FUMIGANTS:** Poison gasses (fumigants), especially Category I products, should only be used in emergency situations when other alternatives are not available. Fumigants are only effective during the "wet season" in late fall through spring (or where irrigation is available). This is when soil is moist enough to prevent gasses from escaping into the air, and when lower-risk grain baits are not effective because gophers eat green vegetation under wet conditions, not grain. Fumigants can fail due to dry soil conditions, tunnel system length or configuration, absorption by grasses, diffusion through cracks in the ground or interconnecting tunnels, or because gophers rapidly detect toxic gas and race to plug up tunnels

[ ] **Aluminum Phosphate Fumigant (Fumitoxin® Pellets)**  
**EPA Category 1. Signal word: DANGER-POISON.** Restricted Material. Permit required from County Agricultural Commissioner. Must discuss proposed use with Julie Weiss, Environmental Compliance Office (650/329-2117) before any applications are made. Pellets are dispensed inside gopher tunnels and react with moisture in the air to release highly toxic phosphine gas inside the tunnel (which has been sealed with soil). Do not use within 15 feet of inhabited structures, or in tunnels that open under or into occupied buildings. Do not apply to waters or wetlands. Follow-up monitoring is needed within 24 hours to check for and treat fresh mounds or pick up and dispose of dead animals that may have exited the burrow. This toxic product must be handled and applied with extreme care and strictly according to label directions to avoid any exposure to the applicator, other non-target humans, pets, or wildlife.

[ ] **Other Chemical Controls Considered for Use:** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**12.0 Education and Training Needs**

*List education of facility users (e.g. why not to feed ground squirrels) or training of staff (e.g., trapping techniques) required for this IPM program:*

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**13.0 Labor and Equipment Needs**

*List special labor or equipment required to implement this Plan:* \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

**14.0 Summary of IPM Plan**

Briefly summarize your IPM plan as selected from the check-off options listed on this form \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



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## 15.0 References

- Andelt, W.F. and R.M. Case. 2001. Managing Pocket Gophers. Publication no. 6.515. Colorado State University Cooperative Extension. Ft. Collins, CO. 6 pp.
- AVMA Panel on Euthanasia. 2000. 2000 report of the AVMA panel on euthanasia. American Veterinary Medical Association. *JAVMA* 218(5):669-696.
- Black H. C., tech ed. 1994. Animal Damage Management Handbook. PNW-GTR-332. USDA-Forest Service, Pacific Northwest Research Station, Portland, Oregon.
- Case, R. M., J. Stubbendieck, S. E. Hygnstrom, and D. R. Virchow. 1996. Pocket gophers and their control. G87-839-A. Cooperative Extension, Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln. NebGuide, Wildlife Management. [lanwww.unl.edu/pubs/Wildlife/g1290.htm](http://www.unl.edu/pubs/Wildlife/g1290.htm)
- Colvin, B.A, W.B. Jackson, and P.L. Hegdal. 1991. Secondary poisoning hazards associated with rodenticide use. Pp 60-64 in Magallona, E.D. ed., *Proceedings 11th Int. Cong. Plant Protection*, Vol. I, Oct 5-9, 1987, Manila, Philippines.
- Elms, E.H. 1986. Animals of the Western Rangelands. Naturegraph Publishers, Happy Camp, CA. 221 pp.
- Engeman R. M. and D. L. Campbell. 1999. Pocket gopher reoccupation of burrow systems following population reduction. *Crop Protection* 18:523-525.
- EXTOXNET (Extension Toxicology Network). 2001b. Aluminum Phosphide. A Pesticide Information Project of Cooperative Extension Offices of Cornell University, Oregon State University, The University of Idaho, and the University of California at Davis and the Institute for Environmental Toxicology, Michigan State University. Online at [www.ace.orst.edu.htm](http://www.ace.orst.edu.htm)
- Landau, D. and C. Stump. California Center for Wildlife. 1994. Living with Wildlife. San Francisco: Sierra Club Books. 341 pp.
- Marsh R. E. and R. W. Steele. 1992. Pocket Gophers in Black, H. C. ed. Silvicultural Approaches to animal damage management in Pacific Northwest forests. General Technical Report PNW-GTR-287. USDA-Forest Service, Pacific Northwest Research Station, Portland, Oregon.
- Proulx, G. 1997. A northern pocket gopher (*Thomomys talpoides*) border control strategy: promising approach. *Crop Protection*. 16 (3):279-284.
- Witmer G. W., M. J. Pipas, and D. L. Campbell. 1995. Effectiveness of search patterns or recovery of animal carcasses in relationship to pocket gopher infestation control. *International Biodeterioration and Biodegradation* Vol. 36 (1/2): 177-187.

Illustrations courtesy of Andelt and Case (2001).

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 PORTOLA VALLEY  
 CALIFORNIA, 94028  
 650-851-1811

November 19, 2015

Dear Homeowners,

Please be advised that at their meeting on December 21<sup>st</sup>, the Portola Valley Ranch Board of Directors will be voting on a proposal by the Landscape Committee to adopt an Association Rule to ban the use or application of rodenticides, animal poison, or "rat bait," by any person (consumer or professional) and at any location (private property or Association land) on Portola Valley Ranch.

The language of the proposed Rule is as follows: The use or application of rodenticides, animal poison, or "rat bait" is banned at Portola Valley Ranch. Neither residents nor professional pest control operators may apply these chemicals anywhere within the limits of the Ranch, on private property or on Association land. Prohibited chemicals include but are not limited to: brodifacoum, bromadiolone, difethialone, difenacoum, strychnine, warfarin, chlorophacinone, diphacinone, zinc phosphide, and cholecalciferol.

The original "Land Management Report," accepted in 1976, on file with the Town of Portola Valley, and referenced several times in the PVR CC&Rs, states that "Practicing non-toxic pest control at Portola Valley Ranch is yet another way for the homeowner to support and perpetuate the natural environment."

- Rodenticide poisons are detrimental to our local ecology and have a long-term effect of **increasing** rodent pest populations through incidental predator poisoning. Rodenticides move through the food chain and kill predators and scavengers through toxicity accumulation. Most rodenticides take about a week to actually kill the rodent. During this time, the stunned and thirsty animal will be "easy prey" for predators and scavengers. As prey is consumed, bobcats, owls, coyotes, vultures, foxes, mountain lions, hawks, golden eagles, and others, experience a spectrum of reactions from reduced fitness at one end, to death at the other. The resulting loss in healthy predators ends up augmenting overall rodent populations and reducing overall ecosystem health.
- Some homeowners and pest control operators may prefer to use rat poisons, and see it as easier and more convenient to deal with, offering a higher chance of a sure kill.
- House pets such as cats and dogs are at risk if they eat a poisoned animal. Direct bait poisonings of house pets and children are well documented.

All homeowners will be given an opportunity to speak to the proposed rule prior to a vote by the Board.

This would constitute a "rule change," therefore, interested homeowners are invited to attend the meeting and submit their feedback. Please view the "FAQ" in this packet, which provides additional relevant information.

Thank you for your consideration.

Craig Sander, Vice-President, for the Portola Valley Ranch Board of Directors

## FAQ's about Proposed Rodenticide Ban at PVR

*Q1. What is the purpose of this ban?*

A1. Rodenticide poisons are detrimental to our local ecology and have a long-term effect of **increasing** pest populations through incidental predator poisoning. Rodenticides move through the food chain and kill predators and scavengers through toxicity accumulation. Most rodenticides take about a week to actually kill the rodent. During this time, the stunned and thirsty animal will be “easy prey” for predators and scavengers. As prey is consumed, bobcats, owls, coyotes, vultures, foxes, mountain lions, hawks, golden eagles, and others, experience a spectrum of reactions from reduced fitness at one end, to death at the other. The resulting loss in healthy predators ends up augmenting overall rodent populations and reducing overall ecosystem health.

*Q2. I thought rodenticides were already banned in California?*

A2. In January of 2015, the Environmental Protection Agency banned consumer use of many rodenticides. However, these products are still available for use by commercial pest control operators. Some PVR residents, not realizing the dangers, and being told by their pest control company that the products are “completely safe” have bait stations that could be harming local bobcats, owls, hawks, and other predators.

*Q3. If rodenticides are banned, how am I supposed to control pests in and around my home?*

A3. The California Department of Fish and Game website on rodenticides states: “The best way to control rodents and protect wildlife and pets is to use non-chemical means of rodent control, such as exclusion and sanitation, when possible.” (<https://www.wildlife.ca.gov/Living-with-Wildlife/Rodenticides>.) University of California Integrated Pest Management, at <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74106.html#RODENT> offers detailed best practices in non-poison rodent control, focusing on building exclusion and sanitation. The site says: “The most successful and long-lasting form of rat control in structures is exclusion, or “building them out.”” Because Portola Valley Ranch is a wildland interface, a homeowner will never be able to eliminate the potential pest population. However, each homeowner can assess and eliminate entry points into his or her home, and remove attractants to rats and other animals. If necessary, these efforts can be combined with non-toxic (physical) methods of pest control.

*Q4. What about trapping?*

A4. Live trapping is not an option, because there is no acceptable place to release a rodent once it is trapped, and because a human-rodent interaction increases the risk of disease spread (for more information on rodent diseases, visit San Mateo Vector Control at <http://www.smcmvcd.org/rodent-borne-disease>.) However, there are many humane and efficient kill-traps available on the market, ranging from simple wooden rat-sized mousetraps, to lightning fast electronic rat-zappers. Once your home has been rodent-proofed via building exclusion, humane kill-traps can be an important follow-up to get the rat population down quickly. Excellent trapping guidelines may be found at: <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74106.html>. Any skilled pest control operator should be able to transition to a non-poison control method if requested and manage the process (including removal of dead animals). Kill-traps for consumer use can be purchased at a hardware store or online. Some PVR homeowners have had success bringing down ground squirrel populations via kill-trapping.

*Q5. I'm not sure if I want coyotes and bobcats around in the first place, is that the only reason that rodenticides might be banned?*

A5. House pets such as cats and dogs are at risk if they eat a poisoned animal. The Merck Veterinary Manual states: "Potentially dangerous to all mammals and birds, anticoagulant rodenticides are a common cause of poisoning in pets and wildlife." Direct bait poisonings of house pets and children are also well documented.

No matter how one feels about a particular animal, predator-prey balance is a vital component of a functioning ecosystem. Every time a predator is eliminated through other-than-natural mortality, there is a ripple effect of imbalanced numbers of smaller predators, prey, and vegetation. The ecology of Portola Valley Ranch is a shared community property as are the Ranch House or pools. If residents are inadvertently allowing this common asset to be damaged, timely measures to protect its value may be in order.

*Q6. Aren't there any safe rodenticides?*

A6. While some rodenticides may be marketed as a safer alternative, the truth is that a product that is designed to kill mammals will do just that – kill. The history of chemical pest control in the United States is characterized by a repetitive pattern that starts with a marketing strategy emphasizing safety and convenience, followed by health or safety concerns arising in the public, then scientific inquiry, and ending in, often, a limitation of use or sale. No matter where a particular chemical is at in that timeline, a non-toxic physical kill trap will always be a safer alternative.

*Q7. I don't have rats, but I do have a ground squirrel problem.*

A7. The proposed ban is of specific dangerous chemicals, and it applies to their use anywhere on Portola Valley Ranch, regardless of target animal. Whether you have squirrels, rats, or another pest animal, the principles of effective pest control remain the same: use exclusion to keep damage and intrusion to a minimum, and, if necessary, practice non-toxic population reduction via kill-traps. Habitat modification may also be a useful approach with regards to ground squirrels, please feel free to contact the Landscape Committee or Land Manager for more information.

*Q8. If this ban is enacted, what am I supposed to do next?*

A8. If you have concerns about rodent or pest incursion in your home or yard, you can always feel free to contact the Landscape Committee or the Land Manager. We're here to support you and provide you with helpful information. If you would like more information on pest control operators who do not use poisons, feel free to contact the Land Manager or to ask on PV or PV Ranch email forums. If you already have a pest control operator, let them know if poisons are indeed banned at the Ranch so that they can adjust their methods accordingly.

October 16, 2015

Dear Board of Directors,

The Landscape Committee respectfully requests you consider banning the use of “rat bait” – rodenticide poisons – on all Portola Valley Ranch land. Part of the unique appeal of this community is the intersection of human and wildland habitat – it’s a place for people to thrive amongst the tranquil beauty of a healthy ecosystem. Rodenticides diminish this appeal by damaging habitat values.

Predator-prey balance is a vital component of a functioning ecosystem. Every time a predator is eliminated through other-than-natural mortality, there is a “ripple in a pond” cascade effect of imbalanced numbers of smaller predators, prey, and vegetation.

Rodenticide poisons are detrimental to our local ecology and have a long-term effect of **increasing** rodent pest populations through incidental predator poisoning. Secondary and even tertiary predator mortality from rodenticide toxicity accumulation is well documented. Most rodenticides take about a week to actually kill the rodent. During this time, the stunned and thirsty animal will be “easy prey” for predators and scavengers. As prey is consumed, bobcats, owls, coyotes, vultures, foxes, mountain lions, hawks, golden eagles, and others, experience a spectrum of reactions from reduced fitness at one end, to death at the other. The resulting loss in healthy predators ends up augmenting overall rodent populations and reducing overall ecosystem function.

House pets such as cats and dogs are at risk if they eat a poisoned animal. Direct bait poisonings of house pets and children are also well documented.

California’s legislation and consumer culture are rapidly responding to the overwhelming evidence of rat bait’s damage. The Landscape Committee believes that it would be appropriate for Portola Valley Ranch to do the same. While recent statewide legislation has restricted a variety of chemicals to professional applicators only, most PVR residents with rodent problems do indeed use professional pest control companies. The Environmental Protection Agency’s ban of unsafe products in January of 2015 similarly only applies to consumer use, not to professional pest control applicators. The LC members and the Land Manager regularly observe rat bait stations during resident walk-throughs and sometimes even from the street. Most residents are simply unaware of the detrimental ecological and household effects of rodenticides, and do not demand non-toxic control methods from their vendors.

There are better methods of controlling pest populations. The California Department of Fish and Game website on rodenticides states: “The best way to control rodents and protect wildlife and pets is to use non-chemical means of rodent control, such as exclusion and sanitation, when possible.” The UC Davis Integrated Pest Management website similarly suggests “sanitation measures, [best practices in] building construction and rodent proofing.” When population control is necessary, it can be accomplished by using snap traps or electrocution traps.

A PVR proposed rule could include similar wording to the following:

*The use or application of rodenticides, animal poison, or “rat bait,” whether by a resident or by a professional pest control operator, is not permitted on Private Property or on Association Land at Portola Valley Ranch. Prohibited chemicals include but are not limited to: brodifacoum, bromadiolone, difethialone, difenacoum, strychnine, warfarin, chlorophacinone, diphacinone, zinc phosphide, and cholecalciferol.*

Were a rule passed forbidding these products, it would allow the PVR Management Office to reach out and/or respond to local pest control companies to educate them on the need to not use poisons on Ranch Land. It would also help inform residents, as they might come across the rule when researching other topics. Association rules are distributed in the disclosure documents when a home is sold, and that would be a third avenue to get the word out.

While it is important to not become too “rule bound,” the ecology of Portola Valley Ranch is a shared community property just as are the Ranch House or pools. If residents are inadvertently allowing this common asset to be damaged, timely measures to protect its value need not be considered overbearing.

For more information, please visit: <https://www.wildlife.ca.gov/living-with-wildlife/rodenticides>.  
Another useful site is: <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74106.html>.

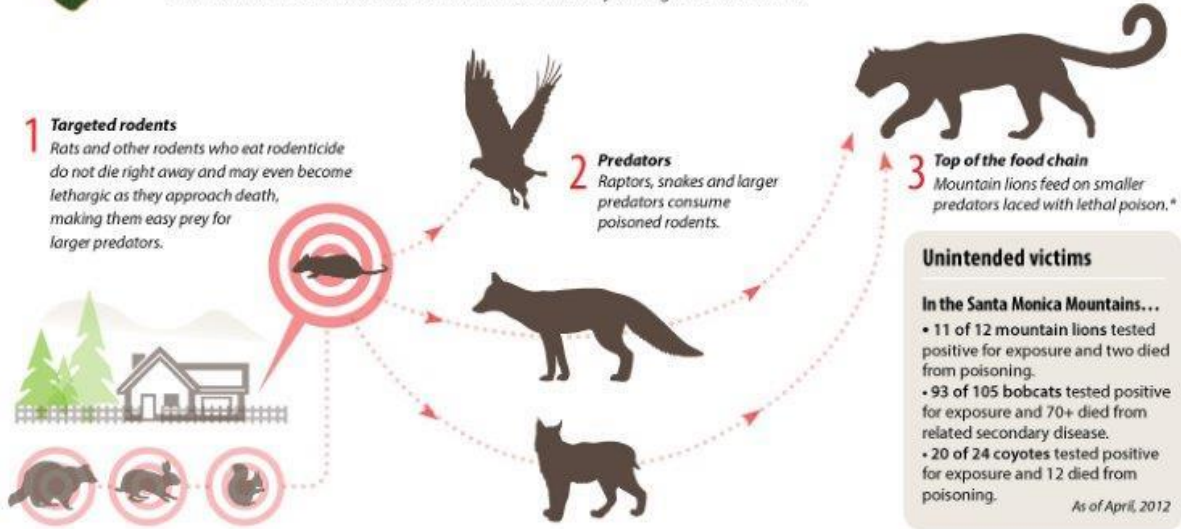
Thank you for your consideration.

The Portola Valley Ranch Landscape Committee



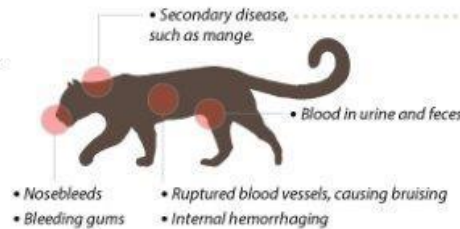
# Lethal Dose: Rat Poison & Local Wildlife

Local residents may inadvertently be poisoning wildlife. National Park Service researchers have found a direct link between exposure to anticoagulant rodenticides, commonly known as rat poison, and the deaths of wildlife in and around the Santa Monica Mountains. How rodenticide works its way through the food chain:



## How anticoagulant rodenticide kills

These compounds interrupt blood-clotting, which leads to uncontrolled bleeding and death. They may also suppress the animal's immune system, making it susceptible to other diseases. **Symptoms include:**



## What is mange?

A microscopic mite that burrows into the skin and causes...

1. Extreme itchiness and skin lesions.
2. Fluid and nutrient loss through the skin.
3. Infection, starvation, hypothermia or other complications, eventually leading to death.



### Check the label

Here are the most common anticoagulant compounds:

- Bromadiolone
- Brodifacoum
- Diphacinone
- Difethialone



SOURCES: Santa Monica Mountains National Recreation Area research, L.E.K. Serieux, UrbanCarnivores.com

CREDIT: National Park Service  
nps.gov/samo



# MEMORANDUM

## TOWN OF PORTOLA VALLEY

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**TO:** Mayor and Members of the Town Council  
**FROM:** Open Space Committee  
**DATE:** March 22, 2017  
**RE:** Open Space Fund Guidelines

### RECOMMENDATION

It is recommended that the Town Council adopt Open Space Fund Guidelines.

### BACKGROUND

The Open Space Acquisition Advisory Committee is responsible for making recommendations on the purchase of properties in Portola Valley for the purposes of retaining and enhancing the rural character of the Town. The Committee uses the Open Space Fund to make such purchases.

### DISCUSSION

The Committee, until this time, did not have a guiding document to help determine appropriate land acquisition purchases. The attached draft document, as recommended by the Committee, aims to give the Committee such guidance.

### FISCAL IMPACT

None.

### ATTACHMENT

1. Draft Open Space Fund Guidelines

Reviewed by Jeremy Dennis, Town Manager

A handwritten signature in black ink, appearing to read "Jeremy Dennis".



# PORTOLA VALLEY OPEN SPACE FUND GUIDELINES

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The Portola Valley Open Space Fund exists to acquire, preserve and enhance open space for the benefit of Portola Valley residents. The Fund is comprised of monies from a utility user tax (UUT) and individual contributions. The permanent acquisition of open space provides scenic vistas, places to experience natural surroundings and generally enriches our community. Additionally, the creation of open space helps to retain the rural qualities of the town, as called for in the General Plan, by preserving and protecting natural settings, including native plants, wildlife and landforms, and provides a counter-balance to development permitted in other parts of the town.

The Open Space Acquisition Advisory Committee recognizes that clearly defining permissible uses for the Fund are important and that acquiring properties is often just the first step in a process. In addition to acquiring new properties, it is vital to transition new purchases to a condition suitable for ongoing preservation and enjoyment. Therefore, it is consistent with the goals of the Fund to dedicate monies to this transition process. The transition process is meant to prepare the property for preservation and enjoyment; it should not cover ongoing maintenance expenses. Once a property is brought up to an agreed upon baseline, the costs for ongoing, long-term maintenance would become the general obligation of the Town and no longer supported by the Open Space Fund.

In addition to purchasing properties outright the committee strongly encourages conservation easements as a cost effective way to preserve the rural character and natural beauty of the Town. Conservation easements require legal documentation and ongoing annual monitoring. Annual monitoring is a responsibility of the committee and will be performed along with Town staff. Legal costs to acquire an easement will generally be paid for by the property owner given the beneficial tax treatment but in cases where sharing the costs is deemed necessary a predetermined dollar limit will be set by the Council.

Finally, for certain lands owned by the Town biological monitoring maybe required by law. The first choice for covering monitoring expenses would be the general fund but lacking better alternatives limited use of the fund would be acceptable.

The overall goal is to reserve the fund for the acquisition of land and funding projects that enhance the natural beauty of the Town.

In light of the foregoing, the Open Space Fund expenditures may include:

- Purchase price of fee simple properties or easements and all costs associated with the purchase.
- Initial costs of preparing a purchased property to fulfill its open space purpose, such as removal of invasive plants, landscape restoration, removal of inappropriate man-made structures and construction of limited improvements such as trails, benches and signage.

- Shared legal costs to acquire conservation easements.
- Biological monitoring as required by law.
- Preservation and enhancement of existing open space. Preservation and enhancement activities are typically “one-offs”, not general maintenance. Addressing the initial onset of sudden oak death or creating a wildlife corridor would be preservation and enhancement. Routine mowing, weed abatement and annual spraying for sudden oak death would be examples of maintenance.

The Open Space fund would not cover the following expenditures:

- The cost of maintaining properties after the property has completed the transition process and general use established. For example, mowing, resurfacing trails, or repainting signage should come from the town's General Fund or other sources and not the Open Space Fund. On rare occasions endowments could be created for maintenance (see description below).
- The cost of enhancing already-owned open space property when the enhancement simply restores attributes that the property possessed at some time during the Town's ownership. For example, removal of invasive plants from a property that was clear of invasive plants at the time of acquisition or reconstructing a bench that has fallen into disrepair.

From time to time, separate from the Open Space Fund, individual donors may wish to setup endowments for ongoing maintenance and monitoring of Open Space property. Example: The owner of a suitable property sells or donates it to the Town for open space. In addition at the time of acquisition the owner is willing to provide funds for monitoring and maintenance. Such an endowment would be used to provide monitoring and maintenance until exhausted or defined as a fixed contribution towards monitoring and maintenance drawn down at a predetermined rate over a set number of years.

Open space enhances the beauty of our Town and enriches our lives. The strong commitment from our community to acquire open space and preserve the nature beauty of the area is one of the attributes that makes Portola Valley special. Having well-defined guidelines provides donors with a clear idea for how the funds are spent. A strong, well-managed fund allows us maintain this tradition and continue to acquire, preserve and enhance open space within the Town.

*Portola Valley Open Space Committee  
January 26, 2017*



# MEMORANDUM

## TOWN OF PORTOLA VALLEY

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**TO:** Mayor and Members of the Town Council

**FROM:** Jeremy Dennis, Town Manager

**DATE:** March 22, 2017

**RE:** Automatic License Plate Readers – Policy, Purchase, and Installation  
[Attachments page](#)

### RECOMMENDATION

It is recommended that the Town Council:

1. Introduce, read title and waive further reading of the ordinance establishing the Town's Automatic License Plate Reader (ALPR) policy
2. Authorize the Town Manager to purchase ALPR cameras and equipment from Vigilant Solutions in an amount not to exceed \$139,520.00
3. Authorize the Town Manager to approve the agreements necessary for the design and installation of the poles, associated electrical service apparatus, PG&E fees other installation-related items in an amount not to exceed \$122,278
4. Approve a budget amendment of up to \$265,758 from General Fund Reserves to Capital Improvements: Equipment
5. Approve an Enterprise Service Agreement with Vigilant Solutions
6. Review Northern California Regional Intelligence Center (NCRIC) memorandum of understanding and direct staff as to partnering
7. Assign a member of the Town Council as a liaison to the project

### BACKGROUND

On November 9<sup>th</sup>, 2016, the Town Council directed staff to return to a future Council meeting with a proposal to purchase and install ALPR equipment and a policy governing their use in Portola Valley. This direction followed a vigorous and spirited discussion on the use of ALPRs following two home invasion robberies.

#### ALPR Locations

Staff initially identified four locations in Portola Valley for the placement of ALPR systems (Attachment 1) – These locations cover all the vehicle points of entry into the Town.

1. On Portola Road near the border of the Town of Woodside, just northeast of Hayfields Road

2. On Arastradero Road near the Town border with Santa Clara County
3. On Alpine Road, north of Westridge Drive and Ford Field
4. On Creek Park Drive at Town border with Santa Clara County

On February 13, 2017, the Ladera Community Association (LCA) sent a letter to the Town Council requesting that the ALPR system originally assigned to the Ladera border be installed at a location between Highway 280 and La Cuesta Drive. The costs of the purchase and installation of an ALPR at a location in Ladera would be borne by the San Mateo County Sheriff's Office, reducing the total project cost potentially by \$74,415 (general estimate). Based on conversations with the LCA and the Sheriff's Office, the ALPR policy adopted by Portola Valley would also govern the Ladera ALPR system. Discussions between the Town, the Ladera Community Association and the County of San Mateo continue; if it is decided that a camera will not be installed in this location, the Town will install, at its own expense, an ALPR at the Alpine/Westridge location.

## **DISCUSSION**

### ALPR Policy

Based on input from Council members at the November 8<sup>th</sup> meeting, information gathered from discussions with other municipalities, and conversations with the Sheriff's Office, the draft Portola Valley ALPR policy (Attachment 2) aims to achieve the following:

- Provide the San Mateo County Sheriff's Office with the best information to assist in their criminal investigations
- Maintain the highest levels of privacy for residents and visitors to the Town
- Be simple to understand

The policy, as originally drafted, intended to have a shorter data retention term, with the option for a law enforcement agency to direct Vigilant to "lock down" relevant data for preservation in an active investigation. Unfortunately, Vigilant is not able to differentiate the data collected in such a way; all data is deleted per the retention policy at the date set by the municipality, regardless of its usefulness in an active investigation. Data can be downloaded by a law enforcement agency for the purposes of investigation, and then deleted per the policy.

As a result, the policy provides for a six month retention of data; however, should such technology be developed in the future to segregate particular data needed for an investigation, allowing for the deletion of all remaining data, a one month policy would be adopted.

The draft policy also provides guidance on the permitted and prohibited uses for the data:

### Permitted Uses:

- Protecting individuals or property subject to a credible threat.
- Assisting in an investigation into a misdemeanor or felony.

- Locating stolen vehicles or wanted persons, including a vehicle on a hot list.
- Assisting in the recovery of missing persons, including but not limited to missing children (Amber Alert) or the elderly (Silver Alert).
- Conducting grid searches of the area around a crime scene.
- Any other purpose deemed appropriate by a majority of the Town Council upon the request of law enforcement.

#### Prohibited Uses:

- Invading the privacy of individuals or looking into private areas or areas where a reasonable expectation of privacy exists.
- Harassing, intimidating or discriminating against any individual or group.
- Enforcing infractions, including traffic violations.
- Any other purpose not specifically authorized by this Chapter.

The policy includes a provision that allows the Town Council to provide, on a case-by-case basis, access to the data to non-law enforcement personnel for the purpose of auditing or performing research. Such a release of data may result in the data becoming public record and if such an application is submitted, the Town Council should consider the specific use, whether and at what level the data should be redacted and whether the data should be permanently destroyed within a certain time.

Per the draft policy, the Town Manager shall provide the Town Council with audit information annually to help ensure that the system is being used consistent with the policy.

The draft ALPR policy is substantially similar to the recently-adopted San Mateo County Sheriff's Office policy (Attachment 3).

#### ALPR Equipment

Building off initial review of potential ALPR vendors, staff communicated with three vendors (Vigilant Solutions, ELSAG and 3M). Based on that communication, staff invited Vigilant and ELSAG to visit Portola Valley for further discussions and site visits in potential camera locations, and to discuss the technologies each company provides.

Vigilant and ELSAG provide different products, with the primary difference being the data storage systems and the capabilities of the cameras offered:

- Vigilant offers a cloud-based storage system that does not require a municipality to either store the data locally or have it stored at NCRIC or any other third-party, while ELSAG requires the installation of a local server to store the data.
- Vigilant cameras are 75mm units which can scan license plates at a further distance, removing the need for an additional system at Creek Park Drive to cover vehicles entering Portola Valley from Santa Clara County's Alpine Road.

There are also differences in service packages cost and offers.

Based on the systems and technologies available, and that Vigilant will store Town data without the Town having to store it locally, Town staff recommends that Vigilant's system be purchased (Attachment 4). and ALPR systems be installed at the following locations in Portola Valley (see Attachment 1):

1. Portola Road: At the Town border with the Town of Woodside NE of Hayfields Road.
2. Arastradero Road: At the Town border with Santa Clara County across from the driveway to Rossotti.
3. Alpine Road: Just North of Westridge Drive and Ford Field

Should the Sheriff's Office and the LCA commit to an ALPR system in Ladera, the ALPR designated for the Alpine/Westridge location would be deleted. Costs would be reduced accordingly. Further site visits to the Ladera location from Vigilant and PG&E would be necessary to complete that installation.

Installation of the poles and non-ALPR equipment may be performed by Vigilant, using a contractor, or by the Town, also using a contractor, depending on costs.

#### Budget Amendment and Town Manager

In order to cover the cost of purchasing the ALPR cameras, equipment, and their installation, Town staff recommends amending the Capital Improvement: Equipment budget as follows:

<b>Capital Improvements: Equipment</b>		<b>ADOPTED</b>	<b>AMENDED</b>	<b>NET</b>
<b>Account Description/Activity</b>		<b>2016-17</b>	<b>2016-17</b>	<b>CHANGE</b>
1	Vehicle for Planning & Code Enforcement	30,000	30,000	0
2	Integrated Audio-Visual System for Conference Room, Community Hall	20,000	20,000	0
3	Plotter	2,000	2,000	0
4	Ergo Evaluation/Equipment	5,000	5,000	0
5	Library Capital Improvements	20,000	20,000	0
6	ALPR equipment and installation		265,758	265,728
	<b>Sub-Total</b>	<b>77,000</b>	<b>342,758</b>	<b>265,758</b>

Capital Projects would be reduced from \$1,400,000 to \$1,134,242, and overall General Fund Reserves would be reduced from \$4,226,334 to \$3,960,576; this will have a nominal impact on revenue generated by investments of reserves in the Local Agency Investment Fund (LAIF).

### Vigilant Enterprise Service Agreement

The Enterprise Service Agreement (ESA) controls the overall relationship between the signing entities regarding term of service, termination, data ownership and sharing, access, security, ownership of software, and other similar issues (Attachment 5). While this was presented as a form agreement, Town staff negotiated slight changes to the agreement to ensure that all data collected by Vigilant remains under control of the Town.

Furthermore, the ESA specifies that Vigilant will comply with the Town's retention policy, which is codified in the draft ordinance. The agreement has two signees – Vigilant, and the Town as the "affiliate." The Town would then designate the San Mateo County Sheriff as the authorized user.

### NCRIC

The Northern California Regional Information Center was created to "provide comprehensive training and intelligence products that give public safety officials a vital regional picture of trends and patterns relating to terrorist operations, major drug trafficking organizations and other major criminal activities".<sup>1</sup> Its relationship to public safety is to "provide support to law enforcement agencies, public safety agencies, and key resource / critical infrastructure security managers through collaboration, cooperation, and information sharing across jurisdictions in Northern California".<sup>2</sup>

NCRIC partners with law enforcement agencies in Northern California who utilize ALPRs by both retaining data collected in such systems, and sharing data with law enforcement agencies. Stored data is secured with 24/7 security measures and personnel, and access is only possible for law enforcement officials who have signed the NCRIC privacy policy and non-disclosure agreement, have a criminal case or incident name/number, and a lawful purpose under NCRIC policy.

NCRIC's current list of lawful purposes required for users to select before accessing ALPR data is:

1. Locate Stolen, Wanted, or Suspect Vehicles.
2. Locate Suspect(s) of Criminal Investigation or Arrest Warrant.
3. Locate Witnesses or Victims of Violent Crime.
4. Locate Missing Children and Elderly individuals (Amber / Silver Alerts).
5. Protect the Public during Special Events / Situational Awareness.
6. Protect Critical Infrastructure.

Although similar to the Town's drafted ALPR policy, there are additional elements that the draft does not include, or are detailed differently. Once an agreement is in place, NCRIC and its partners would have access to data collected in Portola Valley and use

<sup>1</sup> NCRIC webpage, "About" section

<sup>2</sup> NCRIC ALPR FAQ

of such data would be under NCRICs ALPR policy (Attachment 6), not the Town's. Data access through NCRIC by a partner agency could be for the following reasons:

- Locate stolen, wanted, and subject of investigation vehicles
- Locate and apprehend individuals subject to arrest warrants or otherwise lawfully sought by law enforcement
- Locate witnesses and victims of violent crime
- Locate missing children and elderly individuals, including responding to Amber and Silver Alerts
- Support local, state, federal, and tribal public safety departments in the identification of vehicles associated with targets of criminal investigations, including investigations of serial crimes
- Protect participants at special events
- Protect critical infrastructure sites.
- The NCRIC may disseminate ALPR data to any governmental entity with an authorized law enforcement or public safety purpose for access to such data
- ALPR Information may be disseminated to owners and operators of critical infrastructure in circumstances where such infrastructure is reasonably believed to be the target of surveillance for the purpose of a terrorist attack or other criminal activity. In these situations, the NCRIC also will make notification to appropriate local, state, and federal law enforcement agencies.

The NCRIC system is audited every month by NCRIC Information Technology personnel, and utilizes the logging system that catalogs each user's agency, name, date and time of inquiry, and purpose of search. It is Town staff's understanding that audits containing data on the inquiries in particular jurisdictions is not available at this time, which would limit Portola Valley's ability to know if data collected here is being queried by other entities.

Using the Vigilant system does not require a relationship, through signed agreement (Attachment 7) with NCRIC. This would be an additional action as directed by the Town Council.

Staff seeks direction on whether the Town should be a signatory and partner with NCRIC.

#### Council Liaison

Staff requests that a member of the Town Council be selected as a liaison to address any unforeseen circumstances that may otherwise delay completion of the project.

#### **INSTALLATION**

Should the Council authorize the Town Manager to proceed, it is expected that installation of the systems could take up to 16-18 weeks; up to 11 weeks of the time period is due to PG&E's typical process to review plans for installation and scheduling



the electrical service connect work. Staff will work with PG&E to attempt to shorten their process.

The following is our current anticipated schedule weather permitting:

Design: 2-3 weeks

PG&E engineering and permitting: 8 weeks typical

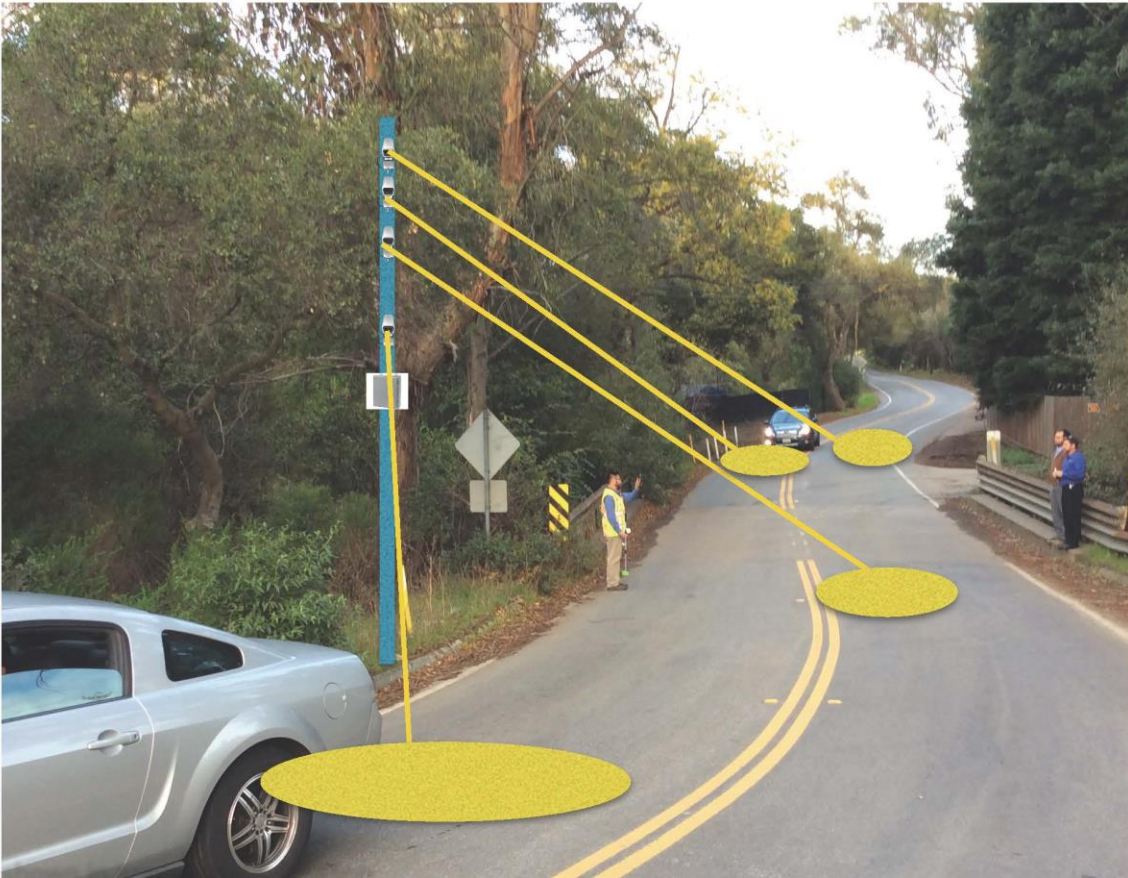
Construction and installation: 3-4 weeks

PG&E electric service connect: 3 weeks typical

Total: 16-18 weeks

Based on the information above, it is anticipated that the ALPR systems will be active in late summer for those systems located within Portola Valley.

Staff will work with the Chair of the ASCC to provide the most rural design including using wood telephone poles and painting equipment brown. The below photo, at the Arastradero Road location, gives some sense of the scale of the installation:



Although PG&E, Vigilant, and Town staff has performed field visits together of the installation sites to review the scope of work, the current construction costs are assumed until submitted plans are approved by PG&E. If modifications are required by PG&E, it may affect estimated costs in which case the Town Manager may seek additional authorizations from the Council.

### **FISCAL IMPACT**

Total cost of the project, including cameras, equipment, installation, and other costs may total up to \$265,758. General Fund Reserves dollars will be transferred to Capital Improvements: Equipment to cover the project.

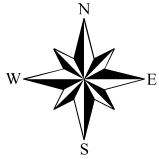
	3 camera sites	2 camera sites	Potential Savings
Vigilant Proposal +tax	\$139,520 <sup>3</sup>	\$97,830.48	\$41,689.52
Design and Install utilities (estimate) + 10% contingency	\$102,278.24	\$69,553.24	\$32,725.00
PG&E new connection fees- estimate (2 sites) <i>(PG&amp;E scope/fees will be finalized only after plan submittal and approval)</i>	\$20,000	\$20,000	0
<b>Sub total</b>	<b>\$261,798.24</b>	<b>\$187,383.72</b>	<b>\$74,414.52</b>
on-going annual PG&E estimate	\$1,440	\$960	\$480
on-going annual cell and communications link estimate	\$2,520	\$1,680	\$840
<b>Subtotal annual fees 1-5 years</b>	<b>\$3,960</b>	<b>\$2,640</b>	<b>\$1,320</b>
<b>TOTAL</b>	<b>\$265,758.24</b>	<b>\$190,023.72</b>	<b>\$75,734.52</b>

After year five, the included service agreement ends and costs will increase by \$4,200 a year.

## ATTACHMENTS

1. [Location of ALPRs](#)
2. [ALPR Ordinance](#)
3. [San Mateo County Sheriff's Office ALPR Policy](#)
4. [Vigilant purchase proposal](#)
5. [Vigilant Enterprise Service Agreement](#)
6. [NCRIC ALPR policy](#)
7. [NCRIC agreement](#)

<sup>3</sup> The Vigilant quote included design costs and PG&E structure install costs which have been separated into its own categories in the above table.



# Attachment 1 TOWN OF PORTOLA VALLEY ALPR General Location Map



ORDINANCE NO. \_\_\_\_\_

**ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF  
PORTOLA VALLEY ADDING CHAPTER 9.02 [PUBLIC  
SAFETY INFORMATION] TO TITLE 9 [PUBLIC PEACE  
MORALS AND WELFARE] OF THE PORTOLA VALLEY  
MUNICIPAL CODE**

**WHEREAS**, the Town of Portola Valley (“Town”) is installing Automated License Plate Readers (“ALPRs”) at fixed locations in the Town for the purposes of deterring crime and helping to create a safer environment for all those who live and work in or visit the Town; and

**WHEREAS**, the ALPRs installed by the Town will gather data associated with vehicle license plates that can be shared with local law enforcement for purposes, including, but not limited to, identifying stolen and wanted vehicles, identifying wanted persons, recovering missing persons, recovering stolen property, and gathering crime related information; and

**WHEREAS**, the Town is concerned about protecting the privacy of its residents and visitors with respect to the retention and use of data gathered by ALPRs; and

**WHEREAS**, the Town desires to add Chapter 9.02 [Public Safety Information] to Title 9 [Public Peace Morals and Welfare] of the Portola Valley Municipal Code to limit the use and retention of the information gathered by the ALPRs.

**NOW, THEREFORE**, the Town Council of the Town of Portola Valley does **ORDAIN** as follows:

1. ADDITION OF CODE. Chapter 9.02 [Public Safety Information] is hereby added to Title 9 [Public Peace Morals and Welfare] of the Portola Valley Municipal Code to read as follows:

**Chapter 9.02**

**PUBLIC SAFETY INFORMATION**

**Sections:**

- 9.02.010 Purpose
- 9.02.020 Definitions
- 9.02.030 Automated License Plate Reader Data Use
- 9.02.040 Permitted and Prohibited Uses of Data
- 9.02.050 Automated License Plate Reader Reporting and Maintenance

### **9.02.010 Purpose**

The Town installed Automated License Plate Readers at stationary locations in Town to capture images of license plates for the purposes of helping to create a safer community, to deter crime and to aid in the resolution of crime. The purpose of this chapter is to provide for the proper storage and use of the data gathered by the Town's Automated License Plate Readers.

### **9.02.020 Definitions**

For the purposes of this Chapter, the following words and phrases shall have the meanings ascribed to them in this Section:

- A. "Automated License Plate Reader" or "ALPR" means the technology, also known as License Plate Recognition, which provides automated detection of license plates.
- B. "Criminal Data" means data that is necessary for an active criminal investigation or that is the subject of a valid court order.
- C. "Data" means the information gathered by an Automated License Plate Reader in the form of license plates and metadata (location and time license plate was viewed), as well as access records, searches, and any other operational data collected by the software system used to store, index, and access the information gathered by an ALPR.
- D. "Hot list" includes license plate(s) associated with vehicles of interest from an associated database, including, but not limited to National Crime Information Center (NCIC), Department of Motor Vehicles (DMV) and local BOLOs.
- E. "Law Enforcement" or "law enforcement agency" refers to the San Mateo County Sheriff.

### **9.02.030 Automated License Plate Reader Data Use**

- A. Data will be securely stored by the Town or its designee and will be available to law enforcement or other Town Council authorized user when necessary for the purposes identified in this Chapter. The Town or its designee shall not unreasonably withhold access to data from law enforcement. Prior to allowing access to the data, the law enforcement agency or other Town Council authorized user shall execute an agreement with the Town, to the satisfaction of the Town

Attorney, agreeing to comply with the data retention and use provisions set forth in this Chapter.

- B. The Town wishes to retain data long enough for law enforcement to make effective use of the data in criminal investigations, while establishing a limited enough retention period to protect individual's privacy rights. Therefore, the Town establishes the following retention periods:
  - 1. If the software system used by the Town for the storage of data allows for the longer retention of criminal data, the retention period for criminal data shall be the greater of the statute of limitations for the crime under investigation or the date specified in the court order. All other data shall be retained for a period not to exceed 30 days.
  - 2. If the software system used by the Town for the storage of data does not allow for different retention periods for criminal data and all other data, then the retention period shall not exceed six months for any purpose.
- C. Data shall be retained by the Town or its designee, law enforcement or other Town Council authorized user for no more than the applicable period identified in Section 9.02.030(B) or for the period approved by the Town Council pursuant to Section 9.02.030(F) and then shall be permanently destroyed.
- D. Data shall not be printed out to hard copy, captured as a screenshot, photographed, copied by hand, or in any other way exported from the electronic storage system for retention or use, unless it is criminal data that is subject to the retention limitation period identified in Section 9.02.030(B) and the requirement for permanent destruction in Section 9.02.030(C).
- E. Data may only be accessed by law enforcement personnel, who are authorized to access such data and who have undergone the requisite training, and the access is only for legitimate law enforcement purposes, such as when the data relates to a specific criminal investigation or department-related civil or administrative action. Data may also be accessed by users authorized by the Town Council pursuant to Section 9.02.030(F).
- F. All data gathered is for official law enforcement use only and is not open to public view or inspection. Notwithstanding the foregoing, for the purpose of auditing or performing research or other similar purpose, the Town Council may on a case-by-case basis allow the data, including redacted data, to be released for non-law enforcement use, recognizing that any released data may become public record.

### **9.02.040 Permitted and Prohibited Uses of Data**

- A. Permitted Uses. Proposed uses which support law enforcement access or other access authorized pursuant to Section 9.02.030(F) to the data include the following:
1. Protecting individuals or property that are the subject of a credible threat.
  2. Assisting in an investigation into a misdemeanor or felony.
  3. Locating stolen vehicles or wanted persons, including a vehicle on a hot list.
  4. Assisting in the recovery of missing persons, including but not limited to missing children (Amber Alert) or the elderly (Silver Alert).
  5. Conducting grid searches of the area around a crime scene.
  6. Any other purpose deemed appropriate by a majority of the Town Council upon the request of law enforcement or for other authorized access pursuant Section 9.02.030(F).
- B. Prohibited Uses. The following includes uses of ALPRs prohibited by the Town and proposed uses that do not support access to the data by law enforcement or any other user:
1. Invading the privacy of individuals or looking into private areas or areas where a reasonable expectation of privacy exists.
  2. Harassing, intimidating or discriminating against any individual or group.
  3. Enforcing infractions, including traffic violations.
  4. Any other purpose not specifically authorized by this Chapter.
- C. Unauthorized access, possession or release of data is a misdemeanor pursuant to Portola Valley Municipal Code Section 1.12.060. Any employee who accesses, possesses or releases data without authorization or in violation of this Chapter may face discipline pursuant to the personnel policies up to and including termination.

### **9.02.050 Automated License Plate Reader Reporting and Maintenance**

- A. The Town Manager will give an annual report to the Town Council on the number of times data was accessed by law enforcement, including, but not limited to a report from the law enforcement agency as to how many of the license plates included in the data accessed were “hits” (on an active wanted list), the number of inquiries made by law enforcement personnel relative to the data, the justification(s) for those inquiries, and information on any data retained beyond retention periods described in 9.02.030(B) and the reasons for such retention.



B. The Town shall regularly inspect and adequately maintain the ALPR equipment in proper working order and shall ensure that the APLRs continue to function as provided for in this Chapter.

3. CALIFORNIA ENVIRONMENTAL QUALITY ACT DETERMINATION. The Town Council hereby finds that this ordinance is not subject to the provisions of the California Environmental Quality Act (“CEQA”) because the activity is not a project as defined by Section 15378 of the CEQA Guidelines. The ordinance has no potential for resulting in physical change to the environment either directly or indirectly.

4. SEVERABILITY. If any part of this Ordinance is held to be invalid or inapplicable to any situation by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance or the applicability of this Ordinance to other situations.

5. EFFECTIVE DATE AND POSTING. This Ordinance shall become effective 30 days after the date of its adoption and shall be posted within the Town in three public places.

INTRODUCTED:

PASSED:

AYES:

NOES:

ABSTENTIONS:

ABSENT:

ATTEST

APPROVED

\_\_\_\_\_  
Town Clerk

\_\_\_\_\_  
Mayor Hughes

APPROVED AS TO FORM

\_\_\_\_\_  
Town Attorney



# SHERIFF'S OFFICE

A TRADITION OF SERVICE SINCE 1856

## AUTOMATED LICENSE PLATE READER PROGRAM

The purpose of this General Order is to establish policy and procedures for the use and oversight of the Sheriff's Office Automated License Plate Reader (ALPR) technology.

### I. Policy Statement

It is the policy of the San Mateo County Sheriff's Office (SMSO) to utilize ALPR technology only for official and legitimate law enforcement purposes, with the goal being to increase the efficiency and effectiveness of its public safety efforts in a manner that safeguards the legitimate privacy concerns of law abiding citizens. Consistent with Civil Code 1798.90.55, the Sheriff's Office shall provide the opportunity for public comment at a regularly scheduled meeting of the governing body of any area prior to the installation of any fixed ALPR camera.

Office personnel may use the ALPR system for official use only. Any matches received from the ALPR must be verified before enforcement action is taken unless exigent circumstances exist. ALPR data that is not considered intelligence and investigative information shall be retained for a maximum of one (1) year unless the information is from an ALPR device deployed within the City of San Carlos in which case the maximum retention period is six (6) months.

### II. Definitions

- A. **Automated License Plate Reader (ALPR):** A device that uses cameras and computer technology to compare digital images of license plates to lists of license plates subject to existing law enforcement inquiries and/or investigations
- B. **Hotlist:** License plate(s) associated with existing law enforcement investigations
- C. **Detection:** An ALPR read of a license plate within public view, including potential images of the plate and vehicle on which it was displayed, and information regarding the location of the ALPR at the time the data was obtained
- D. **Hit:** An alert from the ALPR system that a scanned license plate number may be in the National Crime Information Center (NCIC) or other law enforcement database for a specific reason including, but not limited to, being related to a stolen vehicle, wanted person(s), missing person(s), domestic violence protective order, registered sex offender or terrorist-related activity

- E. **Plate of Interest:** A license plate appearing on a hotlist or that has been entered into the ALPR database and is believed to be associated with criminal activity and/or a vehicle/person of interest

### III. General

- A. ALPR's shall be used only by authorized employees of this Office who have been trained and certified in the use of the equipment pursuant to SMSO requirements. Training shall consist of policy review and an examination via the Learning Management System (LMS)
- B. No civilian or sworn member shall use or authorize the use of any ALPR system or any ALPR database information for any reason other than official law enforcement purposes
- C. A positive Hit within the ALPR Program does not establish probable cause unless other significant factors for a detention exist. Absent exigent circumstances, or other information that helps to establish probable cause for a detention, the Hit information/data must be confirmed prior to taking any related law enforcement action

### IV. Roles and Responsibilities

#### A. General Use

- 1. ALPR systems shall be deployed solely for official law enforcement purposes, including, but not limited to:
  - a. Locating stolen vehicles, carjacked vehicles, stolen license plates, wanted or missing persons, or vehicles on the Hotlist;
  - b. Canvassing areas surrounding recent crimes to capture license plates that may be connected to the crime event; and
  - c. Protection of individuals and/or locations that are potentially the target of a credible threat to life or property

#### B. ALPR Administrator

- 1. The ALPR Administrator duties and Official Custodian duties are the responsibility of the San Carlos Police Bureau Administrative Sergeant
- 2. The ALPR Administrator shall ensure all ALPR system equipment is inspected, at a minimum, on a quarterly basis
- 3. The ALPR Administrator shall coordinate all training for use of the ALPR systems and related technologies
- 4. Shall submit an ALPR quarterly report to the South County Area Commander of any deployment of ALPR technology:

- a. The report will include at a minimum total detections and hits generated from the ALPR equipment and a confirmation that there is no data in the system older than is permitted by this policy
5. The ALPR Administrator shall conduct periodic audits of user queries as well as update access to the database. This includes eliminating access to persons separated from the organization for any reason

#### C. ALPR Operators

1. Shall ensure the ALPR cameras are properly affixed to the assigned police vehicle prior to starting their shift; inspecting units for damage or excessive wear
2. Upon discovery of any ALPR equipment that is inoperable or damaged in any way, the Operator shall:
  - a. Immediately notify the ALPR Administrator in writing.
  - b. Document the damage/issue on the County Vehicle Damage form.
3. Shall start the ALPR system software to activate the system and receive the automatic updated Hotlist at the beginning of each shift
  - a. ALPR units installed on marked sheriff's patrol vehicles shall be activated and used at all times unless the operator of the vehicle has not been trained and certified to use the system
  - b. Deputies assigned unmarked Sheriff's vehicles equipped with an ALPR system may use their discretion on removing the external ALPR cameras based on mission needs
4. Shall ensure that the ALPR system software, hardware, and GPS are fully operational.
5. Shall not attempt to repair defective or inoperable ALPR equipment.

#### D. ALPR Hits

1. When an alarm is received alerting operators of a positive Hit from the Hotlist database, a digital image of the license plate will be displayed on the mobile data computer screen
2. Absent exigent circumstances, or other information to establish probable cause for a detention, ALPR operators shall compare the digital image of the license plate to the Hotlist information to verify the Hit for both the state in which the license plate was issued and characters on the plate. ALPR systems will alert based on the alpha

numeric characters displayed for license plates issued and false positives are possible based on license plates with the same numbers from other states. ALPR systems may also misread letters and numbers of similar shapes. This is the primary reason that, absent exigent circumstances, all positive Hits must be confirmed prior to taking law enforcement action

3. Absent exigent circumstances, or other information to establish probable cause for a detention, ALPR operators shall confirm the ALPR information by radio or mobile data computer to immediately confirm the Hit prior to taking enforcement or other type of police action

## V. ALPR Data

### A. Internal Data

1. All ALPR data downloaded to the server will be stored for one year (six months if the data comes from technology deployed in the City of San Carlos) and thereafter will be purged. If the applicable data has become, or it is reasonable to believe will become, evidence in a criminal or civil action, or is subject to a lawful action to produce records, it should be downloaded from the server onto portable media and booked into evidence

### B. Sharing Data

1. Detection data generated from SMSO ALPR systems will be shared with requesting law enforcement agencies only after it is determined that the request is for official and legitimate law enforcement purposes

### C. Hotlists

1. State and/or national standing hHotlists will be automatically downloaded into the ALPR database a minimum of once a day with the most current data overwriting the old data.
  - a. The Hits from these data sources should be viewed as informational; created solely to bring to law enforcement's attention the specific license plates that have been, or may have been, associated with criminal activity.

### D. Plates of Interest

1. License plate data added to the database will have an expiration date of no longer than 30 days
2. Plates entered into the ALPR database will contain the following information as a minimum
  - a. Entering Deputy's name and contact information

- b. Corresponding SMSO event number
- c. Short synopsis of the reason why the plate has been entered into the system. This information should be as descriptive as reasonable under the circumstances

**References:** Vigilant Solutions Car Detector User Manual  
Civil Code Section 1798.90.51, *et seq.*

**Appendices:** None

**Related Orders:** None



**Quote For:**


**Portola Valley  
NPB Fixed Updated**

**Quoted By:**

**Vigilant Solutions LLC  
Scott Dye**

**Date: 03-17-17**

**Be Smart. Be Safe. Be Vigilant.**

		<b>Vigilant Solutions LLC</b> 2021 Las Positas Court - Suite # 101 Livermore, California 94551 (P) 503-339-5379 (F) 925-398-2113		<b>Be smart. Be safe. Be Vigilant.</b>	
Attention:	Portola Valley	Date	3/17/2017		
Project Name:	NPB Fixed Updated	Quote Number:	SDY-0550-08		

## PROJECT QUOTATION

We at Vigilant Solutions are pleased to quote the following systems for the above referenced project:

Qty	Item #	Description
(1)	NPBPPROJ-5YR	<b>Vigilant Neighborhood Protection Bundle – Certified Partner Project Fee</b> <ul style="list-style-type: none"> <li>• Project Fee includes:</li> <li>• Vigilant Travel for Client Site Visit</li> <li>• End User Training</li> <li>• Installation Services sold separately</li> </ul>
<b>Subtotal Price</b> (Excluding sales tax)		<b>\$4,000.00</b>

Qty	Item #	Description
(3)	NPBPLOC-5YR	<b>Vigilant Neighborhood Protection Bundle – Certified Partner Location Fee</b> <ul style="list-style-type: none"> <li>• Location Fee includes:</li> <li>• One (1) Communications Box for up to four (4) Vigilant Fixed Cameras at a single location</li> <li>• Site Survey</li> <li>• Location-specific Services</li> <li>• Installation Services sold separately</li> </ul>
<b>Subtotal Price</b> (Excluding sales tax)		<b>\$24,000.00</b>

Qty	Item #	Description
(7)	NPBPLANE-5YR	<b>Vigilant Neighborhood Protection Bundle – Certified Partner Per Lane Fee</b> <ul style="list-style-type: none"> <li>• Per Lane Fee includes:</li> <li>• One (1) Vigilant Fixed LPR Camera System</li> <li>• Camera Bracket</li> <li>• System Start Up &amp; Commissioning</li> <li>• 5-Year Hardware Warranty</li> <li>• 5 years of Service Packages</li> <li>• Installation Services sold separately</li> </ul>
<b>Subtotal Price</b> (Excluding sales tax)		<b>\$84,000.00</b>

Qty	Item #	Description
(1)	TAS-UL	<b>Target Alert Service - LPR Alert Delivery Software - Unlimited User</b> <ul style="list-style-type: none"> <li>• Real Time LPR notification and mapping software sends LPR alerts to any in-network PC</li> <li>• Send Alerts over any communication protocol including LAN, WAN, internet wireless, etc.</li> <li>• Server Client software compatible with all Vigilant CDFS applications</li> </ul>
<b>Subtotal Price</b> (Excluding sales tax)		<b>\$0.00</b>



Qty	Item #	Description
(1)	Elec 1-4	<b>Electrical/ Structural complete with poles, 3 locations</b> <ul style="list-style-type: none"> <li>• Electrical/ Structural</li> <li>• See attached ODIN work sheet</li> <li>• See attached ODIN work sheet</li> </ul>
<b>Subtotal Price</b> (Excluding sales tax)		<b>\$86,728.40</b>

Qty	Item #	Description
(1)	Install 1-4	<b>Installation and pre-configuration of 7 ALPR cameras and 3 termination boxes at 3 proposed locations.</b> <ul style="list-style-type: none"> <li>• Installation</li> <li>• Refer to ODIN work Sheet</li> </ul>
<b>Subtotal Price</b> (Excluding sales tax)		<b>\$17,160.00</b>

Qty	Item #	Description
(1)	Engineering	<b>To provide engineered stamped drawings for approval by PG&amp;E and the City of Portola Valley for the proposed ALPR project.</b> <ul style="list-style-type: none"> <li>• ODIN to provide engineered stamped drawings</li> </ul>
<b>Subtotal Price</b> (Excluding sales tax)		<b>\$6,279.00</b>

Qty	Item #	Description
(1)	CA Tax 9.25	<b>9.25% CA Tax on NPB portion only.</b>
<b>Subtotal Price</b>		<b>\$10,360.00</b>

### Quote Notes:

1. All prices are quoted in USD and will remain firm and in effect for 60 days.
2. Software is manufactured under strict Vigilant Solutions standard.
3. This Quote does not include anything outside the above stated bill of materials.
4. One camera will be the long distance Camera. This will be for location Alpine-Arastradero
5. NPB package includes 5 yr warranty and CLK fees.

Quoted by: **Scott Dye - 503-339-5379 - [scott.dye@vigilantsolutions.com](mailto:scott.dye@vigilantsolutions.com)**

<b>Total Price</b>	<b>\$232,527.40</b>	
Accepted By:	Date:	P.O#

## Enterprise Service Agreement (ESA)

This Vigilant Solutions Enterprise Service Agreement (the “Agreement”) is made and entered into as of this \_\_\_\_\_ Day of \_\_\_\_\_, 2017 by and between **Vigilant Solutions, LLC**, a Delaware corporation, having its principal place of business at 2021 Las Positas Court Suite # 101, Livermore, CA 94551 (“Vigilant”) and \_\_\_\_\_, a law enforcement agency (LEA) or other governmental agency, having its principal place of business at \_\_\_\_\_ (“Affiliate”).

**WHEREAS**, Vigilant designs, develops, licenses and services advanced video analysis software technologies for the law enforcement and security markets;

**WHEREAS**, Vigilant provides access to license plate data as a value added component of the Vigilant law enforcement package of license plate recognition equipment and software;

**WHEREAS**, Affiliate will separately purchase License Plate Recognition (LPR) hardware components from Vigilant and/or its authorized reseller for use with the Software Products (as defined below);

**WHEREAS**, Affiliate desires to license from and receive service for the Software Products provided by Vigilant;

**THEREFORE**, In consideration of the mutual covenants contained herein this Agreement, Affiliate and Vigilant hereby agree as follows:

### I. Definitions:

**“CLK” or “Camera License Key”** means an electronic key that will permit each license of Vigilant’s CarDetector brand LPR software or LineUp brand facial recognition software (one CLK per camera) to be used with other Vigilant LPR hardware components and Software Products.

**“Commercial LPR Data”** refers to LPR data collected by private sources and available on LEARN with a paid subscription.

**“Effective Date”** means sixty (60) days subsequent to the date set forth in the first paragraph of this Agreement.

**“Enterprise License”** means a non-exclusive, non-transferable license to install and operate the Software Products, on any applicable media, without quantity or limitation. This Enterprise Service Agreement allows Affiliate to install the Software Products on an unlimited number of devices, in accordance with the selected Service Package(s), and allow benefits of all rights granted hereunder this Agreement.

**“LEA LPR Data”** refers to LPR data collected by LEAs or Affiliate and available on LEARN for use by other LEAs. LEA LPR Data is freely available to LEAs at no cost and is governed by the contributing LEA’s retention policy.

**“Service Fee”** means the amount due from Affiliate prior to the renewal of this Agreement as consideration for the continued use of the Software Products and Service Package benefits according to Section VIII of this Agreement.

**“Service Package”** means the Affiliate designated service option(s) which defines the extent of use of the Software Products, in conjunction with any service and/or benefits therein granted as rights hereunder this Agreement.

**“Service Period”** has the meaning set forth in Section III (A) of this Agreement.

**“Software Products”** means Vigilant’s Law Enforcement & Security suite of Software Products including CarDetector, Law Enforcement Archival & Reporting Network (LEARN), Mobile Companion for Smartphones, Target Alert Service (TAS) server/client alerting package, FaceSearch, LineUp and other software applications considered by Vigilant to be applicable for the benefit of law enforcement and security practices.

**“Technical Support Agents”** means Affiliate’s staff person specified in the Contact Information Worksheet of this Agreement responsible for administering the Software Products and acting as Affiliate’s Software Products support contact.

**“User License”** means a non-exclusive, non-transferable license to install and operate the Software Products, on any applicable media, limited to a single licensee.

**“Users”** refers to individuals who are agents and/or sworn officers of the Affiliate and who are authorized by the Affiliate to access LEARN on behalf of Affiliate through login credentials provided by Affiliate.

## **II. Enterprise License Grant; Duplication and Distribution Rights:**

Subject to the terms and conditions of this Agreement, Vigilant hereby grants Affiliate an Enterprise License to the Software Products for the Term provided in Section III below. Except as expressly permitted by this Agreement, Affiliate or any third party acting on behalf of Affiliate shall not copy, modify, distribute, loan, lease, resell, sublicense or otherwise transfer any right in the Software Products. Except as expressly permitted by this Agreement, no other rights are granted by implication, estoppels or otherwise. Affiliate shall not eliminate, bypass, or in any way alter the copyright screen (also known as the “splash” screen) that may appear when Software Products are first started on any computer. Any use or redistribution of Software Products in a manner not explicitly stated in this Agreement, or not agreed to in writing by Vigilant, is strictly prohibited.

## **III. Term; Termination.**

A. Term. The initial term of this Agreement is for one (1) year beginning on the Effective Date (the “Initial Term”), unless earlier terminated as provided herein. Sixty (60) days prior to the expiration of the Initial Term and each subsequent Service Period, Vigilant will provide Affiliate with an invoice for the Service Fee due for the subsequent twelve (12) month period (each such period, a “Service Period”). This Agreement and the Enterprise License granted under this Agreement will be extended for a Service Period upon Affiliate’s payment of that Service Period’s Service Fee, which is due 30 days prior to the expiration of the Initial Term or the existing Service Period, as the case may be. Pursuant to Section VIII below, Affiliate may also pay in advance for more than one Service Period.

B. Affiliate Termination. Affiliate may terminate this Agreement at any time by notifying Vigilant of the termination in writing thirty (30) days prior to the termination date, and deleting all copies of the Software Products. If Affiliate terminates this Agreement prior to the end of the Initial Term, Vigilant will not refund or prorate any license fees, nor will it reduce or waive any license fees still owed to Vigilant by Affiliate. Upon termination of the Enterprise License, Affiliate shall immediately cease any further use of Software Products. Affiliate may also

terminate this agreement by not paying an invoice for a subsequent year's Service Fee within sixty (60) days of invoice issue date.

C. Vigilant Termination. Vigilant has the right to terminate this Agreement by providing thirty (30) days written notice to Affiliate. If Vigilant's termination notice is based on an alleged breach by Affiliate, then Affiliate shall have thirty (30) days from the date of its receipt of Vigilant's notice of termination, which shall set forth in detail Affiliate's purported breach of this Agreement, to cure the alleged breach. If within thirty (30) days of written notice of violation from Vigilant Affiliate has not reasonably cured the described breach of this Agreement, Affiliate shall immediately discontinue all use of Software Products and certify to Vigilant that it has returned or destroyed all copies of Software Products in its possession or control. If Vigilant terminates this Agreement prior to the end of a Service Period for no reason, and not based on Affiliate's failure to cure the breach of a material term or condition of this Agreement, Vigilant shall refund to Affiliate an amount calculated by multiplying the total amount of Service Fees paid by Affiliate for the then-current Service Period by the percentage resulting from dividing the number of days remaining in the then-current Service Period, by 365.

#### **IV. Warranty and Disclaimer; Infringement Protection; Use of Software Products Interface.**

A. Warranty and Disclaimer. Vigilant warrants that the Software Products will be free from all Significant Defects (as defined below) during the lesser of the term of this Agreement (the "Warranty Period") or one year. "Significant Defect" means a defect in a Software Product that impedes the primary function of the Software Product. This warranty does not include products not manufactured by Vigilant. Vigilant will repair or replace any Software Product with a Significant Defect during the Warranty Period; *provided, however*, if Vigilant cannot substantially correct a Significant Defect in a commercially reasonable manner, Affiliate may terminate this Agreement and Vigilant shall refund to Affiliate an amount calculated by multiplying the total amount of Service Fees paid by Affiliate for the then-current Service Period by the percentage resulting from dividing the number of days remaining in the then-current Service Period from the date Affiliate notified Vigilant of the significant defect, by 365. The foregoing remedies are Affiliate's exclusive remedy for defects in the Software Product. In the event of a Significant Defect, Vigilant shall be responsible for labor charges for removal or reinstallation of defective software, charges for transportation, shipping or handling loss. Vigilant disclaims all warranties, expressed or implied, including but not limited to implied warranties of merchantability and fitness for a particular purpose. In no event shall Vigilant be liable for any damages whatsoever arising out of the use of, or inability to use, the Software Products.

B. Infringement Protection. If an infringement claim is made against Affiliate by a third-party in a court of competent jurisdiction regarding Affiliate's use of any of the Software Products, Vigilant shall indemnify Affiliate, and assume all legal responsibility and costs to contest any such claim. If Affiliate's use of any portion of the Software Products or documentation provided to Affiliate by Vigilant in connection with the Software Products is enjoined by a court of competent jurisdiction, Vigilant shall do one of the following at its option and expense within sixty (60) days of such enjoinder: (1) Procure for Affiliate the right to use such infringing portion; (2) replace such infringing portion with a non-infringing portion providing equivalent functionality; or (3) modify the infringing portion so as to eliminate the infringement while providing equivalent functionality.

C. Use of Software Products Interface. Under certain circumstances, it may be dangerous to operate a moving vehicle while attempting to operate a touch screen or laptop screen and any of their applications. It is agreed by Affiliate that Affiliate's users will be instructed to only utilize the interface to the Software Products at times when

it is safe to do so. Vigilant is not liable for any accident caused by a result of distraction such as from viewing the screen while operating a moving vehicle.

#### **V. Software Support, Warranty and Maintenance.**

Affiliate will receive technical support by submitting a support ticket to Vigilant's company support website or by sending an email to Vigilant's support team. Updates, patches and bug fixes of the Software Products will be made available to Affiliate at no additional charge, although charges may be assessed if the Software Product is requested to be delivered on physical media. Vigilant will provide Software Products support to Affiliate's Technical Support Agents through e-mail, fax and telephone.

#### **VI. Camera License Keys (CLKs).**

Affiliate is entitled to use of the Software Products during the term of this Agreement to set up and install the Software Products on an unlimited number of media centers within Affiliate's agency in accordance with selected Service Options. As Affiliate installs additional units of the Software Products and connects them to LPR cameras, Affiliate is required to obtain a Camera License Key (CLK) for each camera installed and considered in active service. A CLK can be obtained by Affiliate by going to Vigilant's company support website and completing the online request form to Vigilant technical support staff. Within two (2) business days of Affiliate's application for a CLK, Affiliate's Technical Support Agent will receive the requested CLK that is set to expire on the last day of the Initial Term or the then-current Service Period, as the case may be.

#### **VII. Ownership of Software.**

A. Ownership of Software Products. The Software Products are copyrighted by Vigilant Solutions and remain the property of Vigilant Solutions. The license granted under this Agreement is not a sale of the Software Products or any copy. Affiliate owns the physical media on which the Software Products are installed, but Vigilant Solutions retains title and ownership of the Software Products and all other materials included as part of the Software Products.

B. Rights in Software Products. Vigilant Solutions represents and warrants that: (1) it has title to the Software and the authority to grant license to use the Software Products; (2) it has the corporate power and authority and the legal right to grant the licenses contemplated by this Agreement; and (3) it has not and will not enter into agreements and will not take or fail to take action that causes its legal right or ability to grant such licenses to be restricted.

#### **VIII. Data Sharing, Access and Security.**

If Affiliate is a generator as well as a consumer of LPR Data, Affiliate at its option may share its LEA LPR Data with similarly situated LEAs who contract with Vigilant to access LEARN (for example, LEAs who share LEA LPR Data with other LEAs). Vigilant will not share any LEA LPR Data generated by the Affiliate without the permission of the Affiliate.

Due to the growing concerns within the public safety sector surrounding aggregated LPR data, strict access to the LEARN data servers is required. To address this challenge, implementation of sophisticated hardware/software based intrusion protection has been deployed within the LEARN data center under the strict guidelines set forth by the

National Security Association (NSA). The hosting facility utilizes state-of-the-art access control technologies. In addition, Vigilant has installed and configured a solid network intrusion prevention appliance provided by Cisco Systems Inc., as well as ensured that the configuration of the Microsoft environment adhere to the Windows Server 2008 Security Guide developed in conjunction with NSA to establish best practices. The net result is reduced risk (on all levels) of malicious intrusion and misuse. The network is secured by a Cisco 1812/K9 router that provides professional grade protection to the peripherals on the network. Amongst others, the Cisco IOS firewall firmware is compliant with PCI, HIPAA, and SOX IT governance requirements. The Cisco IOS firmware is also configured with Intrusion Protection Services that offers deep packet inspection on all incoming traffic.

#### **IX. Ownership of LPR Data.**

Vigilant retains all title and rights to Commercial LPR Data. Affiliate retains all rights to LEA LPR Data generated by the Affiliate. Should Affiliate terminate agreement with Vigilant, a copy of all LEA LPR Data generated by the Affiliate, not yet purged pursuant to Affiliate's retention policy, will be created and provided to the Affiliate. After the copy is created, all LEA LPR Data generated by the Affiliate will be deleted from LEARN. Vigilant will not retain any LEA LPR Data after Affiliate termination.

#### **X. Loss of Data, Irregularities and Recovery.**

Vigilant places imperative priority on supporting and maintaining data center integrity. Using redundant disk arrays, there is a virtual guarantee that any hard disk failure will not result in the corruption or loss of the valuable LPR data that is essential to the LEARN system and clients.

#### **XI. Data Retention and Redundancy.**

LEA LPR Data is governed by the contributing LEA's retention policy. LEA LPR Data that reaches its expiration date will be deleted from LEARN. Vigilant's use of redundant power sources, fiber connectivity and disk arrays ensure no less than 99% uptime of the LEARN LPR database server system.

#### **XII. Account Access.**

A. Eligibility. Affiliate shall only authorize individuals who satisfy the eligibility requirements of "Users" to access LEARN. Vigilant in its sole discretion may deny access to LEARN to any individual based on such person's failure to satisfy such eligibility requirements. User logins are restricted to agents and sworn officers of the Affiliate. No User logins may be provided to agents or officers of other local, state, or Federal LEAs without the express written consent of Vigilant.

B. Security. Affiliate shall be responsible for assigning an Agency Manager who in turn will be responsible for assigning to each of Affiliate's Users a username and password (one per user account). A limited number of User accounts is provided. Affiliate will cause the Users to maintain username and password credentials confidential and will prevent use of such username and password credentials by any unauthorized person(s). Affiliate shall notify Vigilant immediately if Affiliate believes the password of any of its Users has, or may have, been obtained or used by any unauthorized person(s). In addition, Affiliate must notify Vigilant immediately if Affiliate becomes aware of any other breach or attempted breach of the security of any of its Users' accounts.

#### **XIII. Service Package, Fees and Payment Provisions.**

A. Service Package. This Enterprise License Agreement is based on one (1) of the three (3) following Service Package Options. Please select one (1) Service Package below:

Service Package - Basic LPR Service Package:

- Vigilant Managed/Hosted LPR server LEARN Account
- Access to all Vigilant Software including all upgrades and updates
- Unlimited user licensing for the following applications:
  - LEARN, CarDetector and TAS

Service Package - Option # 1 – Standard LPR Service Package:

- All Basic Service Package benefits
- Unlimited use of CarDetector – Mobile Hit Hunter (CDMS-MHH)
- Unlimited use of Vigilant’s LPR Mobile Companion smartphone application

Service Package - Option # 2 – ‘Intelligence-Led Policing (ILP)’ Service Package:

- All Service Package Option # 1 benefits
- Mobile or Fixed LPR hardware up to level of Tier (choice of either fixed or mobile packages, details in Exhibit A)
  - Reaper Cameras
  - Raptor 3 Cameras
- Use of Vigilant Facial Recognition technologies up to level of Tier
  - FaceSearch Account
  - FaceSearch Mobile Companion
  - Templates up to limit for FaceSearch Account (details in Exhibit A)
- Tiered based on size of department (Tier 1 up to 100 sworn officers, Tier 2 up to 200 sworn officers, Tier 3 up to 700 sworn officers, Tier 4 up to 2,000 sworn officers as well as Fusion Centers)
- States, Federal Agencies and Departments with greater than 2,000 sworn fall under a, “Custom” Tier which will be defined in the Annual Service Fee Schedule if applicable.

B. Service Fee. Payment of each Service Fee entitles Affiliate to all rights granted under this Agreement, including without limitation, use of the Software Products for the relevant Service Period, replacement of CLKs, and access to the updates and releases of the Software Products and associated equipment driver software to allow the Software Products to remain current and enable the best possible performance. The annual Service Fee due for a particular Service Period is based on the number of current Vigilant issued CLK’s at the time of Service Fee invoicing, and which will be used by Affiliate in the upcoming Service Period. A schedule of annual Service Fees is shown below:

<b>Annual Service Fee Schedule (multiplied by number of CLK’s Issued)</b>				
Total # of CLK’s under this ESA	0-14 CLK’s	15-30 CLK’s	31-60 CLK’s	Over 60

Basic Service	\$525.00	\$450.00	\$400.00	\$275.00
Standard (Option # 1)	\$750.00	\$640.00	\$565.00	\$390.00
ILP Subscriber CLK Renewal Fees	\$525.00	\$450.00	\$400.00	\$275.00

Annual Service Fee Schedule for Intelligence-Led Policing (ILP) Service Package			
Tier	Reaper	Raptor 3	
ILP Tier 1 (Option # 2)	\$14,995.00	\$14,995.00	
ILP Tier 2 (Option # 2)	\$34,495.00	\$34,495.00	
ILP Tier 3 (Option # 2)	\$89,495.00	\$89,495.00	
ILP Tier 4 (Option #2)	\$154,495.00	\$154,495.00	

Annual Service Fee Schedule for Image Enrollment (applicable to FaceSearch/LineUp images only)	
5,000 Images	\$750.00

Payment of the Service Fee is due thirty (30) days prior to the renewal of the then-current Service Period. All Service Fees are exclusive of any sales, use, value-added or other federal, state or local taxes (excluding taxes based on Vigilant's net income) and Affiliate agrees to pay any such tax. Service Fees may increase by no higher than 4% per year for years after the first year of this agreement. For ILP (Option # 2) Tier packages, the Tier amount is due for subsequent periods and Basic Service CLK fees are due for all cameras from previous periods (this is in addition to the Annual Subscription Fee).

C. Advanced Service Fee Payments. Vigilant Solutions will accept advanced Service Fee payments on a case by case basis for Affiliates who wish to lock in the Service Fee rates for subsequent periods at the rates currently in effect, as listed in the table above. If Affiliate makes advanced Service Fee payments to Vigilant Solutions, advanced payments to Vigilant Solutions will be applied in full to each subsequent Service Period's Service Fees until the balance of the credits is reduced to a zero balance. System based advanced credits shall be applied to subsequent Service Fees in the amount that entitles Affiliate continued operation of the designated camera unit systems for the following Service Period until the credits are reduced to a zero balance.

D. Price Adjustment. Vigilant has the right to increase or decrease the annual Service Fee from one Service Period to another; *provided, however*, that in no event will a Service Fee be increased by more than the greater of (i) 4% of the prior Service Period's Service Fees, (ii) the published rate of inflation in the United States for the prior year then ended, or (iii) prices identified in the original proposal. If Vigilant intends to adjust the Service Fee for a subsequent Service Period, it must give Affiliate notice of the proposed increase on or before the date that Vigilant invoices Affiliate for the upcoming Service Period.

#### XIV. Miscellaneous.



A. Limitation of Liability. IN NO EVENT SHALL VIGILANT SOLUTIONS BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL DAMAGES INCLUDING DAMAGES FOR LOSS OF USE, DATA OR PROFIT, ARISING OUT OF OR CONNECTED WITH THE USE OF THE SOFTWARE PRODUCTS, WHETHER BASED ON CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, EVEN IF VIGILANT SOLUTIONS HAS BEEN ADVISED OF THE POSSIBILITY OF DAMAGES. IN NO EVENT WILL VIGILANT SOLUTIONS'S LIABILITY ARISING OUT OF OR RELATED TO THIS AGREEMENT EXCEED THE FEES PAID BY AFFILIATE TO VIGILANT SOLUTIONS FOR THE SOFTWARE PRODUCTS LICENSED UNDER THIS AGREEMENT.

B. Confidentiality. Affiliate acknowledges that Software Products contain valuable and proprietary information of Vigilant Solutions and Affiliate will not disassemble, decompile or reverse engineer any Software Products to gain access to confidential information of Vigilant Solutions.

C. Assignment. Neither Vigilant Solutions nor Affiliate is permitted to assign this Agreement without the prior written consent of the other party. Any attempted assignment without written consent is void.

D. Amendment; Choice of Law. No amendment or modification of this Agreement shall be effective unless in writing and signed by authorized representatives of the parties. This Agreement shall be governed by the laws of the state of California without regard to its conflicts of law.

E. Complete Agreement. This Agreement constitutes the final and complete agreement between the parties with respect to the subject matter hereof, and supersedes any prior or contemporaneous agreements, written or oral, with respect to such subject matter.

F. Relationship. The relationship created hereby is that of contractor and customer and of licensor and Affiliate. Nothing herein shall be construed to create a partnership, joint venture, or agency relationship between the parties hereto. Neither party shall have any authority to enter into agreements of any kind on behalf of the other and shall have no power or authority to bind or obligate the other in any manner to any third party. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purpose whatsoever. Each party hereto represents that it is acting on its own behalf and is not acting as an agent for or on behalf of any third party.

G. No Rights in Third Parties. This agreement is entered into for the sole benefit of Vigilant Solutions and Affiliate and their permitted successors, executors, representatives, administrators and assigns. Nothing in this Agreement shall be construed as giving any benefits, rights, remedies or claims to any other person, firm, corporation or other entity, including, without limitation, the general public or any member thereof, or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries, property damage, or any other relief in law or equity in connection with this Agreement.

H. Construction. The headings used in this Agreement are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content or intent of this Agreement. Any term referencing time, days or period for performance shall be deemed calendar days and not business days, unless otherwise expressly provided herein.

I. Severability. If any provision of this Agreement shall for any reason be held to be invalid, illegal, unenforceable, or in conflict with any law of a federal, state, or local government having jurisdiction over this Agreement, such provision shall be construed so as to make it enforceable to the greatest extent permitted, such

provision shall remain in effect to the greatest extent permitted and the remaining provisions of this Agreement shall remain in full force and effect.

J. Federal Government. Any use, copy or disclosure of Software Products by the U.S. Government is subject to restrictions as set forth in this Agreement and as provided by DFARS 227.7202-1(a) and 227.7202-3(a) (1995), DFARS 252.227-7013(c)(1)(ii) (Oct 1988), FAR 12.212(a)(1995), FAR 52.227-19, or FAR 52.227 (ALT III), as applicable.

K. Right to Audit. Affiliate, upon thirty (30) days advanced written request to Vigilant Solutions, shall have the right to investigate, examine, and audit any and all necessary non-financial books, papers, documents, records and personnel that pertain to this Agreement and any other Sub Agreements.

L. Notices; Authorized Representatives; Technical Support Agents. All notices, requests, demands, or other communications required or permitted to be given hereunder must be in writing and must be addressed to the parties at their respective addresses set forth below and shall be deemed to have been duly given when (a) delivered in person; (b) sent by facsimile transmission indicating receipt at the facsimile number where sent; (c) one (1) business day after being deposited with a reputable overnight air courier service; or (d) three (3) business days after being deposited with the United States Postal Service, for delivery by certified or registered mail, postage pre-paid and return receipt requested. All notices and communications regarding default or termination of this Agreement shall be delivered by hand or sent by certified mail, postage pre-paid and return receipt requested. Either party may from time to time change the notice address set forth below by delivering 30 days advance notice to the other party in accordance with this section setting forth the new address and the date on which it will become effective.

<p><b>Vigilant Solutions, LLC</b>                  Attn: Sales Administration                  2021 Las Positas Court - Suite # 101                  Livermore, CA 94551</p>	<p><b>Affiliate:</b> _____                  Attn: _____                  Address: _____                  _____</p>
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M. Authorized Representatives; Technical Support Agents. Affiliate’s Authorized Representatives and its Technical Support Agents are set forth below (Last Page). Affiliate’s Authorized Representative is responsible for administering this Agreement and Affiliate’s Technical Support Agents are responsible for administering the Software Products and acting as Affiliate’s Software Products support contact. Either party may from time to time change its Authorized Representative, and Affiliate may from time to time change its Technical Support Agents, in each case, by delivering 30 days advance notice to the other party in accordance with the notice provisions of this Agreement.

IN WITNESS WHEREOF, the parties have executed the Agreement as of the Effective Date.

Manufacturer: Vigilant Solutions, LLC

Authorized Agent: Bill Quinlan

Title: Senior Director Site Operations

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Affiliate Organization: \_\_\_\_\_

Authorized Agent: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

## Enterprise Service Agreement

### Contact Information Worksheet

Please complete the following contact information for your Vigilant Solutions Enterprise License program.

<b>Enterprise License Agreement Holder</b>			
Company / Agency Name:			
Company / Agency Type:			
Address:			
<b>Primary Contact</b>			
Name:			
Title:		Phone:	
Email:			
<b>Supervisor Information</b>			
Name:			
Title:		Phone:	
Email:			
<b>Financial Contact (Accounts Payable)</b>			
Name:			
Title:		Phone:	
Email:			
<b>Technical Support Contact # 1</b>			
Name:			
Title:		Phone:	
Email:			
<b>Technical Support Contact # 2</b>			
Name:			
Title:		Phone:	
Email:			

For questions or concerns, please contact Vigilant Solutions' sales team:

[sales@vigilantsolutions.com](mailto:sales@vigilantsolutions.com)

1-925-398-2079

## Exhibit A: Option # 2 ILP Tier Package Components

Part #	Item Description
<b>VS-ILP-1M2RE / VS-ILP-1M2R3</b>	<p><b>ILP Mobile Bundle for Agencies of Up to 100 Sworn</b></p> <p>Includes:</p> <ul style="list-style-type: none"> <li>- Agency license for LEARN SaaS</li> <li>- Unlimited access to Commercial LPR data</li> <li>- One (1) 3-camera mobile LPR system</li> <li>- First year of Basic and Standard Service Packages</li> <li>- LEARN-Mobile Companion</li> <li>- Mobile Hit Hunter</li> <li>- Agency license for FaceSearch</li> <li>- Image gallery up to 5,000 images</li> </ul>
<b>VS-ILP-1F2RE / VS-ILP-1F2R3</b>	<p><b>ILP Fixed Bundle for Agencies of Up to 100 Sworn</b></p> <p>Includes:</p> <ul style="list-style-type: none"> <li>- Agency license for LEARN SaaS</li> <li>- Unlimited access to Commercial LPR data</li> <li>- Three (3) fixed camera LPR systems</li> <li>- First year of Basic and Standard Service Packages</li> <li>- LEARN-Mobile Companion</li> <li>- Mobile Hit Hunter</li> <li>- Agency license for FaceSearch</li> <li>- Image gallery up to 5,000 images</li> </ul>
<b>VS-ILP-2M2RE / VS-ILP-2M2R3</b>	<p><b>ILP Mobile Bundle for Agencies of 51 to 200 Sworn</b></p> <p>Includes:</p> <ul style="list-style-type: none"> <li>- Agency license for LEARN SaaS</li> <li>- Unlimited access to Commercial LPR data</li> <li>- Two (2) 3-camera mobile LPR system</li> <li>- First year of Basic and Standard Service Packages</li> <li>- LEARN-Mobile Companion</li> <li>- Mobile Hit Hunter</li> <li>- Agency license for FaceSearch</li> <li>- Image gallery up to 20,000 images</li> </ul>
<b>VS-ILP-2F2RE / VS-ILP-2F2R3</b>	<p><b>ILP Fixed Bundle for Agencies of 51 to 200 Sworn</b></p> <p>Includes:</p> <ul style="list-style-type: none"> <li>- Agency license for LEARN SaaS</li> <li>- Unlimited access to Commercial LPR data</li> <li>- Six (6) fixed camera LPR systems</li> <li>- First year of Basic and Standard Service Packages</li> <li>- LEARN-Mobile Companion</li> <li>- Mobile Hit Hunter</li> <li>- Agency license for FaceSearch</li> <li>- Image gallery up to 20,000 images</li> </ul>

<b>VS-ILP-3M2RE / VS-ILP-3M2R3</b>	<b>ILP Mobile Bundle for Agencies of 201 to 700 Sworn</b> Includes: <ul style="list-style-type: none"> <li>- Agency license for LEARN SaaS</li> <li>- Unlimited access to Commercial LPR data</li> <li>- Four (4) 3-camera mobile LPR system</li> <li>- First year of Basic and Standard Service Packages</li> <li>- LEARN-Mobile Companion</li> <li>- Mobile Hit Hunter</li> <li>- Agency license for FaceSearch</li> <li>- Image gallery up to 50,000 images</li> </ul>
<b>VS-ILP-3F2RE / VS-ILP-3F2R3</b>	<b>ILP Fixed Bundle for Agencies of 201 to 700 Sworn</b> Includes: <ul style="list-style-type: none"> <li>- Agency license for LEARN SaaS</li> <li>- Unlimited access to Commercial LPR data</li> <li>- Twelve (12) fixed camera LPR systems</li> <li>- First year of Basic and Standard Service Packages</li> <li>- LEARN-Mobile Companion</li> <li>- Mobile Hit Hunter</li> <li>- Agency license for FaceSearch</li> <li>- Image gallery up to 50,000 images</li> </ul>
<b>VS-ILP-4M2RE / VS-ILP-4M2R3</b>	<b>ILP Mobile Bundle for Fusion Centers and Agencies of 701 to 2000 Sworn</b> Includes: <ul style="list-style-type: none"> <li>- Agency license for LEARN SaaS</li> <li>- Unlimited access to Commercial LPR data</li> <li>- Five (5) 3-camera mobile LPR system</li> <li>- First year of Basic and Standard Service Packages</li> <li>- LEARN-Mobile Companion</li> <li>- Mobile Hit Hunter</li> <li>- Agency license for FaceSearch</li> <li>- Image gallery up to 100,000 images</li> </ul>
<b>VS-ILP-4F2RE / VS-ILP-4F2R3</b>	<b>ILP Fixed Bundle for Fusion Centers and Agencies of 701 to 2000 Sworn</b> Includes: <ul style="list-style-type: none"> <li>- Agency license for LEARN SaaS</li> <li>- Unlimited access to Commercial LPR data</li> <li>- Fifteen (15) fixed camera LPR systems</li> <li>- First year of Basic and Standard Service Packages</li> <li>- LEARN-Mobile Companion</li> <li>- Mobile Hit Hunter</li> <li>- Agency license for FaceSearch</li> <li>- Image gallery up to 100,000 images</li> </ul>

## **NCRIC MISSION**

The Northern California Regional Intelligence Center (NCRIC) is a multi-jurisdiction public safety program created to assist local, state, federal, and tribal public safety agencies and critical infrastructure locations with the collection, analysis, and dissemination of criminal threat information. It is the mission of the NCRIC to protect the citizens within its area of responsibility from the threat of narcotics trafficking, organized crime, as well as international, domestic, and street terrorism-related activities through information sharing and technical operations support to public safety personnel.

## **AUTOMATED LICENSE PLATE READER (ALPR) TECHNOLOGIES**

To support authorized law enforcement and public safety purposes of local, state, federal, and tribal public safety agencies, the NCRIC utilizes Automated License Plate Reader (ALPR) technology, and supporting software, to gather and analyze ALPR data to enable the rapid identification and location of vehicles of legitimate interest to law enforcement. ALPR units are attached to law enforcement vehicles or deployed at fixed locations, where they collect license plate information from vehicles on public roadways and public property. In one common use of ALPR technology, license plate encounters are compared against law enforcement “hotlists” – lists of vehicles associated with active investigations, for example, related to Amber Alerts or other missing children, stolen vehicles, or stolen license plates. The information is also retained for a fixed retention period, though it is only re-accessible by law enforcement given a legitimate law enforcement purpose as listed below.

## **PURPOSE**

This NCRIC Automated License Plate Reader Policy (ALPR Policy) defines a minimum set of binding guidelines to govern the use of Automated License Plate Reader Data (ALPR Data), in order to enable the collection and use of such data in a manner consistent with respect for individuals’ privacy and civil liberties.

The NCRIC also completed a NCRIC ALPR Privacy Impact Assessment (PIA) to address in further detail common privacy and civil liberties concerns regarding Automated License Plate Reader technology. The current version of this document is available on the NCRIC web site at [www.ncric.org](http://www.ncric.org).

## **AUTHORIZED PURPOSES, COLLECTION, AND USE OF ALPR DATA**

To support the mission of the NCRIC, Law enforcement personnel with a need and right to know will utilize ALPR technology to:

- Locate stolen, wanted, and subject of investigation vehicles;
- Locate and apprehend individuals subject to arrest warrants or otherwise lawfully sought by law enforcement;
- Locate witnesses and victims of violent crime;

- Locate missing children and elderly individuals, including responding to Amber and Silver Alerts;
- Support local, state, federal, and tribal public safety departments in the identification of vehicles associated with targets of criminal investigations, including investigations of serial crimes;
- Protect participants at special events; and
- Protect critical infrastructure sites.

### **RESTRICTIONS ON COLLECTION OF ALPR DATA AND USE OF ALPR SYSTEMS**

NCRIC ALPR units may be used to collect data that is within public view, but may not be used for the sole purpose of monitoring individual activities protected by the First Amendment to the United States Constitution.

ALPR operators may not contact occupants of stolen, wanted, or subject-of-investigation vehicles unless the ALPR operators are sworn law enforcement officers. ALPR operators must rely on their parent agency rules and regulations regarding equipment, protection, self-identification, and use of force when stopping vehicles or making contact.

ALPR operators must recognize that the data collected from the ALPR device, and the content of referenced hotlists, consists of data that may or may not be accurate, despite ongoing efforts to maximize the currency and accuracy of such data. To the greatest extent possible, vehicle and subject information will be verified from separate Law enforcement information sources to confirm the vehicle or subject's identity and justification for contact. Users of ALPR Data must, to the fullest extent possible, visually confirm the plate characters generated by the ALPR readers correspond with the digital image of the license plate in question.

All users of NCRIC ALPR equipment or accessing NCRIC ALPR Data are required to acknowledge that they have read and understood the NCRIC ALPR Policy prior to use of the ALPR System.

In no case shall the NCRIC ALPR system be used for any purpose other than a legitimate law enforcement or public safety purpose.

### **TRAINING**

Only persons trained in the use of the NCRIC ALPR system, including its privacy and civil liberties protections, shall be allowed access to NCRIC ALPR Data. Training shall consist of:

- Legal authorities, developments, and issues involving the use of ALPR Data and technology
- Current NCRIC Policy regarding appropriate use of NCRIC ALPR systems;
- Evolution of ALPR and related technologies, including new capabilities and associated risks;
- Technical, physical, administrative, and procedural measures to protect the security of ALPR Data against unauthorized access or use; and



- Practical exercises in the use of the NCRIC ALPR system

Training shall be updated as technological, legal, and other changes that affect the use of the NCRIC ALPR system occur.

### **AUDIT**

Access to, and use of, ALPR Data is logged for audit purposes. Audit reports will be structured in a format that is understandable and useful and will contain, at a minimum:

- The name of the law enforcement user;
- The name of the agency employing the user;
- The date and time of access;
- The activities executed, including any license plates searched for;
- The supplied authorized law enforcement or public safety justification for access; and
- A case number associated with the investigative effort generating the ALPR data query.

Audit reports will be provided periodically and on request to supervisory personnel at the NCRIC and partner agencies.

In addition, no less frequently than every 12 months, the NCRIC will audit a sampling of ALPR system utilization from the prior 12 month period to verify proper use in accordance with the above authorized uses. Any discovered intentional misconduct will lead to further investigation, termination of system access, and notification of the user's parent agency for appropriate recourse. In addition, the auditing data will be used to identify systemic issues, inadvertent misuse, and requirements for policy changes, training enhancements, or additional oversight mechanisms.

These ALPR audits shall be conducted by a senior NCRIC official other than the person assigned to manage the NCRIC ALPR function. Audit results shall then be reported to the Director of the NCRIC.

### **DATA QUALITY AND ACCURACY**

The NCRIC will take reasonable measures to ensure the accuracy of ALPR Data collected by NCRIC ALPR units and partner agency ALPR systems. Errors discovered in ALPR Data collected by NCRIC ALPR units are marked, corrected, or deleted in accordance with the type and severity of the error in question. Errors discovered in ALPR Data collected from partner agencies' ALPR systems are communicated back to the controlling agency to be addressed as deemed appropriate by that agency or in accordance with the agency's own ALPR data policies.

As the downstream custodian of "hotlists", the NCRIC will provide the most recent versions of these lists available and ensure the lists are refreshed from state or federal sources on a daily basis.

The NCRIC acknowledges that, in rare instances ALPR units may inadvertently capture information contrary to the collection guidelines set forth in this policy. Such records will be purged upon identification. Any discovered notable increase in frequency of these incidents from specific ALPR units or agencies will be followed up with for equipment repairs, camera realignment, or personnel training as necessary.

#### **PHYSICAL AND ELECTRONIC SECURITY OF ALPR DATA:**

Data collected by ALPR systems is stored in a secured law enforcement facility with multiple layers of physical security and 24/7 security protections. Physical access is limited to law enforcement staff in good standing who have completed background investigations and possess an active security clearance at the "SECRET" or higher level.

NCRIC will utilize strong multi-factor authentication, encrypted communications, firewalls, and other reasonable physical, technological, administrative, procedural, and personnel security measures to mitigate the risks of unauthorized access to the system.

#### **RETENTION OF ALPR DATA:**

ALPR Data collected by NCRIC ALPR units or shared from partner agencies' ALPR units shall not be retained longer than 12 months, or the length of time required by the partner agency who is custodian of the record – whichever is shorter. Once the retention period has expired, the record will be purged entirely from all active and backup systems unless a reasonable suspicion has been established that the vehicle identified by the ALPR read is connected to criminal activities.

ALPR records matching an entry in a current law enforcement hotlist will trigger an immediate notification to the officer operating the ALPR unit, the active dispatch officer at the agency owning the ALPR unit, the NCRIC, and the custodial agency of the hotlist. Such notifications are also subject to a maximum retention of 12 months.

ALPR Data obtained with license plate information not appearing on hotlists, and with no immediate reasonable connection to criminal activity, will be retained in secure systems so as to only be made accessible to authorized personnel for a maximum period of twelve months, then purged entirely from all systems. If during the specified retention period there is information which supports a legitimate law enforcement purpose (see above section enumerating AUTHORIZED PURPOSES, COLLECTION, AND USE OF ALPR DATA) as to a license plate or partial license plate which was recorded and is retained in these systems, then limited access will be permitted for predicate-based querying for potential matches against the parameters specific to the legitimate law enforcement purpose. Such events shall be recorded in an access log showing date, time, name of person seeking access, agency of employment, reason for access, and tracking identifiers such as an agency case number.

ALPR records of vehicles having been identified and linked to criminal investigation will be entered into the relevant NCRIC database(s) and retained for a period of no more than five years. If during the five-year period NCRIC personnel become aware that the vehicle license plate information is no longer associated with a criminal investigation, it will be purged from the NCRIC's databases.

### **CUSTODIAN OF RECORDS AND RECORDS REQUESTS**

Each agency operating ALPR technology retains control and ownership as the official custodian of its records, and must independently verify all external information obtained via NCRIC Information Systems. To the extent permitted by law, requests for information under the California Public Records Act or Freedom of Information Act or similar applicable laws will be directed back to the owner of the requested data.

### **SYSTEM MANAGEMENT AND ACCOUNTABILITY**

The NCRIC shall assign a senior officer who will have responsibility, and be accountable, for managing the ALPR Data collected and ensuring that the privacy and civil liberties protection and other provisions of this ALPR Policy are carried out. This individual shall also be responsible for managing a process for maintaining the most current and accurate hotlists available from NCRIC law enforcement sources. This individual shall also have the responsibility for the security of the hotlist information and any ALPR Data which is maintained by the NCRIC. It remains, however, the personal responsibility of all officers with access to ALPR Data to take reasonable measures to protect the privacy and civil liberties of individuals, as well as the security and confidentiality of ALPR Data.

### **COMMERCIALY CREATED ALPR DATA**

Except as explicitly authorized below with regard to critical infrastructure, the NCRIC will not share NCRIC or partner agency ALPR Data with commercial or other private entities or individuals.

### **DISSEMINATION**

The NCRIC may disseminate ALPR data to any governmental entity with an authorized law enforcement or public safety purpose for access to such data. The NCRIC assumes no responsibility or liability for the acts or omissions of other agencies in making use of the ALPR data properly disseminated. Though the NCRIC will make every reasonable effort to ensure the quality of shared ALPR Data and hotlists, it cannot make absolute guarantees of the accuracy of information provided.

ALPR Information may be disseminated to owners and operators of critical infrastructure in circumstances where such infrastructure is reasonably believed to be the target of surveillance for the purpose of a terrorist attack or other criminal activity. In these situations, the NCRIC also will make notification to appropriate local, state, and federal law enforcement agencies.

Information collected by the ALPR system shall not be disseminated to private parties, other than critical infrastructure owners or operators, as limited above, unless authorized, in writing, by the Director of the NCRIC or his designee. ALPR information shall not be disseminated for personal gain or for any other non-law enforcement purposes.

**POLICY REVISIONS**

NCRIC ALPR Policies will be reviewed, and updated as necessary, no less frequently than every 12 months, or more frequently based on changes in data sources, technology, data use and/or sharing agreements, and other relevant considerations.

The most current version of the ALPR Policy may be obtained from the NCRIC website at <http://www.ncric.org/>



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## Memorandum of Understanding

# Northern California Regional Intelligence Center

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**Carlos L. Bolanos**  
Sheriff, San Mateo County Sheriff's Office  
Northern California High Intensity Drug Trafficking Area Executive Board

**Michael Sena**  
Director, Northern California Regional Intelligence Center &  
High Intensity Drug Trafficking Area



**MEMORANDUM OF UNDERSTANDING**

This Memorandum of Understanding (hereinafter “MOU” or “Agreement”) is entered into by and between the parties represented, known collectively as “Member Agencies” or individually as a “Member Agency.”

WHEREAS, the Member Agencies provide public safety services within their jurisdictions; and

WHEREAS, the Member Agencies are dedicated to the most efficient utilization of their resources and services in public safety endeavors within their jurisdictions; and

WHEREAS, the Member Agencies are committed to complete cooperation and coordination in providing the highest level of safety services to the public, guided by the principle that cooperative efforts are in the public’s best interest; and

WHEREAS, the Member Agencies desire to facilitate the sharing of information contained within their electronic data systems, including but not limited to: Records Management Systems, Computer Aided Dispatch Systems, Automated License Plate Readers, Intelligence Management Systems, Jail Management Systems, and Law Enforcement Data Sharing Systems - which may include aggregated information collected from multiple individual or regional sources - into commercially available and custom developed data integration systems; and

WHEREAS, the Member Agencies desire to share data owned, aggregated, or collected by the Member Agency under the conditions set forth in this MOU; and

NOW, THEREFORE, the Member Agencies hereby agree:

**Mission**

The Northern California Regional Intelligence Center (NCRIC) is a multi-jurisdictional public safety information fusion center comprised of the Northern California High Intensity Drug Trafficking Area (NCHIDTA) Investigative Support Center and the NCRIC Homeland Security Programs. The NCRIC is managed under the NCHIDTA Executive Board. The NCRIC was created to assist local, state, federal and tribal public safety agencies and critical infrastructure locations with the collection, analysis and dissemination of all crimes threat information.

It is the mission of the NCRIC to protect the citizens of the counties within its area of responsibility from the threat of narcotics trafficking; organized crime; international, domestic and street terrorism related activities through information sharing and technical operation support to public safety agencies.

The NCRIC Data Sharing Partnership (NCRIC-DSP) is formed in support of this mission, under the leadership of the NCRIC, its Executive Board, and regional stakeholders, to develop, establish, and maintain an integrated system of information technology that maximizes the sharing of data and communication between Member Agencies in support of law enforcement and public safety, while maintaining the confidentiality of privileged or otherwise protected information shared through the system, and protecting privacy and civil liberties in accordance with applicable law.

**Purpose**

This agreement outlines the duties and responsibilities of each Member Agency, defines the working relationships and lines of authority for Member Agencies within the NCRIC-DSP, and provides for the addition of other eligible entities in the data-sharing program created by this Memorandum of Understanding (hereinafter "MOU").

## 1) **Definitions and other Terminology**

NCRIC Data Sharing Partnership (NCRIC-DSP): the collective group of Member Agencies sharing data, or utilizing shared data through, the NCRIC, as governed by this MOU or similar agreements

NCRIC-DSP Systems: the collective group of information technology systems via which shared data from multiple sources is aggregated, federated, replicated, standardized, or otherwise consolidated for access to Authorized Users from Member Agencies.

Authorized Users: personnel from the Member Agencies that have the appropriate clearance and authority to utilize and access shared data as a function of their employment.

Data: electronic records, analyses, images, and other information associated with incidents, persons, or objects, existing in a Member Agency system or database, and potentially shared with other Member Agencies via the NCRIC-DSP Systems.

Host: the entity providing the facilities, labor, and expertise used to maintain, operate, manage, and expand one or more NCRIC-DSP Systems, under the direction of the Host's governance and in compliance with the policies set forth in this agreement.

Member Agency: a law enforcement or public safety organization, whose leadership has signed this agreement, and actively participates in information sharing with other Member Agencies.

## 2) **Member Agency Rights, Powers and Authority**

This Agreement does not limit the rights, powers, and authority of Member Agencies. Each Member Agency expressly retains all of its rights, powers, and authority including, but not limited to, financing, planning, developing, constructing, maintaining, repairing, managing, operating, and controlling equipment, facilities, properties, projects, and information that it deems, in its sole discretion, to be necessary for its own information system needs.

Nothing in this Agreement shall be construed to require a Member Agency:

- a) to disclose any information that the Member Agency determines, in its sole discretion, it does not have the ability or authority to disclose; OR
- b) to do any act that the Member Agency determines, in its sole discretion, is contrary to law or public policy; OR
- c) to provide personnel, equipment, or services to the NCRIC; OR
- d) to modify, restrict, or inhibit utilization of information systems independent of the NCRIC-DSP system.

Member Agencies may modify, upgrade, or otherwise alter any internal systems or processes without approval or notification of the NCRIC.



In gathering and sharing information, and in all other respects in performing acts related to this Agreement, the parties will comply with all applicable laws, rules, and regulations.

**3) Effective Date and Term of MOU**

This agreement shall remain in effect until terminated and shall be reviewed by the NCRIC every twelve months to consider any recommended modifications to the Member Agencies. The agreement may be terminated by the NCRIC by providing written notice to all Member Agencies.

**4) Data Sharing**

All Member Agencies agree to promote comprehensive, timely, and accurate data sharing with other Member Agencies via NCRIC-DSP Systems. Data shall only be shared with Member Agencies, and only to authorized users of those agencies who possess a need to know and right to know the shared data towards fulfillment of assigned law enforcement or public safety duties.

Member Agencies are not required to contribute data to the NCRIC-DSP Systems.

Any data shared by a Member Agency to NCRIC-DSP Systems that the Member Agency later declares should not be shared, shall be withdrawn by all Hosts from all NCRIC-DSP Systems within 48 hours, including deletion of any replications of the data.

Each Member Agency shall determine, within its sole discretion, which data records are to be shared with the NCRIC-DSP and shall maintain the databases or other sources that contain the applicable information.

**5) Data Access**

Data exchange and user access shall be achieved using data encryption, private networks, or other configurations that follow current best practices for information technology, are acceptable to both the Member Agency sharing data and the Host receiving data or providing user access, and adhere to current policies set forth by the Federal Bureau of Investigation Criminal Justice Information Services (CJIS) and California Department of Justice.

NCRIC-DSP Systems shall be generally available. Hosts agree to inform other Member Agencies in advance, whenever possible, of scheduled maintenance or other periods of inaccessibility.

## **6) Information Ownership and Release**

Member Agencies remain the official custodian of all information contributed to the NCRIC-DSP. To the fullest extent permissible by law, all requests for information, California Public Records Act, or Freedom of Information Act, will be referred to the Member Agency that is the owner of the requested data, and the Member Agency that is the owner of the requested data will be responsible for responding to the request.

Prior to releasing data in furtherance of its statutory and constitutional obligations relating to the discovery process, a Member Agency shall seek written permission from the fellow Member Agency who is custodian of that data.

In any instance where the custodian declines to grant such disclosure permission, the involved Member Agencies shall confer to reach agreement on possible limitations on disclosure (including the seeking of judicial protective orders) in an attempt to protect the originating agency's specific concerns while allowing the prosecuting agency to meet its statutory and constitutional criminal discovery obligations.

## **7) Authorized User Access and User Responsibilities**

Each Member Agency is responsible for management of its Authorized User accounts. Federated identity solutions will be utilized whenever possible.

Each Member Agency agrees that all Authorized Users shall be current employees in good standing and be authorized to review data for legitimate purposes. If for any reason a user is no longer eligible for such access, or ends his/her employment with the agency, the agency will follow appropriate procedure and/or make necessary contacts to ensure access is removed accordingly.

Each user agrees that NCRIC-DSP Systems and the information contained therein are to be used solely for authorized purposes consistent with the law. Authorized users shall not use or share the information for any unauthorized purposes, and Member Agencies agree that such actions may result in the offending Member Agency or its offending Authorized User being revoked access to the NCRIC-DSP system.

Users may not access any NCRIC-DSP Systems by using a name, password, common access card, VPN token, SSL certificate, or any other authentication mechanism that is assigned to another user. Users may not share passwords with other persons, nor allow another user to utilize the system under their credentials.

Member Agencies acknowledge that data maintained in NCRIC-DSP Systems consists of information that may or may not be accurate. Member Agencies do not warrant nor may rely upon the accuracy of such information. Member Agencies understand and agree to convey this caution to their employees who are Authorized Users. It shall be the responsibility of the Member Agency or Authorized User requesting or using the data to confirm the accuracy of the information before taking any enforcement-related action.

The various Member Agencies agree to use information in NCRIC-DSP Systems as a pointer system for investigative leads or guidance, and not as the source of probable cause for law enforcement actions.

An audit log will be maintained for a period of no less than three years to record user access to shared data, including the name and organization of the user accessing via the NCRIC-DSP and the date and time when the data was accessed.

#### **8) Security Requirements**

Member Agencies agree to maintain and enforce security requirements for the system. Each Member Agency is responsible for the internal security of their records and any technical support necessary to ensure proper security. All Member Agencies and Hosts agree to enforce and maintain security, retention, and purge requirements for the information shared as specified in the Information Practices Act, the Public Records Act, California Attorney General's Model Standards and Procedures for Maintaining Criminal Intelligence Files and Criminal Intelligence Operational Activities, 28 Code of Federal Regulations (CFR) Part 23, FBI Criminal Justice Information Services (CJIS) policy, California Department of Justice policies, and any other laws or regulations governing applicable data types.

#### **9) Connecting with other data sources and analysis platforms**

The NCRIC will work to expand the connectivity and membership of the NCRIC-DSP. It will also seek to acquire new analysis systems, and enhance the capabilities of existing platforms, as to provide optimal value for data shared by Member Agencies.

Member Agencies grant authority to the NCRIC to execute information sharing agreements with new Member Agencies and to incorporate new information sharing systems into the NCRIC-DSP. Such agreements will not require further review or approval by member agencies. Such agreements will have no material changes or provisions that would adversely affect or contradict the policies of this MOU.

#### **10) Admission and Withdrawal of Member Agencies**

Additional public agencies, or similar regional or statewide sharing systems, may become Member Agencies by execution of a written amendment to this agreement by the proper authority of the new Member Agency.

Existing and future Member Agencies have the right to withdraw from the NCRIC-DSP provided they give written notice to the NCRIC, or may be involuntarily removed upon any breach of this agreement.

**11) Mutual Indemnification**

Each party shall indemnify, defend, protect, hold harmless, and release the other, its officers, agents, and employees, from and against any and all claims, loss, proceedings, damages, causes of action, liability, costs, or expense (including attorneys' fees and witness costs) arising from or in connection with, or caused by any act, omission, or negligence of such indemnifying party or its agents, employees, contractors, subcontractors, or invitees. This indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages or compensation payable to or for the indemnifying party under workers' compensation acts, disability benefit acts, or other employee benefit acts.

**12) No Authority to Act on Behalf of Other Member Agencies**

Member Agencies shall have no authority, either express or implied, to act on behalf of any other signatory in any capacity whatsoever.

**13) Costs**

Member Agencies shall be responsible for their own costs associated with establishing, maintaining, or terminating their access to, or participation with NCRIC-DSP Systems. Nothing in this agreement shall be construed to mean that Member Agencies are subject to incurring new costs as a result of participating in the NCRIC-DSP.

**14) Amendments**

This Agreement may be amended with the unanimous written approval of all Member Agencies. Provided, however, that no amendment may be made that would adversely affect the interests of the owners of bonds, letters of credit, or other financial obligations of the NCRIC or any Member Agencies.

**15) Conflicts of Interest**

No official, officer, or employee of Member Agencies shall have any financial interest, direct or indirect, in the NCRIC-DSP or any NCRIC-DSP Systems.

**16) Partial Invalidity**

If any terms or conditions of this Agreement shall to any extent be judged invalid, unenforceable, or void for any reason whatsoever by a court of competent jurisdiction, the remaining terms and conditions of this agreement shall continue in full force and effect.

The Member Agencies hereby execute this MOU as of the individual Member Agency's date of execution:

<PARTNER AGENCY NAME>

\_\_\_\_\_  
<NAME AND TITLE/RANK>

\_\_\_\_\_  
Date

Sheriff of San Mateo County on behalf of Northern California Regional Intelligence Center:

\_\_\_\_\_  
Carlos L. Bolanos  
Sheriff  
San Mateo County

\_\_\_\_\_  
Date



# MEMORANDUM

## TOWN OF PORTOLA VALLEY

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TO: Mayor and Members of the Town Council

FROM: Sharon Hanlon, Town Clerk

DATE: March 22, 2017

RE: Ordinance Amending Title 2 of the Portola Valley Municipal Code

**RECOMMENDATION:**

Read title, waive further reading and introduce an ordinance amending Title 2 [Administration and Personnel] of the Portola Valley Municipal Code.

**BACKGROUND:**

At the October 12, 2016 meeting, the Town Council considered options for the implementation of SB 415.

SB 415 was signed by the Governor on September 1, 2016, and mandates that cities and towns “shall not hold an election other than on a statewide election date if holding an election on a nonconcurrent date has previously resulted in a significant decrease in voter turnout.” The voter turnout in 2009, 2011, 2013 and 2015 for the Town of Portola Valley was more than 25 percent lower than the average voter turnout in the previous four statewide general elections.

The Town Council approved moving to even-numbered year elections and extending two Councilmembers terms by one year, from 2017 to 2018 and three Councilmembers terms from 2019 to 2020.

At the October 26, 2016 meeting, the Town Council approved Resolution 2712-2016 (Attachment 1) requesting consolidation with San Mateo County statewide general elections and moving to even-numbered year elections.

The San Mateo County Board of Supervisors approved Resolution 2712-2016 at its February 28, 2017, meeting.

**DISCUSSION**

To reflect the changes to the election cycle, Title 2 of the Portola Valley Municipal Code has been amended, changing its current election date to even-numbered year elections and confirming Councilmembers terms to 4 years (Attachment 2).

The San Mateo County Elections Office will be providing notice to all registered voters in Portola Valley, informing the voters of the change in the election date and confirming Councilmember terms to 4 years as specified in Election Code section 10403.5(3).

**FISCAL IMPACT:**

None.

**ATTACHMENTS:**

1. Resolution 2712-2016
2. Ordinance amending Title 2 of the Portola Valley Municipal Code

Approved by Jeremy Dennis, Town Manager

A handwritten signature in black ink, appearing to read "JDennis", is positioned to the right of the approval text.

**RESOLUTION NO. 2712 -2016**

**RESOLUTION OF THE TOWN COUNCIL OF THE  
TOWN OF PORTOLA VALLEY MOVING TO EVEN-NUMBERED  
YEAR ELECTIONS IN ACCORDANCE WITH THE CALIFORNIA  
VOTER PARTICIPATION RIGHTS ACT**

**WHEREAS**, the Town of Portola Valley currently holds its municipal elections on the first Tuesday after the first Monday in November of odd-numbered years, which is an established election date under state law, but is not concurrent with statewide elections that take place in even-numbered years;

**WHEREAS**, the California Voter Participation Rights Act (SB 415) requires local agencies to hold elections on statewide even-numbered year election dates if holding elections in an odd-numbered years has resulted in a significant decrease in voter turnout;

**WHEREAS**, a significant decrease in voter turnout is defined as voter turnout that is at least 25 percent less than the average voter turnout for the previous four statewide general elections;

**WHEREAS**, voter turnout in the Town of Portola Valley for the 2009, 2011, 2013 and 2015 elections was more than 25 percent lower than the average voter turnout within the Town of Portola Valley for the previous four statewide general elections;

**WHEREAS**, changing the election date and consolidating with statewide even-numbered year general elections will comply with the California Voter Participation Rights Act and will promote increased voter participation;

**WHEREAS**, the terms of three members of the Town Council are set to expire in November of 2017 and the terms of two members of the Town Council are set to expire in November 2019; and

**WHEREAS**, upon approval of the change to elections in even-numbered years, the Elections Code provides that all incumbent Council members' terms may be extended by one year.

**NOW, THEREFORE**, the Town Council of the Town of Portola Valley does hereby **RESOLVE** as follows:

1. To consolidate municipal elections with even-numbered year statewide general elections in accordance with the California Voter Rights Participation Act beginning with the statewide general election to be held on November 6, 2018.
2. To authorize the Town's Election Officer to submit this Resolution to the County of San Mateo Board of Supervisors for approval no later than 240 days before the date of the next scheduled municipal election.



3. To direct Town staff to bring back an ordinance amending Chapter 2.32, General Municipal Elections, to reflect and codify the change to municipal election dates and to provide the required notice to voters.

**PASSED AND ADOPTED** this 26<sup>th</sup> day of October, 2016.

INTRODUCED: October 12, 2016

PASSED: October 26, 2016

AYES: Councilmembers Aalfs, Wengert, Richards, Vice Mayor Hughes and Mayor Derwin

NOES: None

ABSTENTIONS: None

ABSENT: None

By:

  
Maryann Derwin, Mayor

ATTEST:

  
Sharon Hanlon, Town Clerk

ORDINANCE NO. \_\_\_\_\_

**ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF  
PORTOLA VALLEY AMENDING CHAPTER 2.32 [GENERAL  
MUNICIPAL ELECTIONS] OF TITLE 2 [ADMINISTRATION  
AND PERSONNEL] OF THE PORTOLA VALLEY MUNICIPAL  
CODE TO COMPLY WITH SENATE BILL 415**

**WHEREAS**, Senate Bill (“SB”) 415 requires all California cities with municipal elections held in years that were not concurrent with statewide elections and resulted in a significant decrease in voter turnout to align municipal elections with the statewide elections beginning in 2018 or have a plan in place to do so by 2022; and

**WHEREAS**, the Town of Portola Valley (“Town”) desires to comply with SB 415 and to maximize voter turnout for its municipal elections; and

**WHEREAS**, the cost of participating in one or more odd-year elections between now and 2022 would be significant and divert limited resources from other pressing municipal priorities; and

**WHEREAS**, on October 12, 2016, the Town Council approved a resolution indicating its intent to consolidate municipal elections with the statewide general election occurring on even years, and extending two Councilmembers’ terms from 2017 to 2018 and three Councilmembers’ terms from 2019 to 2020; and

**WHEREAS**, the County Board of Supervisors approved the Town’s resolution to move municipal elections to even years and the County Elections office will be sending notice to all Town residents of the change; and

**WHEREAS**, the Town Council desires to amend the municipal code to reflect the consolidation of municipal elections with statewide elections.

**NOW, THEREFORE**, the Town Council of the Town of Portola Valley does **ORDAIN** as follows:

1. AMENDMENT OF CODE. Section 2.32.010 [Election day established] of Chapter 2.32 [General Municipal Elections] of Title 2 [Administration and Personnel] is hereby amended to read as follows:

The general municipal elections of the Town shall be consolidated with the statewide election date in accordance with Elections Code sections 1301, 1000 to 10735, and 14050 to 14057, as amended, beginning with the year 2018.

2. ADDITION OF CODE. In a previous revision to Title 2, the duration of the term for Town officers was inadvertently deleted. Section 2.32.020 [Term] is hereby added to Chapter 2.32 [General Municipal Elections] of Title 2 [Administration and Personnel] to read as follows:

**Section 2.32.020 Term.**

Town officers are elected to serve a four-term of office. The four-year terms for the elected officials that are scheduled to end in 2017 and 2019 are each hereby extended by 12 months to end in 2018 and 2020 respectively.

3. SEVERABILITY. If any part of this Ordinance is held to be invalid or inapplicable to any situation by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance or the applicability of this Ordinance to other situations.

4. EFFECTIVE DATE AND POSTING. This Ordinance shall become effective 30 days after the date of its adoption and shall be posted within the Town in three public places.

INTRODUCTED:

PASSED:

AYES:

NOES:

ABSTENTIONS:

ABSENT:

ATTEST

APPROVED

\_\_\_\_\_  
Town Clerk

\_\_\_\_\_  
Mayor Hughes

APPROVED AS TO FORM

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Town Attorney



# MEMORANDUM

## TOWN OF PORTOLA VALLEY

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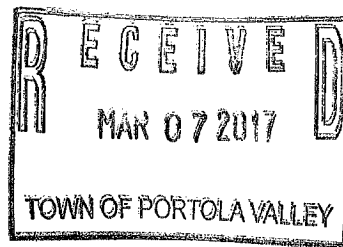
**TO:** Mayor and Members of the Town Council

**FROM:** Sharon Hanlon, Town Clerk

**DATE:** March 22, 2017

**RE:** **Town Council Communications**

The Town Council has received a request from San Mateo County Jobs for Youth, requesting a \$1,500 contribution towards their scholarship program.



Jobs For Youth  
550 Quarry Rd  
San Carlos, CA 94070  
650-802-3371 T  
650-508-0782 F  
www.smchsa.org

Dear Town Manager Jeremy Dennis,

San Mateo County Jobs for Youth cordially invites you to attend our **35<sup>th</sup> Annual Scholarship Awards Fundraising Breakfast – Taking Steps to Success on May 25 at 7:30 a.m. at the Foster City Crowne Plaza Hotel**. This special event is a heartfelt and inspiring event that you won't want to miss!

The San Mateo County Jobs for Youth (SMCJFY) staff and volunteers would like to extend our gratitude to the Town of Portola Valley for your continued support throughout the years. **Thank you for valuing and enriching the lives of our San Mateo County Youth!** SMCJFY is a unique program designed to serve all youth, ages 14 to 21-years-old, regardless of income or socio-economic background. They learn to create master job applications and resumes, prepare for interviews, and are provided with job and/or internship leads. Participants are also offered scholarship opportunities for college or vocational school through the Al Tegliia Jobs for Youth Scholarship Fund. We have offices in three locations to serve youth countywide: Redwood City, Belmont, and Daly City.

Last year, we had a number of program accomplishments. Through workshops, SMCJFY served over 2,100 youth throughout the county with employment services and job connections. In 2016, The Al Tegliia Jobs for Youth Scholarship Fund increased its scholarship awards by \$10,000.00 more than in previous years awarding \$30,000.00 in scholarships to twenty well-deserving youth in San Mateo County. These Scholarship recipients were honored at the Annual Fundraising Breakfast in May, 2016. In addition, we continued to partner with local companies such as Target, Kaiser Permanente, Mathnasium, Westlake Vision, Brighton Preschool, County of San Mateo, and many others to coordinate unsubsidized summer internships. SMCJFY is modernizing how we do business, and is in the process of creating an App for youth to provide them a new tool filled with resources to help them attain success in school and work.

Ongoing support from cities, schools, businesses, and civic organizations, like yours, provide youth in our communities a chance for success. For 2017, SMCJFY will again be providing 20 students scholarships of \$1,500 each. **We are kindly requesting the Town of Portola Valley to contribute, at a minimum, \$1,500 towards one youth scholarship.** As a scholarship sponsor, your organization will have the opportunity to present the scholarship to the youth at our **Fundraising Breakfast** and will receive public acknowledgement at the event and on our online resources. Secure online registration and donations at <http://hsa.smcgov.org/events>. You may also send a check payable to: Jobs for Youth, **attn:** Fiscal Services, 1 Davis Drive, Belmont CA, 94002. If you would like more information, please call the Program Manager, Lorna Strachan, at 650-802-5193

Sincerely,

Don Horsley  
Jobs for Youth Honorary Chairperson  
President, San Mateo County Board of Supervisors

Lorna V. Strachan, M.Ed.  
Jobs for Youth Program Manager  
San Mateo County Human Services Agency



#12

There are no written materials for item #12 – Council Liaison Committee and Regional Agencies Reports

#13

There are no written materials for item #13 – Town Manager Report



## **TOWN COUNCIL WEEKLY DIGEST**

**Friday – March 10, 2017**

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1. Agenda – ASCC – Monday, March 13, 2017
2. Agenda – Trails & Paths Committee – Tuesday, March 14, 2017
3. Agenda – Planning Commission – Thursday, March 15, 2017
4. Budget Calendar – 2017-'18
5. District Report – San Mateo County Mosquito and Vector Control District – March 2017
6. Western City Magazine – March 2017

### **Attached Separates (Council Only)** *(placed in your town hall mailbox)*

1. Invitation – County of San Mateo Human Services Agency – San Mateo County Jobs for Youth 35<sup>th</sup> Annual Scholarship Awards Fundraising Breakfast – Thursday, May 25, 2017
2. Newsletter – LABOR March 2017
3. Invitation – HEART Annual Fundraising Event – Thursday, May 11, 2017
4. Invitation – LifeMoves Third Annual Luncheon re: Solutions for Homelessness in Silicon Valley - Thursday, March 30, 2017



**TOWN OF PORTOLA VALLEY  
ARCHITECTURAL AND SITE CONTROL COMMISSION (ASCC)  
Monday, March 13, 2017  
7:00 PM – Regular ASCC Meeting  
Historic Schoolhouse  
765 Portola Road, Portola Valley, CA 94028**

**7:00 PM – REGULAR AGENDA\***

1. Call to Order:
2. Roll Call: Commissioners Breen, Koch, Wilson, Vice Chair Sill and Chair Ross
3. Oral Communications:

Persons wishing to address the Commission on any subject, not on the agenda, may do so now. Please note, however, the Commission is not able to undertake extended discussion or action tonight on items not on the agenda.
4. Old Business:
  - a. Study Session on Design Guidelines and Home Security Measures - Follow Up Discussion on Motion Sensor Lights (Staff: D. Pedro)
  - b. Review of a Conditional Use Permit, Variance, Architectural Review and Site Development Permit, File #37-2015 and X7D-178, 844 Portola Road (formerly 846 Portola Road, Hallett Store), Willow Grove, LLC (Staff: C. Richardson)
  - c. Architectural Review and Site Development Permit for a New Residence, Pool, Detached Accessory Dwelling Unit, Teahouse and Studio, File # 37-2016, 228 Westridge Drive, Dolin Residence (Staff: A. Cassidy)
  - d. Architectural Review for a New Residence, File #21-2016, 109 Santa Maria Avenue, Philomena LLC and CTJ, LLC (Staff: D. Pedro)
5. New Business:
  - a. Review of Proposed Lot Merger. File #LLA-01-2016, 120 and 130 Golden Hills Drive (APN #'s 077-211-140 &130), Qi Lin Family LLC (Staff: C. Richardson)
6. Commission and Staff Reports:
7. Approval of Minutes: February 27, 2017
8. Adjournment:

\*For more information on the projects to be considered by the ASCC at the Special Field and Regular meetings, as well as the scope of reviews and actions tentatively anticipated, please contact Carol Borck in the Planning Department at Portola Valley Town Hall, 650-851-1700 ex. 211. Further, the start times for other than the first Special Field meeting are tentative and dependent on the actual time needed for the preceding Special Field meeting.

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**PROPERTY OWNER ATTENDANCE.** The ASCC strongly encourages a property owner whose application is being heard by the ASCC to attend the ASCC meeting. Often issues arise that only property owners can responsibly address. In such cases, if the property owner is not present it may be necessary to delay action until the property owner can meet with the ASCC.

**WRITTEN MATERIALS.** Any writing or documents provided to a majority of the Town Council or Commissions regarding any item on this agenda will be made available for public inspection at Town Hall located 765 Portola Road, Portola Valley, CA during normal business hours.

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### **ASSISTANCE FOR PERSONS WITH DISABILITIES**

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Assistant Planner at 650-851-1700, extension 211. Notification 48 hours prior to the meeting will enable the Town to make reasonable arrangements to ensure accessibility to this meeting.

### **PUBLIC HEARINGS**

Public Hearings provide the general public and interested parties an opportunity to provide testimony on these items. If you challenge a proposed action(s) in court, you may be limited to raising only those issues you or someone else raised at the Public Hearing(s) described later in this agenda, or in written correspondence delivered to the Planning Commission at, or prior to, the Public Hearing(s).

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This Notice is Posted in Compliance with the Government Code of the State of California.

Date: March 10, 2017

CheyAnne Brown  
Planning Technician

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**TOWN OF PORTOLA VALLEY**  
**Trails and Paths Committee**  
**Tuesday, March 14, 2017 8:15 AM**  
**Historic Schoolhouse at Town Center**  
**765 Portola Road, Portola Valley, CA**

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**MEETING AGENDA**

- 1. Call to Order**
- 2. Oral Communications**
  - a. 4/2 Self-guided tour of 10 local gardens sponsored by the Conservation Committee
  - b. 4/8 Trail hike honoring Herb Dengler sponsored by the Cultural Arts Committee
- 3. Approval of Minutes** – Regular meeting of February 14, 2017
- 4. Old Business**
  - a. Trail conditions, work and budget update
  - b. Trail signage update
  - c. Committee meeting date / time
  - d. Trail monitoring assignments for committee members
- 5. New Business**
  - a. Fire safety mitigation and the trails
  - b. Highlight less used trails – potential collaboration with Conservation Committee
  - c. Update, strategic plan, and budget proposal for Council
  - d. Site development plans
  - e. Accolades
- 6. Other Business**
- 7. Adjournment**

**Enclosures:**

Minutes from February 14, 2017  
Trail Work Map & Memo – February 2017  
Financial Review – February 2017



**TOWN OF PORTOLA VALLEY  
REGULAR PLANNING COMMISSION MEETING  
Wednesday, March 15, 2017 – 7:00 p.m.  
Council Chambers (Historic Schoolhouse)  
765 Portola Road, Portola Valley, CA 94028**

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**7:00 PM – REGULAR AGENDA**

1. Call to Order:
  2. Roll Call: Commissioners Goulden, Hasko, Von Feldt, Vice-Chair Targ, Chair Gilbert
  3. Oral Communications:  
  
Persons wishing to address the Commission on any subject, not on the agenda, may do so now. Please note, however, the Commission is not able to undertake extended discussion or action tonight on items not on the agenda.
  4. New Business:
    - a. Preliminary Review of Proposed Lot Merger, File #LLA-02-2017. 4 & 5 Blue Oaks Court, Paul Koontz. APN #'s 080-241-020 & -030. (Staff: A. Cassidy)
    - b. Proposed "Clean-Up" Text Amendments to the Municipal Code Regarding Vending Machines, Basements and Scenic Corridor Setbacks (Staff: A. Cassidy)
    - c. Proposed Amendments to the Accessory Dwelling Units Ordinance (Staff: D. Pedro)
  5. Commission, Staff, Committee Reports and Recommendations:
  6. Approval of Minutes: February 15, 2017
  7. Adjournment:
- 

**ASSISTANCE FOR PERSONS WITH DISABILITIES**

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Assistant Planner at 650-851-1700 ext. 211. Notification 48 hours prior to the meeting will enable the Town to make reasonable arrangements to ensure accessibility to this meeting.

**AVAILABILITY OF INFORMATION**

Any writing or documents provided to a majority of the Town Council or Commissions regarding any item on this agenda will be made available for public inspection at Town Hall located 765 Portola Road, Portola Valley, CA during normal business hours.

Copies of all agenda reports and supporting data are available for viewing and inspection at Town Hall and at the Portola Valley branch of the San Mateo County Library located at Town Center.

### **PUBLIC HEARINGS**

Public Hearings provide the general public and interested parties an opportunity to provide testimony on these items. If you challenge a proposed action(s) in court, you may be limited to raising only those issues you or someone else raised at the Public Hearing(s) described later in this agenda, or in written correspondence delivered to the Planning Commission at, or prior to, the Public Hearing(s).

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This Notice is posted in compliance with the Government Code of the State of California.

Date: March 10, 2017

CheyAnne Brown  
Planning Technician

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# MEMORANDUM

## TOWN OF PORTOLA VALLEY

**TO:** Chairs and Members of the Town Commissions and Committees

**FROM:** Susan Cope, Administrative Services Manager

**DATE:** March 3, 2017

**RE:** **2017-18 Budget Calendar**

It's time to begin the budget planning process for the Town of Portola Valley's next fiscal year (July 1, 2017 – June 30, 2018). Budget worksheets are being distributed via email to Town staff, consultants, and each committee's chair. **Budget discussions should be agendized by committees/commissions in April.** Per the Committee Handbook, Committees should prepare their budget request and by motion and affirmative vote approve its submittal to the Town Manager.

The information submitted on these sheets will initially be reviewed and evaluated by Town staff. A recommended budget will then be forwarded to the Finance Committee for their review. Their comments and recommendations will be forwarded to the Town Council in a proposed budget. After review and public hearing, the Council will then adopt the budget in June.

<b>2017-18 BUDGET SCHEDULE</b>	
March 3, 2017	Memorandum and Budget Worksheets distributed to Town Council, Commissions/Committees, Consultants and Town staff
March 2017	Budget Worksheets reviewed and prepared by Committees, consultants and staff
April 2017	Budget Worksheets finalized by Committees/Commissions, consultants and staff
<b>Friday, April 28, 2017</b>	<b>Deadline for Budget Worksheets! Submit directly to Susan Cope (scope@portolavalley.net)</b>
April to mid-May 2017	Requests reviewed by staff, Recommended Budget prepared
3rd week of May 2017	Recommended Budget forwarded to Finance Committee
4th week of May 2017	Finance Committee Meeting
2nd week of June 2017	Presentation of Proposed Budget to Town Council
4th week of June 2017	Public Hearing on Proposed Budget, Adoption of Final Budget

If you have any questions, please feel free to contact me directly at 851-1700 (ext219) or via email at [scope@portolavalley.net](mailto:scope@portolavalley.net). Please note that the Adopted Budget for 2016-17 is available for review at [www.portolavalley.net](http://www.portolavalley.net) (via Town Government tab, then Town Finance).



# Town of Portola Valley

## BUDGET WORKSHEET

**FOR:** \_\_\_\_\_

ITEM #	BUDGET REQUEST OR ITEM DESCRIPTION/ACTIVITY: Please describe your budget request as clearly as possible.	ADOPTED 2016-2017 BUDGET	PROPOSED 2017-2018 BUDGET	FUTURE YEAR BUDGETS *		
				2018-19	2019-20	2020-21
		\$ -				
		\$ -	\$ -	* Future Budget Requests are merely estimates for capital items (ie. furniture, computers, trucks, roads, etc.) that you anticipate purchasing/building in future years. Future year budgets are not binding on the Council, but provide a heads-up for possible costs in the future.		

Submit completed worksheet to Admin Svcs Manager Susan Cope at [scope@portolavalley.net](mailto:scope@portolavalley.net).  
 Deadline for budget requests is April 28, 2017



## **TOWN COUNCIL WEEKLY DIGEST**

**Friday – March 17, 2017**

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1. Agenda (Action) – Town Council – Wednesday, March 8, 2017
2. Agenda – Sustainability & Environmental Resources Committee – Monday, March 20, 2017
3. Agenda – Historic Resources Committee – Monday, March 20, 2017
4. Town Committees Vacancy Ad – Almanac Newspaper March 1, 2017 Publication
5. Invitation – Council of Cities Dinner Meeting – Friday, March 31, 2017
6. C/CAG Vacancy Ad – One seat on Congestion Management and Environmental Quality Committee (CMEQ)
7. Invitation – San Mateo County Mosquito & Vector Control District (SMCMVCD) – Mosquito Awareness Week Open House - Tuesday, April 18, 2017

### **Attached Separates (Council Only)**

*(placed in your town hall mailbox)*

1. None



# TOWN OF PORTOLA VALLEY

7:00 PM – Regular Meeting of the Town Council  
 Wednesday, March 8, 2017  
 Historic Schoolhouse  
 765 Portola Road, Portola Valley, CA 94028

## ACTION AGENDA

### 7:00 PM - CALL TO ORDER AND ROLL CALL

Councilmember Derwin, Councilmember Aalfs, Councilmember Wengert, Vice Mayor Richards and Mayor Hughes

*All Present*

### ORAL COMMUNICATIONS

Persons wishing to address the Town Council on any subject may do so now. Please note however, that the Council is not able to undertake extended discussion or action tonight on items not on the agenda.

*None*

1. **PRESENTATION** - Garrett Kuramoto, Branch Manager for Portola Valley and Woodside Libraries; Library Update

*Mr. Kuramoto presented Council with the San Mateo County Library Annual Report for 2015/16 FY. Library use is growing in numbers of borrowers, circulation, computer use and participation in programs.*

### CONSENT AGENDA

The following items listed on the Consent Agenda are considered routine and approved by one roll call motion. The Mayor or any member of the Town Council or of the public may request that any item listed under the Consent Agenda be removed and action taken separately.

2. **Approval of Minutes** – Town Council Meeting of February 22, 2017
3. **Approval of Warrant List** – March 8, 2017

*Items 2 & 3 Approved 5-0*

### REGULAR AGENDA

### STAFF REPORTS AND RECOMMENDATIONS

4. **Recommendation by Town Manager** – Appointment of Members to the Sustainability and Environmental Resources Committee

- (1) Bacon, Virginia
- (2) Loader, Jayne
- (3) McClintock, Meredith
- (4) Salah, George
- (5) Strong, Anne-Laure
- (6) Unnasch, Stefan

*Council appointed Meredith McClintock, George Salah, Anne-Laure Strong and Stefan Unnasch to the Sustainability and Environmental Resources Committee*

### COMMITTEE REPORTS & REQUESTS

5. **PRESENTATION** – Town Center Master Plan Committee Update

*Staff was directed to work with the committee and bring back to Council; criteria for multiple conceptual designs, donor criteria, opportunities for additional outreach and possible constraints of the Spring Down property.*

### 6. COUNCIL LIAISON COMMITTEE AND REGIONAL AGENCIES REPORTS

**Report by Town Council Members** – Brief announcements or reports on items of significance for the entire Town Council arising out of liaison appointments to both in-town and regional committees and initiatives. *There are no written materials and the Town Council does not take action under this agenda item.*

**Councilmember Derwin -**

**Attended the February Council of Cities dinner meeting in Redwood City on Immigration. Attended the February 27<sup>th</sup> ASCC Study Session on home security and lighting, and the joint ASCC and Planning Commission training workshop, held on March 1<sup>st</sup>.**

**Councilmember Aalfs -**

**Continues his work with Peninsula Clean Energy and attended the Silicon Valley Leadership Group Competition in Innovation program, held on March 2, 2017.**

**Councilmember Wengert -**

**Attended the February Council of Cities dinner meeting and met with Don Horsley to discuss affordable housing.**

**Vice Mayor Richards -**

**Attended the February Conservation Committee meeting and the ASCC and Planning Commission training workshop.**

**Mayor Hughes -**

**Attended a Peninsula Clean Energy meeting and the March 1<sup>st</sup> Bicycle Pedestrian & Traffic Safety Committee meeting.**

**7. Town Manager Report**

**Town Manager Dennis reported that the draft communications audit is scheduled to come before Council at its April 12 meeting. He visited the new Maple Street Correctional Facility. The Sheriff's Deputies are patrolling Corte Madera School during morning hour drop off due to increased speeding and running of stop signs. The Joint ASCC and Planning Commission training workshop held on March 1<sup>st</sup> was extremely successful. Town Manager Dennis and Planning Director Pedro are meeting with individual Commissioners as a follow-up to the workshop. As part of the Windy Hill parking lot project, placed rocks will be covered in mulch. March 18<sup>th</sup> is Opening Day for Little League. Staff is experimenting with the varied use of organic fertilizer on Town fields. Peninsula Clean Energy community workshop is being held March 9 and 11. The Parks & Recreation Committee proposed holding Zots to Tots and the Town Picnic on separate dates.**

**WRITTEN COMMUNICATIONS**

**8. Town Council Digest – February 24, 2017**

**None**

**9. Town Council Digest – March 3, 2017**

**Mayor Hughes noted the upcoming Peninsula Clean Energy community workshops being held on March 9 & 11**

**ADJOURNMENT: 9:59 pm**

**ASSISTANCE FOR PEOPLE WITH DISABILITIES**

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**AVAILABILITY OF INFORMATION**

Copies of all agenda reports and supporting data are available for viewing and inspection at Town Hall and at the Portola Valley Library located adjacent to Town Hall. In accordance with SB343, Town Council agenda materials, released less than 72 hours prior to the meeting, are available to the public at Town Hall, 765 Portola Road, Portola Valley, CA 94028.

**SUBMITTAL OF AGENDA ITEMS**

The deadline for submittal of agenda items is 12:00 Noon WEDNESDAY of the week prior to the meeting. By law no action can be taken on matters not listed on the printed agenda unless the Town Council determines that emergency action is required. Non-emergency matters brought up by the public under Communications may be referred to the administrative staff for appropriate action.

**PUBLIC HEARINGS**

Public Hearings provide the general public and interested parties an opportunity to provide testimony on these items. If you challenge any proposed action(s) in court, you may be limited to raising only issues you or someone else raised at the Public Hearing(s).



**TOWN OF PORTOLA VALLEY**  
**Sustainability & Environmental Resources**  
**Committee Meeting**  
**Monday, March 20, 2017 10:30 AM**  
**Town Hall - Conference Room**  
**765 Portola Road, Portola Valley, CA 94028**

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**AGENDA**

- 1. Call To Order**
- 2. Oral Communications**
- 3. Introductions & Welcome to New Committee Members**
- 4. New Business:**
  - a. Overview of Town Sustainability**
  - b. Current Opportunities, Programs & Projects**
  - c. Committee Goals for 2017**
  - d. Committee Mission Statement**
  - e. Preparations for Garden Tour – April 2, 2017**
  - f. Preparations for Earth Fair – April 22, 2017**
  - g. Update from Maryann**
  - h. Update from Brandi**
- 5. Announcements**
- 6. Set Date and Topics for Next Meeting**
  - a. Monday, April 17th at 10:30 am**
- 7. Adjournment**



**Town of Portola Valley**  
***Historic Resources Committee***  
**Monday, March 20, 2017 - 4:00 PM**  
**Heritage Room / Library at Town Center**  
**765 Portola Road**  
**Portola Valley, CA 94028**

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**MEETING AGENDA**

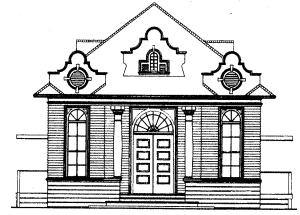
1. Call to Order
2. Oral Communications
3. Approval of Minutes – Regular meeting of February 28, 2017
4. Old Business
  - a. Report on digitizing the card catalog
5. New Business
  - a. 2017/2018 FY Budget
  - b. Approval of expenses for framing
6. Other Business
7. Adjournment

Enclosures: Minutes of February 28, 2017

## TOWN OF PORTOLA VALLEY

*"It is often said that you get out of life what you give. Through volunteerism, we not only provide support for our Town; we obtain the rich rewards of friendship and of truly making a difference, while setting a meaningful example for future generations."*

*- Bill Lane, former mayor and founding father of Portola Valley*



### **Bicycle, Pedestrian & Traffic Safety Committee**

Meets first Wednesday of each month, 8:15 a.m.; appointed for a one-year term.

The objectives of this committee are to foster a community for all users of the public roads. To advise the Town in ways and means for safer conditions regarding motor vehicles, bicycles, pedestrians and road conditions. To encourage proper traffic enforcement. To encourage safe and enjoyable bicycling in Portola Valley as a means of transportation and recreation.

### **Cultural Arts Committee**

Meets second Thursday of each month; appointed for a one-year term.

Increase cultural awareness among residents of Portola Valley by sponsoring and supporting local cultural activities in the areas of art, music, science and nature, history, horticulture, drama, literature, photography and dance.

### **Emergency Preparedness Committee**

Meets second Thursday of each month, 8:00 a.m.; appointed for a one-year term.

This Committee works with Town Staff to ensure that neighborhoods and Town government are ready to respond to possible emergencies such as earthquakes, wildfires and flooding. Other duties include maintaining emergency supplies and equipment, planning response to emergencies and educating Town residents.

### **Historical Resources Committee**

Meets as announced; appointed for a one-year term.

To procure, organize, preserve, and make available for review and/or display archival materials likely to be of significant, general interest over a prolong period of time to residents of the Portola Valley region.

### **Nature and Science Committee**

Meets alternate even-numbered months 2<sup>nd</sup> Thursday, 5:00 p.m.; appointed for a one-year term.

The objectives of this Committee are to increase appreciation for Portola Valley's natural environment by providing opportunities for residents and visitors to observe and study local natural history, encourage scientific dialog and promoting scientific literacy in the community and provide information to the community about science, technology and natural history.

### **Open Space Acquisition Advisory Committee**

Meets as announced; appointed for a one-year term.

This Committee supports preservation of the Town's rural environment by advising the Town Council on open space acquisitions and uses.

### **Parks and Recreation Committee**

Meets first Monday of each month, 7:30 p.m.; appointed for a one-year term.

This Committee meets to develop, promote and maintain quality recreational and community enrichment programs, recreational facilities and park areas in the Town of Portola Valley.

### **Public Works Committee**

Meets as announced; appointed for a one-year term.

The Portola Valley Public Works Committee acts as the liaison between the citizens of Portola Valley, Public Works Staff and members of the Town Council on the Town's need of public works nature.

### **Sustainability & Environmental Resources Committee**

Meets first Monday of each month, 10:30 a.m.; appointed for a one-year term.

This is a newly formed Committee that will develop, recommend and champion policies and programs that promote the Town's sustainability, environmental and ecological goals.

Applications are available on-line at [www.portolavalley.net](http://www.portolavalley.net) on the homepage under the Town Committees tab. Hard copies are available at Town Hall.

Town Clerk Sharon Hanlon

Town of Portola Valley

765 Portola Road, Portola Valley, CA 94028

E-mail: [shanlon@portolavalley.net](mailto:shanlon@portolavalley.net)

Phone: (650) 851-1700 ext. 210



## Dinner/Meeting Announcement Friday, March 31, 2017

*Everyone is encouraged to attend these monthly meetings. This is a great opportunity to meet colleagues from other cities, work together on solutions for our county, get to know how other cities handle issues, make friends and helpful connections, and learn what's going on with the "big" issues we seldom have time to discuss at council meetings.*

**Location:**

**Hong Kong Flower Lounge**

51 East Millbrae Avenue  
 Millbrae, CA 94030  
 (entrance and parking on South  
 Broadway)

**Schedule:**

6:00pm	Social Time
6:30pm	Business Meeting
6:45pm	Dinner
7:15 pm	Program
8:30 pm	Adjourn

Please contact Chair Liza Normandy if you wish to bring up an item for group discussion or give a committee report.  
 Telephone: (650) 291-4752 or email: [liza.normandy@ssf.net](mailto:liza.normandy@ssf.net)

**Family Style Chinese Dinner**  
**\$45.00 per person**

*Special Assortment of Appetizers, Supreme Seafood Soup, Seasoned Vegetables in Soup, Honey Beef, Walnut Prawns, Peking Duck, Sweet and Sour Fish, Pan Fried Crab in Special Curry Pumpkin Sauce, Pan Fried Noodles, and Dessert*

Please RSVP by Friday, March 24, 2017, to Alicia Bartolome at [abartolome@ci.millbrae.ca.us](mailto:abartolome@ci.millbrae.ca.us) or 650-259-2412

Please make checks payable to:

City of Millbrae  
 Attn: Angela Louis  
 621 Magnolia Avenue  
 Millbrae, CA 94030



## **Business Meeting at 6:30pm Friday, March 31, 2017**

### **6:30pm**

- Call to Order by Chair Liza Normandy
- Roll Call and Introduction of Mayors, Council Members and Guests
- Business Meeting
- Approval of Minutes of Previous Meeting and Treasurer's Report
- Committee Reports
- Old Business
- New Business
- Announcements

### **7:15pm**

- Introduction of the Program by Mayor Reuben D. Holober
- **PROGRAM:** "Modernizing our Communities: The Value of Fiber Connectivity."
  - Panelists
    - Anne Campbell, San Mateo County Superintendent
    - Jose Mejia, San Mateo County ISD Division Manager
  - Panel Moderator
    - Mike Futrell, South San Francisco City Manager

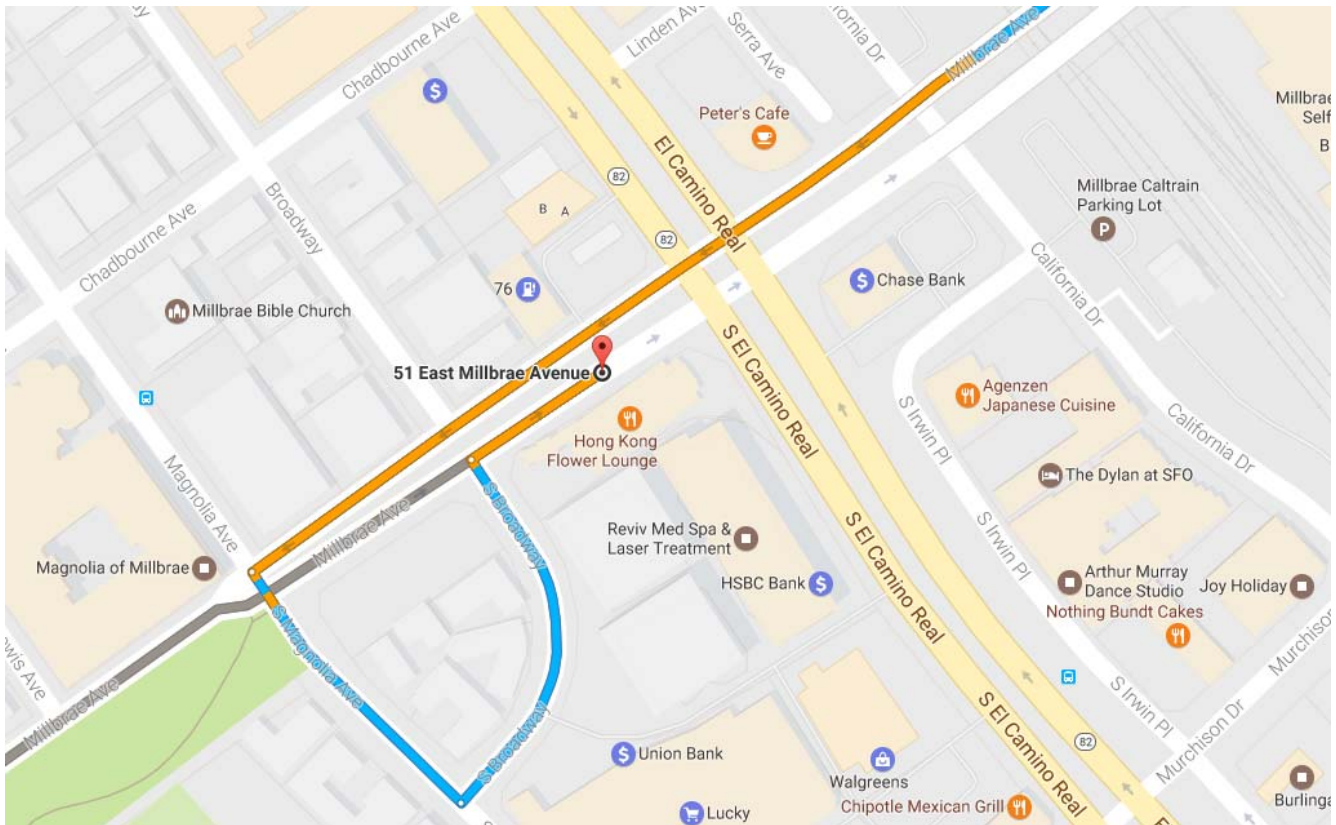
### **8:30pm**

- Meeting Adjourned

**Hong Kong Flower Lounge**

**51 E. Millbrae Avenue, Millbrae, CA 94030**

**(Entrance is on South Broadway)**



**From San Francisco:**

**Take 101 South**

**Exit on E. Millbrae Ave. (Exit 420)**

**Turn right onto Millbrae Ave.**

**Continue on Millbrae Ave. & cross El Camino Real**

**Turn left on South Magnolia Ave.**

**Turn left on South Broadway**

**Parking is on the right**

**From San Jose:**

**Take 101 North**

**Exit on E. Millbrae Ave. (Exit 421)**

**Turn left onto Millbrae Ave.**

**Continue on Millbrae Ave. & cross El Camino Real**

**Turn left on South Magnolia Ave.**

**Turn left on South Broadway**

**Parking is on the right**

*Atherton • Belmont • Brisbane • Burlingame • Colma • Daly City • East Palo Alto • Foster City • Half Moon Bay • Hillsborough • Menlo Park • Millbrae • Pacifica • Portola Valley • Redwood City • San Bruno • San Carlos • San Mateo • San Mateo County • South San Francisco • Woodside*

Date: March 13, 2017

To: Council Members from San Mateo County Cities and Towns, and Members of the San Mateo County Board of Supervisors  
All City/County Managers

From: Alicia C. Aguirre, C/CAG Chair

Subject: **Solicitation of an Elected Official to Serve on C/CAG's Congestion Management and Environmental Quality Committee (CMEQ)**

The City/County Association of Governments of San Mateo County (C/CAG) has one (1) vacant seat on the Congestion Management and Environmental Quality (CMEQ) Committee for elected officials of City Councils and/or the Board of Supervisors. Individuals must be an elected official on one of the twenty City and Town Councils in San Mateo County or an elected official on the San Mateo County Board of Supervisors.

Individuals wishing to be considered for appointment of this committee should send a letter of interest to:

Sandy Wong, C/CAG Executive Director  
City/County Association of Governments  
555 County Center, 5<sup>th</sup> Floor  
Redwood City, CA 94063  
Or E-Mail to: [slwong@smcgov.org](mailto:slwong@smcgov.org)

About the **Congestion Management and Environmental Quality Committee (CMEQ):**

The CMEQ provides advice and recommendations to the full C/CAG Board on all matters relating to transportation planning, congestion management, travel demand management, coordination of land use and transportation planning, mobile source air quality programs, energy resources and conservation, and other environmental issues facing local jurisdictions in San Mateo County. The role of the CMEQ Committee also includes making recommendations to the C/CAG Board on the allocation of funding for specific projects and activities addressing these programmatic areas. The Committee meets on the last Monday of each month from 3:00 to 5:00 p.m. in San Mateo City Hall.

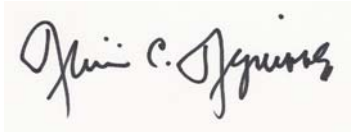
If you would like to be considered for the CMEQ Committee, please submit your letter of interest **no later than 5 p.m. on Friday, April 21, 2017**. Appointments will be considered at the May 11, 2017 C/CAG Board of Directors meeting. If there is still a vacancy after the April 21st deadline, this recruitment may be extended to Friday, May 26, 2017 for appointments to be considered at the June 8, 2017 C/CAG Board of Directors Meeting.

If you have any questions about the CMEQ committee or this appointment process, please feel free to contact the following C/CAG Staff:

Jeff Lacap  
650-599-1455  
[jlacap@smcgov.org](mailto:jlacap@smcgov.org)

Thank you for your consideration of this request.

Sincerely,

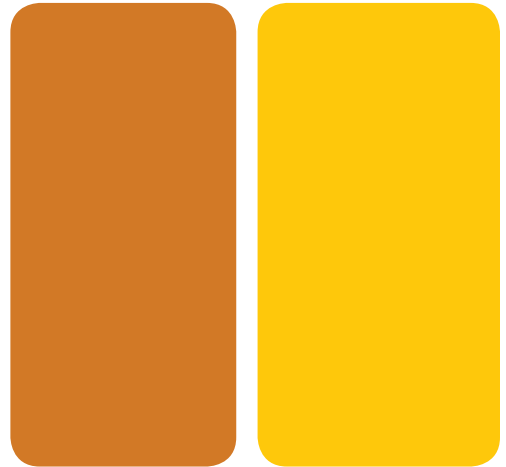
A handwritten signature in black ink on a light beige background. The signature reads "Alicia C. Aguirre" in a cursive script.

Alicia C. Aguirre  
C/CAG Chair

# Mosquito Awareness Week

# 2017

## Open House



**Tuesday, April 18th, 4pm - 7pm\***  
**1351 Rollins Rd. in Burlingame**

- Children's activities
- Demonstrations and tours
- Insect displays
- Meet the staff

\* groups welcome 12pm-4pm by reservation

