To: Albany City Council, City Manager Nicole Almaguer, and Community Development Director Jeff Bond

From: Rochelle Nason

Re: Agenda Item 11-1: Encroachment Permit for Already-Constructed Fence Blocking Public Access to Codornices Creek along Eastshore Highway

Date: February 27, 2020 (for City Council agenda of March 2, 2020)

The agenda packet omits the letter regarding the fence that was previously submitted by the Friends of Five Creeks. It is attached for your convenience.

I have inserted below several images, including a watershed schematic, an overhead view of the area including the property lines that I understand correspond to the municipal boundaries between Berkeley and Albany, and photographs I took on the site during the first half of 2019 showing flooding, dumping, precarious bridging, and scouring of the creek bed, as well as the aftereffects of a tent fire and the aftereffects of a tree falling on a tent.

I would appreciate responses to the following questions and requests:

1. Please add to the agenda packet the application for the permit, and a draft of the permit that is proposed to be issued.

2. Please advise who has responsibility for assuring the creek and its culvert under Eastshore Highway are maintained a safe and environmentally acceptable manner, and how this responsibility is enforced or otherwise assured.

3. Please advise whether the shade trees that were destroyed during the encampment period on the south bank of the creek will be replaced to restore shade to the creek, and if so by whom and when.

4. Please advise whether there is any other restoration of the site needed to stabilize the damaged banks of the creek and/or restore habitat conditions on the subject stretch of the creek.

5. Please advise whether EBMUD, the name of which is affixed to the culvert and which I understand owns a currently-blocked alternative access to the creek, asserts ownership of the culvert and access strip, and whether it has approved the placement of the fence.

6. Please advise whether there is any alternate location that could be considered for the parking sign – one that will not force pedestrians into the roadway.

For additional information, I have attached a copy of a page of Berkeley’s 2011 watershed management plan which briefly mentions this stretch of Codornices Creek as a candidate for restoration, and also a few pages of Berkeley’s 2019 preliminary planning study for public access and restoration of the stretch immediately east of this stretch (i.e. from Second Street to the Union Pacific Railroad tracks).

Finally, I have attached a blank encroachment permit application and the provisions of Albany’s Municipal Code relating to encroachments on the public right of way. I want to draw the attention of both the city staff and the city council to the discrepancy between the application, which indicates such permits require Council approval, and the municipal code which does not contain such a requirement.
I began monitoring the site in November 2018; the following images show the conditions at the site during the rainy season of January 2019 through April 2019.
Flooding of encampment area immediately south of Codonrices Creek, taken from Eastshore Highway.

Water flowing through culvert under Eastshore Highway, taken from south side of Codornice Creek.
Material in creek above the culvert, and failing tree, taken from south side of Codornices Creek.

February 2019

Material on south bank of the creek, taken from north bank.
Tree fallen on tent in Albany

March 2019

Material on south bank taken from the north bank.
Makeshift bridges ridges across creek

Tent with burn hole pitched against Public Storage building.

A. Friends of Five Creeks Letter
B. Blank Encroachment Permit Application (with highlighting)
C. Albany California Municipal Code Chapter 14-2, Use of Right-of Way
D. Watershed Management Plan – Codornices Creek Eastshore to UPRR tracks
E. Transfer Station Planning Presentation Excerpts
Nov. 19, 2019

Mayor Rochelle Nason, Members of the City Council, City of Albany
City Manager Nicole Almaguer, Community Development Director Jeff Bond, City of Albany

Re: Nov. 18 City Council agenda item 5-7, proposal to fence Codornices Creek and path between Eastshore Highway and Second Street

Dear Mayor Nason, Councilmembers, City Manager Almaguer, and Development Director Bond:

Friends of Five Creeks, based on 23 years of experience working with creeks in the City of Albany, opposes fencing Codornices Creek and the adjacent pathway between Eastshore Highway and Second Street as shortsighted and counter-productive. At minimum, no fence should be built without
(a) a written maintenance plan including plans for dealing with floods, with specific responsibilities agreed to by all parties, and
(b) commitment to remove the fence within a set small number of years unless there is compelling evidence that it is still needed.

Flood Risk
It would be irresponsible to not consider the effects of a fence on emergency maintenance and access. The channel above Eastshore Highway is severely undersized compared to the creek above the railroad tracks. The culvert under the freeway is similarly undersized. A serious flood would send much more water downstream than the small channel could accommodate or that the culvert could transport. Albany businesses along Eastshore have the lowest banks and are thus the most vulnerable (right).

Even in an ordinary storm, trash or vegetation washing downstream could easily block the culvert, causing a flood. Berkeley for many years resisted restoration of Codornices below Kains because of the need for quick access to clear just such debris dams, which have caused floods along Kains. Why re-create that problem here? Climate instability is increasing the risk of major floods. Thus, it is crucial to allow for quick emergency maintenance and rescue.
Public Access
Contrary to the draft resolution and staff report, walkers and bicyclists have used the path along the south bank of Codornices Creek from Eastshore Highway to Second Street for at least the 23 years of F5C’s existence, and probably much longer. Closing this path would block them, while maintaining access could engage the public and deter illegal dumping, vandalism, and camping. Blocking this path does not seem congruent with the City of Berkeley’s plans for a rebuilt transfer station with a creekside trail with interpretation from the railroad to 2nd Street – where walkers under the present proposal would encounter a tall, cheap metal fence.

Maintenance
Although the staff report shows sustainability impact as “N/A” and financial impact as none, both are likely to be costly problems in the long run. Our many years of experience working on creeks in Albany suggest that fencing does not deter undesirable behavior, sends a message that an area is unsavory, and leads to neglect of maintenance, ending in costly problems.

Codornices at Ohlone Greenway: Friends of Five Creeks’ first large project, in 1999, removed chain-link fencing at Codornices Creek and the Ohlone Greenway (right, in 1999), where camping and dumping were common in the overgrown creekside. We removed the fence, built an observation railing, and planted natives. For many years now, the area has been an attractive urban oasis requiring little city or volunteer maintenance.

Cerrito Creek, San Pablo to Adams: History here, too, shows the problems of fencing. After the sewer main along the creek was rebuilt in 1998-9, a chain-link fence failed to deter campers. Weeds hid undesirable behavior, and the fenced-off, neglected street end invited illegal dumping.

The fence also made maintenance difficult. Evergreen thornless blackberry grew up, hid both fence and camps (left, in 2004), and all but blocked the creek, increasing flooding upstream. Friends of Five Creeks took out both fence and blackberry at Adams Street, where dumping and camping are now rare. But the City of Albany is paying thousands of dollars today to control the evergreen thornless blackberry upstream to San Pablo, where in the past, this long-canied invader has led to flooding both upstream and downstream. In a rainy year, big planters from below San Pablo and heavy timbers from the retaining wall at the Albany building at Kains floated downstream to Richmond. If F5C had not pulled them out, they would have become navigation hazards in the Bay.

Codornices Creek, San Pablo to 10th: This reach shows the need for gates and a clear maintenance plan and responsibility. In Albany’s records, you will find plans for a creek overlook on the west side of San Pablo, incorporating a decorative welcome to Albany. The creek downstream there was lovely; in those years, UC cut back the vegetation. However, since construction of Belmont Village began, a high chain-link fence down to Tenth Street, with no gate, has cut off maintenance except what our volunteers could manage, going in through a neighbor’s property. A mass of invasive, non-native vegetation (right) hides the creek, chokes and threatens to
topple trees, and increases flood danger, including above San Pablo. This impenetrable mass advanced steadily toward the creekside trail and Belmont Village, with no agency taking responsibility, until our volunteers in recent months spent hundreds of hours cutting it back to the fence. Many more hours will be needed.

Codornices Creek, 10th to railroad: We have all just been through what happens when there is no clear plan and responsibility for maintaining a creek. Friends of Five Creeks’ rediscovery of $450,000 in forgotten maintenance funds reserved for this reach, insistence that something be done about trash and vegetation, and more than a dozen recent volunteer work parties, all mean that the creek is currently not “creepy.” However, many years of hard work will be needed to make up for the neglect of this area by Albany, Berkeley, and UC Berkeley after millions of dollars were spent on its restoration.

It is true that heavy-duty fence at the tracks has somewhat deterred campers there. But ask the folks who run the sports fields: Transients continue to cut the field fences, even though UC Berkeley many years ago gave up and built an unlocked gate to let them through.

Do not forget history by focusing only on the most recent challenge
History shows the benefits of alternatives to fencing. At Second Street to Eastshore Highway, camping recently became a major problem due to many levels of neglect – from our society’s failure to provide housing to Berkeley’s failure to patrol and police. Since the dense, unsanitary, and dangerous campground was removed, and it was discovered that this portion of the creek is in fact private property in the City of Albany, regular patrol and notice has kept campers out.

Please consider the possible harms of fencing and explore other measures, including continuing the present policy.

Sincerely,

Susan Schwartz, President, Friends of Five Creeks

CC: Albany City Clerk, Berkeley Public Works Commission, Berkeley Public Works
ENCROACHMENT PERMIT
PERMANENT OR TEMPORARY CONSTRUCTION WITHIN CITY RIGHT OF WAY

LOCATION:

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<td>Applicant:</td>
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<td>Normal/Emergency</td>
<td>Workers Comp. No.</td>
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<td>Owner:</td>
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<td>Engineer / Architect:</td>
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<td>Contractor:</td>
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TYPE OF WORK
- Sidewalk
- Curb & Gutter
- Sewer
- Street Tree
- Utility Co.
- Permanent Structure
- Other: _________________________

DESCRIPTION OF WORK
_________________________________________________________________________________
_________________________________________________________________________________

REQUIRED CONDITIONS
1. All work shall be in accordance with the attached standard conditions.
2. No refund after 120 days or work begins; 70% of fee refundable within 120 days provided no work has begun.
3. Permanent structures require City Council approval (City Code 14-2).
4. CALL USA 1-800-227-2600 before excavating.
5. Call for Final Inspection and Sign-Off 48 hr. in advance at ☏ (510) 528-5760
6. Special Conditions may be imposed following City review and prior to issuance of this permit.

Applicant’s Signature: ___________________________ Date: ________________

STAFF USE ONLY

Permit Fee Computation

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<th>Description</th>
<th>Fee</th>
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<th>Total</th>
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<tr>
<td>New construction at 8% of construction cost</td>
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<td>In-Lieu slurry seal fee (when street is out)</td>
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<td>Minimum fee per schedule (if greater than % fee)</td>
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<td>Total Fee due (transfer to fee schedule from)</td>
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Special Conditions: _____________________________________________________________

Issued by: ________________________ Date: _______________

Permit Expiration Date: _______________________________

Rough Inspection: _______________ Date: ___________ Final Inspection: _____________ Date: ___________
ENVIRONMENTAL PROTECTION STATEMENT OF RESPONSIBILITY
FOR DISCHARGE & DAMAGE

I. PURPOSE
This statement is to provide notice to property owners, contractors, and others of the responsibility for compliance with Albany Municipal Code (AMC) as it relates to protection of public trees and waterways.

Public Trees: Damage to street trees or other trees located on public property is considered damage to public property. Damage to trees includes, but is not limited to cutting any amount of trees roots, ripping or tearing of branches, and peeling, tearing, or scarring of tree bark. Damage may cause death and/or a dangerous condition by destabilizing the tree. Restoring a tree is a priority to the City of Albany.

Waterways: The City’s storm water runoff system conveys rain water directly to the San Francisco Bay through a network of surface flows, underground pipes, and creek channels. Materials discharged to a sidewalk, street gutter, storm drain or creek can cause creeks and the Bay to become polluted. Any material other than rain water is considered an illicit discharge under the Federal Clean Water Act. Examples of illicit discharge include: concrete wash water, stucco wash water, paint warm water, chemicals, and runoff from stockpiled materials such as dirt aggregate, soil products, and other construction materials.

II. RESPONSIBILITY FOR DAMAGE TO PUBLIC TREES AND/OR ILLICIT DISCHARGE TO WATERWAYS

Public Trees: Pursuant to Albany Municipal Code Section 14-1.2., it is unlawful to cause damage to public property. When a public tree is damaged the cost of the damage and the value of the tree will be calculated by a certified arborist in accordance with International Society of Arboriculture Standards. Because valuable resources such as time, energy and money are invested in trees over many years, the calculated value of a tree can be high. The party damaging the tree is liable for all costs associated with the loss of the tree and the repair or replacement of the tree.

Waterways: Pursuant to Albany Municipal Code Section 15.4, it is unlawful to discharge materials (liquid or solid) to a sidewalk, street, gutter, storm drain or creek. An illicit discharge is defined as “any discharge to the City storm drain system that is not composed entirely of storm water...”. The contractor and/or property owner is responsible for all fines and costs associated with the illicit discharge.

III. CERTIFICATION OF COMPLIANCE

I understand that as the applicant I am responsible for any damage to public trees and/or all illicit discharges resulting from this project and that I am responsible for all fees and fines as a result or non-compliance.

Permittee or Property Owner ____________________________________ Date _________________

Business or Agency Name ____________________________________ Date _________________

Address of Project: ________________________________________
LOCATION: ________________________________________________________________

This APPLICATION MUST BE ACCOMPANIED by the DATA and PLANS indicated below:

- Description of Job
- APPROVED Construction Plans and/or Documents
- An Engineer’s Estimate of the value of all public improvements and utility services within the public right-of-way
- A Soils Report prepared by a Registered Civil Engineer
- Others: Specify __________________________________________________________

ALL FEES SHALL BE PAID AND DEPOSITS MADE PRIOR TO THE ISSUANCE OF THIS PERMIT: except Utility Companies. Utility Companies will be invoiced.

Standards/Specification:
The following conditions and provisions of the Albany Municipal Code apply to this permit. All work shall be in accordance with City Standard Specifications and Drawings.

Commencement of Work
The permittee shall begin the work or use authorized by a permit issued pursuant to this chapter within ninety (90) days from the date of the issuance unless a different period is stated in the permit, or an extension of time is granted by the Director of Community Development & Environmental Resources. If the work or use is not begun accordingly, the permit shall become void.

INSPECTION
In general, inspection producers and requirements shall be as established by the Director of Community Development & Environmental Resources. Unless specifically exempted by the City Code, no encroachment work shall take place without inspection by the Director of Community Development & Environmental Resources or his/her authorized agent. Inspections by the City must be requested at least TWENTY-FOUR (24) HOURS (excluding weekends) IN ADVANCE of the work to be performed. No work shall be performed on weekends without PRIOR AUTHORIZATION of the Director of Community Development & Environmental Resources.

DISPLAY OF PERMIT
The permittee shall keep a copy of this permit at the site of the work, or in the cab of a vehicle when movement on a public street is involved. The permit shall be shown to any authorized representative of the Director of Community Development & Environmental Resources or Law Enforcement Officer on demand.

ACCEPTANCE OF PERMIT BY APPLICANT
Acceptance by the applicant of the permit shall be conclusive evidence of the reasonableness of the terms imposed and shall constitute a waiver of any right to legislative determination thereof.

NON-ASSIGNMENT OF PERMIT
Permits shall only be issued only to the person making application and may not be assigned to another person by the permittee. If any permittee assigns his permit to another, the permit will be revoked.

CHANGES IN PERMIT AND WORK
No work may be made in the location, dimensions, character, or duration of the encroachment or use as granted by the permit except upon written authorization of the Director of Community Development & Environmental Resources.
EXCAVATION OF PAVED STREETS
No excavations shall be permitted within the paved area of the public streets unless the applicant can prove to the satisfaction of the Director of Community Development & Environmental Resources that the following conditions exist:

1. Boring of the utility is not feasible; and
2. No reasonable alternative utility arrangement is available outside the paved street area; and
3. The cut area and an adjacent area shall be resurfaced as approved by the Director of Community Development & Environmental Resources. The limits of resurfacing shall be as determined by the Director of Community Development & Environmental Resources to insure the excavating area blends visually with the surrounding area. The applicant shall be responsible for the replacement of any and all obliterated or removed pavement markers or striping.

REVOCATION OF PERMIT
This encroachment permit may be revoked at any time at the option of the Director of Community Development & Environmental Resources, whenever:

1. It appears that continuing allowance of the permitted work, whether because of changed conditions or otherwise, interferes with full, adequate or safe public use of the right-of-way involved; or
2. The permittee fails to comply with or violates any city ordinance, city standard, safety regulations, or any condition of the issuance of the permit.

Upon revocation of the permit, the permittee shall immediately restore the public right-of-way to a condition as required by the Director of Community Development & Environmental Resources. If the restoration is not completed within the time specified by the Director of Community Development & Environmental Resources, the City may take any and all necessary action so required to restore the right-of-way. Any and all costs incurred by the City will be deducted from any deposits posted by the permittee and if necessary recovered by legal action.

HOURS OF WORK
No work shall commence prior to 8:00AM and no work shall be conducted after 6:00PM Monday through Saturday and before 10:00AM or after 6:00PM on Sundays and Holidays.

COMPLETION OF WORK
The permittee must complete the work or use authorized by a permit issued pursuant to this chapter within the time specified in the permit. If at any time the Director of Community Development & Environmental Resources finds that the delay in the prosecution or completion of the work or use authorized is due to lack of diligence on the part of the permittee, the permit may be revoked.

PERMITTEE LIABILITY
The permittee shall agree to hold the City, its officers, and employees harmless from any and all liability, claims, suits, or actions for any and all damages alleged to have been suffered by any person or property by reason of the permittee’s installation, operation, maintenance or removal of the encroachment.

BY MY SIGNATURE HEREUNDER, I state that I have read and understood the above conditions and agree to comply therewith. I hereby attest that I am either the owner of the property or duly authorized agent of the applicant.

APPLICANT’S SIGNATURE: ___________________________ Date: ______________

NAME (print): ________________________________ Company or Agency: ________________________________
§ 14-2 USE OF RIGHT-OF-WAY.

§ 14-2.1 Permit Required. [Ord. #98-03, § 1]
It shall be unlawful for any person to build, construct, maintain, occupy or use, or cause the same to be done, any structure over, under or upon public property of the City, without an encroachment permit to do so.

§ 14-2.2 Permit Issuance. [Ord. #98-03, § 1]

a. Application for an encroachment permit required by subsection 14-2.1 shall be made by the property owner to the Director, upon such forms as he/she shall prescribe, and shall be accompanied by the payment of a fee in an amount set by the Master Fee Schedule.

b. The Director shall review the application. If he deems it necessary, the Director may demand that a cash or surety bond be filed with the City in such an amount as set by the Master Fee Schedule. The Director may also impose an additional fee, if resurfacing of the work area by the City will be required.

c. The permit shall grant no right in or to the use or occupancy of public property, other than that explicitly contained therein, and shall not be construed as a grant of any right or interest in the property affected thereby.

d. The permittee shall indemnify and hold harmless the City in a manner approved by the City Attorney.

§ 14-2.3 Peddlers and Vendors. [Ord. #98-03, § 1; Ord. #06-013, § 1] [Omitted]

§ 14-2.4 Conformity of Encroachment. [Ord. #98-03, § 1]
Structures and uses located on public property shall conform to all the provisions of this Code and other ordinances, regulations and guidelines of the City.

§ 14-2.5 Responsibilities of the Owner. [Ord. #98-03, § 1]
It shall be the responsibility of the owner to properly maintain the permitted encroachment in a safe manner; failure to do so will be grounds for revocation.

§ 14-2.6 Permit to Alter. [Ord. #98-03, § 1]
No existing structure located on public property shall be altered, enlarged, rebuilt, remodeled, improved, or moved, without the approval of the Director, and issuance of an encroachment permit.

§ 14-2.7 Removal of Encroachment. [Ord. #98-03, § 1]
Any structure or use located on public property which, in the opinion of the City, interferes with the use of public property or violates provisions of the permit of this section, shall be removed from such public property by the owner thereof within fifteen (15) days after written notice or sooner as directed by the Director. These notices may be posted upon any real property of such owner in the City, or delivered to the owner personally. Upon the failure of such owner to remove the structure at his sole expense, the Council may cause the same to be done and assess the cost thereof against such owner and the same shall become a lien against the real property.

§ 14-2.8 Work by Utilities. [Ord. #98-03, § 1]
Utility companies holding franchises to operate in the City shall obtain encroachment permits and comply with all standards established by the Director.
§ 14-2.9 **Compliance with Regulations.** [Ord. #98-03, § 1]
All work for which a permit has been issued under this section shall comply with all City, County and State regulations regarding health and safety.

§ 14-2.10 **Safety Provisions.** [Ord. #98-03, § 1]

a. All work and use must conform with applicable sections of the City of Albany Standard Specifications.
b. It shall be unlawful for any person, other than an employee of the permit holder or of the City to remove, interfere with or go behind any barricade erected for public protection, and it shall be unlawful for any person, other than an employee of the permit holder or of the City to handle, remove or in any way interfere with any light placed for the public protection.
c. All work in the public right-of-way shall comply with any conditions listed on the encroachment permit.

§ 14-2.11 **Liability for Damage to Public Property.** [1] [Ord. #98-03, § 1]
Any damage done to streets, curbs, gutters, sidewalks or other public property by any person doing work covered by this section, whether he is covered by a bond or not, and whether he has a permit for such work or not, shall be made good by such person.

§ 14-2.12 **Liability for Damage to Persons and Private Property.** [1] [Ord. #98-03, § 1]
As a condition to receiving a permit to do work or otherwise use the public right-of-way under this section, the person applying therefor shall safeguard the City from any and all liability or responsibility for damages to persons or property.

§ 14-2.13 **Driveway Curb Cuts.** [Ord. #98-03, § 1]
It shall be unlawful to create new or eliminate existing driveway approaches without an encroachment permit.

§ 14-2.14 **Notice to Construct and Repair.** [Ord. #98-03, § 1]
When, in the interests of public safety or convenience, it shall be found necessary to construct or repair any curbing, driveway, sidewalk or parking strip, it shall be the duty of the Director to notify the owners of abutting property when such construction or repairs are required. Such notice shall specify that, if the construction is not commenced within two (2) weeks after such notice is given, the Director shall make the construction or repair and the cost shall be a lien on such property. Such notice shall be mailed or delivered in person to the address of the person whose name and address is of record on the assessment rolls of the City.

Any property owner whose property is to be assessed to pay the costs and expenses of the proposed construction may make objection in writing to the Director within the two (2) week period before mentioned. Such objections will be scheduled for a hearing before the City Council prior to proceeding with the proposed construction. A failure to make objection within the specified time shall be deemed a waiver of all objection to the proposed construction.

[1] Editor's Note: Pursuant to Section 2 of Ordinance No. 98-05, this subsection shall apply to all actions in which the initial trial has not commenced prior to July 1, 1998.
2011 
WATERSHED MANAGEMENT PLAN 

Public Works Engineering 
Version 1.0 October 2011
• Restoring creeks by removing culverts, underground pipes, and obstructions to fish and animal migration

• Restoring creek corridors and natural transportation routes with pedestrian and bicycle paths along creekside greenways; wherever possible using creekside greenways to connect neighborhoods and commercial districts east of the Interstate 80 freeway to the shoreline of San Francisco Bay and the San Francisco Bay Trail.

• Restoring a healthy freshwater supply to creeks and the bay by eliminating conditions that pollute runoff and eliminating conditions that prevent groundwater recharge

• Instilling widespread public awareness of the value of developing infrastructure along lines that promote healthier watersheds and watershed oriented open spaces where nature and community life can flourish.

**Lower Codornices Creek**
The City is a partner with the City of Albany and UC-Berkeley in the long-range planning, implementation, and maintenance of restoring a ½-mile stretch of Codornices Creek from San Pablo Avenue to the UPRR railroad tracks (Third Street). Thus far the project has completed three phases, restoring the creek corridor from the railroad tracks to 8th street. In addition to restoring meanders, modified floodplain terraces, and native riparian vegetation, this effort also includes construction of a bicycle/pedestrian trail and an outdoor classroom.

Additional locations on Codornices Creek have been identified as candidate restoration sites, pending agreements with partners and property owners and securing funds to design, implement, and maintain. These sites are:

• Eastshore Hwy Rd to UPRR tracks
• Vacant Lot on Kains Avenue

**WATERCOURSE FUNCTIONS & ASSOCIATED HABITATS**

Natural water courses are innate features of watersheds, occurring in topographical depressions where surface runoff and groundwater contribute to channel forming flows. The channel form is further dictated by a complex combination of climatic conditions, geology, and ecology. Bay Area creeks originate in elevated headland areas and flow toward the Bay plain at a rate relative to slope or gradient and the volume of surface runoff or discharge. During travel across the alluvial fan, stream velocity generally declines, water temperatures and turbidity tend to increase, and the channel bottom changes from rocky to muddy (McNaughton and Wolf 1973). At the Bay, discharge into

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4 The following descriptions of Bay Area Watercourse Functions, Associated Habitats, Common Impacts, and Linkages Between Hydrology, Geomorphology, Water Quality and Habitat are taken from Chapter 2 of the *Watershed Management/Habitat Protection and Restoration Component of the San Francisco Bay Area Integrated Regional Water Management Plan*, created in 2006 by Jones and Stokes. Some minor changes have been made to the text to be more descriptive of Berkeley conditions.
and public works vehicles; heavy equipment/large rolling stock maintenance garage; truck wash rack; and fueling station (two underground diesel storage tanks requiring replacement by 2025).

The Division also directs and oversees a number of subcontractors for program and service delivery that operate out of the facility, including:

- Residential curbside recycling collection is operated by and currently contracted with the Ecology Center (EC); eight (8) collection trucks and more than twenty (>20) employees that collect residential recycling materials for properties with up to nine (9) residential units;
- MRF and buyback center is operated by and currently contracted with the Community Conservation Center (CCC); also processes and markets recyclable materials collected from the residential and commercial sectors with approximately 20+ employees; and
- Reuse salvage/collection is operated by and currently contracted with Urban Ore, having two (2) to three (3) employees, which operates a salvage and diversion program for reusable goods delivered to the floor of the Transfer Station that can be reused for their originally intended purpose or repurposed while in their originally manufactured form.

**Summary of Two Proposed Concepts**

The two proposed conceptual designs will transform the 7.45-acre site from an outdated and highly fragmented operation with significant traffic back-ups to a modern state-of-the-art Solid Waste and Recycling Transfer Station facility that will deliver quality service to the City’s diverse community in an innovative and cost-effective manner. The future facility will showcase the City’s commitment to global leadership in addressing climate change, advancing environmental justice, environmental stewardship, and protecting the environment.

As documented in the following report (see more details in Section 3.6 of the Report), both conceptual facility designs will incorporate a diverse array of sustainability features including but not limited to:

- Photovoltaic panels on roof structures and canopy structures
- Elevated wind turbines for the on-site production of power
- Provide future flexibility to incorporate new material handling practices
- Rainwater capture and reuse features
- Public kiosks with information on zero waste and sustainable living tips
- **Creek walk (pathway) with educational kiosks and watershed art on Codornices Creek**
- Community art with environmental themes
- Environmental education center and public tour program
Figure ES-3: Concept A - Public Buyback and Drop-off Center View from Gilman St. @ Second St.

The facility is being designed to be a net zero energy facility and is intended to achieve a Leadership in Energy and Environmental Design (LEED) certification.

As illustrated throughout this document and specifically in greater detail in Sections 3.3 and 3.4, the proposed facility improvements will include the following:

- Larger public buyback and drop-off center located in close proximity to Gilman Street @ Second Street
- New building and equipment for the dual stream recyclables processing area (known as a Materials Recovery Facility)
- New larger, fully enclosed transfer station building to ensure flexibility to accommodate the reduction of incoming refuse and increase in recyclable materials
- Larger scale house and entrance area for public customers and a separate scale entrance for larger city collection vehicles to eliminate current traffic back-ups and unsafe mixing of smaller public vehicles with larger commercial collection vehicles
- Community amenities including an environmental education center, community meeting room, public tour space, a creek walk area, and local artisan spaces
- New employee and administrative offices
- New vehicle maintenance facility and related operations

Preliminary concept plans, exterior elevations, and 3D design modeling were prepared by the Zero Waste Collaborative (ZWC) team to help visualize the proposed improvements in more detail.

**Initial Project Research**

**Site & Facility Conditions Assessment**

In February 2019, ZWC completed a Site Conditions Review and Assessment (see Exhibit 4) of all existing buildings and above ground infrastructure. In addition to an overall site and facility conditions review, the ZWC Team reviewed current operations. The operations review identified
**Codornices Creek**

The north boundary of the site is adjacent to the Codornices Creek which currently is an unused segment south of the railroad easement (no contiguous trail connection at this date). As part of a natural environment restoration strategy, the Codornices Creek will be provided with a minimum 30 ft. buffer that will be sloped at 5% to a berm wall (north curb line of public driveway) and planted with native grasses and shrubs consistent with the Creek. Future civil engineering, as a selected design is developed, will take into consideration the flooding potential along the Creek and provide mitigating measures at that time. Both Concepts A and B provide a northerly berm wall to redirect occasional creek surges and prevent flooding in this area. It should be noted Concept A has very limited structures at the north end of the site offering alternate access to the facility if the Creek experiences minor flooding at the scale entry and with the 100 ft. of the structure. Although limited, the remote scale could provide emergency access and use of the facility.

Sharing the main public entry will be a pedestrian access path that will have a low wall separating the walkway from the vehicle lane. The paving would be decomposed granite with a solidifier to create a pervious but accessible “trail” to a small respite area that would feature an informational podium display on Bay Area watershed and a dedication by Friends of Five Creeks. The plantings here would feature native riparian species. The buffer would be modestly sloped up away from the creek flowsline the integration of a berm for flow control. An opportunity also exists for placement of watershed focused art features in this area.
- Enhanced public education re: waste reduction, reuse, recycling, and composting via onsite information kiosks and an environmental education center.

**Community Outreach & Empowerment Features**

The purpose and function of the facility (recycling and reuse of materials) offers special opportunities to engage the community with environmental education. This facility will have:

- An Environmental Education Center to present the precepts of GHG emissions, climate change and environmental stewardship. In addition to educational displays, an actual MRF viewing experience will be available.
- A Community and Artisan space for learning opportunities that explore common sense activities for less waste and creative reuse.
- Provide an attractive environment for community recycling events.

**Land Use**

Creek restoration is a critical component of the overall enhancements to Bay watershed environmental quality. A 30 ft. buffer zone will be dedicated. This zone will be planted with native species appropriate to a Bay Area riparian habitat. The buffer zone will be modestly sloped toward the natural flowline of the creek to encourage natural drainage to the creek-bed and away from the site proper. The low retaining wall transition to the entry road at the south end of this berm is proposed to be rubble masonry made from repurposed concrete slab.

**LEED**

The Zero Waste Collaborative team reviewed each of the Site Concepts A & B for environmental performance with respect to the U.S. Green Building Council’s LEED® (Leadership in Energy and Environmental Design) design, construction and operation framework. It should be noted that LEED, “the most widely used green building rating system in the world” provides an effective benchmark toward a design fulfilling the City’s Climate Action Plan and Net Zero Energy goals. This initial evaluation utilized the LEED v4.1 for BD+C New Construction and Major Renovation Checklist (see Exhibit 28). This checklist is a recognized guide and first step in establishing a project design’s sustainability and capability in reducing GHG emissions. The checklist provides three outcomes for a conceptual level review:

- **Yes**, for achievable active or passive responses in the design
- **Maybe**, for potential feasibility but only established during final design and engineering (and affirmation of commitment by the Owner)
- **No**, not considered feasible usually due to the nature of the site and/or use. Some examples are indicated below.

The review of both facility concepts determined that a LEED Gold certification was achievable as delineated by City initiatives and ordinances. A strong commitment to renewable energy, water conservation as well as innovation will serve as the core basis for gaining this level of certification.
It should be noted that the higher Platinum level was problematic due to some key credits that are not feasible due to the location of the site and use. As an example, the first credit in the “Location and Transportation” credit section is “LEED for Neighborhood Development Location” providing 16 potential credits. This category is aligned with new planned mixed-use community developments; the Berkeley Solid Waste and Recycling Transfer Station site would not be a candidate for achieving any of these credits. The “Access to Quality Transit” (5 potential Credits) is linked to local neighborhood transit; not the Amtrak line with station nearby which provide broader Bay Area access.

**Programming Assumptions**

The ZWC team reviewed and completed more than a dozen concept plans to try and address future project goals and community input. The bullet points below summarize some of the iterations and design concepts considered.

- In order to create larger tipping floor areas for site operations, the design team considered an additional level for vehicle parking and/or operations. However long ramps and turn constraints posed some significant challenges to this approach. Also, any uses on the upper level posed large load capacity requirements which in turn required columns at the lower level. The columns restrict operations and vehicle maneuvering. These factors in addition to the significant cost ramifications excluded this approach from further consideration.
- The vehicle maintenance was considered for placement off-site since it placed a significant impact on space needs on the site’s capability to support additional MRF and Transfer Station capacity. After considering very limited options on handling this activity at another location, it was reintroduced to the program.
- Some staff parking will be utilized along Second Street as it is today at the north portion of the street.
- Initial site concept iterations considered reuse of the existing outdoor loadout tunnel. However, this location severely compromised the most viable layouts. Retaining the existing loadout tunnel was eliminated.
- Floor level loadouts were chosen considering the volume of loadout that is typically accommodated with a “lift-and-load” operation where the wheel bucket loader can drop material into a tractor trailer similar to the loading of a dump truck. The push wall is configured with sloped steel backboard that directs material into the trailer and minimizes spillage around the trailer. Using this type of loadout in lieu of a 16 ft. deep tunnel eliminated excessive ramp conditions which consume valuable site area.
- A pedestrian bridge was suggested in public meetings which would provide a connection over the Codornices Creek from Second Street to the Target store property to the north. The City determined that this proposal extended beyond the purview of this study and was not included.
- Building foundations and below ground detention as required will be feasible with the site soil conditions and water table. A geotechnical investigation will have to be performed to confirm the viability of subsurface construction.
- On-site processing of organics was not considered due to space requirements for typical equipment processing systems. Also, odor treatment could be problematic.