

**LIST OF ATTACHMENTS FOR PUBLIC HEARING
ITEM NO. RA5 – HOLD A PUBLIC HEARING AND
ADOPT A RESOLUTION ADOPTING A MITIGATED
NEGATIVE DECLARATION FOR THE WRIGLEY FORD
CREEK MAINTENANCE WORK, PROJECT NO. 8162**

- A. Redevelopment Agency Resolution**
- B. Mitigated Negative Declaration**
- C. HT Harvey Mitigation and Monitoring Plan**
- D. Comment Letters from
 - ➔ Valley Transportation Authority**
 - ➔ Governor’s Office of Planning and Research -
State Clearinghouse and Planning Unit****
- E. Site Plan**

RESOLUTION NO. _____

A RESOLUTION OF THE REDEVELOPMENT AGENCY OF THE CITY OF MILPITAS ADOPTING A MITIGATED NEGATIVE DECLARATION FOR THE WRIGLEY-FORD CREEK MAINTENANCE WORK, PROJECT NO. 8162, AND ADOPTING THE MITIGATION MONITORING AND REPORTING PROGRAM PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

WHEREAS, the Redevelopment Agency of the City of Milpitas has initiated a proposed project to clear debris and remove sediment and dead vegetation within Ford Creek, Wrigley Creek, and the Wrigley-Ford Creek area. These actions are collectively referred to as the “Project”; and

WHEREAS, the Project is consistent with the City of Milpitas General Plan; and

WHEREAS, the Agency completed an Initial Study in January 7, 2011 and determined that a Mitigated Negative Declaration (“MND”) would be required for the Project; and

WHEREAS, the Agency prepared a Draft MND dated January 7, 2011 which reflected the independent judgment of the Agency as to the potential environmental effects of the Project in accordance with the requirements of the California Environmental Quality Act (CEQA) and the CEQA Guidelines; and

WHEREAS, the MND identified potentially significant impacts related to riparian and wetland habitats; and

WHEREAS, the Initial Study/Mitigated Negative Declaration identified appropriate measures to mitigate the identified impacts to a level that is less than significant; and

WHEREAS, the Draft MND was circulated for a 30-day public review and comment period, from January 7, 2011 to February 11, 2011. Copies of the Draft MND and related materials were provided to the Agency Board and were also made available to the public upon request from the Agency Secretary; and

WHEREAS, the Agency received written and verbal comments from the public during and after the review period.

NOW, THEREFORE, the Board of the Redevelopment Agency of Milpitas hereby finds, determines, and resolves as follows:

1. The Board has considered the full record before it, which may include but is not limited to such things as the staff report, testimony by staff and the public, and other materials and evidence submitted or provided to it. Copies of the Initial Study and the related Mitigated Negative Declaration materials were provided to the Agency Board. Furthermore, the recitals set forth above are found to be true and correct and are incorporated herein by reference.
2. The Mitigated Negative Declaration was prepared pursuant to CEQA. According to the Initial Study/Mitigated Negative Declaration, the proposed Project would not have a significant impact on the environment with the incorporation of the mitigation measures included in the Mitigated Negative Declaration. Additionally, the evidence in the record as a whole indicates that the Project will not individually or cumulatively have an adverse effect on wildlife resources or habitat.
3. The Mitigated Negative Declaration fully complies with the requirements of CEQA and the CEQA Guidelines.
4. The proposed Project will not have a negative impact on the environment with the incorporation of the mitigation measures identified in the Mitigated Negative Declaration.

5. The Agency Board adopts the Mitigated Negative Declaration and the Mitigating Monitoring and Reporting Program submitted to it and made available to the public.

PASSED AND ADOPTED this ____ day of _____, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

APPROVED:

Mary Lavelle, Agency Secretary

Jose S. Esteves, Chair

APPROVED AS TO FORM:

Michael J. Ogaz, Agency Counsel

**Wrigley-Ford Creek Maintenance Project
Mitigated Negative Declaration**

**City of Milpitas
455 E. Calaveras Blvd.
Milpitas, CA 95035**

January 7, 2011

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

ENVIRONMENTAL CHECKLIST FORM

1. Project title: Wrigley-Ford Creek Maintenance Project

2. Lead agency name and address:

City of Milpitas
455 E. Calaveras Blvd.
Milpitas, CA 95035

3. Contact person and phone number: Fernando Bravo, (408) 586-3328

4. Project location: City of Milpitas

5. Project sponsor's name and address: Same as #2

6. General plan designation: Manufacturing and Warehousing (MFG)

7. Zoning: Heavy Industrial with site and architectural overlay (M2-S)

8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

The City of Milpitas proposes to implement a program of flood-control channel maintenance within the Wrigley-Ford Creeks drainage system. The goal of the Project is to maintain conveyance capacity for the 100-year flood event within the bed and banks of the Project reaches. The Project area is located on the northeastern floor of the Santa Clara Valley, in an urbanized setting that supports a mix of land uses including residential, commercial, office space, and the Union Pacific Railroad facilities (Figure 1). The channels are typical of urban drainage areas, with generally straight reaches, trapezoidal cross sections and culverts at road and driveway crossings. The proposed flood control Project reaches includes the following:

- Ford Creek Upstream Reach [1,514 feet (ft)] - extends from the culvert outlet of a large parking lot, downstream to the culvert inlet on the south side of State Route 237 (Hwy 237).
- Ford Creek Downstream Reach (1,550 ft) - extends from the culvert outlet on the north side of Hwy 237, downstream to the confluence of Ford and Wrigley Creeks.
- Wrigley Creek Reach (1,778 ft) – extends from the Hwy 237 crossing, downstream to the confluence of Wrigley and Ford Creeks.
- Wrigley-Ford Creek Reach (2,217 ft)- extends from the confluence of Wrigley and Ford Creeks, downstream to the Wrigley-Ford Pump Station, which is located just upstream of the confluence of Wrigley-Ford Creek and Berryessa Creek.

In summary, the project includes removing 5 trees, trimming trees and removing scrub vegetation on the bottom of the channels. The project also includes cleaning of the culverts. Part of the project includes mitigation, which would include the planting of new trees.

A detailed explanation of the project is below.

Ford Creek Upstream Reach

Initial Actions. The existing willow trees in this reach will be pruned and some trees removed because these trees obstruct flow in this reach to a degree that the predicted 100-year flood event is not contained within the channel (Schaaf & Wheeler 2010). The City's design team has developed a plan that minimizes willow tree impacts while achieving the flood control objectives. The existing willow trees within the bed and banks will be pruned to remove branches to a height of 3 ft above the existing top of bank. Only the existing willow tree trunks that are obstructing flow in the channel bottom (5 trunks out of approximately 17 existing tree trunks) will be mechanically removed, including 4 root wads. The channel bed will then be graded in the vicinity of the root wad removal locations to restore a stable, uniform channel slope (i.e., channel profile). Wetland vegetation within the footprint of grading will be removed.

Channel grading will occur along an approximately 500 linear (ln) ft of channel within and between root wad removal locations and approximately 125 cubic yards (CY) of sediment will be removed.

Long-term Maintenance of Channel Bed and Banks. Woody vegetation will be precluded from becoming established throughout this reach. Herbaceous vegetation within the channel bed and channel banks will be kept to a height of less than 1.5 ft during the rainy season. Vegetation maintenance will be accomplished via mowing/weed whacking herbaceous wetland vegetation once per year in Sept-October at the end of the growing season and just prior to the beginning of the rainy season. Herbicide treatment may be used to eradicate woody plant species and nonnative, invasive species. Herbicides must be approved by the Environmental Protection Agency (EPA) for use in aquatic environments.

Ford Creek Downstream Reach

Initial Actions. Sediment will be removed from the two, 4-ft diameter culverts under Hwy 237. This will be accomplished by excavating a small sediment detention basin area (~400 ft²) within the channel at the culvert outlets (to the depth of the existing culvert invert). A barrier will be installed to prevent sediment from migrating downstream. Sediment will then be flushed out of the culverts into the retention basin and removed from the retention basin. Approximately 20 cubic yards of sediment will be removed from approximately 35 lineal ft of channel to construct the sediment detention basin.

Wetland impacts will be limited to the removal of tall-emergent wetland vegetation growing in the channel bottom to remove potential obstructions to flow. Tall-emergent wetland plant species to be removed include cattails (*Typha latifolia* and *T. angustifolia*), tules (*Scirpus californicus* and *S. acutus*), and bulrush (*Scirpus robustus*). Both roots and shoots of tall emergent wetland vegetation will be removed from the channel to improve flow conveyance.

Long-term Maintenance of Channel Bed and Banks. Sediment will be removed from the Hwy 237 culverts and sediment retention basin as needed to maintain flow capacity. The frequency of sediment removal is not currently known, but is anticipated to be approximately once every five years.

Vegetation maintenance activities on the downstream reach of Ford Creek will be identical to those on the upstream reach of Ford Creek. Woody vegetation will be precluded from becoming established throughout this reach. Herbaceous vegetation within the channel bed and channel banks will be kept to a height of less than 1.5 ft during the rainy season. Vegetation maintenance will be accomplished via mowing/weed whacking herbaceous wetland vegetation once per year in Sept-October at the end of the growing season and just prior to the beginning of the rainy season. Herbicide treatment (with herbicides approved by the EPA for aquatic environments) may be used to eradicate woody plant species and non-native, invasive species.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

Wrigley Creek Reach

Initial Actions. A single clump of willows currently obstructing flow will be removed from the east bank of the channel via mechanical methods. The existing culverts crossing under Hwy 237 and the Union Pacific Railroad were recently cleaned under a separate permit by the Santa Clara Valley Transportation Authority (SCVTA).

Long-term Maintenance of Channel Bed and Banks. Sediment will be removed from the culverts under Hwy 237 as needed to maintain flow capacity. This will be accomplished by re-excavating a small detention basin area (400 ft²) within the channel at the culvert outlets (to the depth of the existing culvert invert), which was recently excavated under a separate permit by the SCVTA. Approximately 100 cubic yards of sediment will be removed from approximately 35 lineal ft of channel to construct the detention basin. This area is currently devoid of wetland habitat. The frequency of sediment removal is not currently known, but is anticipated to be approximately once every five years.

Wetland vegetation will be allowed to persist in the channel bottom. Woody vegetation will be precluded from establishing on the channel banks with the exception of riparian mitigation areas, if installed. If needed for habitat mitigation, riparian plantings will be installed and maintained such that at least 50% of the channel cross-section is free of woody vegetation. Woody vegetation maintenance will be accomplished via a combination of mowing/weed whacking/pruning and herbicide treatment (with herbicides approved by the EPA for use in aquatic environments).

Care will be taken during maintenance work to avoid disturbance to wetland vegetation growing in the channel bottom.

Wrigley-Ford Creek Reach

Initial Actions. Sediment will be removed from the four culverts under Railroad Court. This will include the removal of sediment and wetland vegetation for a distance of approximately 15 lineal feet downstream (~ 30 cubic yards of sediment) of the Railroad Court culverts (to the depth of the existing culvert invert) to construct a sediment detention basin to facilitate removal of sediment from the culverts.

The hydrology modeling determined that woody vegetation can be allowed to cover the eastern 50% of the channel cross-section while maintaining the predicted 100-year event within the channel (Schaaf & Wheeler 2010). Willow trees currently grow in patches along the east bank and the canopy of several patches currently extends across the centerline of the channel.

Therefore, up to 0.04 acres (1750 ft²) of willow canopy will be pruned/removed in this reach to maintain at least 50% of the channel cross-section free of woody vegetation canopy.

Long-term Maintenance of Channel Bed and Banks. Sediment will be periodically removed from the culverts under Railroad Court. This will include the removal of sediment (~ 30 cubic yards) and wetland vegetation for a distance of approximately 15 lineal feet downstream of the Railroad Court culverts to facilitate access for removal of sediment from the culverts. The frequency of sediment removal is not currently known, but is anticipated to be approximately once every five years.

Creek Bottom and Eastern Bank. Herbaceous wetland vegetation is currently abundant within the channel bottom and willow riparian vegetation currently occurs in patches rooted on the eastern creek bank. Wetland vegetation will be allowed to persist on the channel bottom. Woody riparian vegetation will be allowed to continue to grow on the eastern creek bank. Moreover, additional riparian vegetation may be planted on the eastern bank, if needed for habitat mitigation. However, woody vegetation rooted on the

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

eastern creek bank will be pruned, as needed, to maintain the western 50% of the channel cross-section free of woody vegetation canopy.

Western Creek Bank. Woody vegetation does not currently occur on the western creek bank and will be precluded from future establishment on the western creek bank. Woody plant seedlings (if found) on the western creek bank will be manually removed or treated with herbicide (approved by the EPA for aquatic environments). Herbaceous vegetation will be kept to a maximum height of 1.5 ft on the western creek bank via mowing/weed whacking.

Care will be taken during maintenance work to avoid disturbance to wetland vegetation growing in the channel bottom.

9. Surrounding land uses and setting: Briefly describe the project's surroundings:

The project site includes Wrigley Creek, Ford Creek and where the creeks merge and create "Wrigley-Ford Creek". The Ford Creek portion of the project commences just south (1/4 mile) of State Route 237 (Calaveras Blvd.) and merges with Wrigley Creek just north (1/4 mile) of SR 237. The Wrigley Creek portion of the project commences where the VTA "Wrigley Creek Improvement Project" (State Clearinghouse # 2009112090) ends approximately just north of SR 237 (east of Ford Creek). To the immediate east of the project are residential dwellings and to the immediate west of the project is a combination of industrial and residential dwellings. See project maps for details.

The downstream terminus of the Project area at the Wrigley-Ford Creek pump station is located just upstream of the confluence of Wrigley-Ford Creek with Berryessa Creek. Berryessa Creek then flows for approximately 0.5 miles in the northwesterly direction to its confluence with Lower Penitencia Creek. Lower Penitencia Creek then flows approximately 1.5 miles to Lower Coyote Creek along the shoreline of the South San Francisco Bay.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

Regional Water Quality Control Board, US Army Corps of Engineers, California Department of Fish and Game

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Sheldon S. Ah Sing
Signature

7 JAN 11
Date

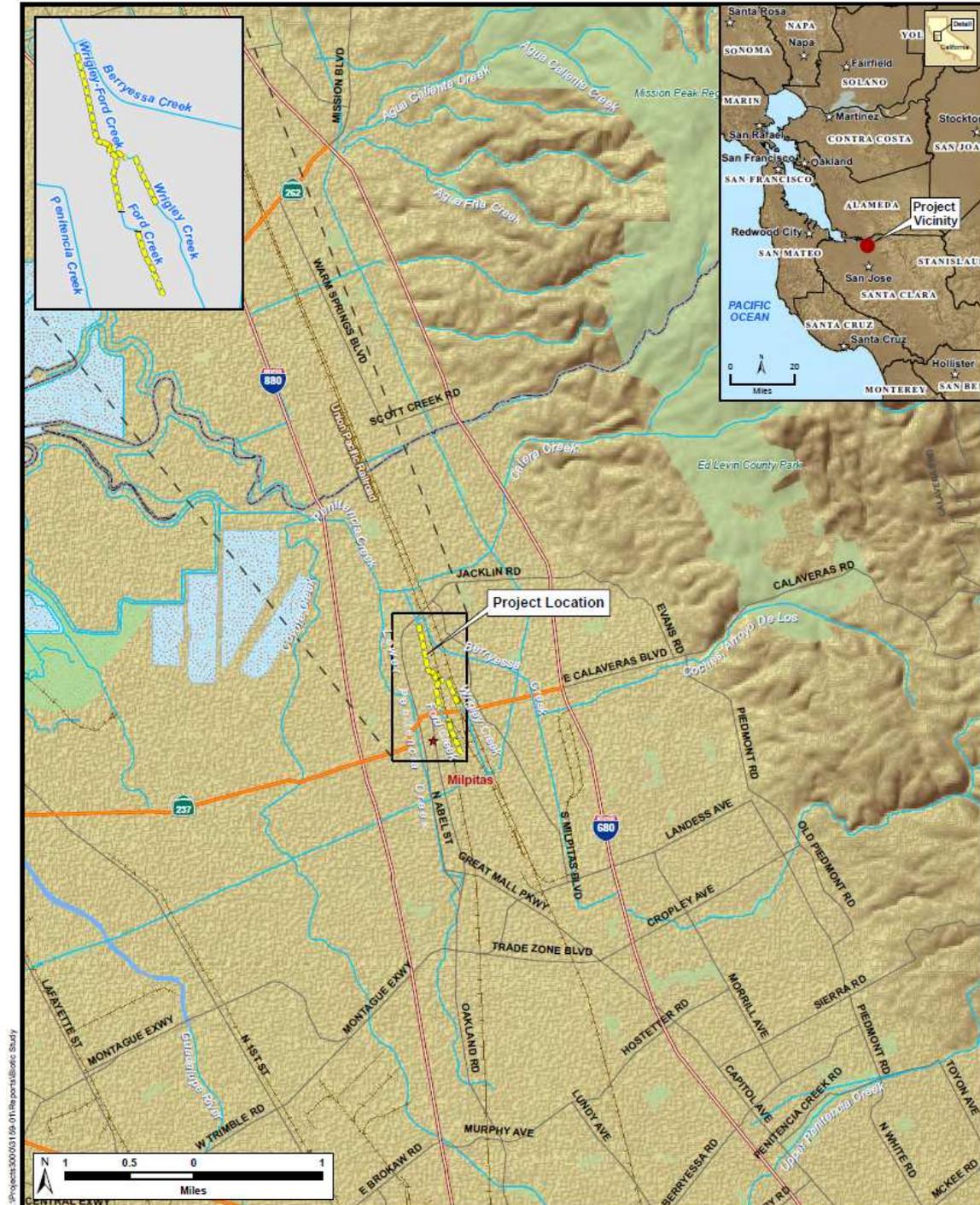
Sheldon S. Ah Sing
Printed Name

For

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

MAPS

Figure 1: Vicinity Map



H. T. HARVEY & ASSOCIATES
 ECOLOGICAL CONSULTANTS

Figure 1: Vicinity Map
 Wrigley, Ford and Wrigley-Ford Creeks Maintenance Project (3159-01)
 December 2010

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

Figure 2: Project Map

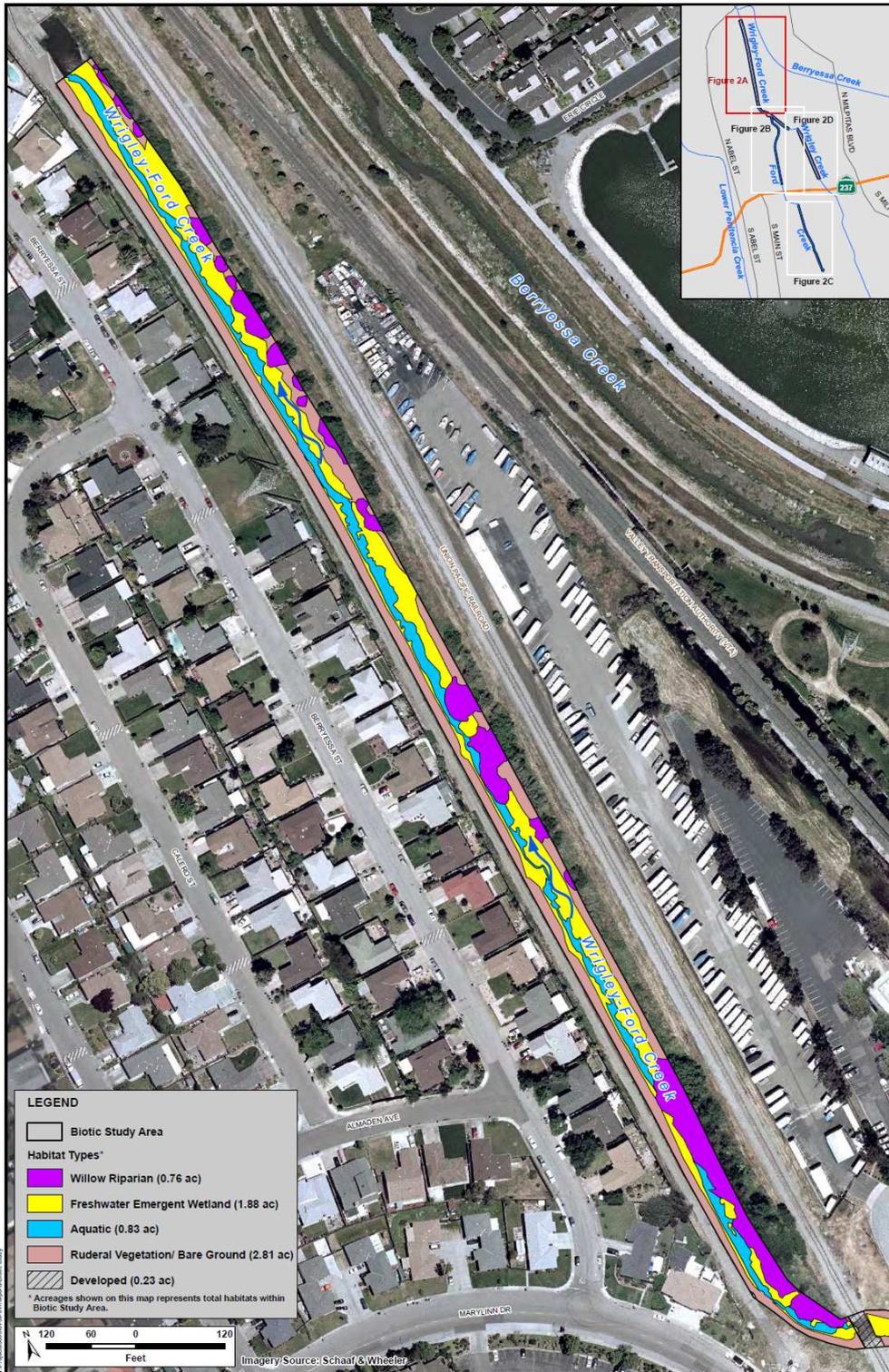


Figure 2A: Wrigley-Ford Creek Habitat Map

Wrigley, Ford and Wrigley-Ford Creeks Maintenance Project (3159-01)
December 2010



Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project



Figure 2D: Wrigley Creek Habitat Map
 Wrigley, Ford and Wrigley-Ford Creeks Maintenance Project (3159-01)
 December 2010

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a. the significance criteria or threshold, if any, used to evaluate each question; and
 - b. the mitigation measure identified, if any, to reduce the impact to less than significance

ISSUES

I. AESTHETICS					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A
3) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A

Environmental setting:

The project site is located within an industrial area in the center of the City of Milpitas. The project site is bound to the north by Abel Street, to the west by Railroad Avenue and residential dwellings, to the east by residential, commercial and industrial, to the south by industrial development and a trucking transfer parking lot. The Calaveras Boulevard overpass (over the railroad) is located within the vicinity.

Comment:

1) Have a substantial adverse effect on a scenic vista?

The proposed project would result in no impact as there are no designated scenic vistas (either by the City of Milpitas or another agency) in the vicinity of the project site.

2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

The proposed project would result in no impact as the project site is not located within or adjacent to a State scenic highway.

3) Substantially degrade the existing visual character or quality of the site and its surroundings?

The project site is located in a highly urbanized area in the City of Milpitas. While Calaveras Boulevard / State Route 237 (SR 237) is a designated scenic connector under the *City of Milpitas General Plan*, the visual quality of the project site, located in between commercial/industrial uses and the Santa Clara Valley Transportation Authority (VTA) / Union Pacific Railroad right-of-way, is substantially degraded.

The proposed restoration of Ford Creek, Wrigley Creek and Wrigley-Ford Creek would have no significant impact on the visual character of the project site as viewed from adjacent properties and the

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

Calaveras Boulevard / SR 237 overpass. Therefore, project implementation would result in a 'no' or a 'beneficial impact'.

4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No lighting or other features that would result in glare are proposed as part of the project. Therefore, the project would have no impact.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

II. AGRICULTURAL AND FOREST RESOURCES					
<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.</p>					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
<p>Would the project:</p> <p>1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9, C
<p>2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9
<p>3) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9
<p>4) Result in the loss of forest land or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9
<p>5) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9

Comment:

- 1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

Project implementation would result in no impact as the project site is designated *Urban and Built up Land* by the State's Farmland Mapping and Monitoring Program.¹

2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No impact would occur as the project site is zoned for a non-agricultural use (i.e., Heavy Industrial) in the City of Milpitas Zoning Ordinance and no Williamson Act contract applies to the project site.

3) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)?

No impact would occur as the project site is zoned for a non-forest land or timberland use (i.e., Heavy Industrial) in the City of Milpitas Zoning Ordinance.

4) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact would occur since the project site does not include forest land.

5) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The project site is located in a heavily urbanized area and no agricultural uses exist in the vicinity. Therefore, project implementation would result in no impact.

¹ *Santa Clara County Important Farmland 2008*, Farmland Mapping and Monitoring Program, State of California Department of Conservation. Accessed September 10, 2009 online at <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/sc108.pdf>

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

III. AIR QUALITY					
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10
2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10
3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10
4) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10
5) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10

Environmental Setting:

The project includes the removal and trimming of vegetation (trees and shrubs), the clearing of culverts and planting of new vegetation. Tree removal and channel grading will require the use of hand tools and a backhoe, accessing from the more readily convenient bank. Tree trimming will be performed with hand tools, with small truck access to remove the cuttings. In some areas, tree trimming access will require a cherry-picker on the opposite bank. Culvert cleaning will require a backhoe for outlet cleaning, and a jetter or similar device to clean the pipe interior. Sediment capture BMPs will be installed by hand at the culvert outlets. Riparian and wetland Mitigation planting will be performed using hand tools and a potentially a ditch witch for irrigation pipe installation. Herbicides approved by the Federal Environmental Protection Agency for use in aquatic environments may be applied with backpack sprayers for weed control. Annual maintenance trimming of herbaceous species will be by hand (weed-whacking).

Comment:

1) Conflict with or obstruct implementation of the applicable air quality plan?

See the answer for (3) below.

2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

See the answer for (3) below.

3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?

The Bay Area Air Quality Management District (BAAQMD) has established screening methods to determine whether development projects could exceed significance thresholds for air quality impacts of project operations and therefore require a detailed air quality analysis. Because the project proposes removal and trimming of some vegetation (trees and shrubs), clearing culverts and planting new vegetation, the project will not exceed State or Federal standards. No grading is proposed, so therefore, a less than significant impact is anticipated.

4) Expose sensitive receptors to substantial pollutant concentrations?

Short-term construction and long-term operational activities would result in particulate exhaust emissions from diesel equipment. However, due to the distance of existing sensitive receptors from proposed activities and the dispersive qualities of diesel particulate exhaust, this would be a less-than-significant impact.

5) Create objectionable odors affecting a substantial number of people?

While project implementation would result in diesel exhaust emissions, it would not create or expose substantial number of people to objectionable odors. This would be a less-than-significant impact.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

IV. BIOLOGICAL RESOURCES					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B
3) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B
4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	B
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	B
6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	B

Comment:

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

- 1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

No federal or state listed endangered or threatened species are expected to occur in the project area. No special-status plant species are expected to occur in the project area. Implementation of the proposed project will modify the habitat used or likely to be used as foraging habitat, however, the project would not result in a significant impact to special-status animal species including the short-eared owl, northern harrier, white-tailed kite, American peregrine falcon, golden eagle, willow flycatcher, California yellow warbler, and tricolored blackbird. These species use the project area infrequently, and in low numbers, when foraging, and none of these species are known to nest within the project area.

The project reaches of Wrigley-Ford and Wrigley Creeks does provide nesting habitat for up to 2-3 pairs of San Francisco Common Yellowthroats, a California species of special concern. Proposed activities could impact nesting yellowthroats. However, the number of common yellowthroat nests that could potentially be impacted is low, and represents a very small proportion of the regional population of this subspecies. The loss of such small numbers of individuals would not be considered a significant impact under CEQA. Therefore, the project will have little, if any, effect on regional populations of special-status species.

- 2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

The proposed project will result in permanent loss of approximately 0.22 acres of willow riparian habitat; 0.12 acres along the upstream reach of Ford Creek and 0.06 acres along Wrigley Creek, and 0.04 acres along Wrigley-Ford Creek. The willow riparian habitat that would be lost offers limited value to wildlife due to the narrow, limited nature of the riparian corridor, and the isolation of this habitat by surrounding urbanization. Nonetheless, this habitat is dominated by native red arroyo willow trees and does provide habitat for common, urban-adapted wildlife species. Moreover, willow riparian habitat is a sensitive, regulated habitat. Therefore, the loss of 0.22 acres of willow riparian habitat is considered a significant impact under CEQA and will require mitigation. Implementation of the following mitigation measure will reduce this impact to a less-than significant level:

Mitigation Measure BR-1. Restore Riparian Habitat. The loss of approximately 0.22 acres of willow-riparian habitat will be mitigated at a 3:1 ratio (surface area of riparian mitigation: surface area of permanent impacts) via the restoration of riparian habitat. At least 0.66 acres of riparian habitat, dominated by native willow species, coast live oak (*Quercus agrifolia*), and valley oak (*Quercus lobata*), will be restored. All riparian mitigation sites will be preserved in perpetuity. The riparian habitat restoration will be installed preferably during the same year as the impacts from Project construction and not more than one year following the impacts.

H. T. Harvey & Associates' restoration ecologists conducted a preliminary reconnaissance of the Project area to search for riparian mitigation opportunities on City-owned land. Ample riparian mitigation opportunities are available within the project area at one or more of the following City-owned sites:

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

- East bank of Wrigley-Ford Creek, downstream of Union Pacific Railroad crossing – restore riparian habitat in the existing gaps in the woody riparian corridor (currently dominated by ruderal habitat) to create a contiguous corridor of riparian habitat.
- East bank of Wrigley Creek, upstream of the VTA/BART line- Convert ruderal habitat and ornamental/landscaped areas to riparian habitat.

A Mitigation and Monitoring Plan (MMP) will be prepared by a qualified restoration ecologist to guide the restoration effort. The MMP will meet the requirements of the CDFG, USACE, and RWQCB and will provide the following:

1. Summary of habitat impacts and proposed mitigation ratios
 2. Goal of the restoration to achieve no net loss of habitat functions and values
 3. Location of mitigation site(s) and description of existing site conditions
 4. Mitigation design:
 - existing and proposed site hydrology
 - grading plan if appropriate, including bank stabilization or other site stabilization features
 - soil amendments and other site preparation elements as appropriate
 - planting plan
 - irrigation and maintenance plan
 5. Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, remedial measures/adaptive management, etc.)
 6. Contingency
- 3) **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

The proposed sediment excavation and long-term vegetation maintenance will impact a total of approximately 0.21 acres of in-stream, freshwater wetland habitat. The majority of these impacts are located on Ford Creek (0.20 acres) with a small proportion located within Wrigley-Ford Creek at the Railroad Court culvert outlet (0.01 acres). Sediment excavation will temporarily convert approximately 20% of this impact area (~0.04 acres) from wetlands to open water along the upstream reach of Ford Creek where wetlands are expected to re-establish. However, sediment excavation will permanently convert approximately 20% of the impact area (0.04 acres) from wetlands to open water within the downstream reach of Ford Creek (0.03 acres) and in Wrigley-Ford Creek (0.01 acres). The remainder of the wetland impact area will be subjected to on-going, annual disturbance from weed-whacking/mowing. Wetland habitat is a sensitive, regulated habitat. Therefore, the Project's wetland impact is considered a significant impact under CEQA and will require mitigation. Implementation of the following mitigation measure will reduce this impact to a less-than-significant level.

Mitigation Measure 2. Restore Wetland Habitat Functions and Values. Wetland habitat impacts will be mitigated at a level that will ensure no net loss of habitat functions and values. The narrow, limited nature of the wetland habitat and the isolation of this habitat by the surrounding urbanization substantially limit the wildlife habitat value of the wetland habitat onsite. Therefore, wetland impacts will be mitigated at a ratio of 2:1 (mitigation surface area: impact surface area) via a combination of in-kind, freshwater wetland habitat mitigation and out-of-kind riparian habitat restoration within the Project site. In-kind

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

wetland mitigation will be provided at a 1:1 mitigation ratio (0.21 acres of wetland mitigation) and out-of-kind riparian mitigation will also be provided at a 1:1 ratio (0.21 acres of riparian mitigation). The habitat mitigation will be installed preferably during the same year as the impacts from Project construction and not more than 1 year following the impacts.

The on-site wetland mitigation will be located within the bed and banks of Ford Creek (both the upstream and downstream reaches) on City-owned lands. The mitigation will involve the preservation of suitable conditions for the persistence of wetland vegetation along the project reaches of Ford Creek. Additionally, native wetland vegetation will be re-vegetated (via seeding and planting) in suitable locations along the upstream reach of Ford Creek after sediment excavation. Within this reach, wetland re-vegetation activities will be located along the excavated channel reach and upstream of the channel excavation zone where water depths will be reduced to depths that are suitable for wetland habitat by the removal of root wad obstructions to flow. The project actions along the upstream reach of Ford Creek will improve the physical conditions that support wetland habitat by increasing light penetration (via riparian tree removal) and decreasing water depths (via removal of obstructions to flow). These improvements are expected to support rapid wetland re-establishment (within 3-5 years) and potentially increase the surficial extent of wetland habitat within the upstream reach of Ford Creek.

The out-of-kind riparian mitigation will entail the restoration of riparian habitat along Wrigley-Ford and/or Wrigley Creeks as summarized above in the “Loss of Riparian Habitat” section.

An MMP will be prepared by a qualified restoration ecologist. A single MMP can be prepared that covers both the riparian (see above section “Loss of Riparian Habitat) and wetland impacts and mitigation. The MMP will meet the requirements of the USACE, RWQCB, and CDFG and will provide the following:

1. Summary of habitat impacts and proposed mitigation ratios
 2. Goal of the restoration to achieve no net loss of habitat functions and values
 3. Location of mitigation site(s) and description of existing site conditions
 4. Mitigation design:
 - existing and proposed site hydrology
 - grading plan if appropriate, including bank stabilization or other site stabilization features
 - soil amendments and other site preparation elements as appropriate
 - planting plan
 - irrigation and maintenance plan
 5. Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, remedial measures/adaptive management)
 6. Contingency plan for mitigation elements that do not meet performance or final success criteria
- 4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?**

Project implementation could interfere with movements of native, resident, or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors. However, based on the highly

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

disturbed nature of the habitat on site, and the proposed project schedule, this would be a less than significant impact.

5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The project would result in no impact as implementation would not result in the removal of historic or heritage trees or conflict with any local tree preservation policy or ordinance. Since the project would restore biological and hydrological functions of the creeks, it would not conflict with local policies or ordinances protecting biological resources. Therefore, there is no impact.

6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

There is no Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan adopted for the project area. Therefore no impact would occur.

V. CULTURAL RESOURCES					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Environmental Setting:

Within the immediate vicinity of the project site, extensive cultural resources surveys as part of The Santa Clara Valley Transportation Authority (VTA) Freight Railroad / Lower Berryessa Creek Project as well as the Santa Clara Valley Transportation Authority Silicon Valley Rapid Transit Corridor. Technical reports surveying the potential for cultural resources were prepared for both projects as part of their environmental review and are incorporated by reference of the VTA *Wrigley Creek Improvement Project*.

Those studies indicated that no archeological deposits or other cultural resources were identified within the areas surveyed for the VTA’s FRR / LBC project. However, several locations, including a portion of the project site area for the VTA *Wrigley Creek Improvement Project* were identified during the Rapid Transit project as having potential for buried archaeological deposits.

Comment:

Checklist items 1-4 are considered together.

- 1) **Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?**
- 2) **Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?**
- 3) **Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?**
- 4) **Disturb any human remains, including those interred outside of formal cemeteries?**

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

The project does not contemplate any grading or earthwork, so while no discernable impacts to cultural resources, including historical, archeological, and paleontological resources and / or human remains, are anticipated, the possibility cannot be precluded that such resources are present below the ground surface and could be damaged during proposed construction activities. This would be a less-than-significant impact with the following mitigation:

Mitigation Measure Cultural Resources - MMCR-1 (Disturbance of Subsurface Cultural Resources during Project Construction.) If subsurface cultural resources deposits are encountered during construction, work in the immediate vicinity should be halted until a qualified archaeologist can assess the significance of the finds. The construction contract will include the following specifications regarding archaeological resources:

Should any archaeological or historical artifacts or skeletal material be discovered or unearthed during construction activities, all work within ten meters (32.808 feet) of the find shall be halted. The Contractor (Subcontractor or Engineer or Inspector as appropriate) shall immediately notify the City's project manager, at (408) 586-3328, who will initiate procedures in accordance with State Law (California Public Resources Code, Section 5097.98 and Health and Safety Code, Section 7050.5). Construction activities within ten meters (32.808 feet) of the find shall remain halted until authorization is obtained from the City's named and designated agent that construction in the vicinity of the find may recommence.

VI. GEOLOGY AND SOILS					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					5
a) Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
b) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5
c) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5
d) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5
2) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5
3) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12
4) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12
5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12

Comment:

- 1) **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - a) **Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other**

substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)

- b) Strong seismic ground shaking?**
- c) Seismic-related ground failure, including liquefaction?**
- d) Landslides?**

For geologic hazards described in items 1 (a-d), the proposed project would not result in the development of any structures or human uses (other than routine maintenance activities) that would expose people to substantial adverse effects, including the risk of loss, injury or death. Therefore no impact is anticipated.

2) Result in substantial soil erosion or the loss of topsoil?

Removal of some vegetation obstructions would result in natural sediments to disburse in a pattern different than currently exists. Over time, sediment would build up in a natural way. Therefore, this temporary effect is a less than significant impact.

3) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The proposed project would not result in the construction of any structures that would be subject to these geological hazards nor cause the project site to become unstable. No impact would occur.

4) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

The project would not expose property or people to substantial risks associated with expansive soils. No impact would occur.

5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Project implementation would not result in the use of septic tanks or alternative waste water disposal systems. No impact would occur.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

VII. GREENHOUSE GAS EMISSIONS					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10
2) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10

Discussion:

The project proposes maintenance of creeks by trimming and removal some vegetation (trees and scrub); clearing culverts and planting new vegetation. No grading is proposed.

Comment:

1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Based on BAAQMD screening, the project does not have the potential to have a significant impact on the environment based on CO2 emissions.

2) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

The project is consistent with air quality plans and therefore it is anticipated that no impact will occur.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

VIII. HAZARDS AND HAZARDOUS MATERIALS					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5
2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	5
4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	C
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5
6) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5
7) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5

VIII. HAZARDS AND HAZARDOUS MATERIALS					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project: 8) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5

Comment:

1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Hazardous materials typically associated with construction and maintenance operations include petroleum products such as diesel fuel, gasoline, brake fluid, hydraulic oil, pesticides, and herbicides. Release of construction-related hazardous materials could affect Wrigley-Ford Creek and downstream waters. This would be a less-than-significant impact with implementation of a required Stormwater Pollution Prevention Program.

2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Identified subsurface utilities on or adjacent to the Wrigley Creek and Wrigley-Ford Creek project sites include underground pipelines and cables parallel with the creeks and rail lines. While there is a remote potential for accident (i.e., rupture and fire / explosion) during ground-disturbing activities, the pipelines/cables are well delineated and located outside the limits of the work. All required precautions have been incorporated into the proposed design and would be observed during project construction. Future leaks of the pipeline would not expose people to hazardous materials as no occupied structures are proposed as part of the project.

Existing railroad operations would not pose any additional risk to humans as site access would be restricted to maintenance or other workers with appropriate training to perform their duties adjacent to the Union Pacific Railroad right-of-way. Therefore, there is a less than significant impact.

3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The Elan Esprit preschool is located just under one-quarter mile from the project site to the west of the site’s northern boundary. Diesel emissions, a toxic air contaminant would be generated during short-term construction activities and would not pose a substantial hazard to multifamily residences located closer to the site due to dispersive nature of diesel exhaust. Long-term operation and maintenance activities such as the application of pesticides would result in a less-than-significant impact to sensitive receptors given the relatively small amounts and frequency that they would be applied.

- 4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

The project area is not located on a site pursuant to Government Code Section 65962.5 (e.g., State Department of Toxic Substance Control 'Cortese List') and, as a result, would not create a substantial hazard to the public or the environment.² Identified sites in the vicinity of the project would not be disturbed by proposed construction activities. No impact would occur.

- 5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

The project area is not located within two miles of an airport land use plan or a public airport, or in the vicinity of private airport. San Jose International Airport is located approximately five miles southwest of the project site. Given the distance from these airports and that the project would not result in any new occupied structures, no impact would occur.

- 6) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

See response to item 5). No impact would occur.

- 7) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?**

The proposed project would have no effect on any adopted emergency response or evacuation plans and proposes no new uses for which emergency services would be required. No impact would occur.

- 8) Expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?**

The project site is in a highly urbanized area relatively far from wild lands with high potential for fires. There are residences immediately adjacent to the project site, westerly of Wrigley-Ford Creek and no new structures would be placed onsite. Restoration activities would likely improve on-site conditions and lower the potential for fire by removing weeds and trash consistent with the City's weed abatement program.³

² Envirostar Database, California Department of Toxic Substances Control. Accessed September 23, 2009 online at <http://www.envirostar.dtsc.ca.gov>

³ Section 5.3 Fire Safety, Seismic and Safety Element, City of Milpitas General Plan, City of Milpitas, Updated 2002.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

IX. HYDROLOGY AND WATER QUALITY					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A
2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A
3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A
4) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A
5) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A
6) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A
7) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14, C

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

IX. HYDROLOGY AND WATER QUALITY					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
8) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14, C
9) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14, C
10) Be subject to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5, C

Comment:

1) Violate any water quality standards or waste discharge requirements?

Construction activities would generate pollutants that could degrade water quality in Wrigley Creek and receiving waters. This would be a less-than-significant impact with implementation of a required Stormwater Pollution Prevention Program. Sediment capture and removal BMPs will be required at each site.

2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

The project will not change the geometry or topography of the creek channel and therefore it is not anticipated that groundwater recharge will be affected. Therefore, there is no impact.

3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site?

Implementation of the project will result in an increase in flow capacity of the channel; however, no substantial increase in sediment load over the existing conditions is expected. Therefore, the impact is less than significant.

4) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site?

The removal of vegetation obstructions would result in improvements to the channel's hydrologic and geomorphic functions. The project is intended to reduce flooding impacts to adjacent properties.

5) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

The proposed project would improve hydrologic and geomorphic functions of Wrigley-Ford Creek. Project implementation would therefore result in beneficial impacts related to flooding and water quality.

6) Otherwise substantially degrade water quality?

Once constructed, the proposed project would not result in any discharges that might violate water quality standards or require the RWQCB to establish waste discharge requirements. Thus, no impacts are anticipated.

7) Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The proposed project would not place housing within a 100-year flood hazard area, as the proposed project does not include construction of any structures.

8) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The proposed project would not result in the placement of structures within a 100-year flood hazard area that would impede or redirect flood flows.

9) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

The project would not expose people or structures to a significant risk of loss, injury, or death involving flooding. The proposed project includes improvements that would either improve flooding conditions or maintain existing conditions. In addition, the reach of the stream channel does not include any dams or levees which could expose people or structures to a significant risk or loss, injury or death due to failure. The Association of Bay Area Governments (ABAG) dam failure inundation hazard map for Milpitas indicates that the project area is not located within a dam failure inundation area.⁴ The Santa Clara County Geologic Hazard Zones mapping also indicates that the project area is not located within a dike failure hazard zone.⁵ No impact would occur.

10) Be subject to inundation by seiche, tsunami, or mudflow?

The project site is not located near the open ocean or any sizeable water body which could generate a seiche or tsunami. As the project area is located on relatively level terrain and is surrounded primarily by urban development, there is no potential for the project site to be inundated by a mudflow. The Santa Clara County Geologic Hazard Zones map also indicates that the project area is not located within a landslide hazard zone.⁶ No impact would occur.

⁴ *Dam Failure Inundation Hazard Map for NW San Jose/Milpitas/Santa Clara*, Association of Bay Area Governments, 1995.

⁵ *Santa Clara County Geologic Hazard Zones*, County of Santa Clara, 2002.

⁶ *Santa Clara County Geologic Hazard Zones*, County of Santa Clara, 2002.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

X. LAND USE					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2
2) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2, 8
3) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2

Comment:

1) Physically divide an established community?

Project implementation would not divide an established community as it is a restoration of an existing creek. No impact would occur.

2) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

As the project would restore and enhance the biologic, hydrologic, geomorphic, and aesthetic conditions of Wrigley-Ford Creek, it would not conflict with the goals and policies of applicable plans (e.g., *City of Milpitas General Plan*) adopted for the purpose of avoiding or mitigating an environmental effect. Inconsistencies with such plans would only result in a significant impact if a substantial adverse physical effect would occur. While the project could result in short-term construction-related impacts, such impacts would be less-than-significant with incorporation of mitigation as necessary. Therefore, no impact would occur related to conflicts with adopted plans.

3) Conflict with any applicable habitat conservation plan or natural community conservation plan?

There is no Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan adopted for the project area. Therefore, no impact would occur.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

XI. MINERAL RESOURCES					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Comment:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state as no known mineral resources exist at the site. The project site is an existing creek in a highly urbanized area and not suitable for mineral resource extraction. No impact would occur.

- b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

The project site is an existing creek in a highly urbanized area and is not delineated as a mineral resource recovery site on a local general plan, specific plan, or other land use plan. No impact would occur.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

XII. NOISE					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project result in:					
1) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6, C
2) Exposure of persons to, or generation of, excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6, C
3) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6
4) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6
6) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6

Environmental Setting:

The project site is located in the City of Milpitas, in the vicinity of Calaveras Boulevard/State Route 237 (SR 237), east of Railroad Avenue, east of the Union Pacific Railroad mainline (UPRR) and easterly of Berryessa Street. The nearest existing noise-sensitive land uses in the vicinity include the Macedonia Missionary Baptist Church approximately 1,000 feet west of the project site across the UPRR mainline,

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

an apartment complex located 50 feet east of the project site and single-family homes 60 feet west of Wrigley-Ford Creek along Berryessa Street.⁷

Noise levels from on-site heavy-construction equipment would exceed standards set by the City of Milpitas. However, the City's noise regulations provide exceptions for construction noise, allowing construction activities to exceed applicable noise standards when construction takes place during less noise-sensitive daytime hours (i.e., between 7:00 AM and 7:00 PM). Project construction hours would occur from 7:00 AM to 7:00 PM Monday through Friday, except holidays, consistent with City of Milpitas requirements.

Comment:

1) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

In the short term, temporary construction activities could result in annoyance and/or sleep disruption to occupants of the nearby existing noise-sensitive land uses and / or create a substantial temporary increase in ambient noise levels in the project vicinity. This would be a less-than-significant impact with mitigation incorporation. In the long-term, temporary operational activities (e.g., sediment removal and vegetation maintenance) would result in noise levels that would not exceed the City of Milpitas' noise standard of 60 dBA CNEL for single-family residential and 65 dBA CNEL for multi-family residential areas. This would result in a less than significant impact.

Mitigation Measure Noise-1 (MM-N1) In addition to adherence of provisions set forth in the City of Milpitas Municipal Code (discussed above), the project sponsor shall mitigate construction noise impacts by implementing the following measures:

- Properly maintain construction equipment and equip with appropriate noise control features, such as mufflers, in accordance with manufacturers' specifications;
- Locate temporary stationary noise generating equipment as far as possible from identified sensitive receptors;
- Utilize "quiet" air compressors and other temporary stationary noise sources (e.g., generators) where technology exists;
- Radios shall be controlled so as not to be audible outside the project site; and
- Designate a "Disturbance Coordinator" responsible for responding to any complaints about construction noise from neighboring properties. The disturbance coordinator will determine the cause of the noise complaint (e.g., non-compliance with permitted construction hours) and implement reasonable measures to correct the problem. The project sponsor shall conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.

Responsibility and Monitoring The City of Milpitas would be responsible to ensure that the above mitigation measures would be implemented during project construction. In addition, the City would be responsible for designating a Disturbance Coordinator to monitor complaints and correct problems.

⁷ Noise-sensitive land uses generally include those uses where exposure would result in adverse effects (e.g., sleep disturbance, annoyance), as well as uses where quiet is an essential element of their intended purpose. Residences are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other sensitive land uses include hospitals, convalescent facilities, parks, hotels, churches, libraries, and other uses where low interior noise levels are essential.

2) Exposure of persons to, or generation of, excessive ground borne vibration or ground borne noise levels?

Construction activities could result in varying degrees of temporary ground borne vibration, depending on the specific construction equipment used and operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. It is expected that construction equipment would include a backhoe, excavator, and trucks, which typically result in levels of ground borne vibration at 25 feet from the process that can exceed the applicable threshold of annoyance (80 VdB). However, because the nearest residential structures would be located approximately 60 feet from the construction site at the nearest point, and ground borne vibration dissipates rapidly with distance, vibration levels would not surpass the 80-VdB threshold at these nearby residential structures. Construction activities would result in ground borne vibration that would not exceed recommended State or Federal standards. This would be a less-than-significant impact.

3) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

While project implementation would result in periodic maintenance activities, it would not result in any new permanent stationary or mobile noise sources. This would be a less-than-significant impact.

4) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

As described in 1) above, long-term operation of the proposed project would not include any new stationary or mobile noise sources. In addition, as discussed in 1) above, while maintenance activities would be an intermittent source of noise, they would not exceed applicable standards. As a result, no substantial permanent increase in ambient noise levels would occur. Accordingly, this would be a less-than-significant impact and no mitigation would be required.

5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

6) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

For items 5) and 6), the project area is not located within two miles of an airport land use plan or a public airport, or in the vicinity of private airport. San Jose International Airport is located approximately five miles southwest of the project site. Given the distance from these airports and the fact that the project would not include the development of any noise-sensitive receptors, the project would not expose people residing or working on the project site to excessive noise levels. No impact would occur.

XIII. POPULATION AND HOUSING					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7
2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7
3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7

Comment:

1) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The proposed project would not result in the construction of new homes or businesses. Improved infrastructure (i.e., floodwater conveyance and culverts) would not reasonably be expected to induce population growth by removing barriers to new development. No impact would occur.

2) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?

The proposed project would not displace any existing homes. No impact would occur.

3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The proposed project would not displace persons or necessitate the construction of replacement housing. No impact would occur.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

XIV. PUBLIC SERVICES					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4
Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Comment:

- 1) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

The proposed project would not create any new structures and uses or add additional population that would require schools, park, or other public facilities. Therefore, there is no impact.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

XV. RECREATION					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4
2) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4

Comment:

1) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The proposed project would have no impact associated with increasing use of existing parks. Therefore, there is no impact.

2) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The project sponsor proposes no new recreational facilities as part of the project. The restored creek would be an environmentally sensitive area with no public access. Therefore, no impacts are anticipated.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

XVI. TRANSPORTATION/TRAFFIC					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3
2) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3
3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3
4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3
5) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3
7) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3

Comment:

- 1) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

2) Exceed, individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

For items 1) and 2), short-term construction traffic and intermittent vehicle trips generated by long-term project maintenance activities would not result in a substantial increase in the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections nor exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways. This would be a less-than significant impact.

3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Project implementation would not result in any changes to existing air traffic patterns or create a hazardous condition. No impact would occur.

4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Project implementation would not create hazardous conditions as no changes to the existing street network or incompatible uses are proposed. No impact would occur.

5) Result in inadequate emergency access?

The proposed project would have no effect on existing emergency access and proposes no new uses for which police or fire protection would be required. As a result, the project should not adversely affect emergency response times, performance objectives, or service ratios for the City of Milpitas Police and Fire Departments. No impact would occur.

6) Result in inadequate parking capacity?

The proposed project would not generate any new demand for parking or reduce the exiting parking supply in the vicinity. No impact would occur.

7) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Proposed construction and restoration activities would not result in any changes to the existing street network or conflict with adopted plans and policies supporting alternative transportation. No impact would occur.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

XVII. UTILITIES AND SERVICE SYSTEMS					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
Would the project:					
1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Comment:

1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No impact would occur as the proposed project would not result in any structures or uses that generate wastewater.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

- 2) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

As stated above, since the project would not generate wastewater it would not require or result in the construction of new water or wastewater treatment facilities. No impact would occur.

- 3) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

The project would result in the improvement and repair of existing culverts and outfalls. Construction related impacts to hydrology, water quality, and biological resources would be less than significant with mitigation incorporation and are discussed in their respective sections.

- 4) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

Irrigation water for proposed maintenance activities would not require new or expanded entitlements to serve the project.

- 5) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?**

See items 1) and 2). No impact would occur.

- 6) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

Operation of the proposed project would not generate solid waste. No impact would occur to area landfills.

- 7) Comply with federal, State, and local statutes and regulations related to solid waste?**

See item 6). The project would not conflict with local statutes and regulations related to solid waste. No impact would occur.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE					
	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Source(s)
1) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Comment:

- 1) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?**

As discussed in **Biological Resources**, the project would not result in any of the effects listed in item 1). The project intends to restore and enhance biological, hydrological, and geomorphic functions of Wrigley-Ford Creek, a degraded urban drainage. Restoration activities would remove and replace non-native plant species with natives.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

As no historic or subsurface cultural resources are known occur on site and the likelihood of discovering such resources is believed to be low, the project is not anticipated to eliminate important examples of the major periods of California history or prehistory. **Cultural Resources** section provides a detailed description of cultural resources analysis to date.

- 2) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

The respective sections above discuss cumulative effects for topical areas for which adverse changes would occur, generally from short-term construction activities. Such impacts would be less than significant with mitigation incorporation. The project’s contribution to cumulative impacts to air quality, noise, water quality and hydrology, and biological resources would be less than cumulatively considerable.

- 3) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?**

The project’s scope in the short term will benefit the environment in the long run with the additional trees and maintenance of the creeks.

- 4) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

All identified construction related-impacts (e.g., construction noise and diesel exhaust) were determined to be less-than-significant impacts or less than significant with mitigation incorporation.

Wrigley, Ford & Wrigley-Ford Creeks Maintenance Project

SOURCES

General Sources:

1. CEQA Guidelines - Environmental Thresholds (Professional judgment and expertise and review of project plans).
2. City of Milpitas General Plan (Land Use Chapter)
3. City of Milpitas General Plan (Circulation Chapter)
4. City of Milpitas General Plan (Open Space & Environmental Conservation Chapter)
5. City of Milpitas General Plan (Seismic and Safety Chapter)
6. City of Milpitas General Plan (Noise Chapter)
7. City of Milpitas General Plan (Housing Chapter)
8. City of Milpitas Zoning (Title XI)
9. California Department of Conservation, *Santa Clara County Important Farmland 2006*, Map. June 2005.
10. Bay Area Air Quality Management District, CEQA Guidelines, June 2010.
11. County of Santa Clara Department of Public Works, *Soil Map Sheet 19*, 1964.
12. United States Department of Agriculture, Soil Conservation Service, *Soils of Santa Clara County*, 1968.
13. California Department of Conservation, *Geologic Map of the San Francisco-San José Quadrangle*, 1990.
14. Federal Emergency Management Agency, *Flood Insurance Rate Map, Community Panel Nos. 06085CIND0A, 06085C0058H, 06085C0059H, 06085C0066H, 06085C0067H, 06085C0068H, 06085C0069H, 06085C0080H, 06085C0086H, and 06085C0087H*.
15. Transit Area Specific Plan Final Environmental Impact Report, June 2008.

Project Related Sources:

- A. Project application and plans.
- B. Wrigley, Ford, Wrigley-Ford Creeks Maintenance Project Biotic Study, December 2010 by HT Harvey
- C. Associated references by footnote in discussion sections.

Note: Authority cited: Sections 21083, 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080, 21083.05, 21095, Pub. Resources Code; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.



H. T. HARVEY & ASSOCIATES
ECOLOGICAL CONSULTANTS

C

**CITY OF MILPITAS
WRIGLEY, FORD, AND WRIGLEY-FORD CREEKS
MAINTENANCE PROJECT
MITIGATION AND MONITORING PLAN**

Prepared by:

H. T. HARVEY & ASSOCIATES

Dan Stephens, B.S., Principal
Max Busnardo, M.S., Senior Restoration Ecologist
C. Ellery Mayence, Ph.D., Restoration Ecologist
Nellie Thorngate, M.S., Wildlife Ecologist

Prepared for:

Schaaf & Wheeler
100 N. Winchester Boulevard, Suite 200
Santa Clara, California 95050
Attention: Mr. Chuck Anderson

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Project No. 3159-01



RESPONSIBLE PARTIES

APPLICANT/PERMITEE

City of Milpitas
455 East Calaveras Boulevard
Milpitas, California 95035
Contact- Fernando Bravo, Principal Civil Engineer
P: 408-586-3328

APPLICANT'S DESIGNATED AGENT

H. T. Harvey & Associates
983 University Avenue, Building D
Los Gatos, California 95032
Contact- Max Busnardo, M.S., Senior Restoration Ecologist
P: 408-458-3222

PREPARER OF MITIGATION AND MONITORING PLAN

H. T. Harvey & Associates
983 University Avenue, Building D
Los Gatos, California 95032
Contact- Max Busnardo, M.S., Senior Restoration Ecologist
P: 408-458-3222

TABLE OF CONTENTS

PROJECT REQUIRING MITIGATION.....	1
LOCATION AND SITE DESCRIPTION.....	1
PROJECT SUMMARY.....	1
Project Purpose.....	1
Habitat Impacts and Mitigation.....	2
CHARACTERISTICS OF JURISDICTIONAL HABITAT IMPACT AREAS.....	4
Impact Type, Location and Surface Area.....	4
Ford Creek Upstream Reach.....	4
Wrigley Creek Reach.....	8
Wrigley-Ford Creek Reach.....	8
Topography and Soils.....	9
Hydrology.....	9
Vegetation.....	9
Habitat Function.....	12
CONCEPTUAL RIPARIAN AND WETLAND HABITAT MITIGATION DESIGN.....	15
RIPARIAN MITIGATION.....	15
Mitigation Ratios and Surface Area.....	15
Site Selection.....	15
Location and Ownership Status.....	15
Basis of Design.....	16
Existing and Proposed Riparian Mitigation Site Functions and Values.....	16
WETLAND/AQUATIC MITIGATION.....	21
Mitigation Ratios and Surface Area.....	21
Location and Ownership Status.....	21
Basis of Design.....	22
Existing and Proposed Wetland/Aquatic Mitigation Site Functions and Values.....	22
IMPLEMENTATION PLAN.....	24
RIPARIAN MITIGATION.....	24
Site Preparation.....	24
Planting Plan.....	25
Riparian Plant Installation Methods.....	26
Irrigation Plan.....	27
WETLAND/AQUATIC MITIGATION.....	27
Site Preparation.....	27
Wetland Revegetation Plan.....	27
Seeding Methods.....	28
Wetland Plant Installation Methods.....	28
PLANT PROPAGATION.....	29
IMPLEMENTATION SCHEDULE.....	29
MAINTENANCE PLAN.....	30
RIPARIAN MITIGATION.....	30
Overview.....	30
Dead Plant Replacement.....	30
Irrigation.....	30

Mulch.....	31
Weed and Invasive Plant Control	31
Natural Recruitment.....	31
Maintenance Schedule	31
WETLAND MITIGATION.....	32
Overview.....	32
Invasive Plant Control	32
Maintenance Schedule	32
MONITORING PLAN	33
INTRODUCTION	33
CONSTRUCTION MONITORING.....	33
Photo-documentation.....	33
BIOLOGICAL AS-BUILT REPORT	33
MAINTENANCE MONITORING	33
LONG-TERM PERFORMANCE AND SUCCESS CRITERIA.....	34
Riparian Habitat Performance Criteria	34
Riparian Habitat Final Success Criteria.....	34
Wetland Habitat Performance Criteria	35
Wetland Habitat Final Success Criteria.....	35
MONITORING METHODS	35
Riparian Habitat.....	35
Tree Height	36
Health and Vigor.....	36
Photo-documentation.....	36
Wetland Habitat	36
REPORTING	37
PERMITTING AGENCY SIGN-OFF.....	37
REFERENCES	38

LIST OF TABLES

Table 1. Summary of Impacts to USACE, RWQCB and CDFG Jurisdictional Habitats.....	4
Table 2. Surface Area of Riparian Habitat Impacts and Proposed Mitigation	15
Table 3. Soil Characteristics of the Riparian Reference and Potential Mitigation Areas Along the East Bank of Wrigley-Ford Creek	18
Table 4. Surface Area of Wetland/Aquatic Habitat Impacts and Proposed Mitigation.....	21
Table 5. Oak Riparian Association Plant Species Palette.....	25
Table 6. Willow Riparian Plant Association Plant Species Palette	26
Table 7. Planting Hole Soil Amendments.....	26
Table 8. Wetland Mitigation Planting Palette ¹	28
Table 9. Wetland Mitigation Seed Mix.....	28
Table 10. Wrigley-Ford Creek Mitigation Approximately Implementation Schedule ¹	29
Table 11. Tree Height Final Success Criteria	35

LIST OF FIGURES

Figure 1. Vicinity Map..... 3
Figure 2. Habitat Impacts to Ford Creek Upstream Reach..... 6
Figure 3. Habitat Impacts to Ford Creek Downstream Reach..... 7
Figure 4. Habitat Impacts to Wrigley Creek Reach..... 10
Figure 5. Habitat Impacts to Wrigley-Ford Creek Reach..... 11
Figure 6. Riparian and Wetland Mitigation Areas Map 17
Figure 7. Typical Cross-section of Riparian Habitat Mitigation 20

LIST OF APPENDICES

APPENDIX A. SOIL ANALYSIS RESULTS..... A-1

PROJECT REQUIRING MITIGATION

LOCATION AND SITE DESCRIPTION

The project is located along a series of urbanized creeks on the northeastern floor of the Santa Clara Valley (City of Milpitas (City), County of Santa Clara), in a highly urbanized setting that supports a mixture of land uses including residential, commercial, office space, and the Union Pacific Railroad facilities (Figure 1). The creek channels are typical of urban drainage areas, with predominantly straight reaches, trapezoidal cross sections and culverts at road and driveway crossings. The proposed flood control project includes the following reaches:

- Ford Creek Upstream Reach (1,514 feet (ft) - extending from the culvert outlet of a large parking lot, downstream to the culvert inlet on the south side of Highway 237 (Hwy 237).
- Ford Creek Downstream Reach (1,550 ft) - extending from the culvert outlet on the north side of Hwy 237, downstream to the confluence of Ford and Wrigley creeks.
- Wrigley Creek Reach (1,778 ft) – extending from the Hwy 237 crossing, downstream to the confluence of Wrigley and Ford creeks.
- Wrigley-Ford Creek Reach (2,217 ft)- extending from the confluence of Wrigley and Ford Creeks, downstream to the Wrigley-Ford Pump Station, which is located just upstream of the confluence of Wrigley-Ford Creek and Berryessa Creek.

The downstream terminus of the project area at the Wrigley-Ford Creek pump station is located immediately upstream of the confluence of Wrigley-Ford Creek with Berryessa Creek. Berryessa Creek then flows for approximately 0.5 miles (mi) in a northwesterly direction to its confluence with Lower Penitencia Creek. Lower Penitencia Creek then flows approximately 1.5 mi to Lower Coyote Creek along the shoreline of the South San Francisco Bay.

PROJECT SUMMARY

Project Purpose

The purpose of this project is to maintain 100-yr flood protection within the Wrigley-Ford Creek drainage system. While built to contain the 100-yr event, sediment accumulation and vegetation colonization have substantially reduced the system's flood conveyance capacity (Schaaf & Wheeler 2010). Therefore, the project includes the removal of sediments and vegetation from strategic locations designed to re-establish 100-yr flood protection while minimizing habitat impacts. The City, Schaaf & Wheeler, and H. T. Harvey & Associates have developed and analyzed a suite of project alternatives to arrive at the preferred project that achieves the City's flood protection goals while minimizing and mitigating regulated habitat impacts in a cost-effective manner (H. T. Harvey & Associates 2011).

Because Wrigley, Ford, and Wrigley-Ford creeks are trapezoidal creek channels created as urban drainage and flood control structures, there are no documented function in recent times other than flood control. Of greatest current concern are the large willow trees which now exist at various locations within the channel bed. Their presence not only serves as a major impediment to hydrologic conveyance, but their large root masses have led to the creation of pools within the channel. The pools not only act as sediment traps, but because of their depth (one to 2 ft in some locations), they prevent the establishment of wetland vegetation along the slopes of the channel. In other locations, vigorously-growing, unmanaged wetland plants have trapped large quantities of sediment, altering water flow in the process. Although such riparian and wetland habitat is valued from a biological perspective, in its current state it impedes the flood control function of the creek network. Therefore, the project proposed to remove some of this vegetation in strategic locations.

The project includes both the initial sediment and vegetation removal and the long-term maintenance of the vegetation to ensure the hydrologic conveyance of Wrigley-Ford Creek is not compromised. The proposed actions will reduce the potential for over-bank flooding and increase the creek network's capacity to retain future sediment. The project proposes to achieve these goals while avoiding and minimizing, to the extent practicable, impacts to sensitive biological resources. The habitat mitigation proposed herein is designed to compensate for the project's unavoidable impacts to wetland and riparian habitat through the restoration of high quality riparian and wetland habitat.

Habitat Impacts and Mitigation

This project will impact riparian, freshwater wetland, and aquatic habitat associated with Wrigley and Ford creeks within the jurisdiction of the U. S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Game and Fish (CDFG). This Mitigation and Monitoring Plan (MMP) describes the type and quantity of impacts to jurisdictional habitats, and presents the conceptual mitigation and monitoring plan to compensate for these impacts. This MMP was prepared in accordance with the USACE San Francisco and Sacramento District's Mitigation and Monitoring Plan Guidelines (USACE 2004). We have also completed a Biotic Study, Wetland Delineation and Alternatives Analysis for this project (H. T. Harvey & Associates 2010a, 2010b, and 2011).

Figure 1. Vicinity Map

CHARACTERISTICS OF JURISDICTIONAL HABITAT IMPACT AREAS

Impact Type, Location and Surface Area

This project has been carefully designed, in collaboration with H. T. Harvey & Associates restoration ecologists to avoid and minimize riparian, wetland, and aquatic habitat impacts to the maximum extent possible. Table 1 summarizes the surface area of impacts to jurisdictional riparian, wetland, and aquatic habitats as a result of channel excavation and vegetation maintenance (i.e., tree removal, tree pruning, wetland vegetation mowing/weed whacking).

Table 1. Summary of Impacts to USACE, RWQCB and CDFG Jurisdictional Habitats

HABITAT TYPE	IMPACT SURFACE AREA (ACRES (AC))	IMPACT TYPE AND LOCATIONS
Riparian	0.22	riparian tree removal and pruning: upstream reach of Ford Creek (0.12 ac), Wrigley Creek (0.06 ac), and Wrigley-Ford Creek (0.04 ac).
Freshwater wetland	0.21	sediment excavation and/or annual mowing/weed whacking: upstream reach of Ford Creek (0.10 ac), downstream Ford Creek (0.09 ac), Wrigley-Ford Creek at downstream end of Railroad Court (0.014 ac).
Aquatic	0.10	sediment excavation: upstream reach of Ford Creek (0.07 ac), downstream reach of Ford Creek (0.01 ac), Wrigley Creek at Hwy 237 culvert outlet (0.02 ac)

Wetland habitat impacts will result from a combination of sediment excavation during initial construction and annual mowing/weed whacking during long-term maintenance. Wetland habitat is expected to rapidly re-establish after these impacts at all locations. However, approximately 0.02 ac of wetland habitat will be repeatedly excavated approximately every 5 yr at the culvert outlets on Ford Creek downstream of Hwy 237 and on Wrigley-Ford Creek downstream of Railroad Court. Aquatic habitat impacts will result from sediment excavation and associated temporary dewatering during construction. Aquatic habitat is expected to rapidly re-establish after construction.

Riparian habitat impacts are focused on the upstream reach of Ford Creek where several willows will either be removed or pruned. Riparian habitat impacts on Wrigley and Wrigley-Ford creeks will be limited to the removal of a single red willow tree (*Salix laevigata*) on Wrigley Creek and pruning of several red willow trees along Wrigley-Ford Creek. Riparian habitat impacts due to tree removal and pruning were quantified by a combination of field and habitat map measurements of the surface area of riparian canopy proposed for removal (Table 1).

Below is a detailed account of habitat impacts by project reach.

Ford Creek Upstream Reach

Initial Actions. The majority of the wetland, riparian and aquatic habitat impacts will occur on this portion of Ford Creek. The existing willow trees in this reach will be pruned and some trees

removed (Figure 2) because these trees obstruct flow in this reach to a degree that the predicted 100-yr flood event is not contained within the channel (Schaaf & Wheeler 2010). The City's design team has developed a plan that minimizes willow tree impacts while achieving the flood control objectives. The existing willow trees within the bed and banks will be pruned to remove branches to a height of 1.5 ft above the existing top of bank. Only the existing willow tree trunks that are obstructing flow in the channel bottom (5 trunks out of approximately 17 existing trees) will be mechanically removed, including 4 root wads. The channel bed will then be graded in the vicinity of the root wad removal locations to restore a stable, uniform channel slope (i.e., channel profile). Wetland vegetation and aquatic habitat will be temporarily impacted within the footprint of grading will be removed. Channel grading will occur along an approximately 520 linear (ln) ft of channel within and between root wad removal locations. Approximately 125 yd³ of sediment will be removed.

Long-term Maintenance of Channel Bed and Banks. Maintenance activities will preclude woody riparian vegetation from becoming established throughout this reach. Herbaceous wetland vegetation within the channel bed and channel banks will be kept to a height of less than 1.5 ft (18 inches) during the wet season. Herbaceous vegetation maintenance will be accomplished via mowing/weed whacking once per yr over the period September to October at the end of the growing season and just prior to the beginning of the rainy season. Herbicide may be used to eradicate woody plant species and non-native, invasive species. Herbicides must be approved by the Environmental Protection Agency (EPA) for use in aquatic environments.

Ford Creek Downstream Reach

Initial Actions. Figure 3 shows the locations of habitat impacts along the downstream reach of Ford Creek. Sediment will be removed from the two, 4-ft diameter culverts under Hwy 237. This will be accomplished by excavating a small sediment detention basin area (~400 ft²) within the channel at the culvert outlets (to the depth of the existing culvert invert). A barrier will be installed to prevent sediment from migrating downstream. Sediment will then be flushed out of the culverts into the retention basin and removed from the retention basin. Approximately 20 yd³ of sediment will be removed from approximately 35 ln ft of channel to construct the sediment detention basin. Aquatic habitat will be temporarily dewatered and disturbed during the removal of sediment from the detention basin.

Wetland impacts will be limited to the removal of tall-emergent wetland vegetation growing in the channel bottom to remove potential obstructions to flow (Figure 3). Tall-emergent wetland plant species to be removed include cattails (*Typha latifolia* and *T. angustifolia*), tules (*Scirpus californicus* and *S. acutus*), and bulrush (*Scirpus robustus*). Both roots and shoots of tall-emergent wetland vegetation will be removed from the channel to improve flow conveyance.

Long-term Maintenance of Channel Bed and Banks. Sediment will be removed from the Hwy 237 culverts and sediment retention basin as needed to maintain flow capacity. The frequency of sediment removal is not currently known, but is anticipated to be approximately once every 5 yr.

Figure 2. Habitat Impacts to Ford Creek Upstream Reach

Figure 3. Habitat Impacts to Ford Creek Downstream Reach

Vegetation maintenance activities on the downstream reach of Ford Creek will be identical to those on the upstream reach of Ford Creek. Woody riparian vegetation will be precluded from becoming established throughout this reach. Herbaceous wetland vegetation within the channel bed and channel banks will be kept to a height of less than 1.5 ft during the rainy season. Herbaceous vegetation maintenance will be accomplished via mowing/weed whacking once per yr over the period September to October at the end of the growing season and just prior to the beginning of the rainy season. Herbicide approved by the EPA for aquatic environments may be used to eradicate woody plant species and invasive, non-native species.

Wrigley Creek Reach

Initial Actions. A single clump of willows currently obstructing flow will be removed from the east bank of the channel via mechanical methods (Figure 4). The existing culverts crossing under Hwy 237 and the Union Pacific Railroad were recently cleaned under a separate permit issued to the Santa Clara Valley Transportation Authority (SCVTA).

Long-term Maintenance of Channel Bed and Banks. Sediment will be removed from the culverts under Hwy 237 as needed to maintain flow capacity. This will be accomplished by re-excavating a small detention basin area (400 ft²) within the channel at the culvert outlets (to the depth of the existing culvert invert), which was recently excavated under a separate permit by the SCVTA. Approximately 100CY of sediment will be removed from approximately 35 ln ft of channel to construct the detention basin. Aquatic habitat will be temporarily impacted at this location, however, this area is currently devoid of vegetated wetland habitat. The frequency of sediment removal is not currently known, but is anticipated to be approximately once every 5 yr.

Wetland vegetation will be allowed to persist in the channel bottom and will not be mowed/weed whacked. Woody vegetation will be precluded from establishing on the channel banks with the exception of riparian mitigation areas, if installed. Woody vegetation maintenance will be accomplished via a combination of mowing/weed whacking/pruning and herbicide treatment (with herbicides approved by the EPA for use in aquatic environments).

Care will be taken during maintenance work to avoid disturbance to wetland vegetation growing in the channel bottom.

Wrigley-Ford Creek Reach

Initial Actions. Sediment will be removed from the 4 culverts under Railroad Court (Figure 5). This will include the removal of sediment and wetland vegetation for a distance of approximately 15 ln ft downstream (~ 30 yd³ of sediment) of the Railroad Court culverts (to the depth of the existing culvert invert) to construct a sediment detention basin to facilitate removal of sediment from the culverts.

The hydrologic modeling determined that woody vegetation can be allowed to cover the eastern 50% of the channel cross-section while maintaining the predicted 100-yr event within the channel (Schaaf & Wheeler 2010). Willow trees currently grow in patches along the east bank and the canopy of several patches currently extends across the centerline of the channel.

Therefore, a small surface area of willow canopy will be pruned/removed in this reach to maintain at least 50% of the channel cross-section free of woody vegetation canopy.

Long-term Maintenance of Channel Bed and Banks. Sediment will be periodically removed from the culverts under Railroad Court. This will include the removal of sediment (~ 30 yd³) and wetland vegetation for a distance of approximately 15 ln ft downstream of the Railroad Court culverts to facilitate access for removal of sediment from the culverts. The frequency of sediment removal is not currently known, but is anticipated to be approximately once every 5 yr.

Creek Bottom and Eastern Bank. Herbaceous wetland vegetation is currently abundant within the channel bottom and willow riparian vegetation currently occurs in patches rooted on the eastern creek bank. Wetland vegetation will be allowed to persist on the channel bottom and will not be mowed/weed whacked. Woody riparian vegetation will be allowed to continue to grow on the eastern creek bank. However, woody vegetation rooted on the eastern creek bank will be pruned, as needed, to maintain the western 50% of the channel cross-section free of woody vegetation canopy.

Western Creek Bank. Woody vegetation does not currently exist on the western creek bank and will be precluded from future establishment. Woody plant seedlings (if found) in this area will be manually removed or treated with an herbicide approved by the EPA for aquatic environments. Herbaceous upland vegetation will be kept to a maximum height of 1.5 ft on the western creek bank via mowing and weed whacking.

Topography and Soils

Elevations within the project area range from approximately 15 to 20 ft National Geodetic Vertical Datum (NGVD). Site topography is relatively level terrain drained by Wrigley, Ford, and Wrigley-Ford creeks. Alviso clay soils underlie the project area. These include very poorly drained, fine textured soils formed on tidal flats underlain by sedimentary alluvium (SCS 1968), but as a result of flood control projects, are no longer influenced by San Francisco Bay tides. Much of the surface soil in the project area is imported clay loam soils consisting of cut and fill materials associated with the Union Pacific Railroad tracks and surrounding commercially-developed areas.

Hydrology

Wrigley, Ford and Wrigley-Ford creeks are perennial water courses exhibiting their highest flow during the winter wet season and lowest flow during the summer dry season. Because they exist in a highly urbanized setting, their flow is subject to occasional, short-duration high water events stemming from impermeable surface runoff.

Vegetation

Riparian. The riparian vegetation to be removed from Wrigley and Ford creeks is comprised exclusively of willow trees occurring along the opposing banks of Wrigley, Ford, and Wrigley-Ford creeks (Figures 2-5). This habitat type occurs as scattered, homogeneous stands within the earthen trapezoidal banks of each creek. The majority of the willow riparian community is rooted along the lower banks of each respective creek with little to no riparian canopy extending

Figure 4. Habitat Impacts to Wrigley Creek Reach

Figure 5. Habitat Impacts to Wrigley-Ford Creek Reach

beyond the top-of-banks. The willow riparian habitat to be impacted is dominated by red willow with occasional smaller stands of narrow-leaved willow (*Salix exigua*) occurring in conjunction with the red willow. There is no evidence of recent scouring within this habitat type, as most of the understory layer is lush with impenetrable thickets of willow vegetation. The portions of the creek channels located directly beneath the willow stands are primarily bare due to overstory shading. The riparian canopy in each respective creek is on average approximately 10-15 ft in height with an occasional large shrub or small tree reaching approximately 20 ft in height.

Wetland. Seasonal and perennial freshwater wetlands occur within the impact areas along the active channel bed of the upstream (Figure 3) and downstream (Figure 4) portions of Ford Creek. There is also a small wetland impact area located immediately downstream of the railroad crossing on Wrigley-Ford Creek (Figure 5). The wetlands in each creek are maintained by the permanent (or perennial) nature of the water courses. The wetland habitat to be impacted is of moderate to low-quality due to its narrow, patchy distribution within a heavily urbanized landscape. The vegetation within the wetland impact areas is dominated by a mixture of native and non-native species including broad-leaved cattail (*Typha latifolia*), alkali bulrush (*Scirpus robustus*), water primrose (*Ludwigia peploides*), water smart weed (*Polygonum punctatum*), speedwell (*Veronica americana*), rabbitsfoot grass (*Polypogon monspeliensis*), hyssop loosestrife (*Lythrum hyssopifolium*), tall umbrella sedge (*Cyperus eragrostis*), and bristly ox-tongue (*Picris echioides*). The majority of the freshwater emergent wetlands mapped in Ford Creek are subject to a significant degree of hydraulic disturbance including vegetation scouring and removal during winter, high-velocity flows. A number of the cattail-dominated wetlands in Ford Creek were dead and partially uprooted at the time of the initial site survey. Such disturbance is indicative of the high flows experienced during the winter wet season.

Habitat Function

Physical and Chemical Functions. The riparian impact sites contribute to the provision of native, riparian habitat within what otherwise is a highly urbanized setting. Additional functions are those associated with soil development, fertility enrichment through leaf fall and litter decomposition, and temperature moderation via shading of the adjacent aquatic, stream channel habitat. The wetland impact sites perform the typical physical and chemical functions associated with freshwater wetland habitat. These functions include nutrient cycling, sediment storage/retention, and water filtration. It should be noted, however, that for both the riparian and wetland impacts, the magnitude of these functions is limited given the relatively small surface area of the sites to be impacted.

General Wildlife Functions. Willow riparian habitats in California typically support rich animal communities, harboring disproportionately high wildlife diversity among the habitats of the state. However, the urban context of the project's riparian habitat together with the narrowness of the riparian corridor and the lack of connectivity with other suitable habitats substantially limits its value as wildlife habitat. The majority of the willow riparian habitat to be impacted is located along the upstream reach of Ford Creek which comprises low-quality riparian habitat at best, due to its isolation, sparse riparian cover, and limited structural heterogeneity. This reach of Ford Creek supports a very narrow corridor of riparian habitat, and the heavily urbanized surroundings and isolated nature of the site substantially curtail its utility for wildlife. Several common and urban-adapted species, including black phoebes (*Sayornis*

nigricans), house finches (*Carpodacus mexicanus*), house sparrows (*Passer domesticus*), and European starlings (*Sturnus vulgaris*), were observed or are expected to occur along Ford Creek, but that portion of the project area is unsuitable for most riparian-associated species. Several bird species were observed in the riparian corridor along Wrigley-Ford Creek during a wildlife survey for the project's Biotic Study (H. T. Harvey & Associates 2010a), including song sparrows (*Melospiza melodia*), bushtits (*Psaltriparus minimus*), northern mockingbirds (*Mimus polyglottos*), and house finches. Wrigley Creek upstream of the Wrigley-Ford confluence supports only a few small clumps of willow riparian vegetation, which offer foraging, perching, and/or nesting habitat to common, urban-associated birds such as house finches, lesser goldfinches (*Spinus psaltria*), and Anna's hummingbirds (*Calypte anna*), which were observed utilizing these patches during the wildlife survey. Common small mammals such as broad-footed moles (*Scapanus latimanus*) and California voles (*Microtus californicus*) are likely to forage under exposed willow roots and in the riparian understory, where it exists, throughout the project area.

Freshwater emergent wetlands are an important habitat element for a variety of aquatic and terrestrial animals. Emergent wetland vegetation provides shading for aquatic insects, fish, and amphibians, as well as a substrate for the attachment of amphibian egg masses. The narrow, patchy, and urbanized nature of the wetland vegetation community within the project footprint limits its value to wildlife; however, these patches of wetland habitat do provide some wildlife value to common aquatic species known to occur in the vicinity, as well as terrestrial species that may utilize the denser areas of emergent vegetation as cover or nesting substrate. The wetland habitat within the project reaches provides shade and cover for large numbers of small (approximately 0.5 – 6.0 inch) freshwater fish, particularly in Ford Creek at the upstream extent of the project area.

Freshwater creeks in the project vicinity support several species of native fishes, such as the California roach (*Hesperoleucis symmetricus*), Sacramento sucker (*Catostomus occidentalis*), and sculpins (*Cottus* spp.), as well as non-native fishes such as mosquitofish (*Gambusia affinis*), bluegill (*Lepomis macrochirus*), and inland silverside (*Menidia beryllina*). The fish observed in the creeks within the project reaches likely included several of these species. No amphibians were observed during the wildlife survey, but it is likely that pacific chorus frogs (*Pseudacris regilla*) and western toads (*Bufo boreas*) inhabit portions of the drainages within the project area. Wading birds such as snowy egrets (*Egretta thula*), which were observed within the project footprint during the wildlife survey, use tall wetland vegetation as cover while they hunt the small fish that live in the creeks. The emergent wetland vegetation to be impacted in Ford Creek is too sparse to offer nesting or foraging opportunities for wetland-associated bird species. Small mammals such as California voles often forage for insects in emergent wetland vegetation, and are expected to be present on the project site.

Threatened, Endangered, or Special-Status Wildlife Species. The project's Biotic Study provides a thorough assessment of the potential for occurrence of special-status wildlife species (H. T. Harvey & Associates 2010a). The project site provides potentially suitable habitat for western pond turtles (*Actinemys marmorata*), San Francisco common yellowthroats (*Geothlypis trichas sinuosa*), and western red bats (*Lasiurus blossevillii*). Although the project reaches were historically part of a system that once supported steelhead (*Oncorhynchus mykiss irideus*)

populations, Wrigley-Ford Creek and its tributaries are now highly channelized, often submerged into underground culverts, and have no clear connectivity with drainages that may support steelhead. Wrigley-Ford Creek flows to an existing, large pump station at the downstream end of the project area. The pump station creates an absolute barrier to anadromous fish. The project site also offers areas of perennial fresh water with basking surfaces suitable for non-breeding western pond turtles; however, the project site does not provide suitable pond turtle nesting habitat because it does not contain any broad sandy or loamy creek banks characteristic of pond turtle nesting habitat. Portions of Wrigley-Ford Creek, and to a lesser extent Wrigley Creek, containing healthy, relatively extensive beds of tules or cattails provide suitable foraging and nesting habitat for San Francisco common yellowthroats. The larger willows growing along the project reaches provide a small amount of potential roosting habitat for small numbers of migratory western red bats, which may roost in the trees' foliage.

While most of the birds that may potentially nest on the project site are common, urban-associated species with no particular special status, the vast majority of North American native birds and their nests and eggs are protected from direct harm under the Migratory Bird Treaty Act and the California Fish and Game Code. Such species are likely to nest at various locations in the project area, including in willows and other riparian trees and shrubs, in ornamental trees and shrubs, in emergent aquatic vegetation, and potentially on bridges and culverts.

CONCEPTUAL RIPARIAN AND WETLAND HABITAT MITIGATION DESIGN

RIPARIAN MITIGATION

Mitigation Ratios and Surface Area

Riparian habitat impacts will result from a combination of tree removal and pruning. Impacts to existing riparian vegetation are considered permanent and will be mitigated at a ratio of 3:1 (mitigation area:impact area) (Table 2).

Table 2. Surface Area of Riparian Habitat Impacts and Proposed Mitigation

IMPACT TYPE	IMPACT AREA (AC)	MITIGATION RATIO (MITIGATION AREA: IMPACT AREA)	MITIGATION AREA (AC)	MITIGATION TYPE AND LOCATION
Permanent Loss of Willow Riparian Canopy	0.22 ¹	3:1	0.66	In-kind Riparian Habitat on Wrigley-Ford Creek

¹ Riparian impacts are located on the upstream reach of Ford Creek (0.12 ac), Wrigley Creek (0.06 ac), and Wrigley-Ford Creek (0.04 ac).

Site Selection

H. T. Harvey & Associates' restoration ecologists collaborated with the City and Schaaf & Wheeler to search for and select the project's riparian mitigation site. We conducted reconnaissance-level surveys and a topsoil suitability assessment along the project reaches of Wrigley, Ford, and Wrigley-Ford creeks to evaluate the riparian restoration opportunities among potential sites. We used the following criteria to select the riparian mitigation site:

- close proximity to riparian and wetland impact locations;
- City-owned lands;
- abiotic and biotic conditions suitable for effective in-kind, riparian habitat restoration;
- ample surface area available within a contiguous restoration site;
- opportunities to increase connectivity with existing high-quality riparian and wetland habitats.

Location and Ownership Status

The proposed riparian mitigation site is located along the east side of Wrigley-Ford Creek immediately upstream of the confluence of Wrigley-Ford Creek and Berryessa Creek, on lands owned by the applicant (the City) (Figure 6). The site meets all of the above site-selection criteria. Wrigley-Ford Creek supports patches of existing riparian habitat which can be significantly enhanced and made more contiguous.

Basis of Design

The proposed mitigation site offers the opportunity to restore high-quality riparian habitat in what otherwise is a highly urbanized setting lacking valuable habitat resources. Although the area from the center line of Wrigley-Ford Creek west will be maintained free of woody vegetation, there is sufficient area along the east side of the creek between the toe-of-slope and the City property line, for the establishment of riparian trees and shrubs. Much of the existing riparian habitat is composed of sparsely distributed and senescing coyote brush (*Baccharis pilularis*), and a few clumps of vigorously growing canyon live oaks (*Quercus chrysolepis*) and willows. Substantial gaps in the existing riparian habitat occur between the clumps of trees and are colonized by herbaceous vegetation including ruderal species and native and invasive, non-native grasses. The goal of the riparian mitigation is to restore a continuous corridor of riparian habitat along the east side of Wrigley-Ford Creek. This will be accomplished by converting the herbaceous vegetation gaps in the riparian corridor to high-quality riparian habitat, by revegetating the gaps with native, riparian trees and shrubs. Existing clumps of invasive, non-native species [e.g., giant reed (*Arundo donax*) and myoporum (*Myoporum laetum*)] will be removed, creating additional mitigation area for the planting of native riparian species. Replacing the invasive, non-native vegetation with native riparian species will not only improve habitat quality, but will decrease maintenance efforts and the likelihood for invasive species re-establishment. The riparian revegetation footprint shown in Figure 3 was based upon H. T. Harvey & Associates' synthesis of riparian revegetation opportunities and constraints at the site including topsoil horticultural suitability, invasive plant species removal opportunities, railroad right-of-way constraints, and public utilities constraints.

Existing and Proposed Riparian Mitigation Site Functions and Values

Hydrology and Topography. The hydrologic modeling determined that woody vegetation can be allowed to cover the eastern 50% of the Wrigley-Ford Creek channel cross-section while containing the predicted 100-yr flood event within the channel (Schaaf & Wheeler 2010). Therefore, the project's flood-control objectives can be achieved, while restoring a contiguous canopy of riparian habitat along the east side of Wrigley-Ford Creek that will not require future pruning. The hydrology of the proposed mitigation site is best described as that associated with characteristic riparian habitat along a permanent water course. The portion of the riparian mitigation area at the top-of-bank is positioned approximately 8 to 10 ft above the low-flow channel, whereas that at the toe-of-slope is positioned at or only slightly above (≤ 1 ft) the perennial low-flow channel. Therefore, the mid to lower creek banks will likely support willow riparian habitat whereas, the top-of-bank planting area may be too far above groundwater to support willows.

Elevations within the proposed riparian mitigation area range from approximately 15 to 20 ft NGVD. The topography of the mitigation area is relatively level terrain drained by Wrigley, Ford, and Wrigley-Ford creeks. Average annual precipitation is approximately 15 inches per yr in this central part of Santa Clara County, and average annual temperatures are between 58° and 75°F (Soil Conservation Service, SCS 1968). Most of the yearly precipitation occurs over the period November through March.

Figure 6. Riparian and Wetland Mitigation Areas Map

Soils. To prioritize potential mitigation areas and to increase the likelihood that mitigation plantings successfully establish and form quality riparian habitat, H. T. Harvey & Associates' restoration ecologists undertook a detailed soil investigation of all possible mitigation areas along Wrigley-Ford Creek. We compared horticultural soil characteristics of all possible mitigation areas to soil characteristics of other areas along Wrigley-Ford Creek with existing native riparian vegetation (i.e., reference areas). All of the soil samples were confined to the upper 12 to 15 inches of the soil profile. Although we conducted complete soil analyses, we specifically targeted our analysis on soil pH, salinity, and boron because these variables are known to be elevated in old tidal sediments such as the Alviso clays of the project area, and because they have the potential to negatively affect plant vigor. Key findings with respect to these variables and comparisons between reference and potential mitigation areas are provided in Table 3. Complete soil analysis results are provided in Appendix A.

Table 3. Soil Characteristics of the Riparian Reference and Potential Mitigation Areas Along the East Bank of Wrigley-Ford Creek

SOIL VARIABLE	SOIL SAMPLE LOCATION		
	Reference Area ¹ (n = 2)	Proposed Mitigation Planting Area ² (n = 3)	Area Excluded from Mitigation Planting ³ (n = 2)
pH	7.6	7.4	8.4
Salinity (ECe:dS/m)	1.8	1.0	4.1
Boron (ppm)	0.7	0.5	2.8

¹ Area with existing oak and willow riparian vegetation.

² Area dominated by native and invasive, non-native herbaceous plants.

³ Area where soils have been recently and significantly disturbed.

As shown in Table 4, soil pH, salinity and boron concentration in the proposed mitigation area are comparable to that observed in the reference area (significantly less in the case of salinity). Topsoil compaction levels were also low within the proposed mitigation and comparable to the reference area. As a result, the proposed mitigation area is well suited to the establishment of riparian vegetation native to the San Francisco Bay region. Soil characteristics of the area excluded from mitigation (i.e., the area with disturbed soils between the mitigation area and the Union Pacific Railroad to the east), notable salinity and boron concentration, clearly differ from that of the reference area and underscore why the area has been excluded from consideration. A high level of topsoil compaction was also observed within the excluded area.

To enhance plant establishment and help ensure the creation of high-quality riparian habitat, soils in the proposed mitigation planting area will be amended. Soil preparation and the types of amendments (e.g., application rates) are discussed in detail in the Implementation Plan chapter that follows.

Vegetation. The percent cover of riparian vegetation is designed to increase significantly at the proposed mitigation site relative to the existing vegetative percent cover. Existing riparian vegetation cover is patchy and in some locations non-vigorous, with native species interspersed with invasive, non-native species. As shown in Table 2, the riparian mitigation objective is the restoration of at least 0.66 ac of high-quality riparian habitat dominated by native riparian species. The target riparian plant associations are based upon the distribution and zonation of

existing native riparian habitat patches along Wrigley-Ford Creek and will include willow riparian habitat along the eastern creek bank and oak riparian habitat along the top-of-bank (Figure 7). The willow riparian association will be dominated by thickets of red and sandbar willow. The oak riparian association will consist of a high degree of vertical structural diversity. In addition to canyon and California coast live oaks (*Quercus agrifolia*) and valley oak (*Q. lobata*), this association will include short-statured native herbaceous species such as mugwort (*Artemisia douglasiana*) and moderately tall native shrubs such as coyote brush. A detailed plant species palette is provided in the Implementation Plan.

Wildlife. The value of riparian habitat to wildlife is strongly related to the degree of structural diversity, cover, and connectivity to other riparian habitat patches. The current riparian habitat within the project footprint provides moderate wildlife value, within its urban context, to a number of wildlife species. The proposed riparian mitigation design will result in a net increase in the wildlife value of the project reaches by increasing riparian habitat acreage and connectivity, structural heterogeneity, and overall vegetation cover in areas currently sparsely covered or lacking cover altogether. A greater extent of riparian habitat, particularly where multiple riparian patches are connected, will provide more stopover habitat for riparian-associated birds including warbling vireos (*Vireo gilvus*), Wilson's warblers (*Wilsonia pusilla*), and black-headed grosbeaks (*Pheucticus melanocephalus*), among others. Many neotropical migratory passerine species moving through the South Bay are dependent on riparian areas as migratory stopover sites, and may also prefer to breed in riparian areas. Resident bird species including song sparrows are also expected to occur in the restored habitat in greater numbers than in the current existing habitat. Increasing the overall area of riparian habitat as well as connectivity will also benefit populations of small mammals such as broad-footed moles, California voles, and brush rabbits (*Sylvilagus* sp.), which frequently use riparian habitats as cover and foraging habitat. Increasing the structural heterogeneity of the riparian mitigation areas will increase the quality of habitat for foraging and nesting birds and small mammals, and will provide habitat for a larger suite of species, which can occupy different niches within the habitat. Increasing the amount of cover within the riparian areas will make the habitat more attractive to most of the species utilizing the area, because of the greater degree of shelter from predators and the elements that increased cover provides.

Present and Historical Uses of the Riparian Mitigation Area. The riparian mitigation area is a portion of the east bank of Wrigley-Ford Creek adjacent to Union Pacific Railroad property (Figure 3). Although the site has existing, albeit sparsely distributed stands of vegetation, it appears to have been disturbed at different times in the past as part of construction and maintenance activities associated with the railroad and various public utilities. Public access to the mitigation site is limited due to railroad activities and fencing at the northern end of the site near a flood control pump station. Because Wrigley, Ford and Wrigley-Ford creeks have been re-aligned, their hydrology altered, and the surrounding uplands manipulated by various construction activities, the mitigation site's exact history is not thoroughly known.

Figure 7. Typical Cross-section of Riparian Habitat Mitigation

WETLAND/AQUATIC MITIGATION

Mitigation Ratios and Surface Area

Impacts to existing wetland vegetation are considered temporary since wetland habitat is expected to naturally re-establish along Ford Creek within the footprint of sediment excavation and annual vegetation mowing/weed whacking. Impacts to existing aquatic habitat are also considered temporary because aquatic habitat, like the wetland habitat, is expected to re-establish within the footprint of sediment excavation. Temporary wetland/aquatic habitat impacts will be mitigated at a level that will ensure no net loss of habitat functions and values. The temporary aquatic habitat impacts will be mitigated in-place, in-kind, and at a 1:1 ratio. As noted above, the narrow, limited nature of the wetland habitat and the isolation of this habitat by the surrounding urbanization, substantially limit the wildlife habitat value of the wetland habitat to be impacted. Therefore, wetland impacts will be mitigated at a ratio of 2:1 (mitigation surface area:impact surface area) via a combination of in-kind, freshwater wetland habitat mitigation and out-of-kind riparian habitat restoration within the project site (Table 4). In-kind wetland mitigation will be provided at a 1:1 mitigation ratio (0.21 ac of wetland mitigation) within Ford Creek where the majority of the wetland impacts will occur. Out-of-kind mitigation will also be provided at a 1:1 ratio (0.21 ac of riparian mitigation) and will consist of riparian habitat restoration along the east bank of Wrigley-Ford Creek in accordance with that described in the Riparian Mitigation section above.

Therefore the total surface area of riparian mitigation at the Wrigley-Ford Creek site will be 0.87 ac (0.66 ac riparian mitigation + 0.21 ac out-of-kind wetland mitigation). The surface area of riparian mitigation planting shown in Figure 7 is ample to meet this requirement.

Table 4. Surface Area of Wetland/Aquatic Habitat Impacts and Proposed Mitigation

IMPACT TYPE	IMPACT AREA (AC)	MITIGATION RATIO (MITIGATION AREA: IMPACT AREA)	MITIGATION AREA (AC)	MITIGATION TYPE AND LOCATION
Conversion of Wetlands to Open Water and/or Constant Disturbance Via Annual Weed Whacking	0.21 ¹	1:1	0.21	In-kind Wetland Habitat on Ford Creek
		1:1	0.21	Out-of-Kind Riparian Habitat on Wrigley-Ford Creek
Totals	0.21	2:1	0.42	

¹Upstream reach of Ford Creek: 0.10 ac impact area; Downstream Ford Creek: 0.10 ac impact area; Wrigley-Ford Creek at downstream end of Railroad Court: 0.014 ac impact area.

Location and Ownership Status

The proposed wetland mitigation site is divided between 2 locations: 1) the bed and banks of Ford Creek channel from the confluence of Ford Creek and Wrigley Creek to the upstream

terminus of Ford Creek (refer to impact map Figures 2 and 3), and 2) along the east bank of Wrigley-Ford Creek as described for the riparian mitigation, since 0.21 ac of the wetland mitigation will be provided as out-of-kind riparian habitat restoration. All wetland mitigation will occur on lands owned by the applicant.

Basis of Design

In-kind. The 1:1 in-kind wetland mitigation will involve the preservation of suitable conditions for the persistence of wetland vegetation within the bed and banks of Ford Creek (both the upstream and downstream reaches). Within this reach, wetland revegetation activities will be located along the excavated channel reach and upstream of the channel excavation zone where water depths will be reduced to depths that are suitable for wetland habitat by the removal of root wad obstructions. The project actions along the upstream reach of Ford Creek will improve the physical conditions that support wetland habitat by increasing light penetration (via riparian tree removal) and decreasing water depths (via removal of obstructions to flow). Removal of the overstory vegetation which is currently obstructing channel conveyance will benefit wetland plant establishment because there will be less pooling of water. Less pooling of water within the channel bed will increase the surface area potential wetland habitat. These conditions are expected to support rapid wetland re-establishment (within 3-5 yr) and potentially increase the areal extent of wetland habitat within the upstream reach of Ford Creek compared to existing conditions.

The 1:1 in-place and in-kind aquatic mitigation will, together with the in-kind wetland mitigation, form a mosaic of wetland and aquatic habitat over the length of Ford Creek (and on Wrigley-Ford Creek immediately downstream of the railroad crossing at Railroad Court).

Out-of-kind. The 1:1 out-of-kind mitigation has been included in this mitigation package to compensate for repeated disturbance stemming from annual maintenance activities (e.g., mowing, weed whacking, and pruning) associated with flood control.

Existing and Proposed Wetland/Aquatic Mitigation Site Functions and Values

Hydrology/Topography/Soils. The hydrology, topography and soil conditions for the proposed wetland mitigation are different for the in- and out-of-kind mitigation. For the in-kind mitigation, the hydrology ranges from shallow pools to shallow free-flowing areas downstream of the before-mentioned pools. The topography in these areas is very low relief, being that it is primarily the channel bed of Ford Creek. Soils are essentially alluvial sediments consisting predominantly of sand and silt. The out-of-kind mitigation consisting of riparian habitat restoration is described in the preceding section on riparian habitat mitigation.

Vegetation. The in-kind mitigation vegetation along Ford Creek will be comprised of seasonal and perennial wetland species similar to those currently existing in the channel bed (e.g., water primrose, water smart weed, speedwell, rabbitsfoot grass, hyssop loosestrife, tall umbrella sedge, and bristly ox-tongue). However, the excavation channel bank toes and bed in the upstream reach of Ford Creek will be revegetated (seeded and planted) with a diverse suite of native seasonal wetland species to accelerate wetland habitat establishment and provide erosion control. The Implementation Plan chapter below provides the seed mix and planting palette. The out-of-

kind wetland mitigation will consist of riparian species described in the preceding section on riparian habitat mitigation.

Wildlife. The existing wetland habitat that will be impacted by project activities is of low quality for wildlife, as it consists of small, isolated clumps of homogenous emergent vegetation. The proposed wetland mitigation design will replace any wetland habitat removed at a 1:1 ratio, avoiding any reduction in wildlife habitat value compared with existing conditions. Furthermore, the project plan and mitigation design includes changes to water depth and shading over Ford Creek, which is expected to promote the establishment of additional wetland vegetation over time. If additional wetland vegetation becomes established as a result of these plans, the wildlife value of the wetlands within Ford Creek would increase, expanding the amount of habitat available to wetland-associated species such as Pacific chorus frogs and snowy egrets. Furthermore, the additional out-of-kind riparian mitigation will result in a net increase in the wildlife value of the habitat within the project footprint, as discussed in the Riparian Mitigation section above.

Present and Historical Uses of the Wetland/Aquatic Mitigation Area. The in-kind wetland mitigation area is confined to the Ford Creek channel bed, and therefore has little or no present or historical use. The present and historical uses of the out-of-kind wetland mitigation area are described in the preceding section on riparian habitat mitigation.

IMPLEMENTATION PLAN

RIPARIAN MITIGATION

The following section presents the Implementation Plan for the project's 0.66 ac of riparian mitigation and the 0.21 ac of out-of-kind wetland mitigation (as riparian restoration). Therefore, this implementation plan is designed to facilitate the establishment of at least 0.87 ac of riparian mitigation along the east bank of Wrigley-Ford Creek.

The proposed mitigation planting area shown in Figure 6 includes primarily open areas dominated by herbaceous species that will be converted to riparian habitat. A portion of the planting area also comprises patches of invasive species that will be removed and small to moderate-sized clusters of coyote brush at the northern end of the site that will be trimmed. Those clusters of coyote brush which are senescent, will be pruned back to stump level and inter-planted with oaks to accelerate the rate of natural succession to mature oak riparian habitat. It is expected that some of the trimmed coyote brush will stump sprout and provide understory habitat value.

Site Preparation

Protection of Existing Riparian Habitat. The site preparation work (mowing, weed whacking, pruning, and invasive, non-native species removal) described below could impact smaller native tree and shrub species dispersed throughout the area. As a result, a biologist will flag all existing native tree seedlings and saplings to be preserved and the restoration contractor will take measures to avoid disturbing these trees and shrubs.

Invasive Plant Species Removal. The riparian mitigation site has several invasive, non-native tree and/or shrub species (e.g., *Arundo* and *Myoporum*) requiring removal and follow-up maintenance. Figure 6 shows the distribution of invasive, non-native species to be removed. These species occur as both individual stems and vegetatively-spreading clumps. Both growth forms will be cut at ground level and removed from the site. The cut stumps will be treated with an herbicide (using an herbicide approved by the EPA for use in riparian settings) to minimize re-sprouting following cutting. Special care should be exercised to avoid negative impacts to desirable native tree shrub and/or wetland species when removing invasive, non-native species, as many of the invasive species are growing inter-mixed with, or in very close proximity to, native species. Following removal, follow-up treatments will be required during the 3-yr vegetation maintenance period (refer to the Maintenance Plan section for a detailed description).

Coyote Brush Pruning. All of the coyote brush at the northern end of the mitigation area will be pruned to stump level and all aboveground biomass removed from the project site. Attention will be paid to avoid disturbing the root systems of the pruned individuals, and all subsequent plant installations will be done outside their immediate rooting area. While some mortality may occur (notably those already near the end of their life expectancy), we expect some of the pruned individuals to re-sprout and provide some understory cover.

Mowing/Weed Whacking. The entire riparian planting area (outside of the invasive plant and coyote brush removal areas) will be mowed and/or weed whacked to a height of 3 to 6 inches to reduce competition between ruderal species and the mitigation plantings.

Planting Plan

Figure 6 shows the plan view layout of riparian mitigation. The layout is designed to achieve the goal of increasing the connectivity of riparian habitat along the Wrigley-Ford Creek riparian corridor. As noted in the Conceptual Wetland and Riparian Mitigation Design section above, the type and distribution of target riparian plant associations is based upon the existing patches of riparian habitat growing along the east bank of Wrigley-Ford Creek adjacent to the riparian mitigation areas. The mitigation area will be revegetated with the following 2 plant associations as depicted in Figure 7:

- Oak Riparian Plant Association along the top-of-bank
- Willow Riparian Plant Association on the creek bank

Tables 5 and 6 provide the plant species palette for these 2 associations.

Only shrub species which attain a total height of less than 15-20 ft will be planted within the small portion of the mitigation area underlying and within 20 lateral ft of the Pacific Gas & Electric transmission lines.

Table 5. Oak Riparian Association Plant Species Palette

COMMON NAME	SCIENTIFIC NAME	PERCENT COMPOSITION ¹	ON-CENTER SPACING (FT)	PROPAGULE TYPE
Trees				
Canyon live oak	<i>Quercus chrysolepis</i>	30	16	Treepot 4 or acorns
Coast live oak	<i>Quercus agrifolia</i>	20	16	Treepot 4 or acorns
Valley oak	<i>Quercus lobata</i>	20	16	Treepot 4 or acorns
Blue elderberry	<i>Sambucus mexicana</i>	15	12	Treepot 4
California buckeye	<i>Aesculus californica</i>	15	12	Treepot 4 or seed
Tree total		100		
Shrubs				
Coffeeberry	<i>Rhamnus californica</i>	20	6	deepot
Toyon	<i>Heteromeles arbutifolia</i>	25	8	deepot
Mugwort	<i>Artemisia douglasiana</i>	5	6	deepot
California rose	<i>Rosa californica</i>	20	6	deepot
Holly-leaved cherry	<i>Prunus ilicifolia</i>	20	8	deepot
Twinberry	<i>Lonicera involucrata</i>	5	6	deepot
California grape	<i>Vitis californica</i>	5	6	deepot
Shrub total		100		

¹ Approximately 400-600 plants (trees + shrubs)/ac will be installed.

Table 6. Willow Riparian Plant Association Plant Species Palette

COMMON NAME	SCIENTIFIC NAME	PERCENT COMPOSITION	ON-CENTER SPACING (FT)	PROPAGUL E TYPE
red willow	<i>Salix laevigata</i>	75	8	cuttings
sandbar willow	<i>Salix exigua</i>	25	8	cuttings
	Total	100		

Riparian Plant Installation Methods

Planting Basin Soil Amendments. Soil amendments will be added to individual planting holes rather than administered across the entire mitigation area. Table 7 describes the types and quantities of amendments to be used.

Table 7. Planting Hole Soil Amendments

AMENDMENT	AMOUNT (LBS)/YD ³ OF SOIL BACKFILL
Potassium Sulfate (N:P:K= 0:0:50)	¼
Gypsum	1½

Container Stock. Riparian trees and shrubs will be installed between October 1 and December 31, after the onset of the winter wet season. Planting holes for container stock will be 2 ft in diameter by 2 ft deep. All rocks greater than 3 inches in diameter will be removed from the excavated soils. All plants will be installed so that their root crowns are at or slightly above (up to ½ inch) grade following soil settlement that may occur after initial irrigation. All plants will also be installed so their root crowns are at the highest position within the irrigation basin. This will minimize standing water at the root crown and reduce the potential for root disease. The holes will be backfilled with on-site soil lightly compacted to remove air voids.

A 2 to 3-ft diameter irrigation basin with a 4-inch high, 4-inch wide earthen berm will be constructed around each tree and shrub. The basin will help conserve water use by each plant and will be kept weed free during the 3-yr plant establishment period to reduce plant competition. Two cups of native soil collected from directly beneath the leaf litter layer of canyon and/or coast live oak trees free of sudden oak death will be spread on the surface of the soil, around the base of each native tree or shrub. This will inoculate the area with beneficial mycorrhizae.

A 3-inch thick layer of mulch will be spread throughout the bottom of each irrigation basin. Mulch will be derived from wood chips and will be free of salt, leaves, soil clods, sticks, rocks, weeds, or weed seeds. Wood chips used for mulch will be derived from material and locations that are free of sudden oak death infestation.

Willow Cuttings. Willow cuttings that are approximately 2 ft long and ¾ inch-1.5 inch diameter will be harvested from the existing willows along Wrigley-Ford Creek. Cuttings will be harvested over the period December through February after the trees have dropped their leaves. Cuttings will be harvested from numerous trees to obtain a diversity of genetic material.

No more than 10% of the canopy will be harvested from any one tree. The cuttings will be transported and stored in buckets of water and installed within 48 hours of harvest. Cuttings will be installed so that the lower 3/4 (18 inches) of the cutting is buried. Pilot holes will be drilled in the soil for each cutting and the soil will be compacted firmly around the cutting to eliminate voids between the soil and cutting. Cuttings will not be driven into the ground using a hammer or mallet. A ~2-ft diameter irrigation basin will be constructed around each cutting, and the irrigation basins will be surrounded by 4-inch high, 4-inch wide berms. A 3-inch thick layer of rice straw will be spread within the bottom of each irrigation basin to reduce weed competition and conserve moisture.

Direct Seeding of Acorns and Buckeye Seed. Oaks and buckeyes may be installed from seed or container stock. If installed from seed, planting holes (one ft diameter and one ft deep) will be excavated to loosen the soil in the rooting zone and the soil will be lightly compacted back into the hole. Two seeds (acorns or buckeye seeds) will be installed in each hole. Acorns will be installed in a horizontal orientation with 1/2 inch-one inch of soil covering the acorn. Buckeye seeds will be installed with the seed scar facing down with 1/4 inch of soil covering the seed.

Irrigation Plan

A drip or bubbler irrigation system will be installed to water all of the riparian plantings in both the oak riparian and willow riparian planting areas. The irrigation system will be of sufficient quality to reliably provide water to all riparian plantings for at least 3 complete growing seasons.

WETLAND/AQUATIC MITIGATION

The following section presents the Implementation Plan for the in-kind wetland and aquatic habitat mitigation proposed along Ford Creek. Wetland vegetation comparable to the existing condition is expected to naturally colonize the mitigation area. Although both the upstream and downstream reaches of Ford Creek will provide in-kind wetland mitigation, wetland revegetation activities will be focused in areas where the channel slopes are disturbed by sediment excavation. These areas will be targeted to provide erosion control and accelerate wetland vegetation establishment.

Site Preparation

Site preparation for the in-kind wetland and aquatic habitat mitigation will involve ensuring that post-excavation soil conditions are suitable for the rapid re-establishment of wetland and aquatic habitat in the upstream reach of Ford Creek. Sediment excavation will be relatively shallow (one-2 ft) and is expected to daylight soils that are suitable for both wetland plant and aquatic habitat establishment. Soil compaction after excavation within the bed and banks of the channel will be less than 90% to facilitate wetland plant establishment.

Wetland Revegetation Plan

There is limited diversity and abundance of native wetland plants existing upstream of where the wetland impacts will occur. As a result, only low numbers of native wetland plant seeds would be expected to naturally disperse into the impact and mitigation areas post-excavation. Therefore, disturbed soils on the bed and lower banks of the excavated reach will be broadcast seeded with

native wetland species to reduce soil erosion and facilitate wetland plant establishment. Plugs of native wetland species will also be installed in patches (to cover at least 50% of the channel reach) within the bed and banks of the channel both within and upstream of the excavated reach to accelerate wetland habitat establishment. Tables 8 and 9 provide the seed mix and planting palette.

Table 8. Wetland Mitigation Planting Palette¹

COMMON NAME	SCIENTIFIC NAME	PERCENT COMPOSITION	ON-CENTER SPACING WITHIN PATCHES	LOCATION IN CHANNEL
Creeping wildrye	<i>Leymus triticoides</i>	20	2	mid bank
Mexican rush	<i>Juncus mexicanus</i>	20	2	mid bank
Creeping spikerush	<i>Eleocharis macrostachya</i>	20	2	low bank/ channel bed
Iris-leaved juncus	<i>Juncus xiphiodes</i>	20	2	low bank/ channel bed
Alkali bulrush	<i>Scirpus robustus</i>	20	2	channel bed
Total		100		

¹ Container sizes for all wetland plants will be treeband-type containers (2.25 inch X 2.25 inch X 5 inch long)

Table 9. Wetland Mitigation Seed Mix

COMMON NAME	SCIENTIFIC NAME	TYPE	APPLICATION RATE PLS ¹ /AC (LBS)
California meadow barley	<i>Hordeum brachyantherum spp. californicum</i>	Perennial grass	30
Red fescue	<i>Festuca rubra</i>	Perennial grass	20

¹Pure Live Seed (PLS) = [(% purity of seed lot x % germination rate of species)/100]; Divide recommended application rate (lbs) above by % PLS for each species to find total lbs. required to provide the application rate shown in table.

Seeding Methods

All disturbed soils on the Ford Creek banks will be broadcast seeded for erosion control using the native wetland grass species shown in Table 9. The seed will be manually raked into the upper ¼ inch of soil. After seeding, a layer of clean, weed-free straw or biodegradable erosion control fabric will be applied to these areas to minimize erosion and provide protection until germination occurs.

Wetland Plant Installation Methods

Wetland plants will be installed in November or December after winter precipitation has substantially moistened the soils. If erosion control fabric is installed (rather than straw mulch), a small hole will be cut in the fabric to facilitate installation of wetland plugs. Excavated planting holes will be 2 times the width and depth of the root volume of the plugs. The erosion control fabric will be stapled around the perimeter of the planting hole upon completion. Wetland plugs will be watered-in at the time of planting, if needed, to saturate the soils in the

rooting zone of each plug. These plantings will not require wood chip mulch since high water flow would carry it away. The wetland plantings will not require supplemental irrigation beyond the initial watering-in.

PLANT PROPAGATION

The genetic origin of all container stock plant material will be from the counties of the South San Francisco Bay Area to help ensure the plant material is adapted to the climatic conditions of the mitigation site. Plant propagules will be derived from as close to the mitigation site as feasible in sites with similar soils and elevations. If adequate propagules are unavailable from within Santa Clara County, then they will originate from adjacent counties from areas that exhibit similar environmental conditions to those found at the mitigation site.

IMPLEMENTATION SCHEDULE

The riparian and wetland mitigation will be installed during the same year as the impacts (likely 2011). The approximate schedule implementing the riparian and wetland mitigation measures is detailed in Table 10.

Table 10. Wrigley-Ford Creek Mitigation Approximately Implementation Schedule¹

ACTIVITY	SCHEDULE
Site preparation (invasive plant removal)	August-September
Irrigation system installation	September-October
Riparian and wetland plant installation	October-December; after the onset of the rainy season
Wetland broadcast seeding	September-October; immediately after sediment excavation

¹The schedule does not indicate the duration of work, but rather the likely windows when the work would occur.

Supplemental riparian mitigation planting may occur ~one yr following the initial installation if container stock for some of the proposed plantings is not available from the source region (i.e., counties of the south San Francisco Bay) during the initial planting effort.

MAINTENANCE PLAN

RIPARIAN MITIGATION

Overview

This section outlines maintenance required in the riparian mitigation area. The riparian plantings will require maintenance during the first 3 yr following installation (i.e., plant establishment period) to increase the likelihood they will successfully establish and become self-sustaining. Maintenance shall include dead plant replacement, irrigation, mulch, and weed control. Monitoring data (as outlined by requirements discussed in the Monitoring Plan) collected by a qualified ecologist will be used to evaluate the success of the riparian mitigation site. Monitoring results will be used to guide maintenance and help ensure the success of the riparian mitigation site.

Dead Plant Replacement

All dead riparian plantings will be replaced in the first 2 yr of the plant establishment period. Vigor, growth, and survival rates of the installed plants will be assessed to determine which, if any, of the plantings require replacing. Species which are well-suited to the site as reflected in their health and vigor will be used to replace dead plants.

Irrigation

Oak Riparian Plant Association. The oak riparian plantings will require irrigation during the 3-yr plant establishment period. The irrigation frequency should be gradually reduced during this 3-yr period to encourage plant acclimation to the site's natural moisture regime. In Yr-1, the plantings in this area will be irrigated approximately 2 to 4 times/month over the period March through October, with each irrigation session providing sufficient water (5 to 10 gallons/plant) to encourage vigorous root growth. The irrigation schedule in Yr-2 will be based on the overall health and vigor of the plants, but should be substantially less (i.e., one to 2 times/month) compared to Yr-1. Further reduction (zero to one time/month) in watering frequency should occur in Yr-3. The irrigation schedule can be adjusted to reflect seasonal differences in weather patterns to ensure vigorous growth during the summer, especially during times of drought. Attentiveness will be exercised to not over water in Yr-1 and 2, as over-watering in the first 2 yr followed by a sharp reduction in watering in Yr-3, can result in elevated mortality under hot and dry summer conditions.

The irrigation system will be properly maintained during the 3-yr plant establishment period. Any component of the irrigation system not functioning properly shall be repaired as part of regular site maintenance.

Willow Riparian Plant Association. The willow riparian plantings include those plants installed along the slope along Wrigley-Ford Creek. The willow plantings should require irrigation only during Yr-1 because the slope areas are in relatively close proximity (~ 8 ft along the slope and ~ 2 ft at the toe-of-slope) to the underlying water table. In Yr-1, the willows will be watered between the months of March and October at a frequency sufficient to prevent signs

of desiccation stress (e.g., one to 4 times/month). Each irrigation session should deliver enough water (5 to 10 gallons/plant) to encourage root growth so that the need for watering is eliminated in successive years.

Mulch

The mulch around each riparian planting will be replenished, as needed, to ensure that a 3-inch deep by 3-ft diameter volume of mulch is present around each riparian planting. Willow stakes will also be mulched despite their smaller-diameter planting basins.

Weed and Invasive Plant Control

All weeds (grasses and forbs) within the riparian mitigation area will be controlled around and between each installed planting. Control refers to maintaining all weeds to a maximum height of one to 2 ft throughout the site. All non-native, woody species should also be prohibited from establishing within the riparian mitigation area. Care should be exercised during weeding to not inflict damage to the stem and roots of the mitigation plantings. Each irrigation basin will be maintained free of weeds by manually removing all weeds that become established. Weeding should occur in the late spring or early summer while the ground is still moist and before the maturation and natural dispersal of weed seeds.

Invasion of the riparian mitigation site by non-native plant species, both herbaceous and woody, is a significant obstacle to native riparian development. Therefore, invasive plant species will be actively monitored and controlled as necessary to minimize the possibility of invasion during the plant establishment period. A qualified biologist will assess the type, distribution and abundance of invasive plant species and, when warranted, recommend effective control measures. The applicant will then be responsible for controlling plant species that could negatively affect site performance. For example, it is anticipated that giant reed will re-sprout after initial removal and re-sprouts will require treatment. Invasive plant species control will be accomplished by manual removal or aided by the use of an herbicide, with the herbicide approved by the EPA for use in aquatic environments).

Natural Recruitment

Native woody plant species which naturally establish in the riparian mitigation area will be identified and avoided during weed control activities.

Maintenance Schedule

The riparian mitigation site will be maintained on a regular basis during the 3-yr plant establishment period. Maintenance activities shall occur approximately 3 times per month during the growing season (March through October), and approximately one time per month from November through February.

WETLAND MITIGATION

Overview

This section outlines maintenance required in the in-kind wetland mitigation area along the upstream reach of Ford Creek. Maintenance will be limited to invasive plant control. Monitoring data (as outlined by requirements discussed in the Monitoring Plan) collected by a qualified ecologist will be used to evaluate the success of the wetland mitigation site, with monitoring results being used to guide maintenance and ensure the site's success.

Invasive Plant Control

The wetland mitigation area should be maintained free of invasive plants [e.g., perennial pepperweed (*Lepidium latifolium*)] to the extent possible for it to function properly as a wetland. The fact that the wetland mitigation site will consist exclusively of herbaceous vegetation and be mowed yearly, will aid in limiting colonization by weeds and other invasive plants. A qualified biologist will assess the type, distribution and abundance of invasive wetland plant species and, when warranted, recommend effective control measures. The applicant will then be responsible for controlling plant species that could negatively affect site performance. Wetland mitigation area maintenance will be accomplished via mowing/weed whacking. Herbicide (one approved by the Environmental Protection Agency for use in aquatic environments) may be used to eradicate non-native, invasive wetland species.

Maintenance Schedule

Vegetation maintenance will generally occur once per yr over the period September to October at the end of the growing season and prior to the beginning of the winter wet season.

MONITORING PLAN

INTRODUCTION

The overarching goal of this habitat mitigation project is to establish at least 0.87 ac of high-quality riparian habitat and at least 0.21 ac of wetland habitat within the project site. This monitoring plan defines the objective, measurable success criteria that will be used to determine if the mitigation goal is met. Ecological monitoring will be conducted by a restoration ecologist. Monitoring data will be collected and compared to stipulated success criteria (described below) to evaluate the success of the mitigation. Results from the monitoring program will also provide feedback to inform maintenance to ensure successful habitat establishment.

The wetland mitigation site will be monitored for 5 yr (in Yr-1, 2, 3 and 5). The riparian mitigation site will be monitored for 10 yr (in Yr-1, 2, 3, 4, 6, 8 and 10). The duration of riparian mitigation site monitoring is necessarily longer than the wetland monitoring because the target oak riparian habitat establishes relatively slowly due to the slow growth rates of the planted trees and shrubs.

CONSTRUCTION MONITORING

An ecologist will monitor the project during construction to determine whether impacts are consistent with those outlined in this document and whether the mitigation measures are installed as described in this plan. Areas of active construction will be visited on a regular basis (e.g., bimonthly) and site visit reports will be generated after all inspections.

Photo-documentation

Permanent photo-documentation points will be established to document the pre-construction and during construction conditions, and to serve as the locations for photo-documentation during the long-term monitoring period.

BIOLOGICAL AS-BUILT REPORT

The monitoring ecologist will prepare a Biological As-built Report documenting any significant deviations between the as-built condition of the mitigation site and the conceptual design presented herein. Deviations that will be documented include changes in the site configuration, site surface area, plant or seed species palette, and seed application rates among others. Future analysis of the site will be based on this report. The Biological As-Built Report will be submitted to the permitting agencies within 3 months of the completion of the mitigation construction. The As-built Report will include photo-documentation of the as-built condition.

MAINTENANCE MONITORING

Site visits will be made once every 3 months on average during the maintenance period. Qualitative assessments of the site will be made and reported during these visits. The purpose of monitoring during the growing season is to assess the overall performance of the vegetation and

the adequacy of vegetation maintenance. Assessment of the following factors will be made during maintenance monitoring site visits:

- Vegetation establishment with special attention paid to areas lacking vegetation
- Mortality of planted shrubs and trees
- Plant species composition
- Irrigation and maintenance of planted trees and shrubs
- Invasion of revegetation sites by invasive, non-native weeds

LONG-TERM PERFORMANCE AND SUCCESS CRITERIA

This section sets forth the performance and final success criteria for the riparian and wetland mitigation sites. Quantitative measurements will be compared to the criteria outlined below to determine the extent to which the 2 mitigation areas are developing riparian and wetland habitat functions and values.

Riparian Habitat Performance Criteria

Percent Tree and Shrub Survival. Percent survival among all planted trees and shrubs shall be 100% in the first 2 yr post installation, and at least 80% in Yr-3. Percent survival criteria are limited to the first 3 yr commensurate with the 3-yr plant establishment period to ensure that a high density of healthy plantings is initially installed to facilitate habitat establishment. Performance and success criteria after Yr-3 are based on response variables that measure plant growth and habitat development such as percent cover and plant height.

Percent Cover. Average percent cover of native riparian species within the oak and willow riparian planting associations shall exhibit an increasing trend over time with a positive slope that will attain the final success criterion.

Tree Height. The average height of each tree species installed shall exhibit an increasing trend over time with a positive slope that will attain the final success criterion.

Riparian Habitat Final Success Criteria

Percent Cover. The oak riparian plant association shall have an average percent cover of native riparian species of at least 40% in Yr-10. The willow riparian plant association shall have an average percent cover of native riparian species of at least 70% in Yr-10.

Tree Height. Table 11 above provides the Yr-10 final success criteria for average height by tree species.

Table 11. Tree Height Final Success Criteria

COMMON NAME	SCIENTIFIC NAME	TREE HEIGHT FINAL GOAL (FT)
Oak Riparian Plant Association		
Canyon live oak	<i>Quercus chrysolepis</i>	10
Coast live oak	<i>Quercus agrifolia</i>	10
Valley oak	<i>Quercus lobata</i>	10
Blue elderberry	<i>Sambucus mexicana</i>	12
California buckeye	<i>Aesculus californica</i>	9
Willow Riparian Plant Association		
Red willow	<i>Salix laevigata</i>	15
Sandbar willow	<i>Salix exigua</i>	10

Wetland Habitat Performance Criteria

The average percent cover of wetland species will progressively increase over time during the monitoring period with a positive slope that will attain the final success criterion.

Wetland Habitat Final Success Criteria

Percent Cover. Average percent cover of wetland species shall be at least 50% by Yr-5.

USACE/RWQCB Jurisdictional Area. At least 0.21 ac of USACE/RWQCB jurisdictional wetland habitat will be restored within the upstream and downstream reaches of Ford Creek combined.

MONITORING METHODS

Riparian Habitat

Plant Survival. The survivorship of riparian plant associations will be determined by field counts of all trees and shrubs installed. Percent survival will be calculated as follows:

Percent Survival of Species A = (number of individuals of species A alive during monitoring period / total number of species A alive at installation) * 100.

The percent survival of all planted tree species for the willow and oak riparian plant association areas combined will be calculated and compared to the performance criteria.

Percent Cover. Percent cover will be determined separately for the willow and oak riparian plant associations using the line-intercept method after Bonham (1989). Fixed-length, permanent transects will be established and marked with metal T-posts. Random, or stratified-random, transect locations will be established in Yr-1. The number of transects will be evaluated on the variability of the site's vegetative cover, which itself will be determined by evaluating the average cover value obtained over increasing numbers of transects. The number of transects used will be the point where additional samples do not substantially change the average cover value obtained (Kershaw 1973).

The average percent cover of native riparian species (by species and for all species combined) will be calculated among the fixed length transects. The results will be compared to the percent cover final success criteria described above.

Tree Height

The height of each planted tree will be measured using a measuring tape, telescopic pole, or clinometer. Average tree height will be calculated for the willow riparian and canyon/California coastal live oak riparian planting areas, respectively, and compared to the tree height final success criterion described above.

Health and Vigor

A qualitative assessment of overall tree and shrub health and vigor will be made by considering health-related factors such as leaf color, bud development, new growth, herbivory, drought stress, fungal/insect infestation, and physical damage. Overall health and vigor will be quantified using the numerical and qualitative scale shown in Table 12. Health and vigor for each species will be calculated by averaging the numerical values for each species. Plant health and vigor will be assessed for a subset of trees and shrubs located along the permanent transects.

Table 12. Plant Health and Vigor Categories

QUALITATIVE VALUE	NUMERICAL VALUE	OBSERVATIONS
High health and vigor	1-3	67-100% healthy foliage
Medium health and vigor	4-6	34-66% healthy foliage
Low health and vigor	7-9	zero-33% healthy foliage

Photo-documentation

Photographs of the riparian mitigation site will be taken from fixed locations. Photographs will also be taken to record any event(s) with the potential to significantly affect the success of the mitigation, including flooding, fire, and general vandalism. The fixed photo-documentation locations will be established during construction monitoring.

Wetland Habitat

Wetland Plant Community Composition and Cover. Percent cover by wetland plants will be quantified throughout the mitigation area using the quadrat method after Bonham (1989). Individual samples will be taken from stratified, random locations using a one m² quadrat. The percent cover of each species occurring within each quadrat will be visually estimated to the nearest 5%. The wetland indicator status of each species will be determined. The number of quadrats employed will be based on the variability of the site's vegetative cover, and will be determined by evaluating the average cover value of wetland indicator species obtained over an increasing number of quadrats. The number of quadrats and transects used will be the point where additional samples do not substantially change the average cover value obtained (Kershaw 1973). Initially, a minimum of 20 quadrats (~ 2% of the surface area) will be sampled.

Wetland Delineation. In Yr-3, the wetland mitigation site will be examined to determine if it meets the technical criteria for wetland vegetation, soils, and hydrology according to the USACE Wetland Delineation Manual (Environmental Training Laboratory 1987). It is expected that the site will develop sufficient wetland characteristics to be classified as jurisdictional Waters of the United States. Delineation of the site's jurisdictional Waters will continue annually until the final success criteria are met or contingency measures are proposed and accepted by the permitting agencies.

Photo-documentation. Photographs of the wetland mitigation site will be taken from fixed locations. Photographs will also be taken to record any event(s) with the potential to significantly affect the success of the mitigation, including flooding and general vandalism. The fixed photo-documentation locations will be selected in coordination with the mitigation construction contractor.

REPORTING

Annual ecological monitoring reports will be submitted to the permitting agency(s) by 31 December of each monitoring year. Each report will describe the mitigation project, evaluate the site's overall performance relative to stipulated performance and success criteria, and provide maintenance recommendations. Maintenance and monitoring will cease upon the attainment of the project-specific success criteria (as described above).

PERMITTING AGENCY SIGN-OFF

The applicant will submit a final monitoring report to the USACE, RWQCB, and CDFG documenting that the final success criteria have been met. Upon receipt of this documentation, the permitting agency(s) will issue written "sign-off" acknowledging the mitigation has been met and that ecological monitoring and reporting is complete and can cease.

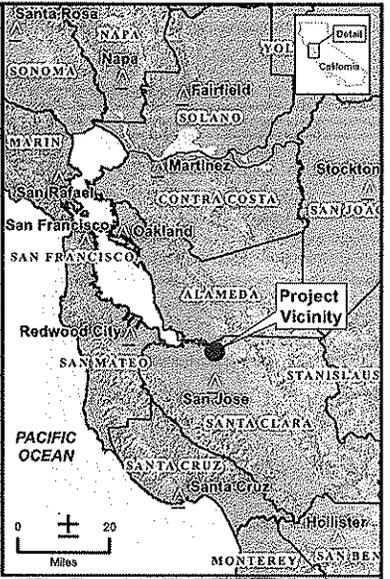
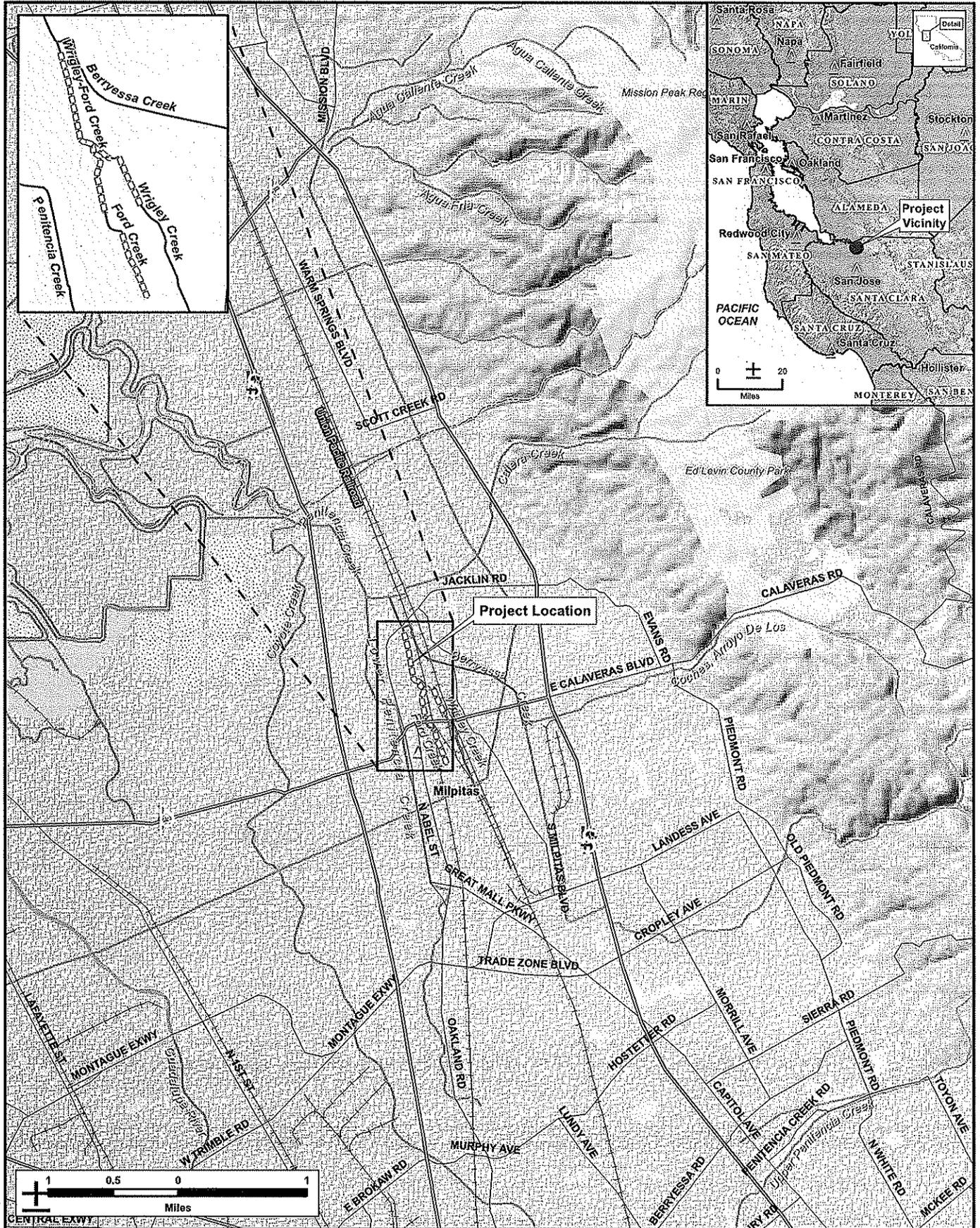
REFERENCES

- Bonham, C. D. 1989. *Measurements for Terrestrial Vegetation*. John Wiley & Sons, New York.
- Environmental Training Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual", Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.
- H. T. Harvey & Associates. 2010a. Wrigley, Ford, and Wrigley-Ford Creeks Maintenance Project Biotic Study. Prepared for Schaaf and Wheeler. Project No. 3159-01.
- H. T. Harvey & Associates. 2010b. Wrigley, Ford, and Wrigley-Ford Creeks Maintenance Project, Preliminary Delineation of Wetland and Other Waters. Prepared for Schaaf & Wheeler. Project No. 3159-01.
- H. T. Harvey & Associates. 2011. Wrigley, Ford, and Wrigley-Ford Creeks Maintenance Project Alternatives Analysis. Prepared for Schaaf & Wheeler. Project No. 3159-01.
- Kershaw, K. A. 1973. *Quantitative and Dynamic Plant Ecology*. 2nd Edition. American Elsevier Publishing Company, Inc., New York.
- Schaaf & Wheeler. 2010. Wrigley-Ford Dredging Hydraulic Impacts Analysis Technical Memorandum. Prepared for City of Milpitas. Dated 29 June 2010.
- [SCS] Soil Conservation Service. 1968. *Soils of Santa Clara County*. U. S. Natural Resources Conservation Service, U. S. Department of Agriculture.
- [USACE] U. S. Army Corps of Engineers. 2004. *Mitigation and Monitoring Plan Guidelines* dated 30 December 2004. Special Public Notice from San Francisco and Sacramento Districts.

PERSONAL COMMUNICATIONS

- Sterbenz, A. 2010. E-mail Communications Between Andy Sterbenz of Schaaf & Wheeler and Max Busnardo of H. T. Harvey & Associates Regarding Creek Channel Sediment Removal Quantities.

**APPENDIX A.
SOIL ANALYSIS RESULTS**



N:\Projects\30003159-01\021\Report\MMP

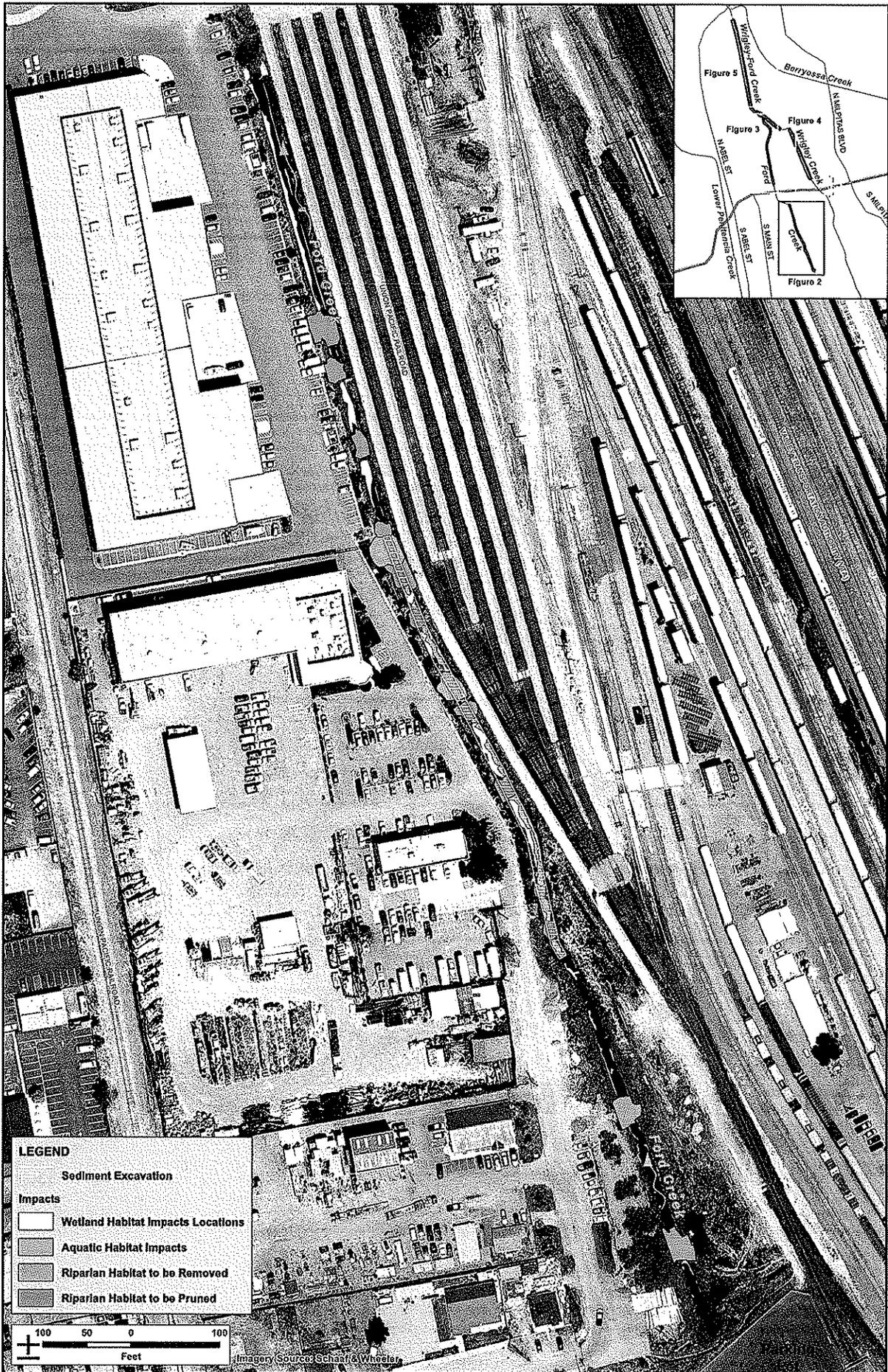
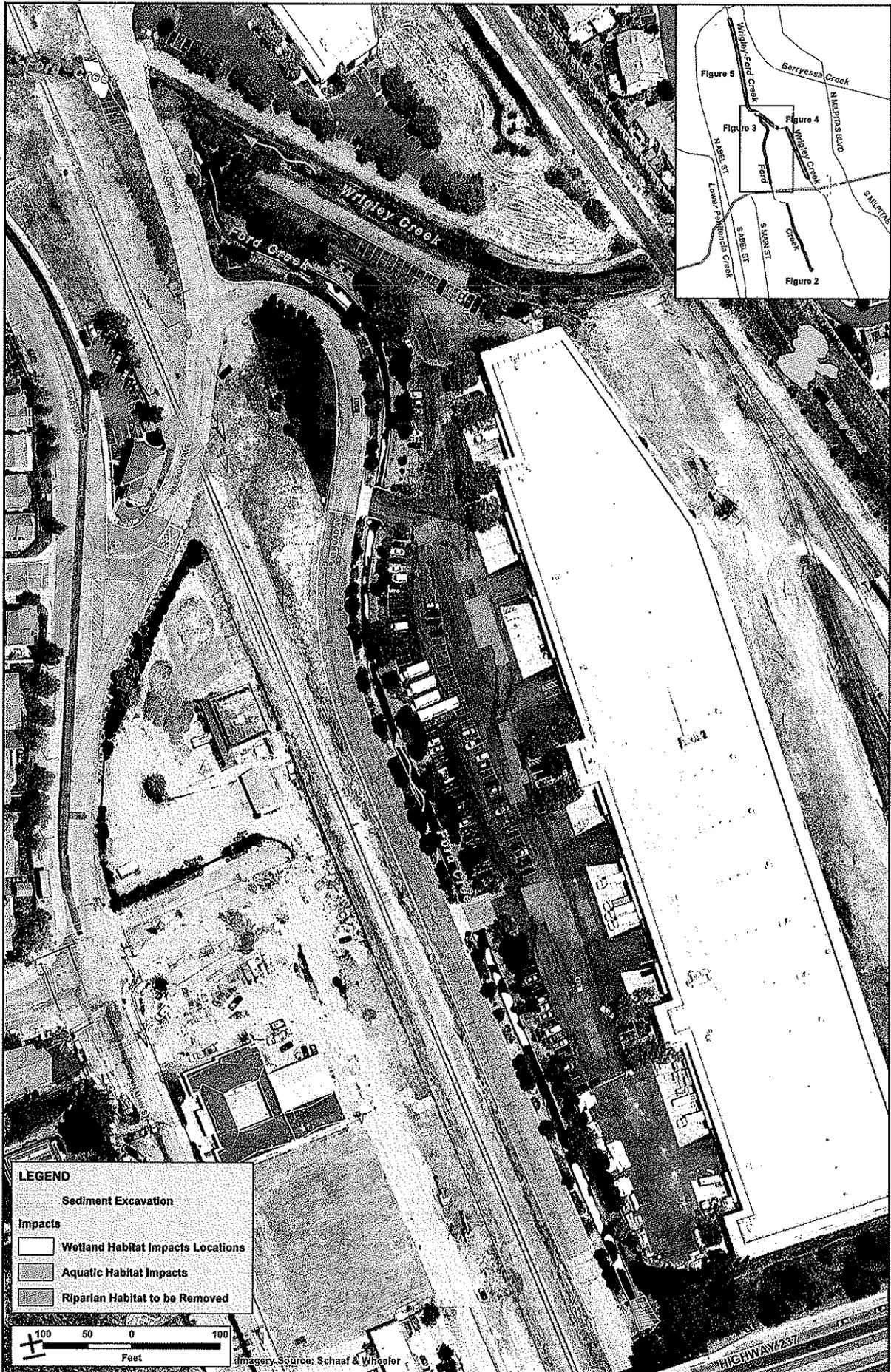
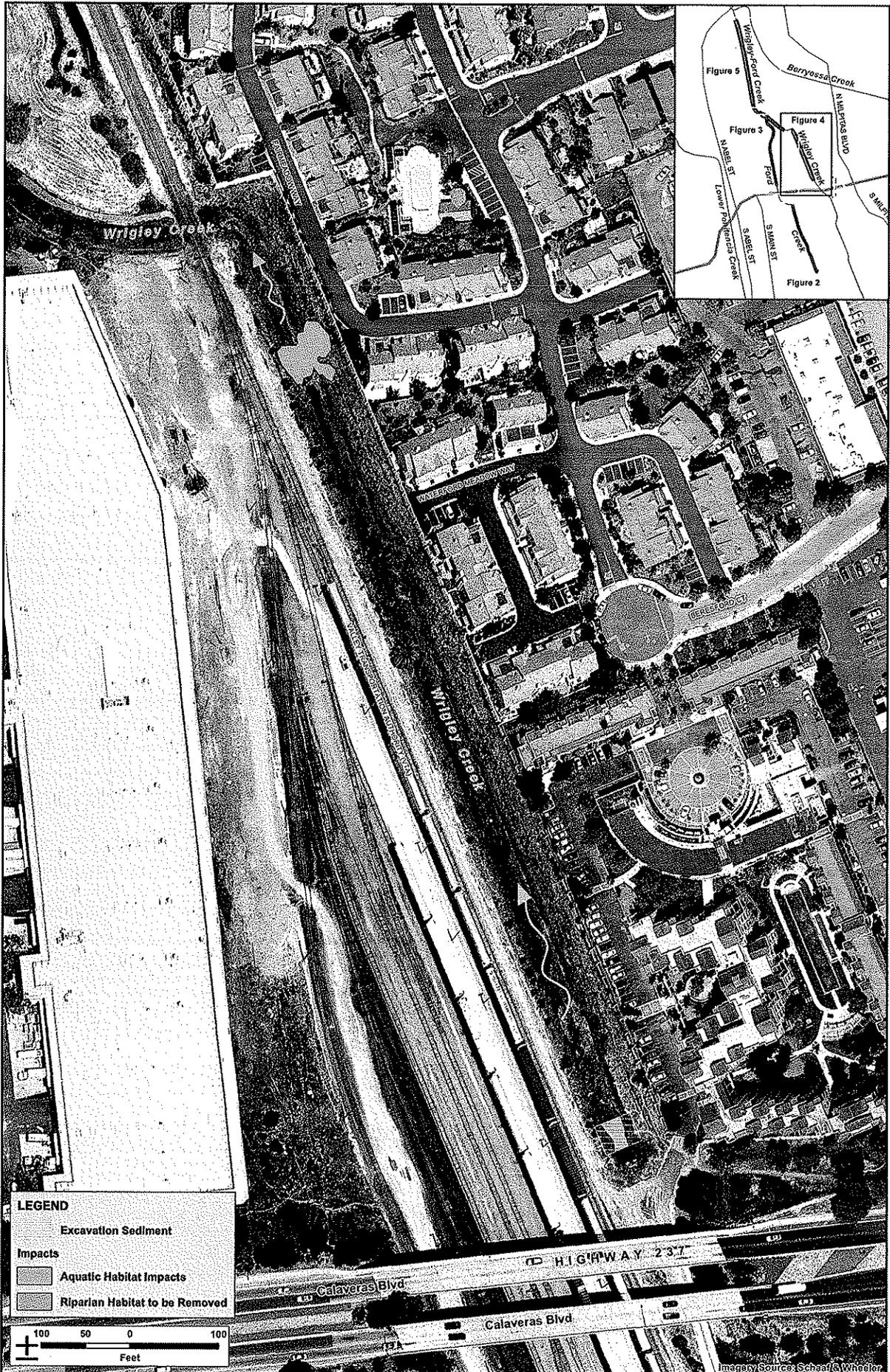


Figure 2: Ford Creek (Upstream Reach) Impacts Map

Wrigley, Ford and Wrigley-Ford Creeks Maintenance Project - MMP (3159-01)

February 2011

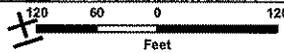






LEGEND

 Riparian Habitat to be Pruned



Feet

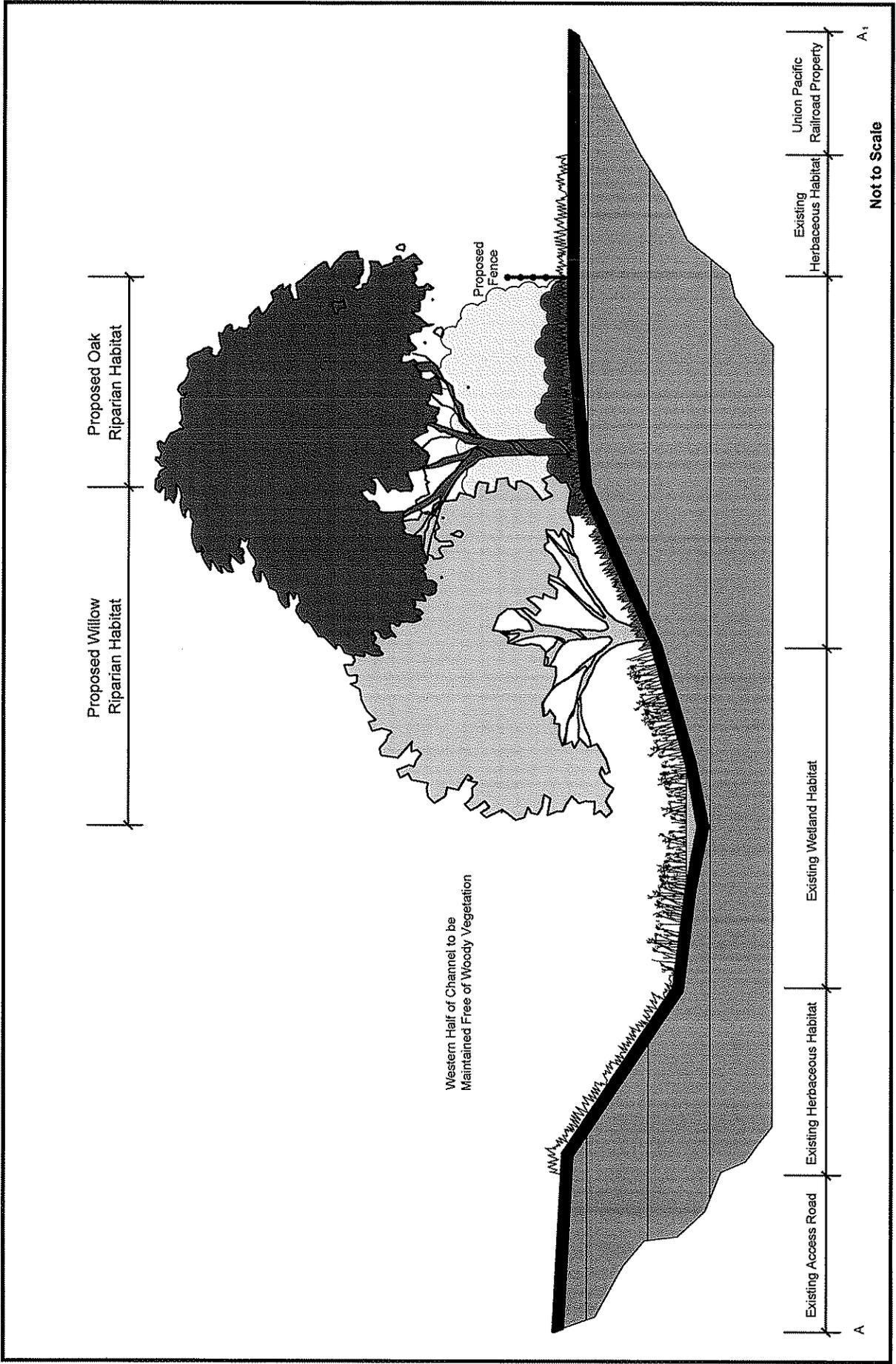


Figure 7: Typical Creek Cross Section
 Wrigley-Ford Creek Maintenance Project, Habitat Mitigation and Monitoring Plan
 February 2011



February 11, 2011

City of Milpitas
Planning Division
455 East Calaveras Boulevard
Milpitas, CA 95035-5479

Attention: Sheldon Ah Sing

Subject: Wrigley Creek-Ford Creek Maintenance Project

Dear Mr. Sing:

Santa Clara Valley Transportation Authority (VTA) staff have reviewed the Initial Study/Negative Declaration for a flood control channel maintenance project within the Wrigley Creek and Ford Creek drainage system. We have the following comments.

VTA's BART Extension C700 ROW plans indicate that in the southern portion of the creek work along the east side of the VTA property between the Wrigley Creek culvert and Highway 237, two small easements are needed for storm drain outfalls. Permitting and construction of these outfalls will have to be coordinated between the City and VTA. This work could be coincident depending on timing of the two projects.

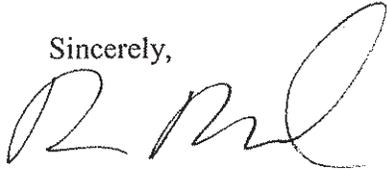
There is a chance that the City's contractor may prefer access to VTA's property to more efficiently work at the project site for the Wrigley portion of the Project. If so, the City's contractor would need an encroachment permit from VTA, and then need the appropriate encroachment permit and railroad insurance from UPRR. This is pursuant to VTA and UPRR's 2002 P&S Agreement. The railroad activities are functionally shifted to UPRR property along the Wrigley Creek work, but have not administratively been abandoned. Until this occurs, VTA is obligated as if the railroad is live on VTA's property at this particular location. In addition, the City's project may overlap with activities of our C210 plans and/or utility companies' work, even though most of those work activities are already completed.

VTA should also be forwarded copies of the plans and project schedules for the Wrigley and Ford Creek work, so that we may coordinate the activities with our C700 RFP work. We are also interested in reviewing the permit conditions for the Wrigley and Ford Creek Project.

City of Milpitas
February 11, 2011
Page 2

Thank you for the opportunity to review this project. If you have any questions, please call me at (408) 321-5784.

Sincerely,

A handwritten signature in black ink, appearing to read 'RM', with a large, stylized flourish extending from the end of the signature.

Roy Molseed
Senior Environmental Planner

RM:kh

ML1101



JERRY BROWN
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



February 9, 2011

RECEIVED

FEB 27 2011

**CITY OF MILPITAS
ENGINEERING DIVISION**

Fernando Bravo
City of Milpitas
455 E. Calaveras Boulevard
Milpitas, CA 95035

Subject: Wrigley-Ford Creek Maintenance Project
SCH#: 2011012016

Dear Fernando Bravo:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on February 8, 2011, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely

Scott Morgan
Director, State Clearinghouse

**Document Details Report
State Clearinghouse Data Base**

SCH# 2011012016
Project Title Wrigley-Ford Creek Maintenance Project
Lead Agency Milpitas, City of

Type MND Mitigated Negative Declaration

Description The City of Milpitas proposes to implement a program of flood-control channel maintenance within the Wrigley-Ford Creeks drainage system. The goal of the Project is to maintain conveyance capacity for the 100-year flood event within the bed and banks of the Project reaches. The Project area is located on the northeastern floor of the Santa Clara Valley, in an urbanized setting that supports a mix of land uses including residential, commercial, office space, and the Union Pacific Railroad facilities (Figure 1). The channels are typical of urban drainage areas, with generally straight reaches, trapezoidal cross sections and culverts at road and driveway crossing.

Lead Agency Contact

Name Fernando Bravo
Agency City of Milpitas
Phone (408) 586-3328 **Fax**
email
Address 455 E. Calaveras Boulevard
City Milpitas **State** CA **Zip** 95035

Project Location

County Santa Clara
City Milpitas
Region
Lat / Long 37° 25' 41" N / 121° 54' 28" W
Cross Streets SR 237
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways SR 237, I-880, I-680
Airports
Railways UPRR
Waterways Wrigley-Ford, Berryessa
Schools
Land Use Creek & maintenance road/ Heavy Industrial/ Manufacturing & Warehousing

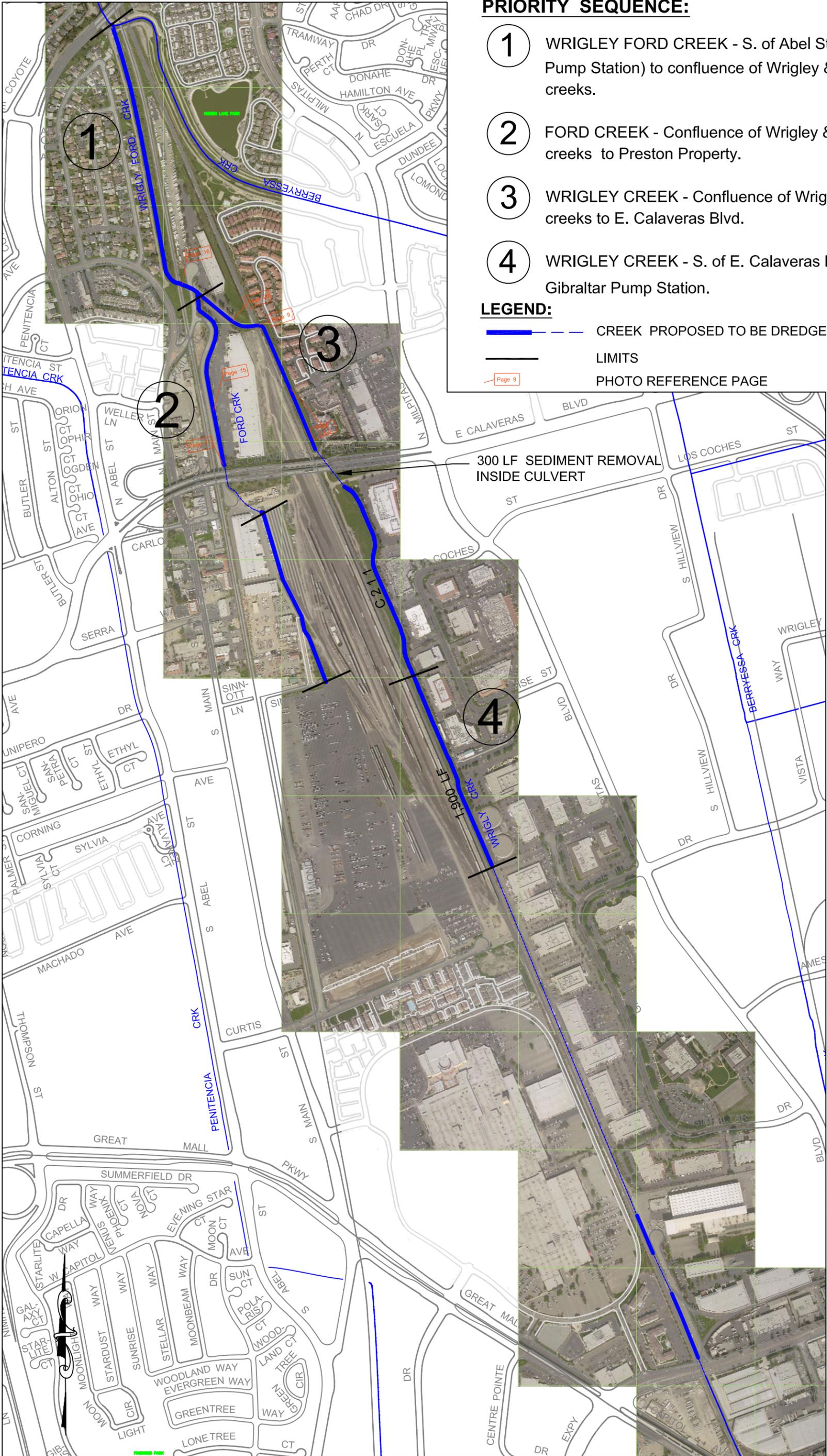
Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Landuse; Cumulative Effects

Reviewing Agencies Resources Agency; Department of Fish and Game, Region 3; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 4; Regional Water Quality Control Board, Region 2; Native American Heritage Commission; Public Utilities Commission

Date Received 01/10/2011 **Start of Review** 01/10/2011 **End of Review** 02/08/2011

City of Milpitas

E



PRIORITY SEQUENCE:

- 1 WRIGLEY FORD CREEK - S. of Abel St. (Wrigley Pump Station) to confluence of Wrigley & Ford creeks.
- 2 FORD CREEK - Confluence of Wrigley & Ford creeks to Preston Property.
- 3 WRIGLEY CREEK - Confluence of Wrigley & Ford creeks to E. Calaveras Blvd.
- 4 WRIGLEY CREEK - S. of E. Calaveras Blvd. to Gibraltar Pump Station.

LEGEND:

- CREEK PROPOSED TO BE DREDGE
- LIMITS
- Page 9 PHOTO REFERENCE PAGE