

**AGENDA – REGULAR MEETING
BELVEDERE CITY COUNCIL
JULY 12, 2021, 6:30 P.M.
REMOTE MEETING**

COVID-19 ADVISORY NOTICE

Due to Covid concerns and consistent with State Executive Orders No. 25-20 and No. 29-20, the meeting will not be physically open to the public. Members of the City Council and staff will participate in this meeting remotely.

Members of the public are encouraged to participate remotely via Zoom or telephone pursuant to the information and link below. Public comment will be accepted during the meeting. The public may also submit comments in advance of the meeting by emailing the City Clerk at: clerk@cityofbelvedere.org. Please write “Public Comment” in the subject line. Comments submitted one hour prior to the commencement of the meeting will be presented to the City Council and included in the public record for the meeting. Those received after this time will be added to the record and shared with City Councilmembers after the meeting.

City of Belvedere is inviting you to a scheduled Zoom meeting.

Topic: Belvedere Regular City Council Meeting

Time: July 12, 2021, 6:30 P.M.

Join Zoom Meeting:

<https://us02web.zoom.us/j/83463812723?pwd=Sk5zZGt3ajhEZTB4aXN6OWJVYWVhZz09>

Webinar ID: 834 6381 2723

Passcode: 346900

877 853 5247 US Toll-free

888 788 0099 US Toll-free

The City encourages that comments be submitted in advance of the meeting.

However, for members of the public using the Zoom video conference function, those who wish to comment on an agenda item should write “I wish to make a public comment” in the chat section of the remote meeting platform. At the appropriate time, the city clerk will allow oral public comment through the remote meeting platform. Any member of the public who needs special accommodations to access the public meeting should email the city clerk at clerk@cityofbelvedere.org, who will use her best efforts to provide assistance.

**AGENDA – REGULAR MEETING
BELVEDERE CITY COUNCIL
JULY 12, 2021, 6:30 P.M.
VIA REMOTE ZOOM MEETING**

COMMENTS ON AGENDA ITEMS BY MEMBERS OF THE AUDIENCE

The audience will be given an opportunity to speak on each agenda item when it is called. Upon being recognized by the Mayor, please state your name and address, and limit your oral statement to no more than three minutes. The Council welcomes comments and questions raised by interested citizens but typically does not respond during the comment period.

6:30 PM CALL TO ORDER

OPEN FORUM

This is an opportunity for any citizen to briefly address the City Council on any matter that does not appear on this agenda. Upon being recognized by the Mayor, please state your name, address, and limit your oral statement to no more than three minutes. Matters that appear to warrant a more lengthy presentation or Council consideration may be agendized for further discussion at a later meeting.

REPORTS & PRESENTATIONS

1. Interviews for the Belvedere Tiburon Library Agency Board.
2. City Council reports.
3. City Manager report.
4. Police Department Quarterly report from Police Chief Jason Wu.
5. Fire Safety presentation from Deputy Fire Marshall Mike Lantier and Public Works Director Robert Zadnik.
6. Greenhouse Gas (GHG) presentation from Christine O'Rourke.

CONSENT CALENDAR

The Consent Calendar consists of items that the City Council considers to be non-controversial. Unless any item is specifically removed by any member of the City Council, staff, or audience, the Consent Calendar will be adopted by one motion. Items removed will be considered in the sequence as they appear below. If any member of the audience wishes to have an item removed, please step to the microphone, state your name, and indicate the item.

7. Approve minutes of the June 14, 2021, regular meeting.
8. Approve warrants of June 2021.
9. Adopt a Resolution extending the Marin County Abandoned Vehicle Service Authority Vehicle Registration Fee Until April 2032.
10. Adopt a Resolution to amend the City of Belvedere Administrative Policy Manual to incorporate revisions to the Public Memorial Policy.

11. Adopt a Resolution to amend the City of Belvedere Administrative Policy Manual to incorporate revised Personnel Policies.
12. Approve revocable license for proposed private improvements in the City street right-of-way along North Point Circle for the property at 5 North Point Circle.
13. Adopt a Resolution to Establish the Belvedere Emergency Readiness Committee.

INDIVIDUAL CONSENT CALENDAR

Individual Consent Calendar Items are considered non-controversial but require individual motions for approval due to necessary recusals.

14. Approve revocable license for private improvements in the City street right-of-way along Bayview Avenue for the property at 129 Bayview Avenue.

OTHER SCHEDULED ITEMS

15. Belvedere Playground Discussion.
16. Make Appointments to the Belvedere Tiburon Library Agency Board and the Historic Preservation Committee.

ADJOURN

NOTICE: WHERE TO VIEW AGENDA MATERIALS

Staff reports and other materials distributed to the City Council are available for public inspection at the following locations:

- Online at www.cityofbelvedere.org/archive.aspx
- Belvedere City Hall, 450 San Rafael Avenue, Belvedere. *(Materials distributed to the City Council after the Thursday before the meeting are available for public inspection at this location only.)*
- Belvedere-Tiburon Library, 1501 Tiburon Boulevard, Tiburon.

To request automatic mailing of agenda materials, please contact the City Clerk at (415) 435-3838.

NOTICE: AMERICANS WITH DISABILITIES ACT

The following accommodations will be provided, upon request, to persons with a disability: agendas and/or agenda packet materials in alternate formats and special assistance needed to attend or participate in this meeting. Please make your request at the Office of the City Clerk or by calling 415/435-3838. Whenever possible, please make your request four working days in advance.

OTHER SCHEDULED ITEMS

BELVEDERE CITY COUNCIL
JULY 12, 2021

To: Mayor and City Council

From: Beth Haener, City Clerk

Subject: **Make appointments to the Belvedere-Tiburon Library Agency Board of Directors and the Historic Preservation Committee**

Recommended Motion/Item Description

1. That the Council interview applicants at the beginning of the meeting for the open position on the Belvedere Tiburon Library Agency Board and make an appointment as the last item on the agenda.
2. That the Council make reappointments to the Historic Preservation Committee as the last item on the agenda.

Background

The following committees have members whose terms expired on June 30, 2021.

Belvedere-Tiburon Library Agency Board of Directors – 1 opening

The term of Belvedere resident representative William Smith ended on June 30, 2021. The Library Agency Board limits representatives to serving two terms on the board. Mr. Smith has reached the end of his first term and has requested to be reappointed for a second term. Two other applications have been received for the position from Roxanne Richards and Maria Shuman. Maria Shuman is not available for an interview at this Council meeting, but her letter of interest is included in the attachments.

Historic Preservation Committee- 4 openings

Four members of the Historic Preservation Committee terms expired on June 30, 2021: Diana Bradley, Marshall Butler, Robert Griffin, and Mel Owen. All four incumbents have requested to be reappointed to the committee. No other applications have been received for the open positions on this committee. There are no term limits for this committee.

Recruitment Efforts and Interviews

Recruitment advertisements for the committee openings were run in *The Ark* throughout May and June. Information was also posted on the City's website. Incumbents eligible to serve another term were contacted regarding whether they would like to be reappointed. All correspondence received regarding the open positions is included in the attachments.

Per established policy, the Council does not require incumbents to interview for their positions again, but they may do so. Roxanne Richards will be present for a brief interview for the Belvedere Tiburon Library Agency Board, as will the incumbent William Smith, who has requested to be interviewed. Maria Shuman is unable to be present for an interview. There will be no interviews for the Historic Preservation Committee.

Recommendation

1. That the Council interview applicants at the beginning of the meeting for the open position on the Belvedere Tiburon Library Agency Board and make an appointment as the last item on the agenda.
2. That the Council make reappointments to the Historic Preservation Committee as the last item on the agenda.

Attachments

Applications or reappointment requests received:

1. Roxanne Richard (Belvedere Tiburon Library Agency Board)
2. Maria Shuman (Belvedere Tiburon Library Agency Board)
3. William Smith (Belvedere Tiburon Library Agency Board)
4. Diana Bradley (Historic Preservation Committee)
5. Marshall Butler (Historic Preservation Committee)
6. Robert Griffin (Historic Preservation Committee)
7. Mel Owen (Historic Preservation Committee)

6.22.2021

Dear Mayor Campbell and Members of City Council,

I would like to be considered for the open seat on the Belvedere Tiburon Library Agency Board.

The Library is at a significant juncture now as it moves into its larger footprint, with the renovation not yet fully-funded, and as it appoints a new Library Director. What seemed to be hugely-ambitious community venture in 1997, is now an asset with the potential to become a library service leader in our high-tech era.

My involvement in the Library since my family's move to the community in 2001 provides a valuable perspective in the upcoming work facing the Agency. Most recently, I've dedicated a good amount of time (since Dec 2019) on the Library's Foundation Board where I've

- Created the concept and momentum for the public phase of the Capital Campaign, with just under \$1M raised in the public phase
- Helped lead the preliminary strategic planning vision and mission-setting process which will culminate in a Foundation strategic plan by autumn 2021. This plan will guide the Foundation's future actions as it strengthens its resources and community support for the Library's stellar collection and programs.

Through both those projects, I've gained inside knowledge into the Library's fund-raising operations and community attitudes, as well as a better understanding of the operational concerns generally. I've "dug into the weeds" especially as the Agency prepared its funding request for the City of Belvedere. And I've listened in on Agency Board meetings over the past few months to more-fully appreciate the culture of the Board and the issues presented.

I have a proven track record serving on teams in the non-profit arena as well as in business. I am one of nine directors on the Marin Community Foundation board, where we are responsible for the oversight of an organization that contributes over \$150 million annually in grants via donor-advised funds, The Buck Family Fund and other supporting organizations. I led the 30-member YMCA – San Francisco Association Board as Chairwoman of its +\$74M operation from 2012-2014, and I initiated and oversaw an organization-wide strategic planning effort across the Y's 14 branches and boards, which is significantly impacting the Y to this day. I have an MBA from Boston University and honed my consulting skills at Marsh McLennan in Boston and New York.

The challenges presented by the Library are stimulating and surmountable, 'though I believe some very intentional, focused work is demanded to make sure that our library is sustainable and exceptional for the next generation. I look forward to a conversation with the Council and hope I can help our Belvedere and greater community through this opportunity.

Thank you



Maria Shuman

8 No. Point Circle
Belvedere, CA 94920

May 25, 2021

James Campbell

Mayor, City of Belvedere

% clerk@cityofbelvedere.org

450 San Rafael Avenue
Belvedere, CA 94920

Dear Mayor Campbell,

I am submitting my letter of interest and brief statement of qualifications for the open seat on the Belvedere-Tiburon Library Agency Board.

Based on my career as a librarian, as a former attorney, and as a current resident of Belvedere, I believe I am qualified for the role.

I am currently in my fifth year as the Librarian and Innovation Support Assistant at Katherine Delmar Burke School in San Francisco. I have spent the last five years managing the school's large library collection and supporting two teacher-librarians in a robust and expansive library program at this independent K-8 school. I have been instrumental in our efforts to integrate technology into the library while retaining its basic purpose of providing and supporting reading and exploration of ideas and interests for girls ages 5-14 years old. I possess a Masters degree in Education with an emphasis on school librarianship from the University of Colorado Denver.

Prior to my library career, I was an attorney with an in-house position that required a specialization in software licensing, contracts, and issues surrounding human resources. I possess a JD from the University of San Francisco.

On a personal note, I grew up in Tiburon (Redwood High School, class of 1979; Reedland Woods, class of 1975) and spent 22 years in Boulder, Colorado raising our children. My husband and I happily returned to the Bay Area in 2015 and moved to Belvedere in 2020. With great interest, I have followed the expansion and fundraising efforts related to the new Tiburon-Belvedere library complex and am excited to offer my expertise toward its completion, re-opening and future direction.

Sincerely,

Maria (Brightbill) Shuman

From:
To: [Beth Haener - City Clerk](#)
Cc: [Craig Middleton - City Manager](#)
Subject: Library Agency
Date: Wednesday, May 26, 2021 8:14:04 PM

Hi Beth,
My term on the Agency ends this June 30th.
I would like to reapply.
Thank you.

Bill Smith
Luxury Property Specialist

Compass
36 Main Street
Tiburon, CA 94920
compass.com

From: Diana Bradley <[REDACTED]>
Sent: Thursday, May 20, 2021 8:56 AM
To: Beth Haener - City Clerk <bhaener@cityofbelvedere.org>
Subject: Re: Belvedere Historic Preservation Committee Term Ending

Dear Belvedere Mayor,
I have been delighted and proud to serve on the
Historic committee. WE now have 23 houses listed. I
would like to serve another 4 years, Diana Bradley

From: Marshall [REDACTED]
Sent: Wednesday, May 12, 2021 11:03 AM
To: Beth Haener - City Clerk <bhaener@cityofbelvedere.org>
Cc: Rebecca Markwick - Senior Planner <AssociatePlanner@cityofbelvedere.org>
Subject: Re: Belvedere Historic Preservation Committee Term Ending

Yes. I am interested in staying on to serve a full term on the committee.

Marshall

From: [REDACTED]
To: [Beth Haener - City Clerk](#)
Subject: Re: Belvedere Historic Preservation Committee. Term
Date: Monday, June 21, 2021 3:53:47 PM

Dear Beth,

Many thanks for your e-mail. I would be pleased to remain on the Historic Preservation Committee(if they will have me) for another term.

Best Regards,

Bob

From: [REDACTED]
To: [Beth Haener - City Clerk](#)
Cc: [Irene Borba - Planning Director](#); [Rebecca Markwick - Senior Planner](#)
Subject: Re: Application for reappointment to Belvedere Historic Preservation Committee
Date: Tuesday, May 25, 2021 5:24:46 PM

To The Belvedere City Council,

Thank you for the notification of my 4 year term expiring in June and inquiring if I want to continue on that Committee. Yes, I have enjoyed the activity and served as Chair for two or three years. Please consider my reappointment.

The Committee has been busy and has added 9 homes to the protection of Historic Designation during those 4 years.

Very Cordially,

Mel Owen
25 Beach Rd. Apt H
Belvedere, CA. 94920

To: Mayor and City Council

From: Irene Borba, Director of Planning & Building

Subject: Presentation and Update on the Community’s Emissions Inventory & Progress in Achieving Reduction Targets

Issue:

Status update in reducing greenhouse gas emissions within the Belvedere community, and on progress in achieving its community-wide emission reduction targets aimed at reducing greenhouse gas emissions 15% below 2005 levels by the year 2020, and at contributing to meeting a statewide goal of reducing emissions 40% below 1990 levels by 2030.

Recommendation:

Receive presentation from Christine O’Rourke.

Background:

This staff report serves to update City Council on its progress in reducing community-wide greenhouse gas (GHG) emissions. As originally adopted by City Council and further codified in the Climate Action Element of City’s General Plan, the City has committed to inventory its greenhouse gas emissions and compare its emission with its 2005 baseline condition, with the goal of:

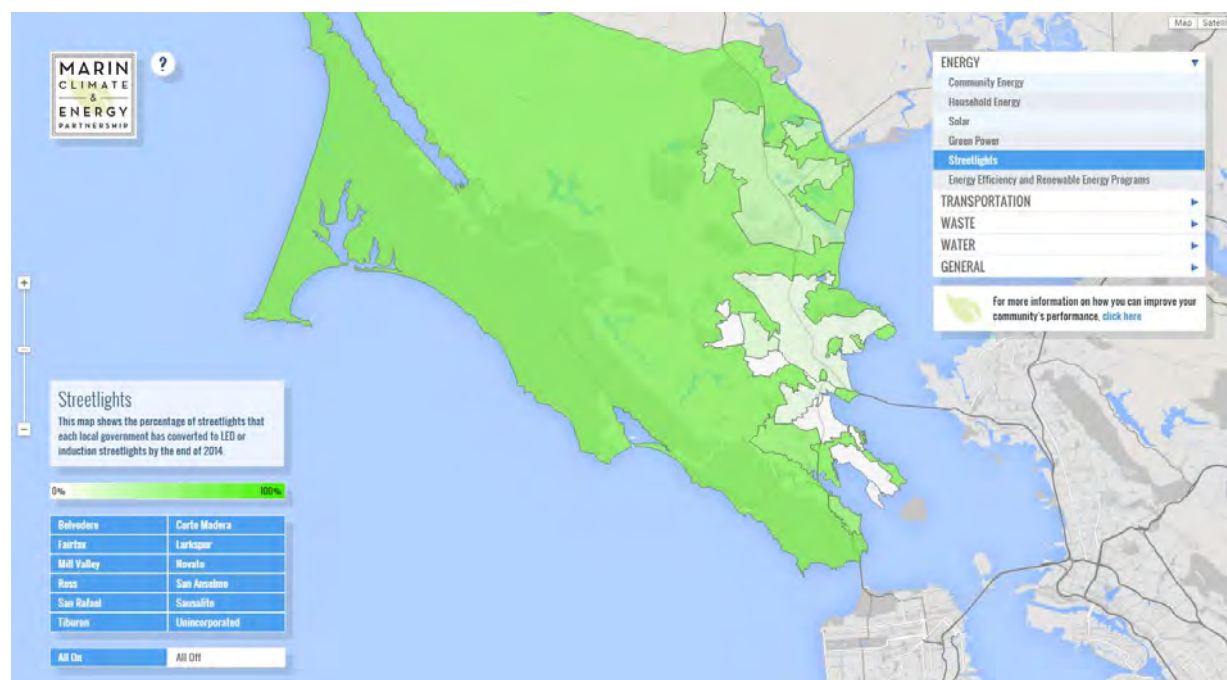
- Reducing GHG emissions community wide 15% below 2005 levels by the year 2020.
- Reducing government-related emissions 20% below 2005 levels by the year 2020. (Note that government operations are a small portion of the overall community-wide emissions).

Legislative Background and Regional Coordination. The emission reduction targets set for the year 2020 are similar to other local jurisdictions’ targets and those set by the state through legislative initiative (AB32). Additional emission reduction targets are now being established by the State going beyond the year 2020, with a target of 40% below baseline emissions by 2030.

Staff continues to work collaboratively through the Marin Climate and Energy Partnership (MCEP) to streamline and coordinate the implementation of GHG measures and policies set forth in the various jurisdictions’ Climate Action Plans. MCEP meets monthly and is a joint partnership between each of the eleven Marin cities and towns, the County of Marin, the Marin Municipal Water District (MMWD), Marin Clean Energy (MCE), and the Transportation Authority of Marin (TAM). MCEP’s mission is to: 1) discuss, study, and implement overarching policies and programs, ranging from emission reduction strategies to adaptation, contained in

each agency's Climate Action Plan; and 2) collect data and report on progress in meeting each partner member's individual greenhouse gas (GHG) emission targets.

Illustrated below is MCEP's "Marin Sustainability Tracker," which includes twelve metrics gauging a community's level of consumption and its implementation of sustainability measures related to energy, waste, transportation, water, and greenhouse gas reductions.



Source: Marin Climate & Energy Partnership, Sustainability Tracker, <http://marintracker.org/>.

Community Emission-Reduction Targets

Christine O'Rourke, Climate Action Director for MCEP, will provide an overview of Belvedere's emissions inventory, contained in **ATTACHMENT 1**. You may note that the emissions inventory is from 2005 to 2019, which is the most "current" year that data can be extracted and obtained from various sources. The inventory shows that the Belvedere community has reduced emissions **27%** since 2005 and met its 2020 goal six years ahead of schedule in 2014. Emissions dropped from about 14,750 metric tons carbon dioxide equivalents (MTCO₂e) in 2005 to 10,715 MTCO₂e in 2018.

The City of Belvedere continues to strive towards its goal of reducing GHG emissions. Belvedere's greenhouse gas emissions dropped 16% between 2005 and 2014, meaning the City has met local and statewide reduction goals for 2020. The largest reductions were due to decreases in residential electricity and natural gas use and emissions. Decreases in waste disposal and water use also played a part. Although Belvedere has met its target to reduce emissions 15% by 2020, new State legislation has set longer-term goals to reduce emissions 40% below baseline emissions by 2030.

In addition to the programs and actions described above, the City pursued a range of outreach activities and participated in several multi-agency efforts, including:

- Utilized the City's newsletter, social media, and press to promote sustainability efforts.
- Supported and promoted local green festivals, lectures, workshops, and activities.
- Participated in and supported the Marin Climate and Energy Partnership.
- Partnered with Resilient Neighborhoods to enroll Belvedere households in a program to learn about sustainability and take actions to reduce household greenhouse gas emissions.

Summary, Priorities and Next Steps

Belvedere has made significant progress in reducing GHG emissions since 2005 and has met its 2020 reduction target. However, the City will need to continue to implement policies and programs that further reduce emissions to achieve statewide targets for 2030.

Staff intends to continue to coordinate through MCEP joint meetings to discuss emission reduction targets that go beyond 2020, and consider new State legislation establishing longer-term emission reduction goals. This year, the City's Climate Action Plan will be updated and will identify emission reduction measures required to meet new targets.

Attachments:

- Greenhouse Gas Inventory for Community Emissions for the Year 2019

CITY OF BELVEDERE

COMMUNITY GREENHOUSE GAS EMISSIONS INVENTORY FOR THE YEAR 2019

June 2021

Prepared by the
Marin Climate & Energy Partnership

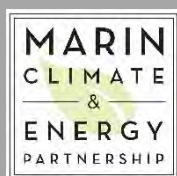


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EXECUTIVE SUMMARY

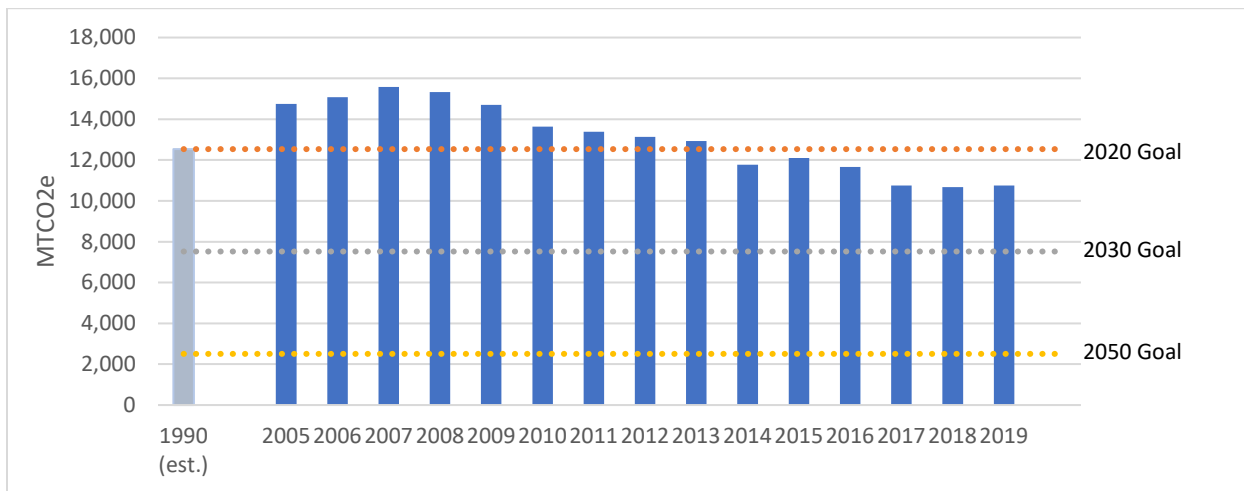
THE TAKEAWAY:

**COMMUNITY EMISSIONS ARE
DOWN 27% SINCE 2005**

Belvedere publishes annual community greenhouse gas (GHG) emissions estimates through the Marin Climate & Energy Partnership (MCEP). Annual inventories help the City to more closely monitor its progress in meeting its goal to reduce community emissions. The City also publishes GHG emissions inventories for municipal operations approximately every five years. Municipal emissions accounted for less than 1% of community emissions when the municipal inventory was last conducted for year 2015.

This report reviews emissions generated from the community from 2005 through 2019, the most recent year data is available. The inventory shows that the Belvedere community has reduced emissions 27% since 2005. Emissions dropped from about 14,747 metric tons carbon dioxide equivalents (MTCO_{2e}) in 2005 to 10,758 MTCO_{2e} in 2019. The community emissions trend and targets are shown below. Belvedere has met its goal to reduce emissions 15% below 2005 levels by 2020. The community needs to reduce emissions another 3,236 MTCO_{2e} to meet the statewide target for 2030, which is 40% below 1990 levels, and another 8,251 MTCO_{2e} to meet the statewide target for 2050, which is 80% below 1990 levels.

FIGURE 1: BELVEDERE GHG EMISSIONS AND TARGETS



Recognizing the need for a collaborative approach to greenhouse gas reductions, city, town and county leaders launched the Marin Climate and Energy Partnership (MCEP) in 2007. The City of Belvedere is a member of MCEP and works with representatives from the County of Marin and the other Marin cities and towns to address and streamline the implementation of a variety of greenhouse gas reduction measures. Funding for this inventory was provided by the Marin County Energy Watch Partnership, which administers public goods charges collected by PG&E. Community inventories are available on the MCEP website at marinclimate.org and are used to update the [Marin Sustainability Tracker](#).

INTRODUCTION

PURPOSE OF INVENTORY

The objective of this greenhouse gas emissions inventory is to identify the sources and quantify the amounts of greenhouse gas emissions generated by the activities of the Belvedere community in 2019. This inventory provides a comparison to 2005 and estimated 1990 emissions and identifies the sectors where significant reductions in greenhouse gas emissions have occurred. In some instances, previous year emissions were updated with new data and/or recalculated to ensure the same methodology was employed for all inventory years.

GENERAL METHODOLOGY

This inventory uses the national standard for the accounting and reporting of community-wide greenhouse gas emissions, the [U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions, version 1.2 \(July 2019\)](#). Quantification methodologies, emission factors, and activity and source data are detailed in the appendix.

Community emissions are categorized according to seven sectors:

- Built Environment - Electricity
- Built Environment – Natural Gas
- Transportation
- Off-Road Vehicles and Equipment
- Waste
- Water
- Wastewater

CALCULATING EMISSIONS

Emissions are quantified by multiplying the measurable activity data – e.g., kilowatt hours of electricity, therms of natural gas, gallons of diesel or gasoline, etc. – by emissions factors specific to the greenhouse gas-generating source. Most emissions factors are the same from year to year. Emission factors for electricity, however, change from year to year due to the specific sources that are used to produce electricity. For example, electricity that is produced from coal generates more greenhouse gases than electricity that is generated from natural gas and therefore has a higher emissions factor. Electricity that is produced solely from renewable energy sources such as solar and wind has an emissions factor of zero.

This inventory calculates individual greenhouse gases – i.e., carbon dioxide, methane and nitrous oxide – and converts each greenhouse gas emission to a standard metric, known as “carbon dioxide equivalents” or CO₂e, to provide an apple-to-apples comparison among the various emissions. Table 1 shows the greenhouse gases identified in this inventory and their global warming potential (GWP), a measure of the amount of warming each gas causes when compared to a similar amount of carbon dioxide over 100 years. Methane, for example, is 28 times as potent as carbon dioxide over 100 years; therefore, one metric ton of methane is equivalent to 28 metric tons of carbon dioxide. Greenhouse gas emissions are reported in this inventory as metric tons of carbon dioxide equivalents, or MTCO₂e.

TABLE 1: GREENHOUSE GASES

Gas	Chemical Formula	Emission Source	Global Warming Potential
Carbon Dioxide	CO ₂	Combustion of natural gas, gasoline, diesel, and other fuels	1
Methane	CH ₄	Combustion, anaerobic decomposition of organic waste in landfills and wastewater	28
Nitrous Oxide	N ₂ O	Combustion, wastewater treatment	265

Source: IPCC Fifth Assessment Report (2014), 100-year values

TYPES OF EMISSIONS

Emissions from each of the greenhouse gases can come in a number of forms:

- **Stationary or mobile combustion** resulting from the on-site combustion of fuels (natural gas, diesel, gasoline, etc.) to generate heat or electricity, or to power vehicles and equipment.
- **Purchased electricity** resulting from the generation of power from utilities outside the jurisdictional boundary.
- **Fugitive emissions** resulting from the unintentional release of greenhouse gases into the atmosphere, such as methane from waste decomposition.
- **Process emissions** from physical or chemical processing of a material, such as wastewater treatment.

UNDERSTANDING TOTALS

The totals listed in the tables and discussed in the report are a summation of emissions using available estimation methods. Each inventoried sector may have additional emissions sources associated with them that were unaccounted for due to a lack of data or robust quantification methods. For example, greenhouse gas emissions associated with air travel and the production of goods outside the community's boundary are not included in the inventory. Additionally, the community inventory does not include refrigerants released into the atmosphere from the use of air conditioning in cars and buildings.

COMMUNITY INVENTORY

COMMUNITY INVENTORY SUMMARY

In 2005, the activities taking place by the Belvedere community resulted in approximately 14,747 metric tons of CO₂e.¹ In 2019, those activities resulted in approximately 10,7588 metric tons of CO₂e, a reduction of 27% from 2005 levels, which is equivalent to 14% below 1990 levels.

The community inventory tracks emissions in seven sectors:

- The **Built Environment – Electricity** sector represents emissions generated from the use of electricity in Belvedere homes and commercial and governmental buildings and facilities².
- The **Built Environment – Natural Gas** sector represents emissions generated from the use of natural gas in Belvedere homes and commercial, industrial, and governmental buildings and facilities. Propane used as a primary heating source is also included, although it represents less than 1% of emissions in this sector.
- The **Transportation** sector includes tailpipe emissions from passenger vehicle trips originating and ending in Belvedere, as well as a share of tailpipe emissions generated by medium and heavy-duty vehicles travelling on Marin County roads. The sector also includes emissions from Marin Transit buses as these vehicles travel within Belvedere’s boundaries. Electricity used to power electric vehicles is embedded in electricity consumption reported in the Built Environment - Electricity sector.
- The **Waste** sector represents fugitive methane emissions that are generated over time as organic material decomposes in the landfill. Although most methane is captured or flared off at the landfill, approximately 25% escapes into the atmosphere.
- The **Off-Road** sector represents emissions from the combustion of gasoline and diesel fuel from the operation of off-road vehicles and equipment used for construction and landscape maintenance.
- The **Water** sector represents emissions from energy used to pump, treat, and convey potable water from the water source to Belvedere water users.
- The **Wastewater** sector represents stationary, process and fugitive greenhouse gases that are created during the treatment of wastewater generated by the community as well as emissions created from electricity used to convey and treat wastewater.

¹ Baseline and historical emissions are recalculated in the annual inventory to integrate new data and improved calculation methodologies and to ensure consistent comparison across each year. For this reason, emission levels may differ from levels reported in previous inventories.

² Previous inventories categorized emissions from electricity, natural gas, and propane in the built environment according to the Residential and Non-Residential sectors. Beginning with this inventory, we are categorizing emissions in the built environment as Electricity and Natural Gas in order to align and better track with the Climate Action Plan’s goals to electrify the built environment.

Figure 2 shows the relative contribution of emissions from these sectors in 2019. The use of natural gas and propane in the Built Environment represent the largest share of communitywide emissions (46%), while the Transportation sector accounts for 40% of emissions.

FIGURE 2: EMISSIONS BY SECTOR, 2019

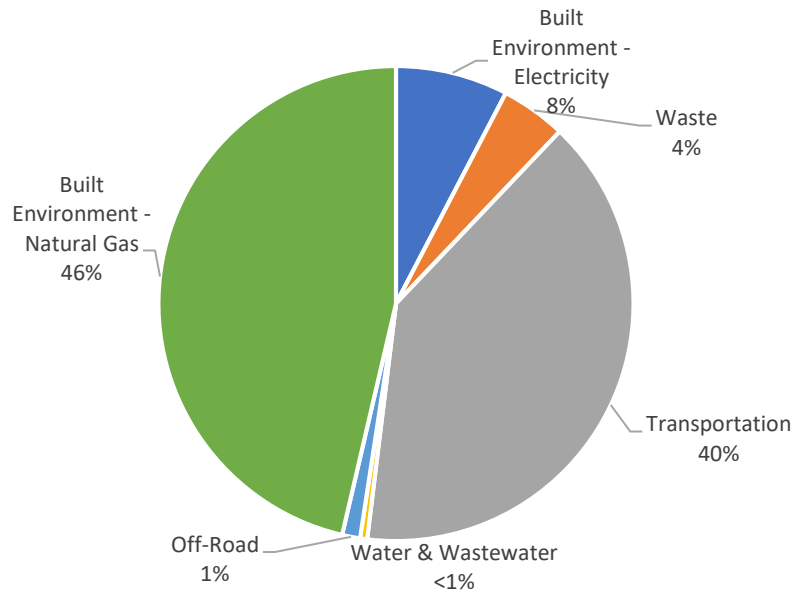


Table 2 shows how emissions in each sector have changed since 2005. The greatest reductions have occurred in the Transportation sector (11,808 MTCO₂e), followed by the Built Environment – Electricity sector (7,968 MTCO₂e) and the Built Environment – Natural Gas sector (1,726 MTCO₂e). The likely reasons for the largest emissions decreases are described in the remainder of this report.

TABLE 2: EMISSIONS SUMMARY BY SECTOR (MTCO₂E), 2005 THROUGH 2019

Year	Built Environment - Electricity	Built Environment - Natural Gas	Transportation	Waste	Off-Road	Water	Wastewater	Total	% Change from 2005
1990 (est.) ¹								12,535	
2005	2,512	5,559	5,614	699	196	87	79	14,747	
2006	2,388	5,787	5,862	689	201	76	77	15,080	2%
2007	3,204	5,440	5,897	617	240	101	89	15,587	6%
2008	3,235	5,450	5,751	512	198	93	90	15,328	4%
2009	3,033	5,425	5,461	440	174	93	83	14,708	0%
2010	2,133	5,518	5,268	430	162	53	73	13,637	-8%
2011	1,979	5,573	5,142	420	161	38	71	13,383	-9%
2012	2,089	5,204	5,126	436	159	41	75	13,130	-11%
2013	2,020	5,161	5,034	441	156	47	77	12,936	-12%
2014	1,837	4,412	4,806	445	153	43	73	11,769	-20%
2015	1,783	4,614	4,985	461	150	33	71	12,096	-18%
2016	1,456	4,839	4,581	544	146	25	64	11,655	-21%
2017	656	4,824	4,498	567	142	7	60	10,754	-27%
2018	708	4,883	4,383	502	137	3	60	10,676	-28%
2019	823	4,987	4,285	479	132	3	49	10,758	-27%
Change from 2005	-7,968	-1,726	-11,808	-1,083	-309	-494	-157	-23,546	
% Change from 2005	-67%	-10%	-24%	-32%	-33%	-97%	-38%	-27%	

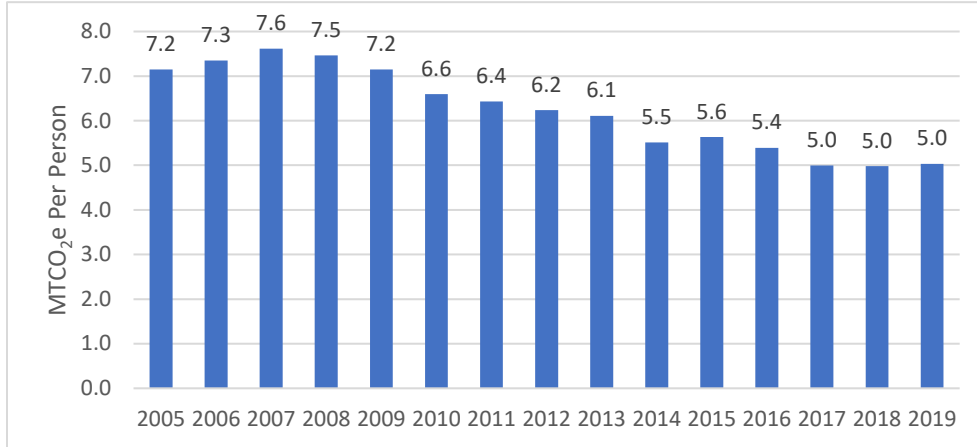
¹ Per California Air Resources Board guidance, 1990 levels are estimated at 15% below 2005 levels.

PER CAPITA EMISSIONS

Per capita emissions can be a useful metric for measuring progress in reducing greenhouse gases and for comparing one community's emissions with neighboring cities and against regional and national averages. That said, due to differences in emission inventory methods, it can be difficult to produce directly comparable per capita emissions numbers. Per capita emission rates may be compared among Marin jurisdictions, although some jurisdictions may have higher rates due to the presence of commercial and industrial uses.

Dividing the total communitywide GHG emissions by residents yields a result of 7.2 metric tons CO₂e per capita in 2005. Per capita emissions decreased 30% between 2005 and 2019, falling to 5.0 metric tons per person. Figure 3 shows the trend in per capita emissions over time. It is important to understand that this number is not the same as the carbon footprint of the average individual living in Belvedere, which would include lifecycle emissions, emissions resulting from air travel, etc.

FIGURE 3: EMISSIONS PER CAPITA



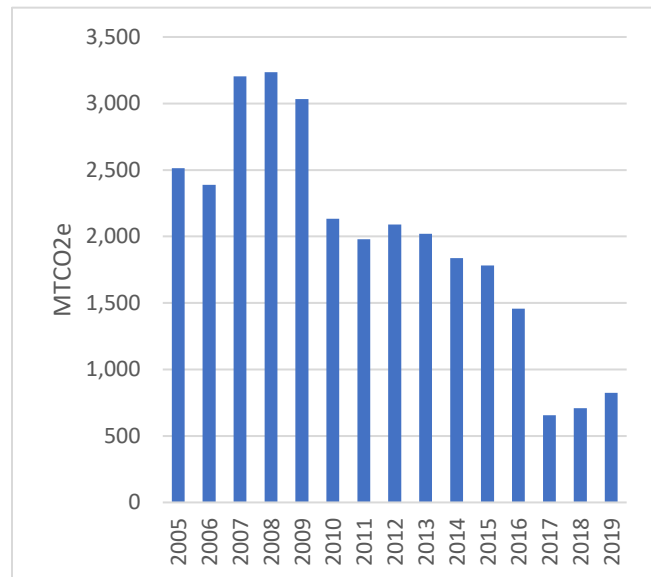
MAJOR SOURCES OF EMISSIONS

The following sections provide a year-by-year analysis of the changes in source GHG emissions in the Built Environment, Transportation, Waste and Water sectors. Whenever possible, each section discusses the change in emissions from previous years and the likely influence of state and local programs or policies and external factors on reducing emissions.

BUILT ENVIRONMENT - ELECTRICITY

Electricity use in homes and businesses in Belvedere decreased about 15% between 2005 and 2019. Greenhouse gas emissions from electricity consumption decreased 67% since 2005, as shown in Figure 3. This is primarily due to the lower carbon intensity of electricity. PG&E has been steadily increasing the amount of renewable energy in its electricity mix. In 2019, PG&E electricity came from a mix of renewable (29%), large hydroelectric (27%), and nuclear (44%) energy sources and was virtually GHG-free.³ The carbon intensity of MCE Light Green electricity was more carbon intensive in 2019 than the previous two years but was still below the 10-year average. In 2019, about 3.6% of MCE electricity purchased by Belvedere customers was 100% renewable Deep Green electricity, including electricity purchased by the City government.

FIGURE 4: ELECTRICITY EMISSIONS

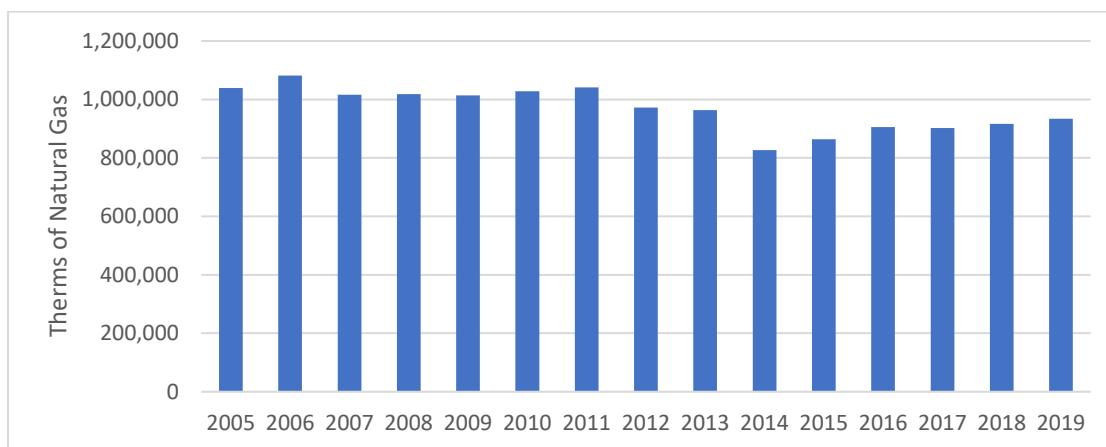


³ PG&E, 2019 Power Mix, https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2020/1220-PowerContent-ADA.pdf

BUILT ENVIRONMENT - NATURAL GAS

Natural gas is used in residential and commercial buildings to provide space and water heating and power appliances. Use of natural gas is highly variable depending on the weather conditions. This variability has led natural gas use consumption in Belvedere to fluctuate from year to year, from a high of 1.04 million therms in 2011 to a low of 0.83 million therms in 2014. Estimated natural gas consumption rose 2% between 2018 and 2019 and was 10% below the 2005 level.

FIGURE 5: NATURAL GAS USE



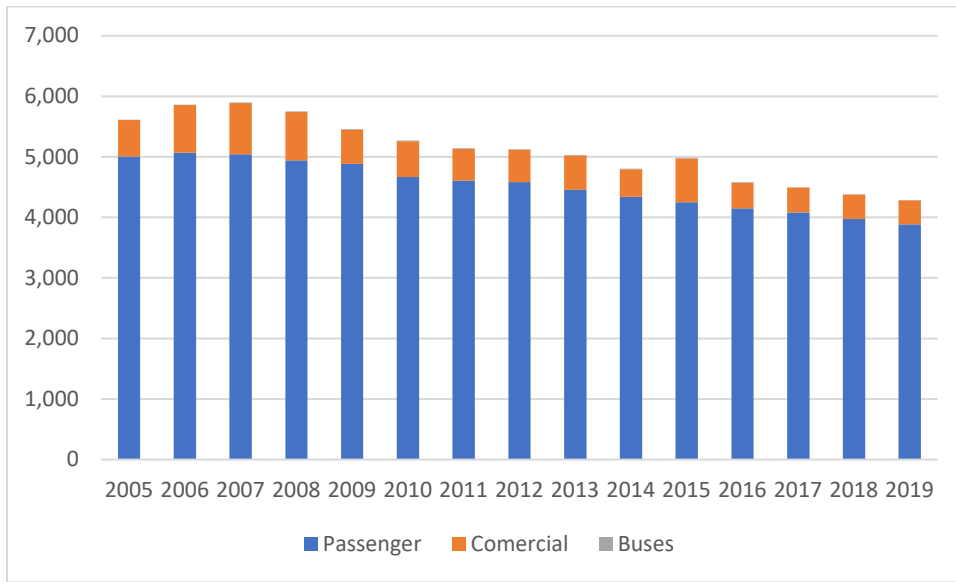
Reduction in energy use may be attributed to energy efficiency programs and rebates, local green building ordinances, and State building codes. California’s goal is to require all new residential and commercial buildings to be zero net energy by 2030.

TRANSPORTATION

Transportation activities accounted for approximately 40% of Belvedere’s emissions in 2019. Vehicle miles traveled have decreased approximately 5% since 2005, and transportation emissions have decreased even more – by 24% – due to more fuel-efficient and alternatively fueled cars. As shown in Figure 6, most transportation emissions come from passenger vehicles, accounting for 91% of transportation emissions in 2019. Marin County continues to be a leader in zero emission vehicles (ZEVs) – second only to Santa Clara County – with 8,600 ZEVs in Marin at the end of 2019, or about 4% of registered automobiles. ZEVs include battery electric cars, plug-in hybrid electric cars, hydrogen fuel cell cars, and zero-emission motorcycles. Belvedere had over 140 ZEVs by the end of 2019, approximately one for every six households.

While it is difficult to pinpoint exactly how each land use and transportation policy affects emissions, the City has undertaken efforts to reduce transportation emissions. The City encourages workforce housing and has made it easier for residents to use carbon-free modes of transportation, such as bicycling and walking, through improvements to the transportation network. The City has also encouraged electric vehicle adoption by installing chargers at City Hall.

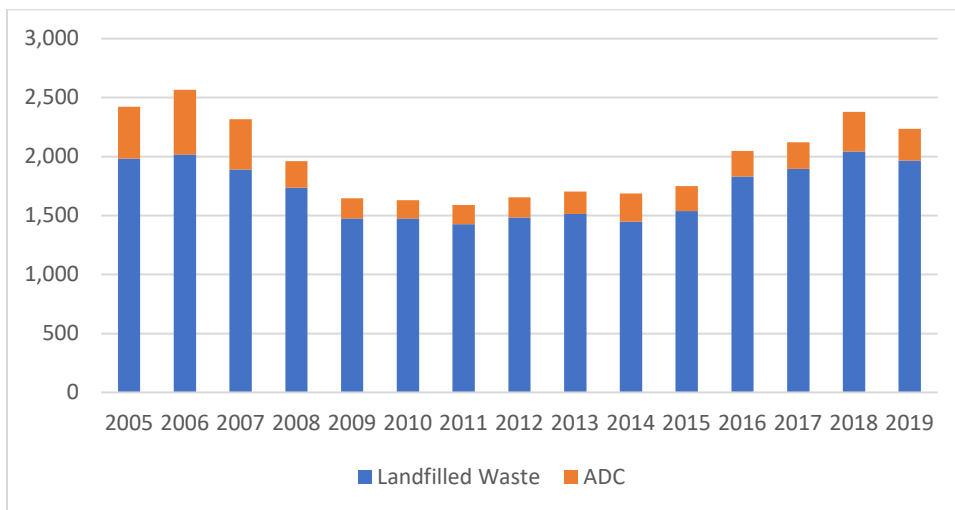
FIGURE 6: TRANSPORTATION EMISSIONS



WASTE DISPOSAL

Waste generated by the community hit a low in 2011 but has since increased as shown in Figure 7 (based on countywide disposal data). Total landfilled waste (including alternative daily cover)⁴ decreased 6% between 2018 and 2019 and was 8% below the 2005 baseline. Emissions from waste disposal decreased 33% due to the lower organic content of material used for alternative daily cover.

FIGURE 7: DISPOSED WASTE

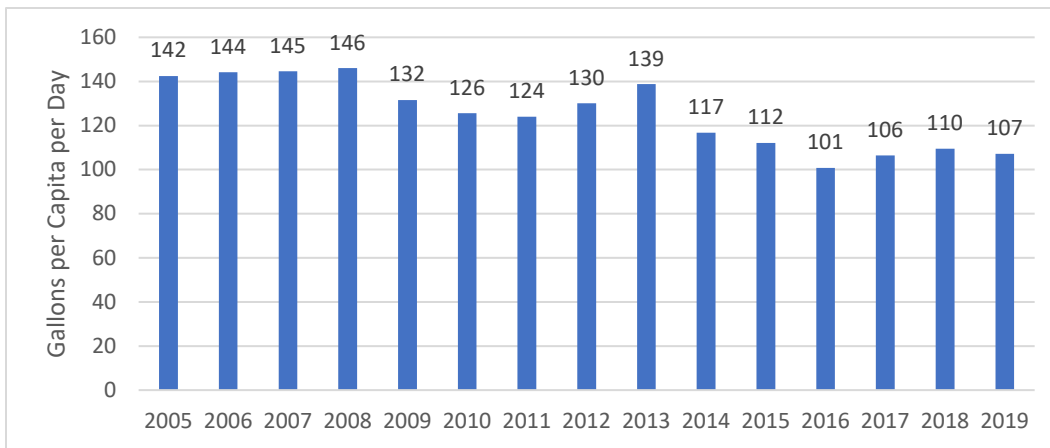


⁴ Alternative daily cover is cover material other than earthen material placed on the surface of the active face of a municipal solid waste landfill at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging.

WATER USE

District-wide, per capita water use declined 25% since 2005. Emissions, which are based on an estimate of energy used to pump, treat, and convey water from the water source to the City limits, dropped 97% between 2005 and 2019. The reduction is primarily due to the lower carbon intensity of electricity. The Marin Municipal Water District (MMWD) began purchasing MCE Deep Green electricity in mid-2017. The Sonoma County Water Agency (SCWA), which supplies approximately 24% of MMWD's water in 2019, uses renewable and carbon-free sources for its electricity needs; a small amount of emissions comes from stationary and mobile combustion of fuels used in SCWA's operations.

FIGURE 8: PER CAPITA WATER USE



Source: Marin Municipal Water District

MMWD provides rebates and programs to reduce water use. Rebates are available to replace fixtures with high-efficiency clothes washers and to purchase cisterns and rain barrels. MMWD provides free home and landscape water-use evaluations as well as free high-efficiency showerheads and faucet aerators.

APPENDIX: COMMUNITY INVENTORY

Community GHG Emissions Summary Table

Jurisdiction: City of Belvedere

Population: 2,139 (CA Department of Finance)

Number of Households: 933 (CA Department of Finance)

Inventory Year: 2019

Date Prepared: June 1, 2021

Reporting Framework: Communitywide Activities

ID	Emissions Type	Source or Activity	Included, Required Activities	Included, Optional Activities	Excluded (IE, NA, NO or NE)	Notes	Emissions (MTCO _{2e})
1.0	Built Environment						
1.1	Use of fuel in residential and commercial stationary combustion equipment	Both	•				4,987
1.2	Industrial stationary sources	Source			NE		
1.3	Power generation in the community	Source			NO		
1.4	Use of electricity in the community	Activity	•			Includes transmission and distribution losses	823
1.5	District heating/cooling facilities in the community	Source			NE		
1.6	Use of district heating/cooling facilities in the community	Activity			NE		
1.7	Industrial process emissions in the community	Source			NO		
1.8	Refrigerant leakage in the community	Source			NE		
2.0	Transportation and Other Mobile Sources						
2.1	On-road passenger vehicles operating within the community boundary	Source			IE	Obtained data for preferred activity-based method instead	
2.2	On-road passenger vehicles associated with community land uses	Activity	•				3,885
2.3	On-road freight and service vehicles operating within the community boundary	Source			IE	Obtained data for preferred activity-based method instead	
2.4	On-road freight and service vehicles associated with community land uses	Activity	•				395
2.5	On-road transit vehicles associated with community land uses	Activity		•			6
2.6	Transit rail vehicles operating with the community boundary	Source			NO		
2.7	Use of transit rail travel by the community	Activity			NE		

2.8	Inter-city passenger rail vehicles operating within the community boundary	Source			NO		
2.9	Freight rail vehicles operating within the community boundary	Source			NO		
2.10	Marine vessels operating within the community boundary	Source			NE		
2.11	Use of ferries by the community	Activity			NE		
2.12	Off-road surface vehicles and other mobile equipment operating within the community boundary	Source		•			132
2.13	Use of air travel by the community	Activity			NE		
3.0	Solid Waste						
3.1	Operation of solid waste disposal facilities in the community	Source			NE		
3.2	Generation and disposal of solid waste by the community	Activity	•			Includes alternative daily cover	479
4.0	Water and Wastewater						
4.1	Operation of water delivery facilities in the community	Source			IE	Energy use is included in 1.1 and 1.4	
4.2	Use of energy associated with use of potable water by the community	Activity	•				3
4.3	Use of energy associated with generation of wastewater by the community	Activity	•				0
4.4	Process emissions from operation of wastewater treatment facilities located in the community	Source			NO		
4.5	Process emissions associated with generation of wastewater by the community	Activity	•				49
4.6	Use of septic systems in the community	Source			NE		
5.0	Agriculture						
5.1	Domesticated animal production	Source			NE		
5.2	Manure decomposition and treatment	Source			NE		
6.0	Upstream Impacts of Communitywide Activities						
6.1	Upstream impacts of fuels used in stationary applications by the community	Activity			NE		
6.2	Upstream and transmission and distribution (T&D) impacts of purchased electricity used by the community	Activity			IE	Transmission and distribution losses included in 1.4	
6.3	Upstream impacts of fuels used by water and wastewater facilities for water used and wastewater generated within the community boundary	Activity			IE		
6.4	Upstream impacts of select materials (concrete, food, paper, carpets, etc.) used by the whole community.	Activity			NE		

Legend

IE – Included Elsewhere: Emissions for this activity are estimated and presented in another category of the inventory. The category where these emissions are included should be noted in the explanation.

NE – Not Estimated: Emissions occur but have not been estimate or reported (e.g., data unavailable, effort required not justifiable).

NA – Not Applicable: The activity occurs but does not cause emissions; explanation should be provided.

NO – Not Occurring: The source or activity does not occur or exist within the community.

Community Emissions Data Sources and Calculation Methodologies

Sector/ID	Emissions Source	Source and/or Activity Data	Emission Factor and Methodology
1.0 Built Environment			
1.1 Stationary Combustion	Stationary Combustion (CO ₂ , CH ₄ & N ₂ O)	Known fuel use (meter readings by PG&E) and estimated fuel use (American Community Survey 5-Year Estimates, and U.S. Energy Information Administration Household Site Fuel Consumption data).	Default CO ₂ , CH ₄ & N ₂ O emission factors by fuel type (U.S. Community Protocol v. 1.1 Tables B.1 and B.3). U.S. Community Protocol v. 1.1, Appendix C, Method BE.1.1 and BE.1.2.
1.4 Electricity Use	Electricity Use (CO ₂ , CH ₄ & N ₂ O)	Known electricity use (meter readings by PG&E and MCE) and estimated direct access electricity consumption.	Verified utility-specific emission factors (PG&E and MCE) and eGrid subregion default emission factors. U.S. Community Protocol v. 1.1, Appendix C, Method BE.2.1.
	Electric Power Transmission and Distribution Losses (CO ₂ , CH ₄ & N ₂ O)	Estimated electricity grid loss for Western region from eGrid.	U.S. Community Protocol v. 1.1, Appendix C, Method BE.4.1.
2.0 Transportation and Other Mobile Sources			
2.2 On-Road Passenger Vehicle Operation	On-Road Mobile Combustion (CO ₂)	Estimated passenger vehicle miles traveled associated with origin and destination land uses (Metropolitan Transportation Commission, http://capvmt.us-west-2.elasticbeanstalk.com/data).	CO ₂ for on-road passenger vehicles quantified in the EMFAC2017 model. Passenger vehicle emissions calculated according to U.S. Community Protocol v. 1.1, Appendix D, Method TR.1.A.
	On-Road Mobile Combustion (CH ₄ & N ₂ O)	Estimated vehicle miles traveled associated with origin and destination land uses (Metropolitan Transportation Commission, http://capvmt.us-west-2.elasticbeanstalk.com/data).	CH ₄ and N ₂ O for on-road passenger vehicles quantified in the EMFAC2017 model and adjusted for IPCC AR5 100-year values. Passenger vehicle emissions calculated according to U.S. Community Protocol v. 1.1, Appendix D, Method TR.1.A.
2.4 On-Road Freight and Service Truck Freight Operation	On-Road Mobile Combustion (CO ₂)	Estimated commercial vehicle miles traveled within the boundary (Metropolitan Transportation Commission utilizing the 2017 Regional Transportation Plan).	CO ₂ for on-road commercial vehicles quantified in the EMFAC2017 model. Emissions allocated utilizing LEHD data according to U.S. Community Protocol v. 1.1, Appendix D, Method TR.2.A.
	On-Road Mobile Combustion (CH ₄ & N ₂ O)	Estimated commercial vehicle miles traveled within the boundary (Metropolitan Transportation Commission utilizing Plan Bay Area 2040 and the 2017 Regional Transportation Plan).	CH ₄ and N ₂ O for on-road commercial vehicles quantified in the EMFAC2017 model and adjusted for IPCC AR5 100-year values. Emissions allocated utilizing LEHD data according to U.S. Community Protocol v. 1.1, Appendix D, Method TR.2.A.
2.5 On-Road Transit Operation	On-Road Mobile Combustion (CO ₂)	Estimated vehicle miles traveled within the boundary (Marin Transit and Golden Gate Transit) and estimated diesel fuel efficiency for transit fleet (Golden Gate Transit). Fuel type provided by Marin Transit and Golden Gate Transit.	Renewable diesel emission factor provided by NEXGEN . U.S. Community Protocol v. 1.1, Appendix D, Method TR.4.A.
	On-Road Mobile Combustion (CH ₄ & N ₂ O)	Estimated vehicle miles traveled within the boundary (Marin Transit and Golden Gate Transit) and estimated diesel fuel	Renewable diesel emission factor provided by NEXGEN . U.S. Community Protocol v. 1.1, Appendix D, Method TR.4.B.

		efficiency for transit fleet (Golden Gate Transit). Fuel type provided by Marin Transit and Golden Gate Transit.	
2.12 Off-Road Vehicles and Equipment	Off-Road Mobile Combustion (CO ₂)	Estimated fuel use from OFFROAD 2007 for Lawn and Garden and from OFFROAD2017 for Construction equipment. All categories are allocated by share of countywide households.	CO ₂ emissions calculated according U.S. Community Protocol v. 1.1, Appendix D, Method TR.8. Emission factors provided in Table TR.1.6.
	Off-Road Mobile Combustion (CH ₄ & N ₂ O)	Estimated fuel use from OFFROAD 2007 for Lawn and Garden and from OFFROAD2017 for Construction equipment. All categories are allocated by share of countywide households.	CH ₄ and N ₂ O emissions calculated according to U.S. Community Protocol v. 1.1, Appendix D, Method TR.8. Emission factors provided in the Local Government Operations Protocol Table G.11 and G.14.
3.0 Solid Waste			
3.2 Solid Waste Generation and Disposal	Fugitive Emissions from Landfilled Waste (CH ₄)	Estimated landfilled tons based on reporting to CalRecycle by Marin County Solid and Hazardous Waste JPA and allocated to jurisdiction based on share of countywide population. Waste characterization based on the Statewide Waste Characterization Study (2008 and 2014) and Alternative Daily Cover by Jurisdiction of Origin and Material Type as reported to CalRecycle.	Emission factors calculated utilizing U.S. Community Protocol for Accounting and Report of Greenhouse Gas Emissions, Version 1.1, July 2013, Appendix E, Method SW.4.
4.0 Water and Wastewater			
4.2 Water Supply & Conveyance, Treatment and Distribution	Electricity Use (CO ₂)	Water consumption (district-wide gpcd) and electricity usage provided by Marin Municipal Water District (MMWD). Sonoma County Water Agency (SCWA) water delivery amount provided by SCWA .	Verified utility-specific emission factors (PG&E, MCE and SCWA). Emissions calculated according to U.S. Community Protocol v. 1.1, Appendix F, Method WW.14.
	Electricity Use (CH ₄ & N ₂ O)	Water consumption (district-wide gpcd) and electricity usage provided by Marin Municipal Water District (MMWD).	eGrid subregion default emission factors. Emissions calculated according to U.S. Community Protocol v. 1.1, Appendix F, Method WW.14.
4.5 Treatment of Wastewater	Stationary Emissions from Combustion of Digester Gas (CH ₄)	Estimated service population and percent of methane in digester gas provided by Sanitary District No. 5.	Sanitary District No.5 emissions calculated according to U.S. Community Protocol v. 1.1, Appendix F, Method WW.1.(alt).
	Stationary Emissions from Combustion of Digester Gas (N ₂ O)	Estimated service population and percent of methane in digester gas provided by Sanitary District No. 5.	Sanitary District No.5 emissions calculated according to U.S. Community Protocol v. 1.1, Appendix F, Method WW.2.(alt).
	Process Emissions from Wastewater Treatment Plant with Nitrification or Denitrification	Estimated population served by wastewater treatment plant provided by Sanitary District No. 5.	Emissions calculated according to U.S. Community Protocol v. 1.1, Appendix F, Method WW.7.

	Fugitive Emissions from Effluent Discharge (N ₂ O)	Estimated population served by wastewater treatment plant provided by Sanitary District No.5. Assumed significant industrial or commercial input.	Emissions calculated according to U.S. Community Protocol v. 1.1, Appendix F, Method WW.12(alt).
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CONSENT CALENDAR

**BELVEDERE CITY COUNCIL
JULY 12, 2021**

To: Mayor and City Council

From: Beth Haener, City Clerk

Subject: Approve minutes of the June 14, 2021 Regular City Council meeting

Recommended Motion/Item Description

That the City Council approve the minutes as part of the Consent Calendar.

Attachments

Minutes.

**REGULAR MEETING
BELVEDERE CITY COUNCIL
JUNE 14, 2021, 6:30 PM
REMOTE VIA ZOOM
MINUTES**

COUNCIL PRESENT: Steve Block, James Lynch, Nancy Kemnitzer, Sally Wilkinson, and James Campbell.

COUNCIL ABSENT: None

STAFF PRESENT: City Manager Craig Middleton, Police Chief Jason Wu, Public Works Director Robert Zadnik, Senior Planner Rebecca Markwick, Administrative Services Manager Amber Johnson, Planning and Building Director Irene Borba, City Attorney Emily Longfellow, and City Clerk Beth Haener

These minutes are intended to reflect the general content of the regular meeting. An audio file of the meeting is available: <https://www.cityofbelvedere.org/agendacenter>.

CALL TO ORDER IN REMOTE OPEN SESSION

The meeting was called to order by Mayor Campbell at 6:30 PM via remote Zoom meeting. COVID-19 disclaimer was read.

OPEN FORUM

Belvedere resident Dr. William Rothman commented on a Public Records Act request he placed with the City and also stated his concerns about materials that will be used in the Community Park playground remodel.

Belvedere Resident Jill Barnett requested Item number 6 on the Consent Calendar be pulled for further discussion.

REPORTS & PRESENTATIONS

Item 1. City Council Reports

Vice Mayor Wilkinson reported that the Finance Task Force will not be making any recommendations on post-employment benefits at this point and will review the situation again in a couple of years. Vice Mayor Wilkinson also reported on the Yellow Bus Challenge and stated that school bus passes are currently available for the next school year until July 15th.

Mayor Campbell reported that Belvedere is turning 125 this year, and a citywide celebration is being planned. Mayor Campbell asked residents to please keep September 4th open to help celebrate Belvedere's birthday. Mayor Campbell also reported that he received a donation for the playground renovations from the Perlmutter, McNeal, and Valente children, who held a lemonade sale that raised \$110.00.

Item 2. City Manager Report

City Manager Middleton reported that California will reopen June 15th after over a year and a half of various states of closure. City Manager Middleton thanked Belvedere residents for meeting the pandemic regulations with grace and thanked the employees of the City for a job well done. Middleton also stated that an edit will be made to the May 10, 2021 minutes, as there was an administrative error on a vote tally.

CONSENT CALENDAR

Mayor Campbell removed Item 6 from the Consent Calendar for further discussion.

MOTION: Move to adopt the Consent Calendar, with the exception of Item 6.

MOVED: By Kemnitzer, seconded by Lynch; approval was unanimous.

The Consent Calendar consisted of the following Items:

3. **Approve minutes of the May 10th, 2021, regular meeting.**
4. **Approve warrants of May 2021.**
5. **Adopt the resolution establishing the Gann (Proposition 4) appropriations limit for Fiscal Year 2021/2022.**
7. **Adopt a resolution to amend the City of Belvedere Administrative Policy Manual to incorporate revised Personnel Policies.**
8. **Adopt a resolution to amend the City of Belvedere Administrative Policy Manual to incorporate revision to Procurement Policy.**
9. **Adopt resolution to amend the City of Belvedere Administrative Policy Manual, Part 15, Planning Department Policies, Policy 15.6 regarding Appropriate Colors and Materials and adding Policy 16, Rear Yard Setbacks in the R-1L (Lagoon Zoning).**
10. **Award of Contract for the 2021 Pavement Maintenance Project.**
11. **Adopt resolution to authorize City Manager to grant a utility easement to Marin Municipal Water District for the purposes of fire safety and supply.**
12. **Approve recommendation from the Historic Preservation Committee for the City to enter into a Mills Act Agreement for the property at 308 Golden Gate Avenue. The Mills Act is a tax abatement program for the purposes of historic preservation. CEQA status: categorically exempt pursuant to Section 15331.**
13. **Adopt resolution Accepting the Designation of the City of Belvedere to Represent the City of Mill Valley on the Board of Directors of Marin Clean Energy and to Vote on Its Behalf and Designating Councilmember Sally Wilkinson as the Representative.**
14. **Reappoint Jean Bordon and Kathy Pearson to the Parks and Open Space Committee.**
15. **Adopt resolution to amend the City of Belvedere Administrative Policy Manual to include a Flag Policy, and adopt resolution authorizing the display of Rainbow Pride Flag for Remainder of June 2021.**

-
6. **Resolution authorizing the City Manager to file an appeal on behalf of the City of Belvedere pursuant to Government Code Section 65584.5 to modify its Draft Regional Housing Needs Allocation (RHNA) for the City of Belvedere as determined by Association of Bay Area Governments & Metropolitan Transportation Commission (ABAG/MTC).**

Planning and Building Director Borba presented the staff report and took questions from Council. Mayor Campbell called for public comment.

Belvedere Resident Jill Barnett asked how many housing units the City would be requesting in the appeal, how the City will keep the public informed, and also requested information on Accessory Dwelling Units (ADUs) with regard to this issue. Planning and Building Director Borba stated that she will meet with a consultant this week to determine what level of reduction in unit count could reasonably be justified. Director Borba stated that the City is creating a webpage on the City's website that will keep the public informed. City Attorney Longfellow stated that ADUs do count toward Regional Housing Needs Allocation (RHNA) numbers; she added that it is unclear as to which income level an ADU would be classified.

Mayor Campbell closed the public comment time and brought the discussion back to Council.

MOTION: To adopt a resolution authorizing the City Manager to file an appeal on behalf of the City of Belvedere with the Association of Bay Area Governments & Metropolitan Transportation Commission (ABAG/MTC) appealing Belvedere's Draft Regional Housing Needs Allocation.

MOVED: By Block, seconded by Kemnitzer; approval was unanimous.

PUBLIC HEARING

16. **Consider resolution approving the City of Belvedere Annual Operating and Capital Budget for Fiscal Year 2021-2022 and the Five-Year Capital Plan.**

City Manager Middleton and Administrative Services Manager Johnson presented the staff report and took questions from Council. Councilmember Lynch requested an edit in the staff report. There were no comments from the public.

MOTION: To adopt the resolution appropriating funds for the 2021-2022 Fiscal Year, including Councilmember Lynch's edit.

MOVED: By Lynch, seconded by Wilkinson; approval was unanimous

17. Adopt resolution levying previously-approved special tax for Fire and Emergency Medical Services and fixing the rates thereof for the fiscal year 2021/2022.

Administrative Services Manager Johnson presented the staff report. There were no questions from Council and no public comment.

MOTION: Adopt resolution levying previously-approved special tax for Fire and Emergency Medical Services and fixing the rates thereof for the fiscal year 2021/2022.

MOVED: By Block, seconded by Wilkinson; approval was unanimous.

18. Consider resolution updating the City's Master Schedule of Fees, Charges, and Application Fees. Changes include decrease in overhead rate used in certain Planning Fee calculations, and addition of the City Attorney's time and materials to certain Planning Fees.

Administrative Services Manager Johnson presented the staff report. There were no questions from Council and no public comment.

MOTION: Adopt the resolution approving changes to the City's Master Schedule of Fees, Charges and Application Fees

MOVED: By Kemnitzer, seconded by Lynch; approval was unanimous.

19. Consider recommendations by the Belvedere Historic Preservation Committee and the Planning Commission to designate 428 Golden Gate Avenue, Belvedere a local historic property.

Senior Planner Markwick presented the staff report. There were no questions from Council and no public comment.

MOTION: Adopt the resolution approving the designation of the property at 428 Golden Gate Avenue as a City of Belvedere Historic Property

MOVED: By Block, seconded by Kemnitzer; approved.

VOTE:

AYES:	Block, Kemnitzer, Wilkinson, and Mayor Campbell
NOES:	None
ABSENT:	None
RECUSED:	Lynch

20. Consider recommendations by the Belvedere Historic Preservation Committee and the Planning Commission to designate 304 Golden Gate Avenue, Belvedere a local historic property.

Senior Planner Markwick presented the staff report. There were no questions from Council and no public comment.

MOTION: Adopt the resolution approving the designation of the property at 304 Golden Gate Avenue as a City of Belvedere Historic Property.

MOVED: By Lynch, seconded by Wilkinson; approval was unanimous.

21. Consideration of Collection Rate Application submitted by Mill Valley Refuse Service, Inc. (MVRS) for the collection of trash, recycling, and compostable materials, and possible adoption of Resolution authorizing increased collection rate.

City Manager Middleton presented the staff report. Jim Iavarone of Mill Valley Refuse Service and Garth Shultz from R3 Consulting were both present and took questions from Council. There was no comment from the public.

MOTION: Adopt the draft resolution approving solid waste collection rates for the 2021/2022 rate year.

MOVED: By Wilkinson, seconded by Lynch; approval was unanimous.

Other Scheduled Items

22. Adoption of resolution for the period July 1, 2021, through June 30, 2023, establishing salaries and benefits for Miscellaneous (non-represented) employees of the City of Belvedere.

City Manager Middleton presented the staff report and took questions from Council. There were no comments from the public.

MOTION: Adopt the resolution for the period July 1, 2021, through June 30, 2023, establishing salaries and benefits for Miscellaneous (non-represented) employees of the City of Belvedere.

MOVED: By Block, seconded by Wilkinson; approved.

VOTE:

AYES:	Block, Lynch, Wilkinson, and Mayor Campbell
NOES:	None
ABSENT:	Kemnitzer
RECUSED:	None

23. Consider the Belvedere-Tiburon Joint Recreation Committee's ("The Ranch") request for a financial contribution due to COVID-related hardships.

City Manager Middleton presented the staff report, and Ranch Director Jessica Hotchkiss was present for questions. There were no questions from Council. Mayor Campbell called for public comment.

Melissa Feder, a Belvedere representative serving on the Ranch Board of Directors, stated her support for the request for a financial contribution due to COVID-related hardships.

Mayor Campbell closed the public comment time and brought it back to Council for discussion.

MOTION: Approve the Belvedere-Tiburon Joint Recreation Committee's ("The Ranch") request for a financial contribution due to COVID-related hardships.

MOVED: By Lynch, seconded by Wilkinson; approved.

VOTE:

AYES:	Block, Lynch, Wilkinson, and Mayor Campbell
NOES:	None
ABSENT:	Kemnitzer
RECUSED:	None

24. Consideration of request for funding from the Belvedere Concerts-in-the-Park Committee.

City Manager Middleton presented the staff report. Peyton Stein from the Concerts in the Park Committee was present for questions. There were no questions from Council and no public comment.

MOTION: Approve the of request for funding from the Belvedere Concerts-in-the-Park Committee.

MOVED: By Lynch, seconded by Wilkinson; approved.

VOTE:

AYES:	Block, Lynch, Wilkinson, and Mayor Campbell
NOES:	None
ABSENT:	Kemnitzer

RECUSED: None

ADJOURN

The meeting was adjourned at 7:42 P.M.

THE FOREGOING MINUTES were approved at a regular meeting of the Belvedere City Council on July 12, 2021, by the following vote:

AYES: Steve Block, James Lynch, Nancy Kemnitzer, Vice Mayor Wilkinson, and Mayor Campbell

NOES: None

ABSENT: None

RECUSED: None

Approve: _____
James Campbell, Mayor

Attest: _____
Beth Haener, City Clerk

DRAFT

CONSENT CALENDAR

**BELVEDERE CITY COUNCIL
JULY 12, 2021**

To: Mayor and City Council
From: Amber Johnson, Administrative Services Manager
Subject: **Approve warrants of June 2021**

Recommended Motion/Item Description

That the City Council approve the June 2021 warrants as part of the Consent Calendar.

Attachments

Warrants.

CITY OF BELVEDERE
WARRANTS REPORT
JUNE 2021
BANK ACCOUNT 1000
OPERATING CHECKING ACCOUNT

Check Number	Check Date	Vendor # (Name)	Net Amount	Check Description
26670	06/23/21	ALLSEP PLANNING	(1,017.50)	Automatic Generated Check
26848	06/15/21	TIBURON PENINSULA	(1,250.00)	Automatic Generated Check
26891	06/24/21	ALLSEP PLANNING	1,017.50	Automatic Generated Check
26892	06/24/21	ALLSEP PLANNING	3,422.50	Automatic Generated Check
26893	06/24/21	AMMI PUBLISHING COMP. INC	769.00	Automatic Generated Check
26894	06/24/21	ARMOR LOCKSMITH SERVICES	2,597.19	Automatic Generated Check
26895	06/24/21	AT&T	639.40	Automatic Generated Check
26896	06/24/21	AT&T MOBILITY	432.50	Automatic Generated Check
26897	06/24/21	BARTEL ASSOCIATES LLC	820.00	Automatic Generated Check
26898	06/24/21	BATTALION ONE FIRE PROTECTION	450.00	Automatic Generated Check
26899	06/24/21	BERTRAND, FOX, ELLIOT, OSMAN & WENZEL	1,651.74	Automatic Generated Check
26900	06/24/21	BURROUS BROTHERS COMPANY	600.00	Automatic Generated Check
26901	06/24/21	CINTAS CORPORATION #626	315.00	Automatic Generated Check
26902	06/24/21	CLARK & SHARON WINSLOW	5,505.00	Automatic Generated Check
26903	06/24/21	CODE SOURCE	24,200.00	Automatic Generated Check
26904	06/24/21	COUNTY OF MARIN-MARIN.ORG	5,523.72	Automatic Generated Check
26905	06/24/21	DATA TICKET	9.26	Automatic Generated Check
26906	06/24/21	DAVIS SIGN COMPANY INC	218.00	Automatic Generated Check
26907	06/24/21	DEPT. OF JUSTICE	32.00	Automatic Generated Check
26908	06/24/21	DIGITECH REPROGRAPHICS	758.09	Automatic Generated Check
26909	06/24/21	FLYERS ENERGY, LLC	1,057.57	Automatic Generated Check
26910	06/24/21	HORIZON	161.35	Automatic Generated Check
26911	06/24/21	INTOXIMETERS, INC.	220.84	Automatic Generated Check
26912	06/24/21	KYOCERA DOCUMENT SOLUTIONS NO. CAL	175.00	Automatic Generated Check
26913	06/24/21	MARDEN N PLANT REVOC TRUST	7,000.00	Automatic Generated Check
26914	06/24/21	MARIN CO TAX COLLECTOR	870.35	Automatic Generated Check
26915	06/24/21	MARIN COUNTY SHERIFF'S OF	3,698.04	Automatic Generated Check
26916	06/24/21	MARIN GENERAL SERVICES AU	20,196.50	Automatic Generated Check
26917	06/24/21	MARIN MUNICIPAL WATER DIS	5,773.70	Automatic Generated Check
26918	06/24/21	MCCMC	750.00	Automatic Generated Check
26919	06/24/21	MERA	25,166.00	Automatic Generated Check
26920	06/24/21	MILLER PACIFIC	7,347.50	Automatic Generated Check
26921	06/24/21	MOE ENGINEERING, INC.	19,475.00	Automatic Generated Check
26922	06/24/21	OTIS ELEVATOR COMPANY	3,677.64	Automatic Generated Check
26923	06/24/21	QUILL CORPORATION	46.54	Automatic Generated Check
26924	06/24/21	SHRED-IT USA - CONCORD	241.09	Automatic Generated Check
26925	06/24/21	STETSON ENGINEERS, INC.	4,899.50	Automatic Generated Check
26926	06/24/21	TIBURON PENINSULA	1,250.00	Automatic Generated Check
26927	06/24/21	TPX COMMUNICATIONS	1,589.95	Automatic Generated Check
26928	06/24/21	UPS	12.17	Automatic Generated Check
26929	06/24/21	U.S. BANK CORPORATE PAYME	12,367.08	Automatic Generated Check

CITY OF BELVEDERE
WARRANTS REPORT
JUNE 2021
BANK ACCOUNT 1000
OPERATING CHECKING ACCOUNT

Check Number	Check Date	Vendor # (Name)	Net Amount	Check Description
26930	06/24/21	US POSTMASTER	245.00	Automatic Generated Check
26931	06/24/21	VERIZON	608.52	Automatic Generated Check
26932	06/24/21	VSP GRAPHIC GROUP	417.90	Automatic Generated Check
26933	06/24/21	WAGeworks INC.	106.00	Automatic Generated Check
26934	06/24/21	WELLS FARGO VENDOR FINANCIAL SERVICES LLC	148.30	Automatic Generated Check
A-838	06/02/21	GLOBAL PAYMENTS	1,196.27	Electronic Payment
A-839	06/03/21	EFTPS	14,286.11	Electronic Payment
A-840	06/03/21	CA EDD	4,695.86	Electronic Payment
A-841	06/03/21	CALPERS	18,226.86	Electronic Payment
A-842	06/04/21	CALPERS	206.80	Electronic Payment
A-843	06/08/21	PACIFIC GAS & ELECTRIC	2,970.43	Electronic Payment
A-844	06/15/21	WESTAMERICA BANK	306.63	Electronic Payment
A-845	06/17/21	EFTPS	15,849.10	Electronic Payment
A-846	06/17/21	CA EDD	5,213.90	Electronic Payment
A-847	06/17/21	CALPERS	19,031.26	Electronic Payment
A-848	06/18/21	COMCAST	48.80	Electronic Payment
A-849	06/22/21	AT&T	194.72	Electronic Payment
A-850	06/24/21	AT&T	64.20	Electronic Payment
AP062421-01	06/24/21	ALHAMBRA & SIERRA SPRINGS	31.93	Electronic Payment
AP062421-02	06/24/21	ALHAMBRA & SIERRA SPRINGS	31.93	Electronic Payment
AP062421-03	06/24/21	ALISON FOULIS	600.00	Electronic Payment
AP062421-04	06/24/21	ARBORSCIENCE	300.00	Electronic Payment
AP062421-05	06/24/21	BAY ALARM COMPANY	350.73	Electronic Payment
AP062421-06	06/24/21	BELVEDERE-TIBURON LIBRARY	26,945.84	Electronic Payment
AP062421-07	06/24/21	BELVEDERE TIBURON JOINT RECREATION COMMITTI	13,720.00	Electronic Payment
AP062421-08	06/24/21	CIVICPLUS	3,010.76	Electronic Payment
AP062421-09	06/24/21	DC ELECTRIC GROUP, INC.	306.46	Electronic Payment
AP062421-10	06/24/21	EDMUND H. SAN DIEGO	619.50	Electronic Payment
AP062421-11	06/24/21	EPSTEIN + HOLTZAPPLE	26,673.81	Electronic Payment
AP062421-12	06/24/21	EPSTEIN + HOLTZAPPLE	144.00	Electronic Payment
AP062421-13	06/24/21	EPSTEIN + HOLTZAPPLE	4,944.00	Electronic Payment
AP062421-14	06/24/21	EPSTEIN + HOLTZAPPLE	2,600.00	Electronic Payment
AP062421-15	06/24/21	FORSTER & KROEGER LANDSCA	2,520.00	Electronic Payment
AP062421-16	06/24/21	HADLEY GENERAL CONTRACTORS INC	1,606.10	Electronic Payment
AP062421-17	06/24/21	HADLEY GENERAL CONTRACTORS INC	6,842.92	Electronic Payment
AP062421-18	06/24/21	HERC RENTALS INC.	223.96	Electronic Payment
AP062421-19	06/24/21	JESUS ARGUELLES	1,870.60	Electronic Payment
AP062421-20	06/24/21	LEHR	4,611.45	Electronic Payment
AP062421-21	06/24/21	LEXIPOL, LLC.	4,636.00	Electronic Payment
AP062421-22	06/24/21	MARIN IT, INC.	531.50	Electronic Payment
AP062421-23	06/24/21	MARY NEILAN	556.94	Electronic Payment

CITY OF BELVEDERE
WARRANTS REPORT
JUNE 2021
BANK ACCOUNT 1000
OPERATING CHECKING ACCOUNT

Check Number	Check Date	Vendor # (Name)	Net Amount	Check Description
AP062421-24	06/24/21	PARS	600.00	Electronic Payment
AP062421-25	06/24/21	RHAA	42,682.50	Electronic Payment
AP062421-26	06/24/21	RWR CONSTRUCTION INC	6,986.79	Electronic Payment
AP062421-27	06/24/21	SPTJ CONSULTING	5,100.00	Electronic Payment
AP062421-28	06/24/21	TIBURON FIRE PROTECTION	154,351.00	Electronic Payment
Total for Bank Account 1000 ----->			559,884.60	

CITY OF BELVEDERE
WARRANTS REPORT
JUNE 2021
BANK ACCOUNT 1010
PAYROLL CHECKING ACCOUNT

Check Number	Check Date	Vendor # (Name)	Net Amount	Check Description
106	06/03/21	DIRECT DEPOSIT	64,828.06	Electronic Payment
107	06/04/21	DIRECT DEPOSIT	1,191.58	Electronic Payment
108	06/17/21	DIRECT DEPOSIT	71,005.49	Electronic Payment
P-074	06/03/21	MASS MUTUAL	276.92	Electronic Payment
P-075	06/17/21	MASS MUTUAL	276.92	Electronic Payment
PR060321-01	06/03/21	BPOA	92.30	Electronic Payment
PR060321-02	06/03/21	ICMA-RC	4,681.02	Electronic Payment
PR060321-03	06/03/21	PATRICIA ROSAS	1,141.38	Electronic Payment
PR061721-01	06/17/21	BPOA	92.30	Electronic Payment
PR061721-02	06/17/21	ICMA-RC	4,681.02	Electronic Payment
PR061721-03	06/17/21	PATRICIA ROSAS	1,141.38	Electronic Payment
Total for Bank Account 1010 ----->			149,408.37	
Grand Total of all Bank Accounts ----->			709,292.97	

To: Mayor and City Council

From: Beth Haener, City Clerk

Subject: Resolution extending the Marin County Abandoned Vehicle Abatement Vehicle Registration Fee until April 2032

Recommended Motion/Item Description

That the Council Adopt a Resolution extending the Abandoned Vehicle Abatement Program through April 2032.

Background

Pursuant to California Vehicle Code section 22710, in October 1991, the County, along with the cities and towns of Marin County, created the Marin County Abandoned Vehicle Abatement Program, referred to in the CVC as a "service authority," to be administered by the Marin Street Light Acquisition JPA, the precursor to the Marin General Services Authority (MGSA). The program went into effect in April 1992. Pursuant to CVC 9250.7, the Board also approved the imposition of a fee of \$1 per vehicle registered in the county, the proceeds of which are used to reimburse service authority members for the cost of abating abandoned vehicles.

CVS 9250.7 calls for the service authority fee to have a life span of ten years, which may be extended in the same manner as it was created. That process requires that the County Board of Supervisors adopt a resolution by a two-thirds vote, and that a majority of the cities having a majority of the incorporated population within the county adopt resolutions providing for the extension of the fee.

In recent years, approximately \$250,000 per year has been disbursed to the county, towns and cities based on the formula of 50% number of vehicles abated, 45% population and 5% geography.

In 1991, the County and cities/towns entered into an agreement by which the Marin Street Light Acquisition Joint Powers Authority, the predecessor JPA to the MGSA, would serve as the administrator of the Marin Abandoned Vehicle Abatement Program. The Abandoned Vehicle Abatement Program is scheduled to expire on April 30, 2022. The California Vehicle Code provides for the implementation of this program in ten-year increments.

Recommendation

That the Council Adopt a Resolution extending the Abandoned Vehicle Abatement Program through April 2032.

Attachments

- Draft resolution approving a ten-year extension of the Abandoned Vehicle Abatement Program through April 2032

CITY OF BELVEDERE

RESOLUTION NO. 2021-XX

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BELVEDERE
EXTENDING THE MARIN COUNTY ABANDONED VEHICLE SERVICE
AUTHORITY VEHICLE REGISTRATION FEE UNTIL APRIL 2032**

WHEREAS, The Marin County Abandoned Vehicle Abatement Program ("AVAP") Service Authority was formed in 1991 pursuant to California Vehicle Code Section 22710; and

WHEREAS, pursuant to California Vehicle Code Section 9250.7, the Service Authority imposes a one dollar (\$1) annual service fee on motor vehicles registered to owners residing in Marin County; and

WHEREAS, existing authority to collect the one dollar (\$1) AVAP service fee is set to expire in April 2022; and

WHEREAS, California Vehicle Code Section 9250.7 has been amended to allow for a ten (10) year extension of the AVAP service fee upon approval by two-thirds of the members of the Board of Supervisors and subsequent confirmation by the city councils of a majority of the incorporated cities in the County comprising a majority of the incorporated population; and

WHEREAS, the City of Belvedere has previously adopted a resolution authorizing extension of the AVAP service fee; and

WHEREAS, it is desirable to the residents of Belvedere that the AVAP vehicle abatement program continue.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Belvedere that the \$1 (one dollar) AVAP service fee shall be extended until April 2032.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Belvedere on July 12, 2021, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

APPROVED: _____
James Campbell, Mayor

ATTEST: _____
Beth Haener, City Clerk

To: Mayor and City Council

From: Robert Zadnik, Director of Public Works

Reviewed by: Craig Middleton, City Manager

Subject: **Adopt resolution to amend the City of Belvedere Administrative Policy Manual to incorporate revisions to the Public Memorial Policy.**

Recommended Action

Adopt a resolution to amend the City of Belvedere Administrative Policy Manual (APM) to incorporate revisions to the Public Memorial Policy.

Background

Belvedere’s APM section 20.3 (Guidelines for Public Memorials) provides criteria by which the Parks and Open Space Committee can evaluate memorial naming requests from the public. In 2020, the City Council adopted a minor revision to this policy at the request of the Committee. The Committee wishes to further modify the policy for clarity and consistency.

The Administrative Policy Manual is adopted and amended by resolution of the City Council.

Findings

Several amendments are proposed section 20.3. A red-lined version of each affected policy is included as an attachment to this report.

Fiscal Impact

There is no fiscal impact associated with the adoption of the Revised Personnel Policies.

Recommended Action

Adopt resolution to amend the City of Belvedere Administrative Policy Manual (APM) to incorporate revisions to the Public Memorial Policy.

Attachments:

- A. Resolution to amend the Administrative Policy Manual
- B. Red-lined Policies 20.3

CITY OF BELVEDERE

RESOLUTION NO. 2021-XX

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BELVEDERE
APPROVING THE FOLLOWING SECTIONS OF THE
BELVEDERE ADMINISTRATIVE POLICY MANUAL**

WHEREAS, Belvedere City Staff prepared updates to the City of Belvedere Administrative Policy Manual and presented the text of these updates in a Staff Report for the City Council; and

WHEREAS, the City Council reviewed these updates at its regular meeting on July 12, 2021; and

WHEREAS, the Administrative Policy Amendments are exempt from the provisions of the California Environmental Quality Act (“CEQA”) per CEQA Guidelines Section 15061(b)(3), as the Policy Amendments can be seen with certainty to have no possibility for causing a significant effect on the environment; and


NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Belvedere that Administrative Policy Manual Section 20.3 is hereby added to read as presented in Exhibit B.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Belvedere on July 12, 2021, by the following vote:

AYES: —
NOES: —
ABSENT: —
ABSTAIN: —

APPROVED: _____
James Campbell, Mayor

ATTEST: _____
Beth Haener, City Clerk

	CITY OF BELVEDERE – ADMINISTRATIVE POLICY MANUAL		
	POLICY 20.3 GUIDELINES FOR PUBLIC MEMORIALS AND DEDICATORY INSTALLATIONS		
Adoption Date:	6/8/2009 ¹	Adopted by:	City Council Motion
Revised Date:	3/11/2013 ² 3/11/2019 8/10/2020 ³	Revised by:	City Council Resolution No. 2013-07 City Council Resolution No. 2019-04 City Council Motion (Item 12)
Authority:	City Council		

20.3.1 PURPOSE

This policy was created to assist the Belvedere Parks and Open Space Committee in standardizing approvals for memorial and dedicatory installations in public places within the City. ~~Considering the visual aesthetics, placement and long-term maintenance, guidelines are set for appropriate management of pending sites.~~

20.3.2 APPROVAL REQUIRED FOR INSTALLATIONS IN PUBLIC PLACES

Installations donated to the City, including any dedicatory monuments or plaques and the wording thereon, must first be ~~approved~~ recommended for approval by the Belvedere Parks and Open Space Committee in conjunction with the City staff. Requests should be submitted in writing to the ~~Parks and Open Space Department.~~ Department of Public Works.

20.3.3 REPLACEMENT OF INSTALLATIONS

Installations that suffer deterioration with the passage of time so that they no longer present a neat appearance and/or lose their functionality may be replaced or relocated by the ~~City Parks and Open Space Committee~~ at its discretion. Department of Public Works staff will attempt to notify the original donor in writing, ~~at their last known address,~~ to facilitate a timely replacement or relocation if so desired. ~~at their last known address.~~

20.3.4 CRITERIA FOR NEW INSTALLATIONS

The Belvedere Parks and Open Space Committee will consider whether or not to recommend approval of new installations on a case-by-case basis considering the need, location, type of installation, vicinity, placement, design and long-term maintenance requirements.

- A. Honorees. Persons honored must be present or past residents of Belvedere. No pets or other animals shall be honored in this manner. Lanes will not be named after persons.

- B. Types of Installations. The following items ~~will be reviewed and accepted~~ are examples of types of installations which will be considered on a case-by-case basis:
1. City-approved structures or landscape project.
 2. Trees named as part of a City-approved landscape project.
 3. Lanes: reopening; redesign or repair; installation of handrails.
- C. Donor Plaques. The design of the plaques used on new installations, maintenance, or replacement installations will be ~~(determined) provided~~ considered on a case-by-case basis by the Parks and Open Space Committee.
1. ~~The standard plaque installation for maintenance of or replacement of existing benches consists of a brass plate, 1/4 to 1/8 inch thick, or thinner where possible, with text that is clearly legible~~
 2. ~~Step discs lanes.~~
 3. ~~Other recognition plaques.~~
- D. Locations. The Parks and Open Space Committee shall maintain, in the office of the City Clerk, a list of suggested locations and installation types.
- E. Installations Subject to Design Review. All installations shall be subject to the City's Design Review standards and review process.

~~20.3.5 MORATORIUM ON INSTALLATIONS~~

- A. ~~The Belvedere Parks and Open Space Committee has created a moratorium on installations within the Belvedere Community Park playground.~~
- B. ~~The Belvedere Parks and Open Space Committee has created a moratorium on the installation of new benches within the parks and open spaces of the City except replacement of benches if original donor is not available or in the case of unnamed benches.~~

¹ Recommended by the Parks & Open Space Committee 5/7/2009

² Recommended by the Parks & Open Space Committee in 2012

³ Recommended by the Parks & Open Space Committee in 2020

To: Mayor and City Council

From: Amber Johnson, Administrative Services Manager

Reviewed by: Craig Middleton, City Manager

Subject: **Adopt resolution to amend the City of Belvedere Administrative Policy Manual to incorporate revised Personnel Policies.**

Recommended Action

Adopt resolution to amend the City of Belvedere Administrative Policy Manual to incorporate revised Personnel Policies.

Background

Belvedere’s Personnel Rules & Regulations are contained in Part 9 of the Administrative Policy Manual and were last updated in June of 2021. The Administrative Policy Manual is adopted and amended by resolution of the City Council.

Certain amendments are proposed to the Personnel Rules and regulations:

- Policy 9.14 – Work Hours & Attendance: Insertion of section 9.14.2 which formalizes and details a proposed Flexible Workplace Program (“FWP”). In March 2020, the Marin County Public Health Officer issued a legal order directing all residents to shelter in place in response to the COVID-19 pandemic. As a result, all City employees that were able to work remotely were required to do so. As the shelter in place restrictions have eased, City Management would like to continue to allow the option for employees to work a hybrid schedule of on-site and remote work. This proposed policy language provides the City Manager with sole authority to review and approve any FWP requests.

A red-lined version of the policy is included as an attachment to this report.

Fiscal Impact

There is no fiscal impact associated with the adoption of the Revised Personnel Policies.

Attachments:

- A. Resolution to amend the Administrative Policy Manual
- B. Red-lined Policy 9.14

CITY OF BELVEDERE

RESOLUTION NO.2021-XX

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BELVEDERE
APPROVING THE FOLLOWING SECTION OF THE
BELVEDERE ADMINISTRATIVE POLICY MANUAL**

WHEREAS, Belvedere City Staff prepared updates to the City of Belvedere Administrative Policy Manual and presented the text of these updates in a Staff Report for the City Council; and

WHEREAS, the City Council reviewed these updates at its regular meeting on July 12, 2021; and

WHEREAS, the Administrative Policy Amendments are exempt from the provisions of the California Environmental Quality Act (“CEQA”) per CEQA Guidelines Section 15061(b)(3), as the Policy Amendments can be seen with certainty to have no possibility for causing a significant effect on the environment; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Belvedere that


1. Administrative Policy Manual Section 9.14 is hereby modified to read as presented in Exhibit B.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Belvedere on July 12, 2021, by the following vote:

AYES: —
NOES: —
ABSENT: —
ABSTAIN: —

APPROVED: _____
James Campbell, Mayor

ATTEST: _____
Beth Haener, City Clerk

	CITY OF BELVEDERE – ADMINISTRATIVE POLICY MANUAL POLICY 9.14 WORK HOURS & ATTENDANCE		
	Adoption Date:	1/10/2006	Adopted by:
Revised Date:	6/9/2014 12/10/2018	Revised by:	City Council Resolution 2014-20 City Council Resolution 2018-35
Authority:	City Council		

9.14.1 STANDARD WORK WEEK—ALTERNATE WORK SCHEDULE

For employees using the 9-80 work schedule, the standard work week shall begin at noon on Friday and end at 11:59 a.m. on the following Friday. The workday begins at noon on any given day and continues until 11:59 a.m. on the following day. The 9-80 schedule is consistent and repeatable every two weeks. Employees working a 9/80 work schedule will have a regular day off every other week as determined by the City.

Employees using the 9-80 work schedule are required to work nine hours 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.

The workweek thus defined herein continues to provide a normal schedule of 40 hours in a work week although the employee works 44 hours in one calendar week and 36 hours in the second calendar week of the two-week period. Overtime would not be paid unless an employee exceeds 40 hours of work in the work week.

The work period for the City's sworn police employees is that regularly recurring 28-day period that began on January 1, 2019.

9.14.2 FLEXIBLE WORKPLACE PROGRAM

A. The Flexible Workplace Program ("FWP") applies to all active employees regardless of classification.

B. The Flexible Workplace Program is intended to:

1. Increase employee focus and energy during work hours by spending less time commuting
2. Support employee work/life balance
3. Reduce the workforce carbon footprint by allowing employees to reduce trips
4. Decrease traffic congestion by allowing employees to travel during non-peak hours
5. Increase employee job satisfaction
6. Attract and retain employees

7. Protect employee health and safety and reduce the risk of exposure to communicable disease and illness, when necessary
8. Allow for continuity of government services in the event of an emergency
9. Be approved on a case-by case basis depending on organizational priorities
10. Not increase any already budgeted personnel costs to the City of Belvedere

- C. The FWP is not intended to apply to unforeseen emergency situations or irregular requests by employees to deal with personal matters. In the event of an emergency, the City Manager or their designee, may determine that employees are required to perform all or some of their duties remotely. Employees are expected to abide by this policy and any other instructions provided by the City regarding working remotely whether or not an Application and/or Agreement has been completed.
- D. The FWP will allow employees to enter into an agreement to schedule portions of their work week away from their regular worksite. Participating employees will work a full workday, but the FWP will allow times and number of hours in the office to be scheduled differently between individual days of the week.
- E. The City Manager, or their designee, must approve all Flexible Workplace Applications.
- F. Flexible Workplace Applications will be kept in the employee's personnel file.
- G. Participants are bound by all City of Belvedere policies as if they were working onsite or on City of Belvedere property.
1. This includes policies governing appropriate conduct in the workplace and towards one's fellow employees, regardless of work location.
 2. This also includes any and all policies governing employee usage of City of Belvedere computers, internet connections, and mobile devices when they are using City of Belvedere technology at any time.
 3. Any employee who violates any of the City of Belvedere policies while participating in the FWP shall be subject to revocation of their FWP approval, in addition to any disciplinary measures that would be taken if the employee were working onsite.
- H. An ongoing Flexible Workplace schedule (affecting one or more days of the week) must be consistent, approved before it commences, and shall be combined with days and hours worked at the worksite. Under special circumstances or in the event of an emergency, employees who are able to work a majority or all of their scheduled hours remotely may be required to do so.
- I. The duties, obligations, responsibilities, and conditions of a Flexible Workplace participant's employment with the City remain unchanged. The participating employee's salary, retirement, benefits, and City-sponsored insurance coverage shall remain unchanged, except for Auto Allowances. Any participant who is eligible to receive an Auto Allowance shall receive a modified allowance as determined by the City Manager on a case-by-case basis.

Attachment B

J. Expenses incurred as a result of participating in the FWP will not be reimbursed by the City of Belvedere unless they are normally reimbursable pursuant to City of Belvedere policies. Such non-reimbursable expenses include, but are not limited to, utility costs, home improvements, any construction, and any alterations to real or personal property.

K. Participants remain obligated to comply with all City, State, and Federal rules, policies, regulations, procedures, and practices. In the event that Federal and/or State regulations are mandated and conflict with this Regulation, the Federal and/or State regulations shall prevail.

L. Eligibility for participation in the FWP is based on both the position and the employee.

1. Employee participation in the FWP is determined at the discretion of the City Manager or their designee, with input from the employee's supervisor, Manager, and/or Department Director.
2. The decision of the City Manager is final and may not be appealed.
3. Not every applicant for the FWP will be approved.
4. Requests will be considered by the City Manager on a case-by-case basis.
5. The City of Belvedere has no obligation to allow one employee to participate in the FWP merely because another employee who performs the same or similar job duties has been approved to participate in the FWP.
6. The City Manager may or may not disclose the specific criteria used to determine Approval or Denial of an Application. Therefore, the employee should only expect to receive communication of an Approval or Denial by the City Manager.
7. Positions chiefly focused on field work or that are directly customer facing, may not be compatible with the FWP. However, efforts may be made to evaluate whether a portion of an employee's work duties that are compatible to be done away from the designated work location can be scheduled as part of the FWP.

M. FWP participants are covered under the City's Workers' Compensation Insurance Program. Since the employee's off-site workspace shall be considered an extension of the City's workspace, the City's Workers' Compensation liability for job related accidents or injuries shall continue to exist during the employee's Flexible Workplace Program scheduled work hours.

1. The employee remains liable for injuries to third-party persons and/or members of the employee's family on the employee's premises.
2. Any injury or illness that may be related to work-related activities should be immediately reported by the employee to their supervisor so that the City's Workers' Compensation third-party administrator can determine compensability.
3. Actions that a participant may take during break periods from working and actions not directly related to the approved off-site work location will not be covered under Workers' Compensation. These non-covered actions include, but are not limited to, all actions that the employee would not be able to perform in their City of Belvedere office, such as caring for children or pets, domestic tasks, yard work, retrieving the mail, cooking, exercising, and interacting with non-City employees for non-business purposes.

N. The FWP shall be a cooperative effort between the employee and the department. It is a privilege and not a right or an entitlement.

O. The City reserves the right to change, amend, or discontinue the FWP at any time for any reason, including at the employee's reasonable request. Termination of participation in the FWP is administrative and the decision may not be appealed.

9.14.23 HOLIDAYS

For any week in which there is a scheduled holiday, City 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. In cases where a holiday falls on an employee's regular Friday off, the employee will receive 8 hours of compensatory time off to be used at a later date which is approved in advance by the employee's supervisor.

9.14.34 ATTENDANCE

An employee is expected to be in attendance during regular work hours in accordance with these procedures and with general departmental regulations. Daily attendance records of employees shall be maintained which shall be reported to the City Manager.

9.14.45 MANDATORY TRAINING

- A. This section applies only to compulsory training. Training announcements given to supervisors and employees shall clearly state when a training is mandatory and which employee classifications are required to attend.
- B. To facilitate the selection of training days, employees shall endeavor to list their planned time off on the City calendar. As much as possible, employee trainings shall be scheduled to work around listed vacation, administrative leave, and sick leave dates and dates on which attendees have scheduled appointments on the applicable calendar(s): City Hall Shared Calendar, Police Department Leave Calendar, and/or Public Works Department Leave Calendar.
- C. Training for staff who work at City Hall shall be scheduled for Fridays when City Hall is closed to the public, with the following exceptions: holidays, the Friday before a City Council meeting; the two Fridays before a Planning Commission meeting; the Friday before a Monday which is a City holiday. Salaried employees on flex schedules who have that day scheduled to be off shall make every attempt to float their day off to an alternate day. Hourly employees whose regular day off was scheduled for that Friday will be required to attend and be paid overtime, when applicable. Such regular days off will not be taken into consideration when scheduling training days.
- D. Any employee who misses a training for any reason will be required to make up that

Attachment B

course or course equivalent within a reasonable period of time, as stipulated by the supervisor.

- E. If a makeup course is not available during the employee's normal working hours, the employee must attend the training on his/her own time without pay. This rule shall apply except in cases where the course was missed due to a medical emergency in the immediate family, bereavement leave, leave prescribed by a treating physician for a work-related illness or injury, or unexpected illness or injury of the employee.
- F. When an employee is absent from training due to personal illness or injury, at the discretion of the department head, a physician's certificate of illness or injury shall be required prior to the resumption of normal duties.
- G. Trainings are deemed compulsory when they are required by California State Law or deemed so by the City Manager (at his sole discretion).

9.14.56 **RECOMMENDED TRAINING**

- A. This section applies to recommended training, which is often department- or position-based. Training announcements given to supervisors and employees shall clearly state when a training is recommended and which employee classifications are expected to attend.
- B. Training shall be scheduled in accordance with the restrictions listed in Subsections 9.14.4 B & C.
- C. Employees are encouraged not to request voluntary leave for times when they are scheduled to participate in recommended training.
- D. Supervisors shall encourage their employees to be present for recommended trainings. Because makeup classes may be unavailable locally, and because classes may have a minimum number of required participants, supervisors shall consult with the City's Training Coordinator and City Manager before pre-approving a voluntary absence from recommended training.
- E. Any employee who voluntarily misses a course that is offered locally shall make up that course or an approved course equivalent within a reasonable period of time, as stipulated by the supervisor.
- F. Successful completion and implementation of recommended training courses and/or training beyond the minimum required for a department or position shall be listed within the annual personnel evaluation for each employee and may be used to indicate service beyond what is required for satisfactory performance.
- G. The designation of recommended training is solely at the discretion of the City Manager.

9.14.76 **OPTIONAL TRAINING**

- A. This section applies only to training that is purely voluntary. Training announcements given to supervisors and employees shall clearly state when a course is voluntary and whether a minimum number of sign-ups will be needed to hold the class.

- B. All employees may request training through their supervisors. Supervisors shall consult with the Training Coordinator regarding possible training resources before scheduling voluntary training.

9.14.78 **DEPARTMENTAL TRAINING**

This chapter does not apply to in-department training courses that are not listed above and which are required by an authority other than the City Manager (e.g. a department head, the State or Federal government, or an accrediting City).

To: Mayor and City Council

From: Rebecca Markwick, Senior Planner

Subject: Approve revocable license for proposed private improvements in the City street right-of-way along North Point Circle for the property at 5 North Point Circle

Recommended Motion/Item Description

That the City Council approve a revocable license agreement for 5 North Point Circle for existing improvements in the 5 North Point Circle street right-of-way for landscaping, walkway, steps, mailbox, and driveway.

Background and Findings

Proposed encroachment on City property – 5 North Point Circle – APN 060-111-12. The attached license agreement requires the property owner to assume liability and maintenance responsibilities for:

Landscaping, walkway, steps, mailbox and driveway.

Background of current application

A review of city records indicates that there is no revocable license for the property at 5 North Point Circle.

On November 17, 2020, the Planning Commission approved Design Review and a Variance for a retaining wall, hot tub, pool and a large rear yard landscaping project. It was determined at the Planning Commission hearing that a revocable license was required for the existing improvements in the right-of-way.

Compliance with Administrative Policy Manual Section 272.05, Revocable Licenses

In accordance with Section 272.05 of the City’s Administrative Policy Manual, a revocable license for private use of excess street right-of-way may be granted at the discretion of the City Council when there is some benefit to the public, and provided that any proposed encroachment into the right-of-way complies with the design review requirements of Title 20 of the Belvedere Municipal Code. The existing improvements conform to the Administrative Policy Manual for revocable licenses.

The Belvedere Administrative Policy Manual provides that the City Council may grant a revocable license for the private use of excess right-of-way if there is some public benefit and based on a list of factors. (Administrative Policy No. 11.7.) Here, staff recommends that the Council approve a revocable license for the existing improvements pursuant to the administrative policy because there is a public benefit, and the factors are satisfied, as indicated in italics below.

- a. Where necessary to provide pedestrian or vehicular access from private property to the adjacent public street;

The driveway and a portion of the entry stairs provide access to the residence.

Where use of the public right-of-way will permit landscaping and/or related improvements to be installed that the City Council determines will enhance the aesthetic qualities of the streetscape. Any such landscaping and/or related improvements should not significantly impede public views or views from neighboring properties, or infringe on the privacy of neighboring properties;

The proposal includes existing landscaping. The landscaping helps to screen and soften the property frontage and should not significantly impede public views or infringe in privacy.

- b. Where use of the public right-of-way will permit the creation of an off-street parking area, and will thereby relieve parking or traffic congestion on the adjacent City street;

Not applicable.

- c. Where the public right-of-way will be used to construct retaining walls, drainage structures or other facilities that the City considers necessary to protect or maintain the public infrastructure;

Not applicable.

- d. Where appropriate to validate already existing private improvements in the public right-of-way for the purpose of shifting the City's potential liability for injuries and damages to the private property owners using the right of-way for private purposes;

The existing improvements include: Concrete driveway, landscaping, mailbox, walkway and steps. A revocable license was never executed for the subject property. A revocable license is required to reflect the existing improvements in the city right-of-way.

- e. Where necessary to protect or enhance public safety;

Not applicable.

- f. Where use of the public right-of-way will provide an area for street-level refuse and recycling containers on property that would otherwise not have an area for such improvements.

Not applicable.

Additionally, the Administrative Policy further states that “Where fencing is proposed on City property, with the exception of where said fencing would be located on a very steep slope and would serve as a safety measure for vehicles and pedestrians, said fencing should normally be avoided as this effectively turns public property into private property and potentially creates the unwanted image of a “tunnel effect” along our city streets. Fences and other similar barriers, including landscaping, that enclose public property for private use should be avoided.”

There are no fences existing or proposed in the right-of-way.

Public Benefit

The project benefits the public, as these existing improvements enhance the aesthetic appeal of the property frontage and will provide access to the existing residence and garage. The existing landscaping will provide screening of the home and create visual interest on the property.

Future improvements

The license covers any future improvements within the revocable license area that receive staff or Planning Commission design review approval and that meet one or more of the criteria for approval of a revocable license listed in the City’s Administrative Policy Manual, Policy 272.05, as adopted by City Council resolution. Applications for substantial, potentially permanent and/or obstructive structures within the City right-of-way, which fall outside the criteria, will still be required to go to the City Council for consideration and approval/denial. Detailed records at City Hall, maintained in the Planning Department file for this address, will always be available to show exactly what structures have been approved within the license area. This will save considerable staff time that would be devoted to bringing a revised license and staff report to the City Council and in issuing, recording, and archiving a new license agreement.

Recommended Action

That the City Council approve a revocable license agreement for existing for 5 North Point Circle as part of the Consent Calendar.

Attachments

- Draft license agreement with attached exhibit.

RECORDING REQUESTED BY:
City Clerk, City of Belvedere
RECORD WITHOUT FEE PER G.C. 27383

AND WHEN RECORDED MAIL TO:

City Clerk
City of Belvedere
450 San Rafael Avenue
Belvedere, CA 94920-2336

CITY OF BELVEDERE

REVOCABLE LICENSE NO. 2021.04

ASSESSOR'S PARCEL NO.: **060-111-12**
ADDRESS: **5 North Point Circle, Belvedere, California 94920**
OWNER: **Robert and Lindsey Burmeister**
DATE ISSUED: **July 12, 2021**

The City of Belvedere, California, a municipal corporation (hereinafter referred to as "City"), hereby authorizes and licenses the owner of the land described above and in Exhibit "A" (hereinafter referred to as "Licensee"), at its own cost and expense, to encroach upon the adjoining land owned by the City of Belvedere (hereinafter referred to as "Premises") for the following purpose: landscaping, walkway, steps, mailbox and driveway.

The above-described improvements received City design review approval. This license shall cover any future improvements within the revocable license area which receive design review approval, and which meet one or more of the criteria adopted by City Council resolution for the granting of revocable licenses. Any future revocable license application which does not meet the criteria must be approved by the City Council.

This revocable license is granted subject to the following terms and conditions:

1. Licensee shall save and hold harmless the City of Belvedere from any loss, damage, or injury of any kind or character whatsoever that may arise from anything done, or omitted to be done, by Licensee, its agents, employees or contractors in connection with or in any way related to the matters authorized by this License. Licensee agrees to hold City harmless and indemnify City (including, but not limited to, attorney fees, expert witness costs and court costs), without limitation, from and against any and all claims, injuries, damage, liability and/or cause of action which may ever arise as a result of injury and/or damage to property claimed to be the result of construction and/or failure to maintain said property or improvements by Licensee in, on, under, or above City property which is the subject of the revocable license granted Licensee by City.
2. To the extent this License authorizes the erection or installation of any building, fence, wall, or other structure or facility in or upon land owned by City, Licensee agrees to erect and install the same in accordance with plans and specifications approved by the Planning Commission of the City of Belvedere and further agrees to maintain the same at all times in good condition and repair, all at Licensee's sole cost and expense.
3. To the extent this License authorizes the erection or installation of any infrastructure improvements which are subject to the Americans With Disabilities Act ("the Act"), Licensee agrees to construct and maintain those improvements in full compliance with the requirements of the Act.
4. If Licensee shall fail to comply with the terms and conditions of this License, the City, at its option may immediately terminate and revoke this License by mailing or delivering written notice thereof

- to Licensee at the address hereinabove stated. Licensee shall not restrict access by the public and/or by adjacent property owners to the licensed area.
5. Licensee shall execute this License by: signing the License; making an acknowledgement of the License before a notary public or an officer specified by the State to take the acknowledgement of instruments of writing; and delivering the signed License and certificate of acknowledgement to the City. If Licensee shall fail to execute this License within thirty days of the date issued, the City may immediately terminate and revoke this License by mailing or delivering written notice thereof to Licensee at the address hereinabove stated.
 6. Anything herein to the contrary notwithstanding, this License shall be revocable at the pleasure of the City Council of the City of Belvedere. The election to revoke this License may be exercised at any time by mailing or delivering to Licensee at the address hereinabove stated a notice of revocation and termination. Within the time specified in said notice, Licensee shall, at its own cost and expense, remove from the Premises the encroachment and all structures and facilities placed thereon or therein by Licensee.
 7. That upon the failure of Licensee to comply with any of the agreements contained herein, City may declare said improvements to be a public nuisance and may take such action as may be authorized by law to abate said nuisance. The City shall be entitled to recover from Licensee costs of suit and reasonable attorney's fees, to be determined by the court. The remedy of City as contained in this paragraph shall not be exclusive.
 8. The Licensee acknowledges that the property interest created hereunder by issuance of this license may be subject to possessory interest taxation and said Licensee in whom such possessory interest is vested recognizes and agrees that it/they shall be solely responsible for payment of all such taxes levied upon said possessory interest.
 9. The Licensee shall deliver this license to any successor in interest to the above-described land.
 10. The agreements contained herein are covenants and servitudes running with the land and shall be binding upon Licensee and its successors, assignors, executors, administrators, and personal representatives.
 11. The Licensee shall obtain an encroachment permit from the City prior to the commencement of any work on City property.
 12. Any previous revocable licenses issued to this property are now null and void.

Issued by direction of the City Council of the City of Belvedere pursuant to action taken at its meeting of July 12, 2021.

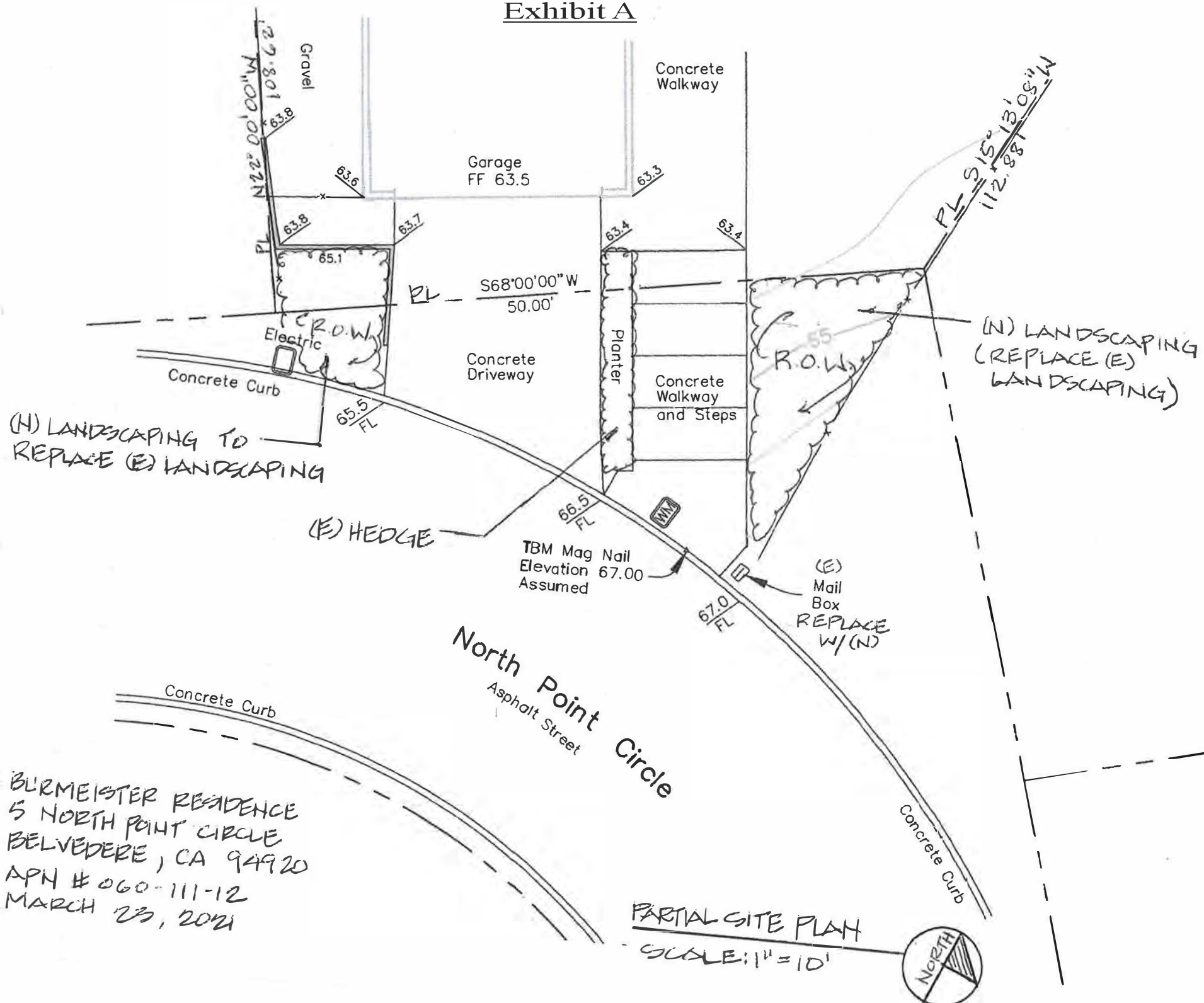
Craig Middleton, City Manager

The foregoing License is accepted and its terms and conditions are agreed to:

Lindsey Burmeister, Licensee

Robert Burmeister, Licensee

Exhibit A



(N) LANDSCAPING TO REPLACE (E) LANDSCAPING

(E) HEDGE

(N) LANDSCAPING (REPLACE (E) LANDSCAPING)

(E) Mail Box REPLACE W/(N)

BURMEISTER RESIDENCE
5 NORTH POINT CIRCLE
BELVEDERE, CA 94920
APN # 060-111-12
MARCH 23, 2021

PARTIAL SITE PLAN
SCALE: 1" = 10'



To: Mayor and City Council

From: Craig Middleton, City Manager
Beth Haener, City Clerk

Subject: **Consider creating a Belvedere Emergency Readiness Committee (ERC) and direct staff to collect applications**

Recommended Motion/Item Description

1. Establish a Belvedere Emergency Readiness Committee (ERC). Eliminate the Block Captain Program Committee as a standing committee of the City. The Block Captain program would be subsumed into the ERC.
2. Call for letters of interest from Belvedere residents wishing to serve on the committee.
3. Announce the Council's intention to constitute the committee at its August 9th regular meeting.

Background

In April and May of 2019, the City Council approved the formation of the Belvedere Block Captain Program Committee. This action was taken to ensure the program's longevity by constituting this important program as a standing committee of the City. It has become increasingly apparent that the Block Captain program should be part of a broader effort to ensure that Belvedere is ready for emergencies. While emergency readiness is reliant on a successful Block Captain program, it also requires evacuation planning, fire fuel reduction, and effective communications strategies both within Belvedere and with other jurisdictions and the Office of Emergency Services (OES).

The goals of the ERC would be outlined in a committee charter that would be brought to the Council for consideration and ratification. An objective would be to institute best practices related to disaster/crisis planning, training, and other preparedness, mitigation and recovery issues into our emergency response.

Under this proposal, the Block Captain Program Group would continue to operate as a citizens' group. A representative from the group would provide periodic updates to the ERC and would serve as a liaison to the ERC.

Fiscal Impact

The formation of the committee would have no fiscal impact on the City.

Recommendation

Staff and the leadership of the current Block Captain Program Committee believe that a Belvedere -centric committee that focuses more broadly on emergency preparedness is warranted and would bring enhanced benefit to Belvedere's residents.

Recommended Actions:

- Establish a Belvedere Emergency Readiness Committee (ERC). Eliminate the Block Captain Program Committee as a standing committee of the City. The Block Captain program would be subsumed into the ERC.
- Call for letters of interest from Belvedere residents wishing to serve on the committee.
- Announce the Council's intention to constitute the committee at its August 9th regular meeting.

Attachments

- A. Resolution establishing the Belvedere Emergency Readiness Committee

CITY OF BELVEDERE

RESOLUTION NO. 2021-XX

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BELVEDERE
ESTABLISHING THE BELVEDERE EMERGENCY READINESS COMMITTEE**

WHEREAS, the Belvedere Block Captain Program serves an important function in resident disaster response and training; and

WHEREAS, the public would benefit from a focus on disaster readiness topics that include and expand upon the responsibilities of the Block Captain Program; and

WHEREAS, it is recommended that the City Council create a new Belvedere Emergency Readiness Committee that would replace and expand upon the Block Captain Program Committee, and

WHEREAS, the purpose of the new committee shall be to recommend policies, plans and programs related to disaster/crisis planning, training, and other preparedness, mitigation and recovery issues; and

WHEREAS, the City Council wishes to establish the aforementioned committee and will appoint members as it sees fit; and

WHEREAS, the formation and dissolution of government committees is exempt from the provisions of the California Environmental Quality Act (“CEQA”) per CEQA Guidelines Section 15061(b)(3), as the Policy Amendments can be seen with certainty to have no possibility for causing a significant effect on the environment; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Belvedere that the Belvedere Emergency Readiness Committee be established, and

BE IT FURTHER RESOLVED by the City Council of the City of Belvedere that the Belvedere Block Captain Program Committee is dissolved as a standing committee of the City.

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Belvedere on July 12, 2021, by the following vote:

AYES: —
NOES: —

ABSENT: —

ABSTAIN: —

APPROVED: _____

James Campbell, Mayor

ATTEST: _____

Beth Haener, City Clerk

To: Mayor and City Council

From: Irene Borba, Director of Planning & Building

Subject: **Approve revocable license for private improvements in the City street right-of-way along Bayview Avenue for the property at 129 Bayview Avenue**

Recommended Motion/Item Description

1. That Mayor James Campbell state for the record that his residence is within 500 feet of the subject property and therefore he must recuse himself from this item.
2. That the City Council approve a revocable license agreement for 129 Bayview Avenue for existing improvements in the 129 Bayview Avenue Street right-of-way for existing landscaping & planter, driveway, and wooden steps.

Background and Findings

Proposed encroachment on City property – 129 Bayview Avenue – APN 060-182-11. The attached license agreement requires the property owner to assume liability and maintenance responsibilities for:

Existing landscaping & planter, driveway, and wooden steps.

Background of current application

A Revocable License was never executed for the subject property; therefore a revocable license is required to reflect the existing improvements located with the right-of-way.

On June 15, 2021, the Planning Commission approved Design Review for an addition/remodel for the existing residence. The proposal included an update of all doors and windows in the residence and a main level remodel of the kitchen, new exterior stairs and new lower floor secondary bedrooms and bathroom. The application request included an Exception to Total Floor Area, and variances for lot coverage, and setbacks and parking. The Commission had no issues with the request for the revocable license and recommended that the Council approve the license request.

Compliance with Administrative Policy Manual Section 272.05, Revocable Licenses

In accordance with Section 272.05 of the City’s Administrative Policy Manual, a revocable license for private use of excess street right-of-way may be granted at the discretion of the City Council when there is some benefit to the public, and provided that any proposed encroachment into the right-of-way complies with the design review requirements of Title 20 of the Belvedere Municipal

Code. The existing improvements conform to the Administrative Policy Manual for revocable licenses.

The Belvedere Administrative Policy Manual provides that the City Council may grant a revocable license for the private use of excess right-of-way if there is some public benefit and based on a list of factors. (Administrative Policy No. 11.7.) Here, staff recommends that the Council approve a revocable license for the existing improvements pursuant to the administrative policy because there is a public benefit, and the factors are satisfied, as indicated in italics below.

- a. Where necessary to provide pedestrian or vehicular access from private property to the adjacent public street;

The driveway and a portion of the entry stairs provide access to the residence.

- b. Where use of the public right-of-way will permit landscaping and/or related improvements to be installed that the City Council determines will enhance the aesthetic qualities of the streetscape. Any such landscaping and/or related improvements should not significantly impede public views or views from neighboring properties, or infringe on the privacy of neighboring properties;

The proposal includes existing landscaping and a planter area. The landscaping helps to screen and soften the property frontage and should not significantly impede public views or infringe in privacy.

- c. Where use of the public right-of-way will permit the creation of an off-street parking area, and will thereby relieve parking or traffic congestion on the adjacent City street;

Not applicable.

- d. Where the public right-of-way will be used to construct retaining walls, drainage structures or other facilities that the City considers necessary to protect or maintain the public infrastructure;

Not applicable.

- e. Where appropriate to validate already existing private improvements in the public right-of-way for the purpose of shifting the City's potential liability for injuries and damages to the private property owners using the right of-way for private purposes;

The improvements are existing (existing landscaping & planter, driveway, and wooden steps) and have been in place for some time. A revocable license was never executed for the subject property. A revocable license is required to reflect the existing improvements in the city right-of-way.

- f. Where necessary to protect or enhance public safety;

Not applicable.

- g. Where use of the public right-of-way will provide an area for street-level refuse and recycling containers on property that would otherwise not have an area for such improvements.

Not applicable.

Additionally, the Administrative Policy states that “Where fencing is proposed on City property, with the exception of where said fencing would be located on a very steep slope and would serve as a safety measure for vehicles and pedestrians, said fencing should normally be avoided as this effectively turns public property into private property and potentially creates the unwanted image of a “tunnel effect” along our city streets. Fences and other similar barriers, including landscaping, that enclose public property for private use should be avoided.”

There are no fences existing or proposed in the right-of-way.

Public Benefit

Here, the existing improvements enhance the aesthetic qualities of the streetscape. The landscaping will not significantly impede views or infringe on privacy. The encroachment is necessary to permit landscaping that will enhance the aesthetic qualities of the neighborhood, while also maintaining views from the public right-of-way & provide access to the residence. Additionally, a revocable license for the existing improvements will shift the liability to the property owner.

Future improvements

The license covers any future improvements within the revocable license area that receive staff or Planning Commission design review approval and that meet one or more of the criteria for approval of revocable license listed in the City’s Administrative Policy Manual, Policy 272.05, as adopted by City Council resolution. Applications for substantial, potentially permanent and/or obstructive structures within the City right-of-way, which fall outside the criteria, will still be required to go to the City Council for consideration and approval/denial. Detailed records at City Hall, maintained in the Planning Department file for this address, will always be available to show exactly what structures have been approved within the license area. This will save considerable staff time that would be devoted to bringing a revised license and staff report to the City Council and in issuing, recording, and archiving a new license agreement.

Recommended Action

That the City Council approve a revocable license agreement for existing improvements for 129 Bayview Avenue as part of the Consent Calendar.

Attachments

- Draft license agreement with attached exhibit.

RECORDING REQUESTED BY:
City Clerk, City of Belvedere
RECORD WITHOUT FEE PER G.C. 27383

AND WHEN RECORDED MAIL TO:

City Clerk
City of Belvedere
450 San Rafael Avenue
Belvedere, CA 94920-2336

CITY OF BELVEDERE

REVOCABLE LICENSE NO. 2021.03

ASSESSOR'S PARCEL NO.: **060-182-11**
ADDRESS: **129 Bayview Avenue, Belvedere, California 94920**
OWNER: **William Newland**
DATE ISSUED: **July 12, 2021**

The City of Belvedere, California, a municipal corporation (hereinafter referred to as "City"), hereby authorizes and licenses the owner of the land described above and in Exhibit "A" (hereinafter referred to as "Licensee"), at its own cost and expense, to encroach upon the adjoining land owned by the City of Belvedere (hereinafter referred to as "Premises") for the following purpose: existing landscaping & planter, driveway and wooden steps.

The above-described improvements received City design review approval. This license shall cover any future improvements within the revocable license area which receive design review approval and which meet one or more of the criteria adopted by City Council resolution for the granting of revocable licenses. Any future revocable license application which does not meet the criteria must be approved by the City Council.

This revocable license is granted subject to the following terms and conditions:

1. Licensee shall save and hold harmless the City of Belvedere from any loss, damage, or injury of any kind or character whatsoever that may arise from anything done, or omitted to be done, by Licensee, its agents, employees or contractors in connection with or in any way related to the matters authorized by this License. Licensee agrees to hold City harmless and indemnify City (including, but not limited to, attorney fees, expert witness costs and court costs), without limitation, from and against any and all claims, injuries, damage, liability and/or cause of action which may ever arise as a result of injury and/or damage to property claimed to be the result of construction and/or failure to maintain said property or improvements by Licensee in, on, under, or above City property which is the subject of the revocable license granted Licensee by City.
2. To the extent this License authorizes the erection or installation of any building, fence, wall, or other structure or facility in or upon land owned by City, Licensee agrees to erect and install the same in accordance with plans and specifications approved by the Planning Commission of the City of Belvedere and further agrees to maintain the same at all times in good condition and repair, all at Licensee's sole cost and expense.
3. To the extent this License authorizes the erection or installation of any infrastructure improvements which are subject to the Americans With Disabilities Act ("the Act"), Licensee agrees to construct and maintain those improvements in full compliance with the requirements of the Act.
4. If Licensee shall fail to comply with the terms and conditions of this License, the City, at its option may immediately terminate and revoke this License by mailing or delivering written notice thereof

- to Licensee at the address hereinabove stated. Licensee shall not restrict access by the public and/or by adjacent property owners to the licensed area.
5. Licensee shall execute this License by: signing the License; making an acknowledgement of the License before a notary public or an officer specified by the State to take the acknowledgement of instruments of writing; and delivering the signed License and certificate of acknowledgement to the City. If Licensee shall fail to execute this License within thirty days of the date issued, the City may immediately terminate and revoke this License by mailing or delivering written notice thereof to Licensee at the address hereinabove stated.
 6. Anything herein to the contrary notwithstanding, this License shall be revocable at the pleasure of the City Council of the City of Belvedere. The election to revoke this License may be exercised at any time by mailing or delivering to Licensee at the address hereinabove stated a notice of revocation and termination. Within the time specified in said notice, Licensee shall, at its own cost and expense, remove from the Premises the encroachment and all structures and facilities placed thereon or therein by Licensee.
 7. That upon the failure of Licensee to comply with any of the agreements contained herein, City may declare said improvements to be a public nuisance, and may take such action as may be authorized by law to abate said nuisance. The City shall be entitled to recover from Licensee costs of suit and reasonable attorney's fees, to be determined by the court. The remedy of City as contained in this paragraph shall not be exclusive.
 8. The Licensee acknowledges that the property interest created hereunder by issuance of this license may be subject to possessory interest taxation and said Licensee in whom such possessory interest is vested recognizes and agrees that it/they shall be solely responsible for payment of all such taxes levied upon said possessory interest.
 9. The Licensee shall deliver this license to any successor in interest to the above-described land.
 10. The agreements contained herein are covenants and servitudes running with the land and shall be binding upon Licensee and its successors, assignors, executors, administrators, and personal representatives.
 11. The Licensee shall obtain an encroachment permit from the City prior to the commencement of any work on City property.
 12. Any previous revocable licenses issued to this property are now null and void.

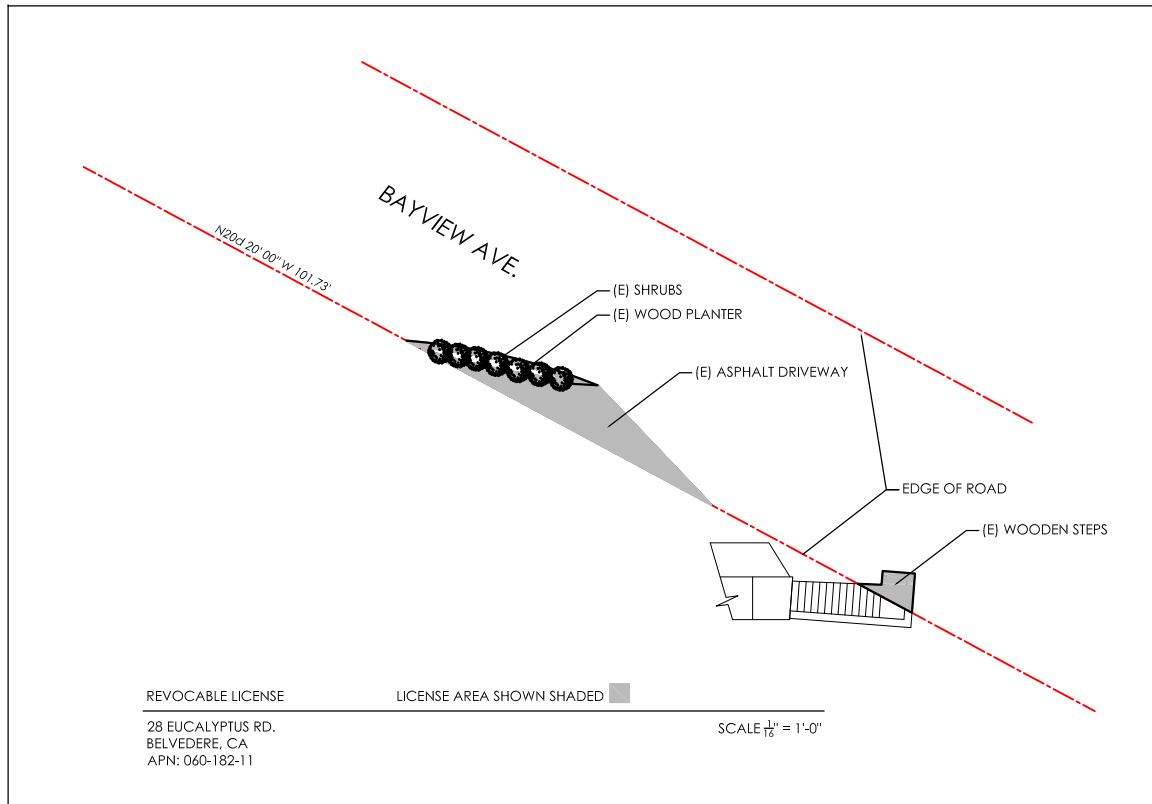
Issued by direction of the City Council of the City of Belvedere pursuant to action taken at its meeting of July 12, 2021.

Craig Middleton, City Manager

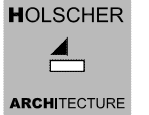
The foregoing License is accepted and its terms and conditions are agreed to:

William Newland, Licensee

EXHIBIT "A"



REVOCABLE LICENSE - PARTIAL SITE PLAN
A0.1a NTS.



1550 Tiburon Boulevard
Belvedere, California 94920
www.harch.com
phone 415.435.5219
fax 415.435.0312

Newland Residence Addition & Renovation

129 Bayview Ave.
Belvedere, CA, 94920
APN: 060-172-01

Revocable License - Site Plan

Not to Scale



no.	revisions	date
	PROGRESS	07/01/2020
	DESIGN REVIEW	02/01/2021

date issued: 02/01/2021

drawn by: AV checked by: DH

Job#: ##-2021

drawing number

A0.1a

of sheets

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To: Mayor and City Council

From: Craig Middleton, City Manager
Robert Zadnik, Director of Public Works

Subject: **Consider public comment and informational report regarding the Belvedere Playground Remodel Project.**

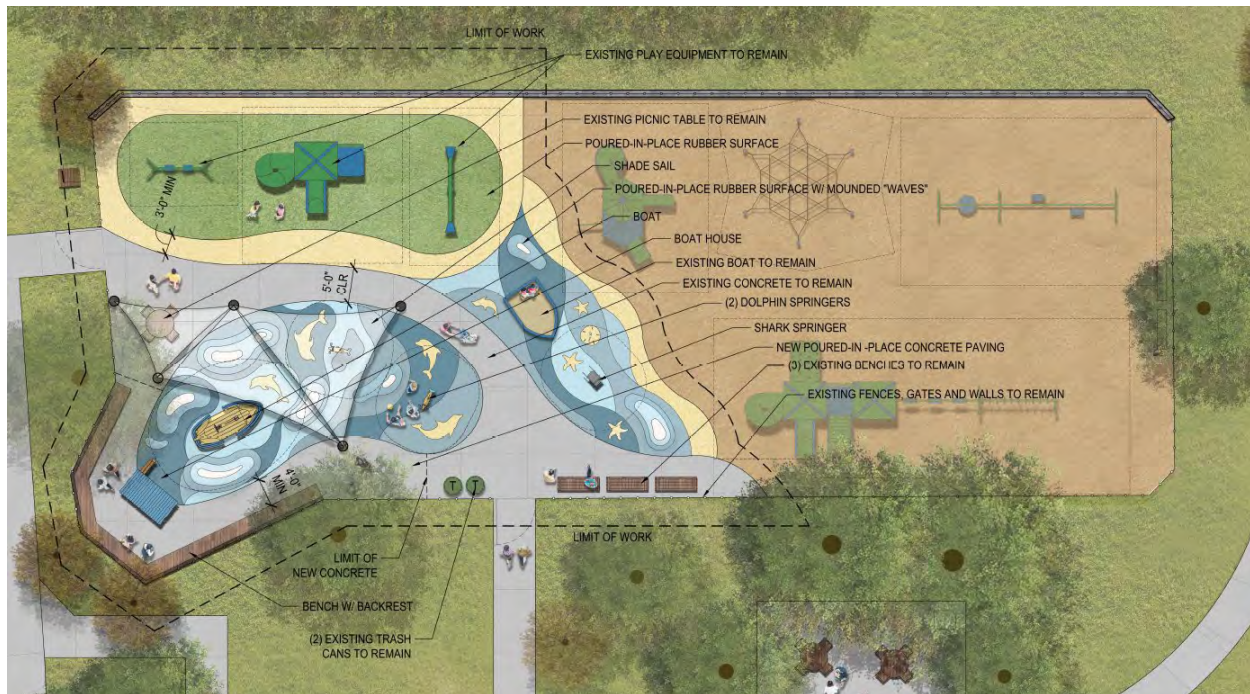
Recommended Action

1. That Councilmember Nancy Kemnitzer state for the record that her residence is within 500 feet of the subject property and therefore she must recuse herself from this item.
2. There is no specific recommended action at this time. Councilmembers are encouraged to read the following report and, if necessary, provide direction to Staff regarding the proposed design and material selection.

Background

The Belvedere Community Park Playground is an important recreational asset for the community. As such, it is one of the primary concerns of the Parks and Open Space Committee (POSC).

In 2018, the POSC recognized the need to remodel the playground. Play structures, fencing, and surface matting had begun to show excessive wear. For the last 18 months, the committee has been working with Belvedere residents, city staff, and a project architect to develop the preferred design depicted here and on page four of attachment “A.”



The Planning Commission and City Council have reviewed and approved the design.

A private fundraising effort has been undertaken to raise money for the playground upgrade. To date, organizers indicate that \$140,000 has been pledged by private donors.

In December of 2020, Dr. Bill Rothman contacted the City to express concerns about potential health hazards related to use of the rubber surface material.

In February 2021, the POSC held a special meeting to address these concerns, which are related to the use of Pour-in-Place (PIP) surface matting (the attached report **Item "A"** was provided to the POSC as reference). The following is a summary of the special meeting:

- Staff provided a summary report on PIP research and findings.
- The committee Chair provided a signed list of more than 70 residents who supported the project and were in favor of the design concept, including the use of the surface matting.
- Dr. Rothman spoke to the committee on several toxicity issues related to the PIP matting. He asserted that, when the matting breaks down, the underlying materials might be eaten or ingested by children creating health risks.
- Committee members Bordon, Watson, Walker and Valente summarized their thoughts and expressed their reasoning for continued support of the proposed design.
- Committee member Lund advocated for the use of sand as a suitable alternative. The project architect pointed out that sand is not an approved ADA surface. Additional health concerns over parasites and animal fecal contamination caused the committee to rule it out as a viable alternative.

At the conclusion of the meeting, after hearing public comment on the issues, the Committee decided to 1) uphold its original decision to use PIP as the best practicable alternative, 2)

investigate and consider all-natural alternatives to PIP as they become available in US markets, and 3) commit to a rigorous maintenance routine for the life of the product.

In addition to the petition mentioned above, the City has received letters and emails relating to the issue of the PIP matting material. The City has also received letters from experts regarding the alleged health risks. These are attached to this staff report for your information.

Note: This agenda item does not allow for a specific decision by the Council. It is agendaized as a discussion item. The Council may ask questions and may direct staff to research options for consideration at a future Council meeting.

Fiscal Impact

The project has been fully designed by RHAA and is ready for public bidding once funds have been raised. Changes to the design would require additional work by the project architect; the cost of the redesign work would be dependent on the extent of the changes.

Attachments:

- A. February 23rd Memo to the POSC concerning PIP and attachments.
- B. Depiction showing PIP matting in the current design.



CITY OF BELVEDERE

Memorandum

TO: Belvedere Parks and Open Space Committee

FROM: Robert Zadnik, Public Works Director

SUBJECT: Summary of Findings for the Community Park Playground Surface Matting

DATE: February 18th, 2021

Recommended Motion/Item Description

- a. Reaffirm its earlier decision regarding PIP surface matting and recommend staff proceed with next steps for the proposed design.

OR

- b. Provide additional direction and request Staff return to the Committee at a future date with alternative proposals.

Background

In October of 2020, the Parks and Open Space Committee (POSC) approved a revised playground concept plan which included a remodel of the tots play area for the Community Park Playground. This plan was developed in cooperation with the Belvedere community, POSC, the Playground Task Force, City staff, and the project architect, RHAA.

Following this meeting, it was made known to the City that certain chemicals with potential health risks were present in the rubberized poured-in-place material (PIP). RHAA, staff and the city researched this topic and provided a verbal report in January of 2021, during the regularly agenzized Committee meeting. It was determined at that time that these reported health risks could be managed by the proper installation of the PIP material through a trained and certified professional contractor. In addition to this, the architect would specify a cleaner alternative rubber product, as opposed to recycled (used) crumb rubber material.

Given the importance of this decision, it was determined necessary that a special meeting should be held to discuss the topic in more detail and offer another opportunity to hear the community's comments. The following information is a brief summary of findings concerning PIP and other alternatives that were considered.

Findings

Poured-In-Place rubber surfacing consists of two components: the **surface layer** and the **base layer**. The surface layer is made up of virgin (non-recycled) rubber, coated in a urethane binder glue. The base layer is designed to absorb impacts and consists of pre-consumer scrap rubber (items rejected due to wrong color, surplus, production defects, etc.). Other options for the base layer are available, for example, cryogenic crumb rubber (recycled vehicle tires), and recycled styrene, butadiene rubber (SBR); however, these products are becoming less common for the industry and will not be specified for this particular project.

Concerns have been raised by a member of the community that general wear and tear can break the surface layer and expose children to the recycled rubber base layer and chemicals, particularly Styrene and Butadiene. It is important to point out that Styrene and Butadiene are present in the pre-consumer postindustrial reclaimed rubber that would be used as a base layer for this project, although to a lesser degree than other SBR and recycled tire options. At the time of this report, there are no Non-Recycled rubber base layer materials available on the market that are tested and certified to meet the ASTM and ADA accessibility and impact attenuation standards. Studies by the EPA, Consumer Product Safety Commission, and Office of Environmental Health have researched the exposure risks of PIP in playgrounds and deemed it safe, given the significantly low parts-per-million concentrations found in playground matting wipe-tests throughout the Nation. Additional detail has been provided in the attached RHAA letter.

Note: the referenced reports and studies (page 3 of the attached RHAA letter) are too large for this agenda packet. The files will be available at City Hall for public review.

Alternatives

Playground matting must conform with ASTM and ADA code for fall safety and wheelchair access. Currently, there is only one alternative surface material that meets both these requirements. Sand does not meet accessibility standards.

- Engineered Wood Fiber (EWF)

Pros:

- Easy to install
- Provides good impact absorption
- Less expensive than PIP
- Stays in place better than loose fill materials

Cons:

- Potential choking hazard
- Can hide insects, pests and animal feces
- Microbial growth can occur when material is wet
- Expensive to refresh and maintain
- Mold can grow on untreated wood
- Wood chips are typically treated with Copper Chromated Arsenic (CCA), a wood preservative and insecticide that can contain up to 30% arsenic

Summary

There are advantages and disadvantages to every product. Staff suggests that the proposed material does not present a health hazard. Based on the research conducted by the city, architect and playground task force, PIP surface matting has undergone intense review by a number of consumer and governmental agencies and has been deemed safe. It remains the preferred alternative for new playgrounds and has been used successfully in the industry for over 30 years.

Recommended Action

No specific action is necessary at this time; however, the Committee may:

- a. Reaffirm its earlier decision regarding PIP surface matting and recommend staff proceed with next steps for the proposed design.

or

- b. Provide additional direction and request Staff return to the Committee at a future date with alternative proposals.

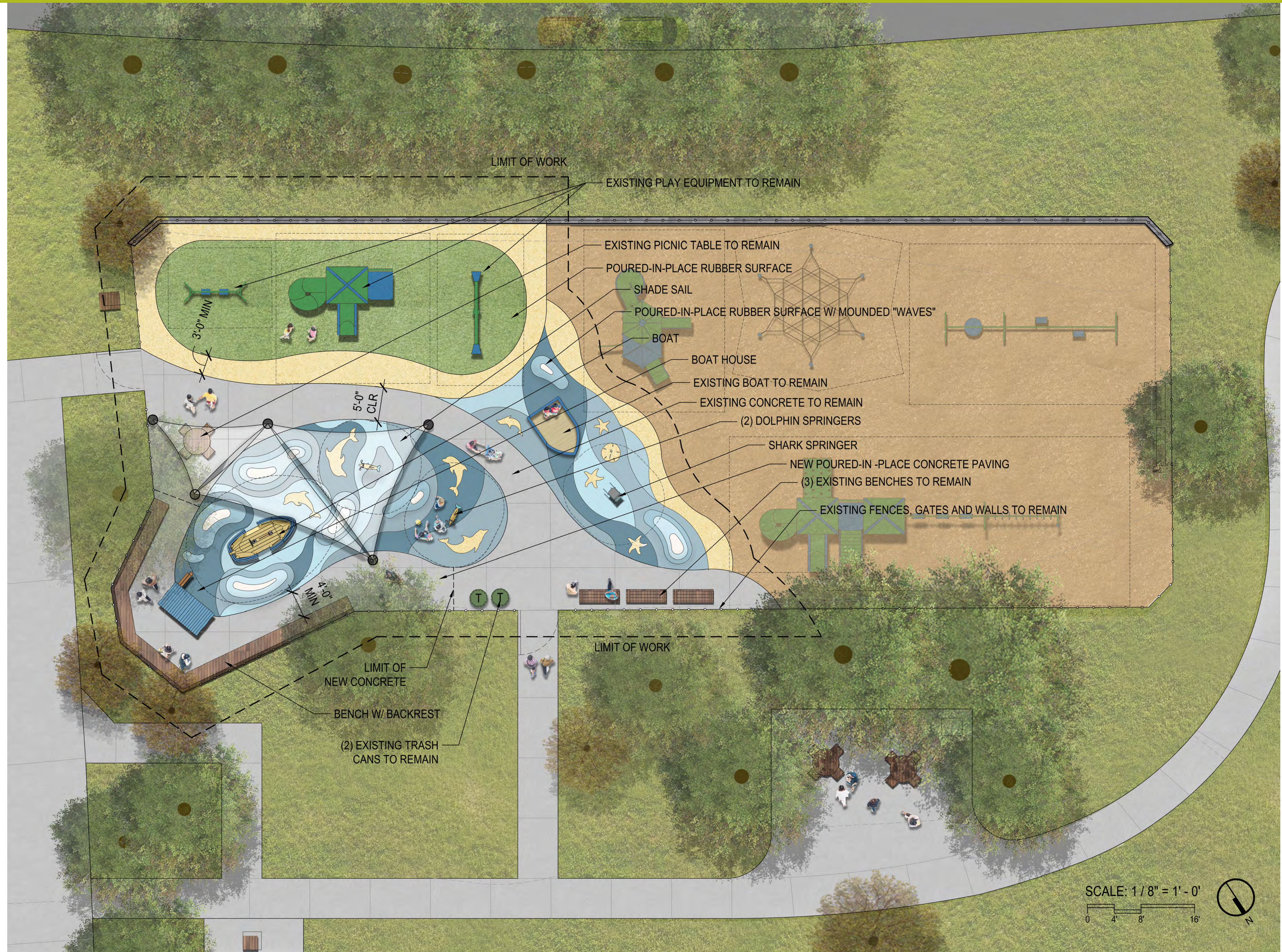
Attachments

- Committee approved playground design by RHAA.
- Response from Architect regarding PIP surface matting.
- Committee member Valente's summary on sand health hazards.

BELVEDERE PLAYGROUND



rhaa
Landscape
Architecture
& Planning



PLAN



Boat House
Kompan NR0414



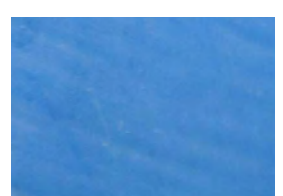
Boat
Kompan NRO514



Dolphin Springer
Kompan NRO111

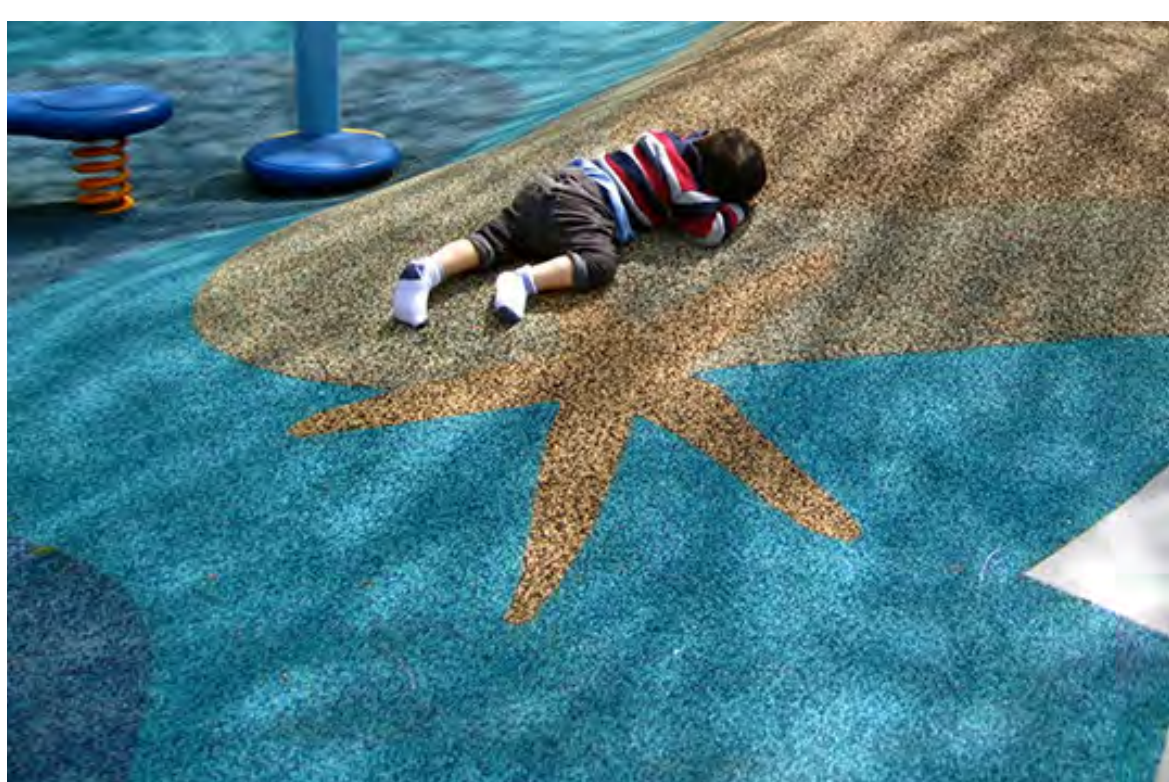


Shark Springer
Kompan PCM102



All Kompan play structures will be custom painted to match existing royal blue playground colors

PLAY ELEMENTS



Poured-in-place Rubber Surfacing



Shade Sail



Streetlife Rough & Ready Bench

SURFACING AND FURNISHINGS



December 18th, 2020

Robert Zadnik
Public Works Director | Emergency Preparedness Manager
City of Belvedere
450 San Rafael Ave.
Belvedere, CA 94920
Office (415) 435-4111
Fax (415) 435-0430

Main Office
225 Miller Avenue,
Mill Valley, CA 94941

San Francisco Office
323 Geary Street, #602
San Francisco, CA 94102

rhaa.com
415.383.7900

Project Address: Community Rd, Belvedere Tiburon, CA 94920

Scope: Renovation of Children's play area

RE: **Poured-in-place rubber surfacing.**

Rhaa understands that the industry standard for a poured-in-place rubber play surface consists of:

1. Base layer: An impact attenuation layer of cryogenic crumb rubber * or recycled styrene butadiene rubber (SBR)** or pre-consumer postindustrial reclaimed scrap rubber *** coated in a urethane binder.
2. Surface layer: A layer of virgin rubber (EPDM or TBP) coated in a urethane binder

* cryogenic crumb rubber *refers to untreated ground up passenger tires which will not be specified in this project.*

** Recycled Styrene, Butadiene, Rubber (SBR) will not be specified in this project.

****Most common in industry and will be specified in this project. Made of grounded, defective consumer rubber products that meet quality standards.*

Concerns have been raised by members of the community that general wear and tear can break the surface layer and expose children to the recycled rubber base layer and chemicals, particularly Styrene and Butadiene. Styrene and Butadiene are present in the pre-consumer postindustrial reclaimed rubber that would be used as a base layer for this project. There are no Non-Recycled rubber base layer materials available on the market that are tested and certified to meet the ASTM and ADA accessibility and impact attenuation standards.

If an instance occurs in which the recycled rubber content is exposed, meaning the surface layer and urethane binder is broken or worn down, a child in theory could be exposed to the recycled rubber content. In this case the Environmental Protection Agency, United States Consumer Product Safety Commission and the California Office of Environmental Health Hazard Assessment state the following:

- while chemicals are present as expected in the tire crumb rubber, human exposure appears to be limited based on what is released into air or simulated biological fluids – EPA [1]

- these surfaces would not cause skin sensitization in children, nor would they be expected to elicit skin reaction in children already sensitized to latex – California Office of Environmental Health Hazard Assessment - California Office of Environmental Health Hazard Assessment [5]
- There are 7 chemicals that could be considered carcinogens [in recycled rubber] but the concentration levels are below the level of one part per million that is generally considered an acceptable risk – California Office of Environmental Health Hazard Assessment [5]
- Zinc and four chemicals were measured [In wipe samples of in-use playground surfacing containing recycled tire rubber] that were at least three times background levels. Assuming playground use from one through 12 years of age the increased cancer risk was calculated to be 2.9 in one million which is generally considered to be an acceptable risk. – California Office of Environmental Health Hazard Assessment [5]
- no specific chemical hazards from recycled tires in playground surfacing are known by the CPSC at this time – CPSC [8]

Our understanding is that (based on their statements) federal and state health organizations have deemed poured-in-place rubber surfacing as safe for use in playground installation, provided the surfacing material is installed by a manufacturer that can prove compliance with all testing standards and any other applicable codes and it is maintained per the manufacturer's specifications.

Rhaa acknowledges that at the time that the referenced statements produced, the EPA, COEHHA, CPSC along with other agencies are conducting ongoing testing and research into the safety of rubber surfacing materials. Please refer to the references on the following pages. It is the responsibility of the City of Belvedere to make the final determination on material use.

We will wait for the City's direction on this matter. Please let us know how to proceed.

Sincerely,

Manuela King – President, RHAA Landscape Architects

References:

1. <https://www.epa.gov/chemical-research/federal-research-recycled-tire-crumb-used-playing-fields> , Environmental Protection Agency Federal research summary statement.
2. *Synthetic Turf Field Recycled Tire Crumb Rubber Research Under the Federal Research Action Plan Part 1&2*” by Environmental Protection Agency (EPA), 2019
3. *“Association Releases Updated Information Regarding Use of Recycled Rubber on Playgrounds”*, by International Play Equipment Manufacturers Association march 2012
4. *“Summary of Playground Surfacing Focus Groups”* by Consumer Product Safety Commission (CPSC) United States of America, January 2018
5. *“Evaluation of Health Effects of Recycled Waste Tires in Playground and Track Products”* by the Office of Environmental Health Hazard Assessment and published by the California Integrated Waste Management Board., January 2007
6. *“Are Poured in Place Playground Surfaces Safe?”* by David Spease, ASLA, CPSI.
7. *SECTION 32 18 16.13 PLAYGROUND TPV PROTECTIVE SURFACING TOTTURF* by Robertson recreation.
8. <https://www.cpsc.gov/Safety-Education/Safety-Education-Centers/Crumb-Rubber-Safety-Information-Center> , United States Consumer Product Safety Commission

From: [Bryan Kemnitzer](#)
To: [Robert Zadnik - Public Works Director](#)
Subject: Fw: Sandbox horrors
Date: Wednesday, February 17, 2021 8:02:04 AM
Attachments: [Germiest Items in Public Places \(NSF International 2008\).pdf](#)
[Defecation habits of animals in sandboxes \(Kobe University School of Medicine 1996\).pdf](#)
[Parasite contamination of sand \(McGill University 1991\).pdf](#)
[Sandboxes for children contain C. difficile \(Spain 2017\).pdf](#)

From: Mario Valente
Sent: Tuesday, February 16, 2021 10:15 PM
To: Bryan Kemnitzer
Subject: Sandbox horrors

When public health-testing organization NSF International sampled 26 different items in public places, for a 2008 study on germs, they found that sandboxes were the worst offenders of all, harboring 2000x more bacteria/mold per square inch than the door handles of public restrooms. [See attached].

McGill University tested the surface sand from 10 local day-care centers in 1991. Two of the sandboxes were contaminated with eggs of a parasite called *Toxocara*. Once a child eats them, the eggs hatch in his or her body into larvae, which can burrow into the liver or lungs, causing substantial damage. [See attached].

Another parasite kids can get from sandboxes is *Toxoplasma gondii*, which is spread by cats. In one 1996 study, Japanese researchers spied on 3 urban sandboxes at night using camcorders and found that over 150 days, cats pooped in the boxes 961 times. They calculated that one of the sandboxes contained more than 1.5 million viable *Toxoplasma* eggs per square foot of sand, yet children need only ingest a single egg to get sick. Although *Toxoplasma* infections are typically mild, individuals with compromised immune systems can fall very ill. And when women become infected during pregnancy, their babies can develop brain or vision damage. [See attached].

Finally, we are also learning that the potentially fatal *Chlostridium difficile*, generally thought of as "hospital-acquired", is becoming more common in playgrounds. Spanish researchers, in 2017, found that *C. difficile* was found in 9 of 20 children's sandboxes in Madrid. Toxic strains of *C. difficile* can range from diarrhea to life-threatening colon inflammation. Even worse, all of the samples the team analyzed were resistant to at least 2 antibiotics. Researchers wrote that the presence of *C. difficile* "constitutes a major health risk." [See attached].

Germiest Items in Public Places

As part of NSF International's ongoing Scrub Club® handwashing public service campaign, our microbiologists set out to find out where germs hide in schools and other public places. Teaming up with Real Simple magazine, NSF's experts swabbed key surfaces in local schools, grocery stores and other public places

Although not all germs are harmful, the existence of germs on the tested surfaces indicates that there are favorable conditions for microorganisms to grow and survive, which could create an environment for disease-causing viruses and bacteria, such as *E. coli* and *Salmonella*. In other words, the higher the level of bacteria, the higher the probability that some of those bacteria are harmful.

The Results

As part of this study, NSF microbiologists swabbed 26 different public places, testing for the level of aerobic plate count (APC), also known as the general bacterial population, at each location. Our team found that the location that harbored the highest level of bacteria was a playground sandbox, revealing a combined count of 7,440 aerobic bacteria, yeast and mold per gram. Sandboxes are an ideal setting for bacteria, as they are not only exposed to wildlife, such as cats and raccoons,

but they can also hold on to bacteria that is left from human contact, such as saliva, food items and other bacteria from human hands.

Most Bacteria (Over 100 APC CFU/in2)	Relatively Clean (10-100 APC CFU/in2)	Clean (Less than 10 APC CFU/in2)
○ Public park sandbox	○ Public park swing	○ Dr. office checkout desk
○ Restaurant tray	○ School computer mouse	○ Dr. office magazine rack
○ School musical instrument	○ School desk	○ Dr. office toys
○ Theater video controller	○ School earphones	○ Dr. office waiting room chair
	○ School gym mat	○ Library kids' books
	○ Store basket	○ Restaurant restroom door handles
	○ Store floor	○ School basketball
	○ Theater arcade	○ School bus seat
	○ Theater restroom	○ Store horse ride
		○ Store shopping cart

Video game controllers were also found to have high numbers of germs. When NSF's

microbiologists swabbed a game controller at a movie theatre that had just recently been cleaned by staff, the test results still showed an APC count of 551 bacteria per inch². Aside from a musical instrument and a restaurant serving tray, which showed APC counts in the 200s, the rest of the 22 swabbed locations produced an APC count below 100, which by many standards is considered clean.

Three growth factors determine a surface's potential for harboring germs and bacteria: the type of surface, temperature and moisture level. Non-smooth, warm and moist areas tend to create ideal conditions for thriving bacteria to grow and hide.

In past studies, NSF found that objects such as water fountain spigots and cafeteria trays had more microorganisms than commonly cleaned areas, such as bathrooms and gym mats. Although NSF's findings are a snapshot in time at the tested sites, the results reveal that we all need to be vigilant about sanitizing those hard-to-reach areas that people may forget to clean. It also reinforces the importance of teaching proper handwashing from an early age to protect against potentially harmful bacteria, viruses and other germs.

DEFECATION HABITS OF CATS AND DOGS AND CONTAMINATION BY *TOXOCARA* EGGS IN PUBLIC PARK SANDPITS

SHOJI UGA, TOSHIKADZU MINAMI, AND KENJI NAGATA

Department of Medical Zoology, Kobe University School of Medicine, Kobe, Japan; Research and
Technical Laboratories, Chemical Division, Shinto Paint Co., Ltd., Osaka, Japan

Abstract. The defecation habits of cats and dogs in three sandpits in urban public parks were observed by camcorder. Cats were the main cause of fecal contamination of these sandpits. Most (80%) feline defecations occurred at night between 6:00 PM and 6:00 AM. Each of the sandpits was used habitually as a defecation site by 4-24 cats, but these cats seemed to defecate elsewhere, as well. Fecal deposits within the sandpits were evenly distributed and did not tend to be concentrated in one area, suggesting that the cats avoided previously deposited feces when choosing a place to defecate. One sandpit was strongly contaminated and two were weakly contaminated with *Toxocara* eggs. Because sandpits are widely used as play areas for young children, effective sanitation measures should be implemented to prevent the contamination of sandpits by *Toxocara* eggs.

Toxocara canis and *T. cati* are nematodes usually found in dogs and cats, respectively. *Toxocara* eggs excreted from the host's body in feces can survive in the soil for months.¹ When these mature *Toxocara* eggs are ingested by humans, the larvae can migrate to the eye or viscera, causing severe disease. *Toxocara* has been the subject of much investigation as the cause of larvae migrans.¹

Many reports have pointed out that our daily environment is contaminated by *Toxocara* eggs. Studies have shown degrees of contamination ranging from less than 2% to 87% in backyards and gardens in the United States,² public playgrounds in Ireland,³ playgrounds of nursery schools in Nigeria,⁴ a lawn adjacent to a university clinic in Australia,⁵ and the soil around residences in Iraq,⁶ indicating that *Toxocara* contamination is a worldwide problem. Public parks are places of recreation and relaxation for people who live in cities. The sandpits there are important as play areas for young children, and so need special management from the standpoints of safety and hygiene. However, these public parks are often contaminated by *Toxocara* eggs.⁷⁻⁹ We earlier studied the sandpits of some public parks in Japan and found that the mean percentage of sandpits contaminated by *Toxocara* eggs was 13-69%, depending on the district, i.e., a mean of 69% of the sandpits were contaminated in urban districts with many factories and residences, with significantly less contamination in sandpits of suburban residential districts (18%) and rural communities (13%).¹⁰ The reason for this pattern is probably that most of the ground in urban districts is paved and there are few suitable places for cats to defecate, and so their fecal deposits are concentrated in the sandpits of public parks.

The investigations cited above focused on existing contamination; there are few studies that have analyzed the source of contamination or identified countermeasures. Snow and others¹¹ suggested that the eggs they recovered from sandpits in London parks were probably those of *T. canis* "owing to the defecation habits of cats" (i.e., cats were assumed to be unlikely to defecate where contaminated soil was found). Duwel¹² suggested that because of the many local dogs, the eggs recovered from children's sandpits in Frankfurt were probably those of *T. canis*. These suggestions were not based on detailed studies. Using scanning electron microscopy for identification, we have found that the ratio

of *T. canis* to *T. cati* eggs in the Japanese sandpits we examined was 1:3.¹⁰ However, the ratio of canine to feline defecations in the sandpits was not evaluated in that study. In another investigation, 35 fecal fragments per square meter of sandpit were reported,¹³ but whether the fecal deposits were those of dogs or cats was not determined.

The purposes of this study were to examine the defecation habits of cats and dogs in sandpits by detailed observation with a camcorder, and to identify the relationship between these habits and the contamination of sandpits by *Toxocara* eggs.

MATERIALS AND METHODS

Period of study and sandpits studied. The study lasted almost five months, from May 26 to October 16, 1993. Three sandpits in public parks in urban districts of Nishinomiya City, Hyogo Prefecture, Japan were examined. The environs of the parks in the study were crowded with many residences and shops, and the parks were small and equipped with only two or three kinds of play equipment, including a sandpit and a set of swings. The areas of the three sandpits studied and of the parks that contained them were as follows: sandpit A, 32 m² in a park area of 642 m²; sandpit B, 23 m² and 499 m²; and sandpit C, 18 m² and 854 m². Sandpit C, which was studied in more detail than the other two, was nearly rectangular and measured 3.6 × 5.0 m. On the southern side of this sandpit was an unbroken hedge of shrubs 30 cm tall, and 1 m behind that was a fence 150 cm tall.

Observations. A camcorder (CCD camcorder, 1K-53G; Toshiba, Osaka, Japan) was placed so that the entire sandpit was in view, and the species of animals that came to defecate, the time, and their behavior during defecation were recorded on videotape for 24-hr periods. All data to be observed were recorded on a 2-hr tape played very slowly. The tape was changed daily, and on playback the movements of the animals that had visited the sandpit were analyzed.

For the first 28 days of the study, all of the animals that entered each sandpit were recorded. The behavior of the cats and dogs that entered the sandpit was divided into two categories: a cat's or dog's remaining stationary for 10 sec or more in the characteristic defecation posture while in the sandpit was taken to be defecation behavior, and all other movements were taken to be transit behavior. In addition,

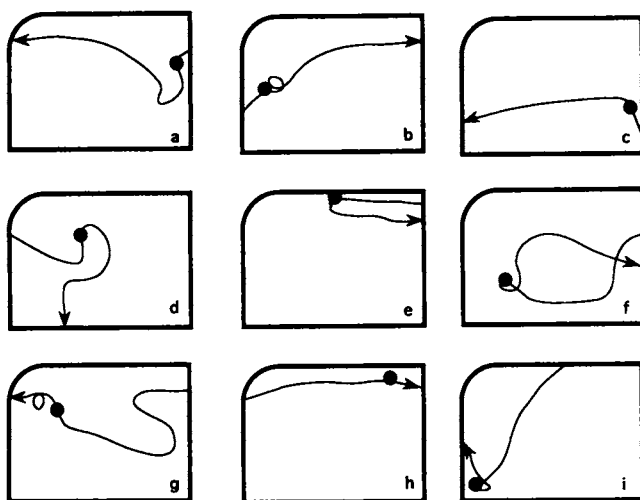


FIGURE 1. Movements and defecations of cats in sandpit C. The lines with arrows represent the movements of the cats, and the closed circles represent the defecation sites. The defecation habits of 117 visits by cats entering the sandpits were categorized into three patterns: defecation during the first third of the cat's stay in the sandpit (a-c), defecation during the middle third (d-f), and defecation during the last third (g-i). The incidence for each pattern was 10%, 27%, and 63%, respectively.

each animal's place of entry into and exit from the sandpit, movements within the sandpit, and site of defecation were recorded. After day 28, only the defecation behavior of cats and dogs was analyzed.

Test for *Toxocara* eggs and survey for cats and dogs kept as pets. We used the centrifugal flotation technique with a sucrose solution (specific gravity = 1.200) to recover eggs of the genus *Toxocara* from sand as described elsewhere.¹⁴ Fecal deposits recovered from the sandpits were examined to identify *T. cati* infection of cats (see Results for the reasons why dog fecal deposits were not examined). Specimens were recovered from the sites of defecation located by review of the videotape, and tested for the presence of *T. cati* eggs.

In the week beginning September 18, we visited residences within a 200-meter radius of sandpits A and C and asked the residents how many cats or dogs they kept as pets.

RESULTS

Only two species of mammals were observed during the first 28 days of the study, cats and dogs (a total of 249 visits by cats and 22 visits by dogs in the three sandpits).

Only transit behavior was observed in 86% (19) of the visits by dogs, which were all accompanied by their owners, and defecation behavior was observed in 14% (three). In contrast, defecation behavior was observed in 71% (176) of the visits by cats. The relationship between defecation behavior and actual defecation could not be ascertained by observation with the camcorder. Therefore, at times during the five-month observation period, we reviewed the videotape of the previous day and searched the sand in the areas seen on the videotape as probable defecation sites. We found the fecal deposits of 20 (91%) of 22 cats in this way, so there

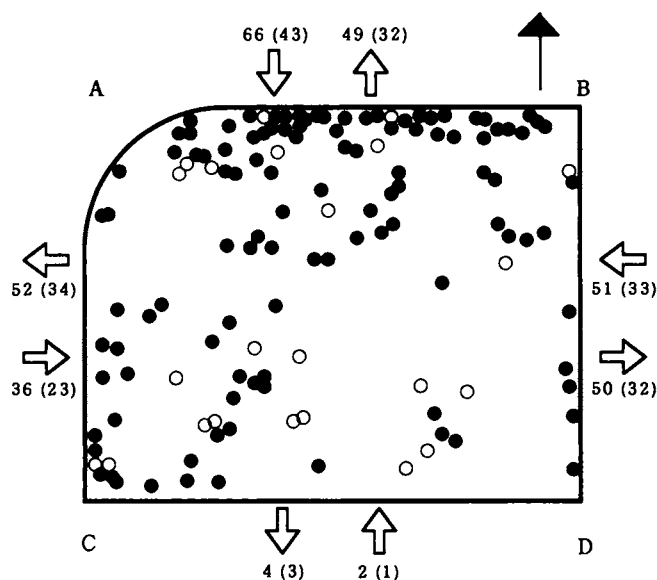


FIGURE 2. Defecation sites in sandpit C. Closed circles represent 110 defecation sites of 16 cats. Open circles represent 23 defecation sites of one cat (cat C-5). Arrows indicate the number (%) of times that cats entered or exited from that side of the sandpit. The dark arrow at the top right indicates north. Percentages do not necessarily add up to 100 because of rounding off.

was good agreement between filmed defecation behavior and actual defecation.

The behavior of cats after entering the sandpit and the timing of defecation were examined in a random sampling of 117 defecations in sandpit C. Figure 1 shows nine typical examples. The lines indicated by the arrows show the movements of the cats from entry to exit, and the closed circles represent defecation sites. Three patterns of defecation could be identified: defecation immediately after entry (during the first third of the cat's stay in the sandpit; a to c), defecation during the middle third of the stay (d to f), and defecation during the last third of the stay (g to i). The frequency of each of these patterns was 12 times (10%), 32 times (27%), and 73 times (63%), respectively. The mean \pm SD time that a cat spent in a sandpit when defecation behavior was observed was 137 ± 71 sec (minimum = 47 sec; maximum = 330 sec), and the mean \pm SD time a cat remained in the defecation posture was 42 ± 20 sec (minimum = 12 sec; maximum = 116 sec).

Figure 2 shows the defecation sites of cats in sandpit C. We examined 110 sites of 16 cats and 23 sites of cat C-5. Many of the sites were near edge A-B, but not all were concentrated at the periphery of the sandpit or in any other area (Figure 2). In the 155 times these cats entered and left the sandpit, only two (1%) times was the south side (edge C-D, Figure 2) used for entry, and only four (3%) times was this side used for an exit. This edge was next to shrubbery and a fence, as mentioned above.

Table 1 lists the numbers of cats and dogs observed in each sandpit during the study. Excluding the days when a sandpit could not be observed continuously for 24 hr because of camcorder malfunction or the park being used by nearby residents for summer festivals and the like, each sandpit was observed for 140 or 144 days (total = 424 park-

TABLE 1
Number of dogs and cats observed in three sandpits

Sandpit	Observation period (days)	Dogs		Cats		Mean no. of cats observed/day (range)
		Max.*	Total	Max.*	Total	
A	144	0	0	5	96	1 (0-5)
B	140	1	11	6	201	1 (0-6)
C	140	0	0	14	664	5 (0-14)
Total	424	-	11	-	961	-

* Maximum number of dogs and cats observed per day. - = not applicable.

days). During this time, a total of 11 canine defecations and 961 feline defecations were observed; almost all of the fecal contamination of the sandpits was caused by the cats. Therefore, the remainder of our analysis was limited to the data on cats. The total number of feline defecations observed during the observation period was 96 in sandpit A, 201 in sandpit B, and 664 in sandpit C. The mean number of cats observed to defecate in one of the sandpits was 1-5 per day. In sandpit C, 14 cats were observed to defecate during one day on three of the observation days.

We analyzed the time of day of the 961 feline defecations observed. There were peaks at 4:00 AM-6:00 AM and at 6:00 PM-8:00 PM. Eighty percent (772 defecations) of the defecations were between 6:00 PM and 6:00 AM.

Because observations were videotaped, we were able to differentiate among the animals that came to defecate. The number of cats that habitually used the sandpit for defecation was four for sandpit A, 10 for sandpit B, and 24 for sandpit C (Table 2). Of the cats whose fecal deposits were examined for *T. cati*, 25% (1 of 4) of the cats frequenting sandpits A and B and 67% (8 of 12) of the cats frequenting sandpit C were infected. Next, we attempted to recover *Toxocara* eggs (mean of 30 tests) from soil samples from these three sandpits. The mean number of eggs found in 200 g of soil was eight for both sandpits A and B and 21 for sandpit C. These results show that in the three sandpits, the percentage of cats infected by *T. cati* was low when few *Toxocara* eggs were recovered and high when many eggs were recovered. Only four cats were kept by residents in the vicinity of sandpit C, so almost all of the cats coming to defecate in that sandpit were stray cats. There were 23 dogs kept as pets in the vicinity of sandpit A, but no dog was seen to defecate in that sandpit during the 144 days of observation.

The 24 cats that habitually visited sandpit C were numbered C-1 to C-24 in the order of the number of times they appeared in the sandpit. Cat C-1, the cat most frequently seen in sandpit C, was observed on 84 of the 140 observation days and defecated a total of 160 times (mean = 1.1 times per day). The total number of times each of the 21 cats C-4 to C-24 defecated was less than 50 (mean = 0.3 times per day or less). None of the 24 cats that frequented sandpit C was observed in sandpits A or B (2 and 0.3 km distant in a straight line, respectively).

DISCUSSION

On the basis of its behavior in human hosts, *T. canis* has been assumed to be more important as the etiologic parasite in toxocarosis than *T. cati*. It is necessary to differentiate

TABLE 2

Numbers of cats observed in sandpits, numbers of cats infected with *Toxocara*, degree of contamination of sandpits, and numbers of pets nearby

Sandpit	Cats			Eggs/200 g of sand	Pets‡	
	No.*	Tested	Infected (%)†		Cats	Dogs
A	4	4	1 (25)	8	4	23
B	10	4	1 (25)	8	ND	ND
C	24	12	8 (67)	21	4	7

* Number of different cats observed in each sandpit.

† Number and percent infected by *Toxocara cati*.

‡ Number of dogs and cats kept within 200 meters of the sandpit. ND = not done.

between the eggs of these two *Toxocara* species if this assumption is to be examined, but that is difficult because the eggs are similar in appearance. Therefore, previous studies have not strictly differentiated between the eggs of these species, and in some reports, the term *Toxocara* egg is used to mean *T. canis* egg, although no method is described for discrimination between the species.^{4,8} The eggs of *T. canis* are slightly larger than those of *T. cati*, but when we tried to distinguish between *T. canis* eggs and *T. cati* eggs on the basis of size alone, about 75% of the eggs could not be classified.¹⁰ Scanning electron microscopy can be used to identify individual eggs reliably.

No canine fecal deposits were found in two of the three sandpits observed in this investigation. At least 30 dogs were kept as pets by residents in the neighborhoods around these sandpits, so the reason canine feces were not found in the sandpits was probably that the dog owners in these neighborhoods kept their dogs from defecating there. Dogs are to be kept on a leash, according to local regulations, and the regulations are almost universally observed. In sandpit B, 11 canine defecations were seen during the 140 days of observation, and all of these dogs were accompanied by their owners. The degree of contamination by *T. canis* eggs was greatly influenced by the behavior of dog owners with regard to where they allow their pets to defecate. Many canine fecal deposits were found along the paths where dogs were walked in residential areas, and we found *T. canis* eggs in 100% of the 10 soil samples from these paths. These findings suggest that contamination by *T. canis* eggs tends to increase with time since eggs are viable for months and are being added daily with few systematic measures taken to remove them. Such contamination would be particularly severe in areas where dog walkers do not follow the custom of collecting fecal deposits for proper disposal.

Almost all of the fecal contamination of sandpits in public parks was caused by cats. The mean time a cat was in a sandpit was 137 sec. During the 95 sec left after subtraction of the time taken for defecation, the cats wandered around the sandpit, but we did not observe behavior such as resting, grooming, or playing. These results suggest that the only reason the cats came to the sandpit was to defecate. In 117 visits, defecation was during the last third of the visit 73 (63%) times. Because entry into sandpit C along edge C-D was obstructed by shrubbery, a slight lack of uniformity was found in the cats' defecation sites, but those of cat C-5 (open circles in Figure 2) were fairly evenly distributed within the sandpit. These findings suggest that although cats like the

properties of sand and enter the sandpits to defecate, they do not defecate in a single site that they are attracted to by smell, but instead seem to avoid the sites that carry the odor of their own previous defecations. This disposition of cats to defecate where they have not defecated before seemed to be the cause of the wide distribution of *Toxocara* eggs in the sandpits. Macdonald and others¹⁵ reported that both urine and feces are invariably left unburied when barn-dwelling cats are away from the barn. All of the cats we observed buried their feces after defecating, and one reason may be that they lived near the sandpit. The cats' sphere of action was limited by the traffic conditions of the area around the parks. Thus, we decided that a radius of 200 meter from the sandpit was sufficient in our survey of dogs and cats kept by residents.

Sandpit C, which was the most contaminated of the three sandpits studied, was used by 24 cats as a defecation site. The cats defecated a total of 664 times during the 140-day observation period. Yet even cat C-1, the cat that came most often to sandpit C and defecated 160 times, did not come to this sandpit for a whole week several times. The mean number of defecations per day exceeded one only for cat C-1. These results show that all of the cats that defecated in sandpit C must have had other defecation sites besides this sandpit. These results suggest that the cats' attachment to sandpits is not particularly strong, and that they will defecate elsewhere if some physical or chemical obstacle prevents them from defecating in a particular location. The results of these observations were the basis for measures taken in one study to control fecal contamination by the use of a repellent, with the result that the number of cats defecating in the sandpits of three parks was reduced by two-thirds.¹⁶

Eighty percent of the defecations occurred at night, which suggests that when measures to prevent the fecal contamination of sandpits are being planned, methods that focus on nighttime defecations would be most effective.

The results of our previous studies^{13,14} showed that some sandpits are strongly contaminated and some are weakly contaminated by *Toxocara* eggs. There was no difference between strongly and weakly contaminated sandpits we studied in terms of size, the surroundings, the daily hours of sunlight, the size of the grains of sand, the pH of the sand, or whether trees had been planted nearby, and it is unclear why the sandpits have different degrees of contamination. The percentage of cats (25%) infected with *T. cati* that used the weakly contaminated sandpits A and B was about the same as the mean percentage of parasitic infection for that region (22%),¹⁷ but 67% (eight of 12) of the cats that used the strongly contaminated sandpit C were infected with *T. cati*. These results probably showed that sandpit C was strongly contaminated by *Toxocara* eggs not simply because more cats came there to defecate, but also because more of the cats that came there were infected with *T. cati*.

Infection of cats and dogs in this district by 15 or 16 types of helminths has been reported.¹⁷ The fecal deposits of cats and dogs result in contamination of sandpits by parasites other than *T. cati* and *T. canis*, and from the standpoint of public health, other such contamination (e.g., *Cryptosporidium*, *Acanthamoeba*, *Toxoplasma*, and *Trichuris vulpis*) is a problem that should not be ignored. The results of a survey by questionnaire of 300 mothers with children 1-9 years of

age living in Tokyo or Osaka showed that playing with sand was the seventh best-liked recreation of 40 choices (Proctor and Gamble Far East, Inc., Kobe, Japan, unpublished data). These results suggest that sandpits are a popular and important play area for young children. Knowledge of the defecation habits of cats and dogs will help in the planning of effective measures to prevent the fecal contamination of sandpits in public parks.

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Parasite contamination of sand and soil from daycare sandboxes and play areas

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TW GYORKOS, E KOKOSKIN-NELSON, JD MACLEAN, JC SOTO. Parasite contamination of sand and soil from daycare sandboxes and play areas. *Can J Infect Dis* 1994;5(1):17-20.

OBJECTIVES: To determine if there was parasite contamination in the sand and soil in daycare sandboxes and play areas, with the goal of developing practice guidelines for their management.

METHODS: One hundred samples of sand and soil from 10 daycare centres in different regions of the province of Quebec, collected between April 22 and May 6, 1991, were examined.

RESULTS: *Toxocara* eggs were found in both surface and subsurface sand from two Montreal centres and co-occurred with *Ascaris* species (surface sand) in one centre and with hookworm (surface soil) in the second. Hookworm eggs were also recovered from one centre in the Quebec City region.

CONCLUSIONS: These results document the presence of potentially pathogenic helminth parasites in the daycare environment. Evidence from the literature regarding the health risk to children is insufficient and highlights the need for further research into the assessment of the risk of human infection and morbidity, the viability of these parasites under different environmental conditions and practical issues related to the management of sand and soil.

Key Words: *Child daycare centres, Environmental microbiology, Parasites, Toxocara*

Contamination parasitaire du sable et de la terre dans les carrés de sable et les terrains de jeux des garderies

OBJECTIF : Développer des directives pour la protection du sable et de la terre des carrés de sable et des terrains de jeux des garderies contre une possible contamination parasitaire.

MÉTHODE : Cent échantillons de sable et de terre obtenus auprès de 10 garderies dans différentes régions du Québec ont été recueillis entre le 22 avril et le 6 mai 1991 pour fin d'étude.

RÉSULTATS : Des oeufs de *Toxocara* ont été trouvés tant à la surface que sous la surface des carrés de sable de deux garderies de Montréal, avec l'espèce *Ascaris* (sable de surface) dans une garderie, et l'ankylostome (terre de surface) dans le second établissement. Des oeufs d'ankylostome ont également été identifiés dans un centre de la région de Québec.

CONCLUSIONS : Ces résultats attestent de la présence de parasites helminthiques potentiellement pathogènes dans l'environnement des garderies. Les résultats présentés dans la littérature au sujet du risque que courent les enfants sont incomplets et rappellent la nécessité de pousser la recherche pour évaluer le risque d'infection et de morbidité chez l'humain, la viabilité de ces parasites selon différentes conditions environnementales, ainsi que les aspects pratiques liés à la prévention des infections transmises par le sable et la terre.

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IT IS WIDELY RECOGNIZED THAT SAND AND SOIL FROM AREAS accessible to dogs and cats are likely to be contaminated by parasites (1,2). In fact, the geographic distribution of geohelminths such as the dog or cat roundworm (*Toxocara* species) can be thought of as being as widespread as that of their hosts. Public parks, playgrounds, beaches, backyards, gardens, kennels and kindergarten sandpits in localities around the world have all been documented as sites of toxocara contamination (Table 1) (3-12). Daycare centres differ in most, if not all, of these environmental sites in that the external environment is completely enclosed (there is usually legislation to this effect), thereby restricting or completely eliminating access by animals, especially dogs, the principal transmitters of *Toxocara canis*. One important exception relates to cats, which transmit *Toxocara cati*; however, this parasite is generally considered to be less important than *T. canis* in causing human infection (1). To date, environmental contamination of parasite origin within the daycare setting has focused on the internal, and not the external, physical environment (13). However, as new opportunities for contamination become recognized (for example, sand play areas are no longer restricted to the traditional sandbox, which could be covered, but include large areas with all types of recreational structures, which cannot be practically covered), and as awareness of environmental and public health concerns increases, an evaluation of the nature and risks associated with this type of potential contamination is warranted.

Humans acquire toxocariasis by ingesting infective eggs from matter contaminated with dog or cat feces. The toxocara infection rate in human populations is known to vary considerably (seroprevalence estimates range from 3 to 30%) according to geographic and demographic factors (1, 14). Children attending daycare centres are under the age of five, the peak age of first infection and the age of high risk behaviours such as geophagia and lack of personal hygiene skills. While

most infections with these parasites remain asymptomatic, there exists some (as yet unquantified) risk of disease (visceral larva migrans, ocular toxocariasis) following exposure. Fatal outcomes have been reported, but these are extremely rare (15).

Because of the importance of sand in the daycare environment, questions have arisen concerning its proper maintenance and management. However, in reviewing the evidence with the intent of developing practice guidelines, it was unclear whether these should take into consideration possible contamination from microorganisms. Therefore, a study was undertaken to investigate the occurrence of contamination in sand or soil play areas of daycare centres, using geohelminths as indicators of this contamination.

METHODS

Specimen collection: Ten daycare centres in different geographical regions in the province of Quebec (Montreal, six; Quebec City, two; Shawinigan, two) were selected for collection of sand and soil specimens between April 22 and May 6, 1991. The daycare centres were selected in an arbitrary manner. Two daycare centres located within the Département de santé communautaire territoire of five members of the Comité provincial des maladies infectieuses en service de garde (an advisory committee to the Director of Public Health) were invited to participate in the study. All agreed. Five sand specimens from sandboxes and play areas and five soil specimens from grass or around fences were obtained in 100 mL collecting bottles containing 50 mL fixative (sodium-acetate-formalin). Each specimen consisted of approximately 75 g of surface (less than 2 cm deep) or subsurface (2 to 10 cm deep) sand or soil.

Laboratory examination: Both zinc sulphate flotation and ethyl acetate concentration methods were performed on each specimen. Approximately 20 microscope slides per specimen were examined by two experienced parasitology laboratory technologists. Only

TABLE 1
Studies illustrating diversity of environmental parasite contamination by toxocara

Reference	Locality (Year)*	Type of environment†	Number tested	Number positive (%)
3	Britain (1973)	Public parks	10	10 (100)
4	Frankfurt (1984)	Sandpits (playgrounds)	31	27 (87)
5	Southwest Michigan (1989)	Public parks	3	2 (67)
6	Montreal (1976)	Public parks	10	6 (60)
7	Illinois (1988)	Public parks	23	11 (48)
8	Dublin (1991)	Household gardens Public parks	26 17	10 (38) 2 (12)
9	Baton Rouge (1984)	Public parks	20	4 (20)
10	Baltimore (1985)	Backyards and gardens	146	16 (11)
11	Perth (1984)	Sand (dog 'beach') Public parks	200 6	0 (0) 0 (0)
12	Brisbane (1990)	Kindergartens (sandpits)	30	0 (0)

*Date of publication; †Unit of observation (descriptor indicating origin of type of specimen examined)

qualitative determinations (presence/absence) of parasites were made. Parasites observed were mounted and photographed. Photographic slides of parasites were sent to Centers for Disease Control and Prevention for confirmation.

Questionnaire: Questions concerning the maintenance and replacement of the sand and the presence of animals within the enclosed exterior of the daycare were asked of each centre coordinator. Specifically, maintenance questions determined whether there was general maintenance (removal of debris, raking) or cleaning with solvents (chlorine, javel water, etc) of sandboxes and other sand and soil areas. The frequency with which new sand and/or soil was added was also obtained. Reports on the presence of animals concerned day- or night-time observation of dogs and cats specifically, with an option for the reporting of other types of animals. In addition, a sketch of the external environment depicted the location of physical structures, sandboxes and play areas, as well as the sites of specimen collection.

RESULTS

Parasites were recovered from three of 10 daycare centres, two from Montreal area centres and one from the Quebec City area (Table 2). *Toxocara* eggs were found in both surface and subsurface sand from the two Montreal centres and co-occurred with *Ascaris* species (surface sand) in one centre and with hookworm (surface soil) in the second. Hookworm eggs from surface soil were recovered from one centre in the Quebec City region.

Of the three centres where contamination was found, all but one had more than one sand play area. Sand from all three centres was reported to be treated with cleaning solvents, but only one specified the solvent (javel water) and the frequency with which it was used (annually). New sand was brought in at least every two years. No animals had been observed either during the day or the night in two centres, but in the third, dogs had been seen on centre property during the day. The location of the sand specimens from the two centres from which toxocara eggs were recovered included a large sand play area and sand from around a swing set.

Of the seven centres in which parasite contamination was not found, all had more than one sand play area. Two centres did not use any cleaning solvents, three used javel water, one used chlorine water and one did not specify the cleaning agent. Javel water was reported to be used once or twice per year. New sand was brought in in two centres every year, in one centre after the fifth year and in the remaining centres, every two or three years. Two reports of animals seen during the day included a raccoon and birds. During the night, either by direct observation or by inference (presence of fecal material), the following animals were reported

TABLE 2
Parasite recovery from sand and soil of daycare centres in three different regions in Quebec – Spring 1991

Daycare centre	Parasite	Sand or soil	Surface or subsurface	
Montreal	A	None found		
	B	<i>Toxocara</i>	Sand	Surface
		? <i>Ascaris</i> species	Sand	Surface
	C	None found		
	D	None found		
	E	None found		
F	<i>Toxocara</i>	Sand	Subsurface	
	?Hookworm	Soil	Surface	
Quebec	A	?Hookworm	Soil	Surface
	B	None found		
Shawinigan	A	None found		
	B	None found		

In all cases, 10 specimens were evaluated

from three centres: cats, dogs, squirrels, raccoons, pigeons and mice.

DISCUSSION

The presence of parasite contamination in the external daycare environment found in this study was not completely unexpected. *Toxocara* contamination had previously been reported from the Montreal area (6), and the type of temperate climatic conditions prevalent in this region would not prevent completion of the parasite's life cycle (16). However, because the external environment of daycares in the province of Quebec must be enclosed by a security fence at least 1.2 m in height (17), fecal contamination by dogs was considered unlikely.

Our findings differ from studies that have examined sand from kindergartens, an environment most similar to that of daycares (4,12). No toxocara parasites had been recovered from sand taken from two kindergartens in Frankfurt (4), nor from 41 sandpits obtained from 30 kindergartens in Brisbane (12). Although the efficacy of the laboratory method had been verified in the latter study, a review of the methods of sand collection, processing and laboratory examination used in the studies reported here indicate an extreme lack of standardization and the possibility that low densities of parasites would be missed.

Other enclosed types of environment examined were household backyards and gardens (8,10). *Toxocara* contamination was reported at levels of 38 and 11%, respectively.

While no attempt was made to quantify the amount of sand contamination or to determine the viability of eggs in our study, it is clear that these two issues will need to be examined to provide an estimate of the risk of human infection. An assessment of the determinants of risk (eg, age specificity, type of play area) will assist in the development of targeted preventive actions. How-

ever, the mere presence of these parasites indicates that measures need to be taken to eliminate animal fecal contamination from the daycare environment. There are published Canadian and American standards for the management of sand in sandboxes (18,19); however, these have been formulated in the absence of any demonstrated effectiveness of, for example, cleaning solvents or turning over of sand, on geohelminth contamination (personal communication). It should also be noted that these standards refer exclusively to sandboxes or sand play areas that can be covered and do not include larger (uncoverable) sand play areas, where toxocara contamination was shown to occur in our study.

Minimal preventive measures for the external daycare environment include: first, maintenance of all fences and gates, and second, immediate removal of any fecal material. The need for covering, replacing or turning over sand and the frequency with which this should be done in the different types of sand play areas requires further study. Sand can be decontaminated using methods such as sterilization (20), but this is probably too impractical for application in daycares. Cleaning sand with chemical cleaning solvents like javel water has not been effective in destroying toxocara eggs; however, exposure of eggs to direct sunlight is effective (2). Practical and cost-effective recommenda-

tions based on these observations in terms of preventive actions at the disposal of daycare personnel requires rigorous examination.

In addition to the above two preventive measures, daycare personnel and children should understand the importance of adequate hand-washing practices and the avoidance of ingestion of nonfood matter (eg, sand, soil).

These measures must ideally coincide with municipal control of stray animal populations and the mutual collaboration of pet owners and veterinarians in the adequate de-worming of domestic dogs and cats.

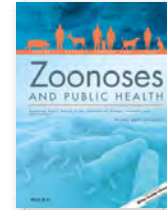
Parasite contamination in this report has focused on geohelminths. However, extension of these proposed investigations to include other pathogenic microorganisms should also be considered to ensure that practice recommendations regarding the maintenance and management of sand and soil are comprehensive.

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ORIGINAL ARTICLE

Recreational sandboxes for children and dogs can be a source of epidemic ribotypes of *Clostridium difficile*

Cristina Orden, Carlos Neila, José L. Blanco✉, Sergio Álvarez-Pérez
... See all authors ▾

First published: 07 July 2017 | <https://doi.org/10.1111/zph.12374> | Citations: 13



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Keywords

children

Summary

Different studies have suggested that the sand of public playgrounds could have a role in the transmission of infections, particularly in children. Furthermore, free access of pets and other animals to the playgrounds might increase such a risk. We studied the presence of *Clostridium difficile* in 20 pairs of sandboxes for children and dogs located in different playgrounds within the Madrid region (Spain). *Clostridium difficile* isolation was performed by enrichment and selective culture procedures. The genetic (ribotype and amplified fragment length polymorphism [AFLP]) diversity and antibiotic susceptibility of isolates was also studied. Overall, 52.5% (21/40) of samples were positive for the presence of *C. difficile*. Eight of the 20 available isolates belonged to the toxigenic ribotypes 014 ($n = 5$) and 106

belonged to the toxigenic ribotypes 014 ($n = 3$) and 100 ($n = 2$), both regarded as epidemic, and CD047 ($n = 1$). The other 12 isolates were non-toxigenic, and belonged to ribotypes 009 ($n = 5$), 039 ($n = 4$), and 067, 151 and CD048 (one isolate each). Nevertheless, all isolates (even those of a same ribotype) were classified into different AFLP genotypes indicating non-relatedness. In conclusion, our results revealed the presence of epidemic ribotypes of *C. difficile* in children's and dog's sandboxes located nearby, which constitutes a major health risk.

[Clostridium difficile](#)[dog](#)[epidemic strains](#)[sandboxes](#)

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Citing Literature



Supporting Information



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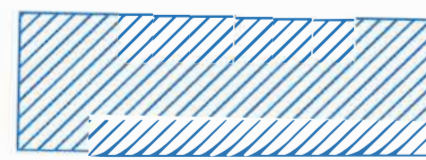
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BELVEDERE PLAYGROUND DESIGN PLAN RUBBER SURFACE AREA

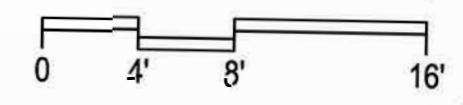


LEGEND



RUBBER SURFACE AREA

SCALE: 1/8" = 1'-0"



From: [Alex Leitstein](#)
To: [Craig Middleton - City Manager](#)
Subject: Playground Surface
Date: Tuesday, May 11, 2021 1:54:20 PM

Dear Craig,

I would like to express my concern about the Belvedere playground surface.

I have visited many parks in Marin, including Mill Valley, Sausalito, Corte Madera and Ross. Everyone is using bark chips, which are safe and clean.

The Middle Valley elementary schools also using wood for the playground surface.

Please pass along to the City Council my request that Belvedere will follow the course of our neighboring cities, and use wooden chips.

Thank you,
Alex Leitstein 17 Peninsula Road Belvedere

From: Carolyn Lund

Sent: Tuesday, January 19, 2021 10:00 AM

To: Nancy Kemnitzer - Councilmember; James Campbell - Mayor; Jim Lynch - Councilmember; Sally Wilkinson - Councilmember; Steve Block - Councilmember; Craig Middleton - City Manager

Cc: Bryan Kemnitzer

Subject: Playground Surface

Dear City Council Members,

Carcinogens in poured rubber playground surfaces is a grave concern.

The members of the Parks & Open Space committee are just now learning that poured rubber does contains a number of EPA designated carcinogens and that manufactures are refusing to disclose information on further carcinogens.

It's time to change course!

There will always be the discussion over how much risk is too much risk, particularly when convenience is so alluring. A product that needs no maintenance and lasts forever is a public works director's dream come true.

Yet, every sandwich that drops on the rubber may be contaminated, every hand could carry synthetic rubber dust to a child's mouth, and droppings on the matting of any kind will not decompose naturally but will remain in situ on the antibacterial play surface.

As information about synthetic materials comes to light, I would like to suggest that the Parks and Open Space Committee think about engaging very young children in a natural rather a synthetic play area.

The national and international trend now is toward more natural play environments.

In order to mitigate concerns by the community, we may want to look at other places that our tots love to play: beaches, fields, forests, meadows, shallow streams, gardens, grassy parks, and backyards. These places suggests tot-friendly materials such as sand, dirt, grasses, leaves, boulders, and wood logs.

I recognize that much work has gone into this project but it is important to mitigate concerns raised by the community.

I'm here to help in any way I can.

Let's meet in the playground!

Best Regards,

Carolyn Lund
Member, Parks & Open Space Committee
Team Leader, Artist View Project

From: steckeast <
Sent: Thursday, March 4, 2021 9:58 AM
To: Craig Middleton - City Manager
Subject: Playground surface--

Dear Mr. Middleton,
Would you be so kind as to forward the following message to the City Council?

To the Belvedere City Council:

I write to state my objection to the material being proposed for installation as the surface of the Belvedere Park playground. The proposed surface is the product of a combination of chemicals that are proven carcinogens, the last thing that any parent wants to expose a child to. I am mystified as to why the committee created to revamp the playground didn't find that fact immediately disqualifying. What is the rationale for not simply returning to sand, which is what my children enjoyed there for years? I hope that this unfortunate and unhealthy material will be reconsidered and replaced.

Sincerely,

Cathrine Steck

300 Golden Gate Avenue

From: Dave Ganapoler
Sent: Sunday, March 21, 2021 8:10 AM To:
Craig Middleton - City Manager
Cc:
Subject: Playground Planning

Follow Up Flag: Follow up
Flag Status: Completed

Placing materials known to have carcinogens in playgrounds may not be in the best interest in the community.

Please share my sentiments with the City Council.

Kind regards,
Dave Ganapoler
Be Safe
Be Well

From: David Sandrich
Sent: Thursday, March 4, 2021 1:14 PM
To: Craig Middleton - City Manager
Subject: Belvedere Community Park

Mr. Middleton,
Please also forward this email to Belvedere's City Council members.

After hearing more details on both sides of the proposed new playground surface at the Belvedere Community Park, I believe there are sufficient concerns, both real and perceived, to warrant pausing the bid process for the current planned surface, until the City Council can hold an open town hall to answer these concerns, fully share its research and underlying rationale for the choice, and hold a re-vote on the matter to re-affirm the current decision or choose another path.

The concerns raised by Mr. Rothman, Mrs. Lund, and others as relayed in the article in the Ark seem reasonable. And I found the argument put forth by the Council against sand as a viable, lower risk alternative as unconvincing, at least as presented in the Ark.

Regardless, by pushing forward with the bidding process at this time without more of a detailed public defense, it appears as if the Council is in some way trying to rush this through (despite the process to date) for no legitimate reason. And the Council will have to mount a better public defense either now or later: it is highly likely Mr. Rothman will succeed at getting something on the ballot to remove the rubberized surface if installed. And there is a plausible risk that his initiative to remove the surface will pass, wasting the expense of the install and increasing costs overall to demo and remove the surface.

So prudence would suggest the pause now, with a full and public airing of the majority's rationale, and offering a chance for more than just a few vocal minority weighing in. Then, whatever choice is undertaken, at least it will have broader support and confidence from the public.

Regards,
David Sandrich
4 Maybridge Rd.
Belvedere

Sent from my iPhone

Dear Mayor Campbell and Mr. Middleton,

I am writing to provide my opinions on how I would think about evaluating the potential for risk from chemical exposures from the pour-in-place rubber surface Belvedere is considering for their playground.

One needs to consider the chemicals in the rubber, as well as the resulting exposure. There are multiple possible exposure routes one needs to consider when evaluating the exposure and risk to the pour-in-place rubber playground surface. I will discuss these possible scenarios below:

1. Inhalation exposure over the long term
2. Inhalation exposure following the installation of the rubber
3. Non-dietary ingestion of dust and rubber crumb adhering to hands from typical play activity
4. Non-dietary ingestion of rubber due to intentional picking at and destruction of the surface

Cancer risk is calculated as the probability of developing cancer, with levels below 1×10^{-6} , or less than 1 in a million, considered safe, and levels between 1×10^{-5} and 1×10^{-6} considered acceptable. The majority of the literature covers crumb-rubber fields from old tires, and thus I consider information for those surfaces as they are the closest to the planned surface.

I do not have any expertise on the safety of various park surfaces in terms of falls, and therefore cannot comment on whether these surfaces are safe for children that might fall. Also, I have no expertise in how these surfaces wear over time, both in terms of shedding rubber or in terms of any change over time in the safety provided from falls.

Long-term inhalation: On typical days, there will be very small emission rates of various volatile compounds from the rubber matting. The air movement over at the park will dissipate these emissions, resulting in a low air concentration. Multiple studies have measured air concentration over either pour-in-place surfaces or crumb-rubber-fields, thought to have higher emissions, and the calculated cancer risk from inhalation has been found to be negligible, lower than 1 in a million (Ginsburg 2011, RIVM 2017, ECHA 2017, Peterson 2018, Kim et al. 2012, Watterson 2017, Cheng et al. 2014).

Inhalation following Installation: There will be a suite of compounds emitted into the air during the installation of the rubber surface, and likely the manufacture will advise a brief period until they anticipate the outgassing of the compounds associated with the installation of the rubber has occurred. Out of an abundance of caution, and given the sensitivity of the community to potential exposures, I would add additional time to the recommended time. One study conducted in a laboratory indicated that there was a sharp decrease in the emissions over a 2-week period (Li et al. 2010). This may be longer than necessary, but I do think it will be important to add some additional time. I am not aware of any studies measuring levels in the field following installation. Additionally, I would close the playground during the first heat wave we experience following the installation of the rubber. Most compounds have a higher vapor-pressure with increasing temperatures, and heat-waves in Belvedere are typically associated with still air, and thus the first one or two heat waves will represent the highest air-concentrations of rubber related compounds (Marsili et al. 2014). While this one-time exposure will not significantly contribute to the lifetime daily average dose of any particular compound, as these

higher levels will only occur on a limited number of days, I would recommend closing the park out of an abundance of caution. It is quite possible there will be an odor, and that will cause concern.

Compounds measured in the rubber: There are a variety of toxic compounds found in the rubber material itself, which need to be considered when assessing exposure from rubber crumb adhering to hands and being ingested. Belvedere is planning on using two types of rubber, an under-layer made of a variety of pre- and post-consumer rubber materials and a top layer of virgin rubber. Post-consumer rubber has indeed been found to contain a number of cancer causing and other toxic compounds, such as benzo[a]pyrene and other polycyclic aromatic hydrocarbons, lead, and phthalates.

- In previously conducted risk assessments, the risk has been driven by exposure to benzo[a]pyrene (B[a]P) and other polyaromatic hydrocarbons (PAHs). These compounds can get into tires when high-aromatic oils are used in manufacturing. Due to the elevated risks from these compounds, some jurisdictions have standards on allowable concentrations of B[a]P and other PAHs in the crumb rubber used in fields. However, in multiple cases, levels exceeding this value have been measured. The Belvedere park is using virgin rubber, and thus it is anticipated we will have low levels of B[a]P and other PAHs, but this should be confirmed with the manufacturer.
- Another compound of concern that has been measured in rubber playgrounds is lead (Almansour et al. 2019). However, the levels measured were all lower than the allowable level for soil surfaces. Lead is a neurotoxin that impacts children. Historically, lead oxide was used in manufacturing rubber as a vulcanizing agent to make it more elastic. Now, zinc oxide is primarily used as a vulcanizing agent, but there are cases where rubber manufactured with zinc oxide does contain lead. Belvedere should consult the company they are purchasing the surface from to ensure levels of lead have been tested and are low.
- The natural rubber will likely contain phthalates, especially since these compounds are used to make plastics and rubber softer, and have been noted as compounds found in virgin rubber (Canepari et al. 2018). These compounds are not carcinogens, but have other health concerns. However, they are found in a wide variety of consumer products, such as shower curtains, vinyl flooring, and many other plastic products. Therefore, the park would be unlikely to be a major contributor of a child's exposure to these compounds.
- Natural rubber has been analyzed to determine a wide range of compounds present and found to contain a variety of mineral oil compounds (Canepari et al. 2018). These compounds have not been well studied in terms of toxicity, but they are potentially toxic.
- The compounds noted by Rothman in the article - butadiene, styrene, ethylene and propylene - are all volatile compounds, and as such, would not be present in dust coming from the rubber matting.

There has been criticism of previously conducted risk assessments for crumb rubber, specifically that they were not comprehensive, and only studied compounds for which measured concentrations were available that had known toxicities. Efforts have been made to determine a wider range of compounds that may be present in rubber compounds and these studies have identified large numbers of other potentially toxic compounds (Perkins et al. 2019). One problem is that very little is known about these other compounds, and thus this issue remains an uncertainty when evaluating rubber surfaces.

Ingestion Rates: In order to determine if there is any significant risk posed from chemicals in the rubber, one needs to determine the likely ingestion rate. Soil ingestion rates among children were extensively studied in the 1980s and 1990s, most typically through a soil tracer method. In these studies, the concentrations of various elements in the soil in a child's play area were measured, along with the concentrations of these same elements in the children's fecal matter. Through these studies, the EPA has established a central tendency, or typical, dust ingestion rate of 40 mg/d among 1-2 year olds, the age range with the highest ingestion rate (EPA 2017). The high-end, or 95th percentile value is 90 mg/day. However, there are some children that exhibit soil pica, children that eat large amounts of soil, 1,000-5000 mg/day. Little is known about the true rates of soil pica, but it has been suggested that rates are higher among minority and low-income populations, noting that much of the work was done at least 40 years ago.

Studies have found that small particles adhere to hands more than larger particles, and thus large rubber particles are unlikely to adhere to hands. Studies done by both RIVM and the European chemicals agency both made the assumption that ingestion of crumb rubber from synthetic turf fields would likely be lower than soil ingestion rates (RIVM 2017, ECHA 2017). Therefore, it is appropriate to consider assessments which use on the order of 100 mg/d as a conservative ingestion rate for the typical child.

Two exposure scenarios need to be considered, typical children and children with pica.

Risk for typical soil ingestion rates: A recent multi-pathway assessment was conducted utilizing distributions developed from a comprehensive review of all articles published that measured concentrations in air and extracted from crumb rubber. This study was done on fields, for which it is anticipated there is higher risk. The results were that risks were negligible (Peterson et al. 2018). Studies based on European levels also reported negligible risk (RIVM 2017, ECHA 2017), as did a study in Connecticut (Ginsburg et al. 2011a) and one in Korea (Kim et al. 2012). Additional small studies are summarized in recent reviews (Cheng et al. 2014, Watterson 2017).

Risk considering the pica scenario: One can also consider the pica scenario, a worst case scenario, with an ingestion rate of roughly 1 gram per day. That is equivalent to approximately 3 x 325mg aspirin tablets. To eat that volume, the child would likely need to intentionally collect or dig into the rubber surface and eat the rubber particles, and do so on a day-to-day basis. I could only find one study that specifically included children with pica, and it did indicate that they would have an elevated risk, with no other populations having significant risk (Kim et al. 2012). However, if one pictures the Belvedere playground, it seems highly unlikely that parents and other care givers would not notice the child intentionally eating the rubber. If one considers a crumb-rubber field, with loose particles, it seems quite feasible children could ingest large amounts of rubber, and this should cause concern. It is much more difficult to envision that the pica pathways should be considered with a pour in place product. The Consumer Product Safety Commission has recommended children not eat the rubber (CPSC 2021).

Epidemiological Evidence: There is an additional tool used in environmental health sciences, epidemiology. In epidemiology, information is collected about people's exposures to a compound, and then determines if that exposure is associated with adverse health effects. Concern was generated by the soccer coach at the University of Washington as she initially heard of some goalkeepers, who have the highest exposure to crumb rubber, developing cancer. She then conducted an effort to identify as many soccer players as she could in Washington who developed cancer, ultimately identifying 53 individuals. The Washington State Health Department, in collaboration with researchers at the University of Washington, developed a process to determine if there was an elevated risk of cancers (Washington State, 2017). Overall, they concluded that the numbers on the list in each type of cancer were lower than the anticipated number of cancers of each type among soccer players in the State of Washington. They continue to monitor studies related to crumb rubber, but determined no public health action was needed.

Summary: Risk assessments conducted on these surfaces have found them to be safe, with the exception of the exposure scenario of a child with pica, who would ingest roughly a gram of material every day. It is not clear if this is a relevant exposure pathway to consider.

- When selecting the final product used, I would ask what the levels of PAHs, such as benzo[a]pyrene, are in the product. These compounds generally drive the cancer risk assessments. I would also ask about levels of lead. Lead is not a carcinogen, but is neurotoxic to children. Products should be available that have very low levels, or are free of lead, and Belvedere should use one of those products.
- I would close the park for longer than required to allow for outgassing, as well as closing the park for the first heat wave, as this may cause additional compounds to outgas, and there could be an unpleasant odor during these time periods.
- Finally, I would check the surface to make sure there is not degradation of the surface, removing any stray rubber, and noting if it appears children are intentionally chipping at the surface. If the surface is degrading and there are numerous loose particles, I would try to find a way to remove them regularly. Perhaps ask the manufacturer if this is likely to occur or how to best maintain the surface. If there appears to be intentional damage occurring, it may make sense to observe the park and determine if children are intentionally picking the surface apart. The Consumer Product Safety Commission recommends children not eat the rubber material, and perhaps signage should be added informing children not to eat the rubber if it appears to be a problem.

Qualifications: I served on the California Office of Environmental Health Hazard Assessment's Synthetic Turf Scientific Advisory Panel in my capacity as a Professor in Environmental Health at UC Davis, and so I am familiar with the multiple studies evaluating rubber fields and surfaces. I received my PhD from UC Berkeley in Mechanical Engineering, focusing on fate and transport of compounds in the environment and the resulting exposure and health risks. I was on the faculty at Harvard School of Public Health, and have been on the faculty at UC Davis for 15 years. I have also served as a member of the United States

Environmental Protection Agency (US EPA) Science Advisory Board for the last 5 years, and have served on a National Academy of Sciences Panel on the current US EPA risk assessment legislation, TSCA.

Potential Bias: When evaluating expert opinions, one also needs to determine if there is likely a bias due to the individual having primarily industry funding. My funding comes from a variety of sources, including the National Institute for Environmental Health Sciences (NIEHS – part of the National Institute for Health), the United States Environmental Protection Agency (US EPA), the California Air Resources Board, as well as the American Chemistry Council, which is funded by the chemical industry. However, one must also consider that I am a member of an organization that strives to bring attention to neurotoxic compounds with the goal of removing those compounds from commerce, Project TENDR, and have published on these issues (Bennett et al 2016, Engel et al. 2021, Hertz-Picciotto 2018). In other words, I follow the scientific evidence, and do not have a predetermined bias to one side or the other.

I want to indicate that these are my opinions on this issue.

Sincerely,

Debbie Bennett, PhD

Belvedere Resident

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From: [gibson.eydie](#)
To: [Craig Middleton - City Manager](#)
Cc: [Bill Rothman](#)
Subject: Playground Surface
Date: Monday, June 7, 2021 9:36:04 AM
Importance: High

6/7/21

>

>

> Dear Mr. Middleton,

>

> I am following-up on the status of the material selection for the playground surface for Belvedere parks.

>

> As a resident of the Tiburon-Belvedere area, I look forward to taking visiting children to the park to play. Marin County in general is an environmentally sensitive and aware community, with many residents and groups focused on the health and conservancy of birds, other wildlife, native plants, and a myriad of other environmental concerns, so I am wondering if it is simply an oversight to consider a carcinogenic surface for a playground surface?

>

> Thanking you in advance for an update, or direction to a source for updates, I am

>

> Sincerely,

>

> Eydie Gibson

>

>

>

From: Joyce Griffin
Sent: Tuesday, March 9, 2021 12:28 PM
To: Craig Middleton - City Manager
Subject: Children's playground cover

Dear Craig,

Please share this with appropriate persons in charge who will respond; thank you:

Belvedere City Council
Belvedere CA 94920

Re: plastic park grass

To Whom It May Concern:

With Climate Change about to be declared a national emergency we citizens must raise our awareness and be ever more diligent in detailed efforts to combat it. One seemingly small but immediate fix is the choice of ground cover for the children's park playground.

Plastic grass is not only toxic for children, its also deadly for earth, as it suffocates all the living biome beneath that nourishes soil and contributes to healthy immunity for children who play in the yard. It's irresponsible for us to subject our children — or anyone — to an unhealthy environment by purposefully and knowingly making a bad choice.

Please reconsider and make the better choice of a natural sand yard.

Thank you,

Joyce Griffin
39 Peninsula Rd

From: [Jyll Johnstone](#)
To: [Craig Middleton - City Manager](#)
Subject: Please forward to members of city council
Date: Thursday, April 15, 2021 1:39:35 PM

Dear all,

We are very much against the installation of the new surface for the Childrens playground. We believe that it is carcinogenic and endangering to the children.

Thank you,

Jyll Johnstone

Michael Davis

From: [Kirk Usher](#)
To: [Craig Middleton - City Manager](#)
Subject: Natural Playground Surface
Date: Saturday, June 5, 2021 4:53:13 PM

Craig, please forward this request on to City Council

Please rethink the playground surface material and let's have a natural sand or wood chips or some other natural material that is safe and non-toxic.

I can't believe the City of Belvedere would even consider a carcinogenic surface over a natural surface.

Thank you for rethinking the playground surface decision.

Kirk Usher, Jr.
8 Bayview Ave.
Belvedere, CA 94920

[Please consider the environment before printing this e-mail](#)

From: [Mel Ronick](#)
To: [Craig Middleton - City Manager](#)
Subject: Belvedere Proposed Playground Surface
Date: Sunday, April 18, 2021 7:02:17 PM

Craig,

Please confirm receipt of my email.

Thanks, Mel

On 4/12/2021 7:14 PM, Mel Ronick wrote:

> Hi Craig,
>
> I've been reading about the use of these carcinogenic materials in the
> playground.
>
> I am surprised that after learning of the problems related to using
> this material, the City hasn't changed its course of action.
>
> My daughter played in that playground and now her small kids play
> there, so I hope that the Council reconsiders its decision.
>
> Please forward this email to members of the Town Council.
>
> Mel Ronick
>
>
>

From: [Michelle Friend](#)
To: [Craig Middleton - City Manager](#)
Subject: playground surface
Date: Wednesday, June 9, 2021 11:14:26 AM

Dear Mr. Middleton,

Please be responsible and do NOT put the proposed carcinogenic surface on the Belvedere playground.

1. Particles are dangerous for children playing on it.
2. Children tend to fall and can easily get it in their mouths by mistake, or when they their hands hit the ground particles will stick to their fingers, which often then go into their mouths.
3. If they do have particles on their fingers and they swing on the bars, those particles can fall off into their eyes or mouths.
4. Not only is it unhealthy for children, the birds, squirrels, etc. think it is a morsel of food or they get it in their mouths when they peck at an insect on the ground.
5. The wind will blow the particle everywhere.

PLEASE LOOK AT THE POSSIBLE CONSEQUENCES AND USE SAND OR CHIPS!

Sincerely,
Michelle Friend



March 19, 2021

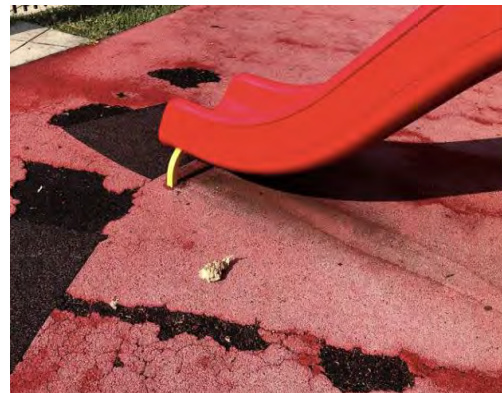
To the Belvedere City Council and City Manager:

I am writing at the request of residents of Belvedere to explain what is known and not known about the health risks of PIP (poured in place) rubber playground surfaces. I am writing on behalf of the National Center for Health Research, located in Washington, D.C.

The Center is a nonprofit research center, staffed by scientists, medical professionals, and public health experts. I'm a scientist trained in epidemiology at Yale Medical School, I've previously conducted research at Yale and Harvard, and I've also worked in the U.S. Congress and White House. Our Center conducts and explains research that can improve the health and safety of adults and children. We do not accept funding from companies whose products we evaluate, so I have no conflicts of interest.

Like artificial turf, rubber playground surfaces expose children to many risky chemicals. **Lead and other dangerous chemicals are in crumb rubber (whether recycled or "virgin")**. Because of public health concerns, crumb rubber is increasingly being replaced by other materials, but those materials have some of the same risks as well as other risks. This matters to all of us, because children who play on these surfaces are likely to be exposed day after day and year after year.

The beautiful rubber playgrounds, as shown on the left, look great when they are new, but they deteriorate. On the right you can see a local playground – the red rubber PIP has worn off, and underneath is the crumb rubber that contains lead and other toxic chemicals which the children are touching, and in some cases putting in their mouths.



What are these materials made of? Many of us think of rubber as natural, coming from a rubber plant, but the substance that comes from a rubber plant is actually latex. Whether from recycled tire rubber or "virgin" rubber, the rubber used in tires, playgrounds, or as infill for artificial turf is made from petroleum. And, they also contain lead.

It is well established that there has been lead in PIP playgrounds. The American Academy of Pediatrics warns that there is no safe level of lead for children. The Ecology Center in Ann Arbor, Michigan is a nonprofit scientific group that found that there was rubber shred in playgrounds that had **lead levels** over 1,951 pp, which is clearly dangerous.

In the photo below, which I took at a community playground, you can see that many of the small particles that make up playground material look like colorful pieces of candy, such as tic tacs or black licorice. That's why children eat them.



The rubber playground surfaces also contain endocrine disrupting chemicals – these are chemicals that affect our hormones. The science is clear that exposure to hormone disrupting chemicals can cause or exacerbate numerous health problems, most of which are not uncommon in U.S. children:

- ❖ Attention Deficits
- ❖ Early Puberty
- ❖ Obesity
- ❖ Asthma

Not all children will be exposed to enough of these materials to be harmed, but some will. Some children will be more vulnerable to these exposures than others, some will spend more time on the playgrounds and therefore have more exposure, and some will eat crumb rubber that contains dangerous levels of lead as well as other chemicals.

You don't have to take my word for it. Here is a sign that was posted on a local field. The infill in artificial turf is the same material that is used in PIP.

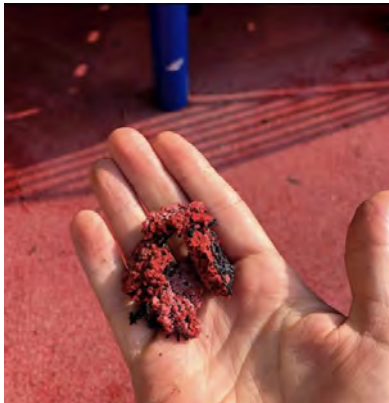


The photo below shows 2 children playing in tire crumb that was washed off from an artificial turf field in the rain, and which ended up on a playground.



The dangers of these materials are not confined to the ground, because the chemicals are released into the air. You can't see them, although on hot days you can sometimes smell them. In addition, the rubber particles get in children's ears and noses and sometimes kicked up into the air when they play. Children and athletes breathe in these invisible chemicals, lead, arsenic, and particulate matter when they play. And sometimes small children eat them.

Here's a photo showing how these pieces of rubber shred in a deteriorated rubber playground surface can appeal to a young child as something that would be good to eat.



What About Safety Tests?

I've heard FieldTurf representatives and others who sell or promote artificial turf say that their products meet all safety standards. But that's misleading, because there are no tests on **human health that are required prior to getting artificial turf or playgrounds on the market in the U.S.**

Although the U.S. Government restricts lead and many endocrine disrupting chemicals from children's toys and other children's products, there are not yet any such restrictions on artificial turf and playgrounds.

Two final issues I will briefly mention: heat and hardness.

Rubber playgrounds get **very hot**, on hot days but also on nice sunny days. You can see in this photo that a playground is 180 degrees. Even the hottest days don't get that hot on grass, dirt, or engineered wood fiber.



Regarding **hardness**, we know that some parents assume that the rubber surfaces protect children from harm if they fall. But, although the rubber feels spongy when it is relatively new, it gets hard over time. In contrast, engineered wood fiber is a safe, ADA-compliant alternative for playground surfaces, which also feels spongy and can be easily raked to keep it that way. In contrast, when rubber playground surfaces get hard, they don't recover -- they need to be replaced.

In conclusion, there are many scientists and medical experts who have studied the potential risks of PIP. Some local governments have admitted finding lead dust on many of these surfaces. With engineered wood fiber as a safer alternative, why would Belvedere want to expose their children to hormone disrupting chemicals when they play?

Sincerely,

A handwritten signature in cursive script that reads 'Diana Zuckerman'.

Diana Zuckerman, PhD
President

To the Parks & Open Space Committee:

Thank you for your efforts to renovate and update our beloved playground at Belvedere Community Park. As parents of children who use the park on a regular basis, we are thrilled that so much care has been put in to ensure that the update will provide a safe environment for our community's children.

Specifically, we understand your committee has extensively examined the aspects of the playground that need upgrading and refurbishing and has arrived at a final design. That design, including all materials to be used, has been approved by your Committee, the Planning Commission, and City Council.

Installing the rubber matting proposed in the design in Belvedere would be following the well-researched guidance of San Francisco, which recently remodeled many of its playgrounds – installing the same rubber matting material that is proposed to be used in our playground. There is no reason to deviate. The rubber matting has been deemed completely safe and is in use in countless parks around the country.

We look forward to the renovation project moving forward will be eager to have our children continue to use the playground, including the rubber matting surface, for many years to come.

We request that this letter be read into the record at the Parks and Open Space Committee public forum, held on February 23, 2021.

Thank you.

1. Kristin Kernitzer and Adam McNeile [REDACTED]
2. Katie Barnett and Andy Goldberger [REDACTED]
3. Billy and Kathleen Brady (Rebbie) [REDACTED]
4. Blye and Aaron Faust [REDACTED]
5. Katya and Greg Spencer [REDACTED]
6. Afsaneh Zolfaghari and Andrew Ashcroft [REDACTED]
7. Keith LeClaire [REDACTED]
8. Jay and Hollie Haynes [REDACTED]
9. Carli and Scott Hamilton [REDACTED]
10. Audrey and Paras Fancy [REDACTED]
11. Bahram and Maysa Seyedin-Noor [REDACTED]
12. Marci and Mario Valente [REDACTED]
13. Amanda Hyslop and Bill Driegert [REDACTED]
14. Clara and Grant Prigge [REDACTED]
15. Andy and Nikki Perlman [REDACTED]
16. Ian and Keri McCarthy Ferry [REDACTED]
17. Tracy and Peleg Perelmutter [REDACTED]
18. Heidi Robinson and Tyler Rosengren [REDACTED]
19. Rosalie and Aaron Tolson [REDACTED]
20. Kristin and Henry Homes [REDACTED]
21. Katherine and Jeff Ma [REDACTED]
22. Christine Cole and Michael Richman [REDACTED]
23. Jack Ryan and Sara Klein [REDACTED]

Handwritten notes in blue ink:
 Afsaneh Zolfaghari
 Sarah Noor
 Rosalie

- 24. Kim and Matt Barron [REDACTED]
- 25. Danielle and Bismark Lepe ([REDACTED])
- 26. Rachel and Ross Martin ([REDACTED])
- 27. Michelle and Reece Kresser ([REDACTED])
- 28. Susan and Sam Warburg ([REDACTED])
- 29. Ruby King ([REDACTED])
- 30. Lana and Seth Burstein ([REDACTED])
- 31. Tai and Jamie Carpi ([REDACTED])
- 32. Scott Lustig and Lauren Druyan

33 Julianna + Tomas Schaefer 2 yells

64 points 71 di: lulan

34 Hanna Druyan + Scott Lustig 1

35 Chris Cornell + husband 2

36 Abbie + Rick Rodwell 3

37 John + Julie Stewart

72

77

38 Andy Johnson + Marshall
Bulbin + 2

74

79

From: Robert Falltrick
Sent: Thursday, March 25, 2021 3:20 PM
To: Craig Middleton - City Manager
Subject: Belvedere Playground

Greetings:

I'm writing to express my support for Dr Rothman's position on the rubberized playground material. Perhaps I should re-state to say I am in favor of retaining sand for the "sandbox". Sand is a ubiquitous material, available on any beach, and totally safe, as proved by millennia of contact with humans. A rubber based material will be subject to aging over time, and degrading over time.

I hope that the committee will re-consider their choice and reinstate sand for the playground.

Thanks,

Robert T Falltrick, MD
12 Bella Vista Ave
Belvedere, CA 9492

From: Robin Jacobson
Sent: Saturday, March 20, 2021 9:46 AM
To: Craig Middleton - City Manager
Subject: Playground Surface

I share the concerns of others in Belvedere and Tiburon regarding the rubberized surface. I do not believe it is the safest option for our community's children. You have seen the photographs and data on the subject, so I won't go in to details.

It seems to me that the good old sand box should stay and the other surfaces being cement and bark are actually safer. Sand boxes are an important sensory activity for children, and they can feel and manipulate it in infinite ways. They also can engage in valuable social interactions in a sand box, or using the 'digger', for example, that is/was so popular in the Community Playground. The sand box is not a problem- it is a positive to the playground as a whole. 'Upgrades' to the playground do not have to be complete upheavals and reimaginings of the area. The park has served so many children for decades. It doesn't need to be completely redone, especially with chemical- based rubberized surfaces that are neither attractive nor healthy for the children who play there.

Again, I strongly encourage the City Council NOT to use the proposed rubber surfacing in the Belvedere Community Park.

Thank you very much,
Robin Jacobson
Belvedere, CA

Please email the Belvedere City Manager.

(cmiddleton@cityofbelvedere.org).

Ask that He tell the City Council not to expose children to a Carcinogenic Playground surface.

As Ark readers have learned, the proposed Playground surface would shed small, Candy-appearing, particles containing the **EPA-designated carcinogens: Ethylene, Propylene, Styrene, and Butadiene.** The Council was unaware of these constituents when it considered the project, and asked residents to contribute **\$300,000.** for it.

Now that the Ark has revealed the carcinogen-content, shouldn't the planned surface material be changed, and why would residents even consider giving \$300,000. to endanger children?

The City Staff rendering, below on the left, shows that young children would be in intimate contact with these carcinogens.

The two Photos, on the right, are of two randomly-chosen Bay Area playgrounds, surfaced with the same carcinogenic material planned for our Playground. They were taken just **2** and **5** years, respectively, after installation. Visits to five other playgrounds revealed similar deterioration.

As you see in both photos, due to weather, scuffing and wear-and-tear, their surfaces have **rapidly** deteriorated, and are shedding carcinogenic particles that are lying loose on their surfaces.

Notice how much the carcinogen-containing particles look like "delicious" "candy" or "raisins", that small children do love to eat, AND THEY WILL Eat THEM !!!



When children, as they certainly will, believing that the carcinogenic particles are chocolate candy or raisin, swallow the particles, **they will actually be eating the carcinogens.** (Continued on Other Side)

(Continued from Other Side)

There is still time to change course.

The **natural** alternatives, Sand and wood chips are used in many playgrounds. Sand and wood Chips cushions falls, and until recently sand filled our, then wonderful, but now sadly abandoned sand play area.

Here are 3 lovely examples of Bay Area sand-surfaced playgrounds:



In a sand play area, children are able to use their small pails and shovels, and other sand-use toys, to, while playing, develop their creative and coordination skills, and just as important, develop their social skills, by playing with other children doing sand play projects.

Wouldn't a natural sand and/or wood chip fall-cushioning surface, and a new sand play area be infinitely preferable to a carcinogenic surface, shedding carcinogenic, raisin-appearing particles that children will swallow.

Please email the City Manager, Craig Middleton. (cmiddleton@cityofbelvedere.org). Ask him to forward to the Council your demand that Belvedere have a natural playground surface, not one that will shed carcinogens.

If the City Council doesn't change its decision, then immediately following installation, an already-prepared resident-created ballot initiative will easily garner many more than the 163 signatures necessary to require a public vote forcing the removal of the carcinogenic surface, and its replacement with natural materials.

Such a complete repudiation of the Council would certainly impair the City's ability to raise tax money for all kinds of projects, including the Sea Wall., and discourage resident donations for other projects. If you would like to discuss these concerns, or have questions, please feel free to contact me. (Phone: 435-435-1096, [email:w1rothman@gmail.com](mailto:w1rothman@gmail.com))

From: Sally Saedi
Sent: Friday, March 12, 2021 3:50 PM
To: Craig Middleton - City Manager
Subject: Carcinogens. Federal EPA-designated carcinogens in proposed surface material for Belvedere Park Playground

Flag Status: Completed

Dear Mr. Craig Middleton,

I am a concerned mother in Belvedere, with 2 children aged 4 and 7. I am writing because we would love to have our Belvedere Park safe for our children with non-toxic surfaces on our playground.

The currently proposed surface material contains the following EPA-designated carcinogens: Ethylene, Propylene, Styrene, and Butadiene, plus the toxic automobile paint chemical, dicyclomethylhexane-diisocyanate.

Please note, there is still time to change the course of this decision and make Belvedere park safe for our children.

Sand, the natural alternative, is used in many playgrounds and has been used for many years and without problems, in our own playground. Sand cushions falls and is safe, without any harmful chemicals.

Please consider my letter and sincere, heartfelt request to keep our kids safe and protected from toxic chemicals. I urge you to forward this message onto your fellow Members of the City Council.

You are welcome to call me anytime to discuss further.

Very Best,
Sally

Saedi

From: Susan Cluff
Sent: Tuesday, February 23, 2021 9:46 AM
To: Robert Zadnik - Public Works Director
Cc: Craig Middleton - City Manager; Belvedere Lagoon Property Owners Assn.; Larry Stoehr
Subject: Special Meeting - Community Park Playground surface (public comment)

Dear Mr. Zadnick & Members of the Parks & Open Space Committee:

Thank you for letting me weigh in on this issue. Like others, I too do not like the idea of a PIP rubber surface for the park playground which aside from the potential health issues is more expensive, requires much more regular maintenance by a trained installer (with mops and soft brooms not power washers) so that the top surface does not deteriorate and then will last at the most ten years, most products have only a limited five year warranty.

The problems with improper installation and cracking, flaking and crumbling of the top and base layers due to use, sun, tree roots, and the elements are well-known, repairs are visible and costly, and the drainage, however handled, will effect groundwater and lagoon where we do not need recycled rubber products to end up either.

I would encourage you to instead use an engineered wood fiber surface which is more cost effective and a more natural product for children to play on. It will still need regular inspection and maintenance but can likely be handled by our Parks & Rec staff and then topped off regularly every few years.

Thank you for your time and attention,

Susan Cluff
Peninsula Road

Subject: Additional errors in Staff Report regarding playground surface.
Date: Friday, July 9, 2021 8:01:28 AM

Please include this email as a late communication for the PIP agenda item.

From William Rothman, MD

This is shocking example of misleading staff report misinformation is particularly troubling, because it reflects a definite lack of knowledge by Staff. And, could lead the public, mistakenly, to choose, as an alternative, a carcinogenic particle surface material

The Staff report states that the Wood Chips in playground surfaces are "typically" treated with toxic preservatives, such as CCA (Copper Chromate).

This is untrue, and would be illegal because it is, in fact, against California law to treat the material with any toxic preservatives, including CCA.

Also, as it develops, although in my previous email, I referred to a 4 year, plus, use-time expectancy of wood chip playground surfaces, in fact, that 4 year period actually refers only to the time after which additional wood chips need to be added to the old ones, because of natural organic breakdown into natural materials that go into the underlying earth, an example of natural recycling.

Sincerely,
William Rothman, MD

From:
To:
Subject: FW: Incorrect statements in PIP staff report for July 12 meeting.
Date: Friday, July 9, 2021 8:42:58 AM

From William Rothman, MD
Please include this email as late communication.

Subject: Untrue statements in Staff Report regarding PIP, for July 12, Council meeting.

Incorrect Statement (1) "The carcinogens in PIP are limited to the underlayer, which contains the EPA-designated carcinogens Butadiene and Styrene"
It is not true that the carcinogenic material is limited to the under-layer, and children would only be endangered due to cracks in the upper layer (although that scenario is bad enough) In fact, the upper/outer layer particle layer, with which the children are always in contact, contains the EPA-designated Carcinogens Propylene and Ethylene. these carcinogenic particles, as Ark photos, including those in the Ark have shown, routinely flake off of the surface, and, looking very much like raisins, will be eaten and handled by children.

Incorrect Statement (2) "Wood chips need to be coated with preservative".

This is untrue. When they are replaced every four years, there is no significant deterioration or other problems needing any kind of preservative. And since most of our year is dry, the time between desirable replacements would be longer than 4 years. And, of course, when they are replaced they are recycled into wood products and/or paper and cardboard. Unlike PIP they do not need to go to a landfill, where their carcinogens can leach into ground water.

Incorrect Statement (3) "Wood chips and sand do not meet ADA mobility standards". This is untrue. In fact They do meet those standards when more solid paths are provided to get to play structures. Such paths are, to a significant degree, already in the Playground.

Incorrect Statement (4) The California Office of Health Hazard Assessment has deemed PIP to be safe.

This is untrue, as the Letter from RHAA states: " We Acknowledge that at this time the California Office of Health Hazard Assessment is undertaking safety studies of Poured in Place"

Incorrect Statement (5) A petition in favor of the use of PIP was submitted by 70 residents.

In fact less than half of the "residents" resided in Belvedere. Also, at the time they signed the petition, Bryan Kemnitzer did not reveal to the signers that PIP contained EPA designated carcinogens.

Sincerely,
William Rothman, MD

From: Wyman Harris
Sent: Wednesday, March 17, 2021 10:30 PM
To: Craig Middleton - City Manager
Subject: Playground

Despite Bill Rothman's email, we support use of the rubber material for the surface of the City park.

Wyman and Gay