Solano Local Agency Formation Commission
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Staff Report ***This Public Hearing item is continued from LAFCO's 12-14-2020 Meeting***

DATE: December 14, 2020

TO: Local Agency Formation Commission

FROM: Michelle McIntyre

SUBJECT: **LAFCO Project No. 2020-06 Out of Agency Extension of Service Area: Fairfield Suisun Sewer District Extension of Wastewater Services to the Middle Green Valley Specific Plan Area**

Staff Recommendation:
Staff recommends the Commission approve the proposed subject out of agency extension of wastewater services via adoption of the attached draft LAFCO Resolution 20-11. The proposed Resolution includes the following actions:

1) Approve the extension of wastewater services from the Fairfield Suisun Sewer District to the Middle Green Valley Specific Plan area.

2) Review and consider the Environmental Impact Report (EIR), adopt the Mitigation and Monitoring Program (MMRP) and the Statement of Overriding Considerations as the Responsible Agency pursuant to the California Environmental Quality Act (CEQA).

Executive Summary:
LAFCO has received an application from the Fairfield Suisun Sewer District (FSSD or District) requesting the Commission approve an out of agency service extension. The proposal would allow FSSD to enter into an agreement with the County or another public entity to provide wastewater services to the Middle Green Valley Specific Plan (MGVSP) area.

The following staff report provides background information on FSSD, a description of the MGVSP area, a summary of AB 530 (Aguiar-Curry), and addresses the application's compliance with State and local policies. The report concludes with a recommendation of adoption of the attached proposed resolution.

District Background:
The FSSD was formed by the California Legislature on May 5, 1951 as a dependent special district to perform wastewater collection and treatment activities and water recycling services for

all properties within the boundaries of Fairfield and Suisun City.[1] Upon annexation of new territory to the two cities, LAFCO concurrently annexes the property to the District. Unlike other districts formed by the typical LAFCO process, the FSSD's boundary cannot otherwise expand without an action by the State Legislature. As a result of various legislative amendments, the District's boundary and its service area are not equivalent. For example, in 2001 FSSD's enabling legislation was amended to expand its service area through AB 776 (Thomson).[2] As a result, areas such as Old Cordelia and the Suisun Valley Road/Rockville Road intersection are within the District's service area, but not within the district's boundary.

Recently, the enabling legislation was again amended to address an additional extension of the service area through AB 530 (Aguiar-Curry) which was signed by the Governor on July 10, 2019 and became effective immediately. Among the various amendments to the FSSD enabling legislation, AB 530 authorizes the District, upon the request of a landowner, to accept and contract for the disposal of sewage that will emanate or that will be emanating from any building within the MGVSP, if approved as specified. (AB 530, 2019 Chapter 69 is provided as Attachment B).

MGVSP Area Description:
The MGVSP was adopted by Solano County in August 2017 via Ordinance 2017-1785 (Attachment D) granting certain development entitlements to Middle Green Valley (MGV) property owners. MGVSP is a comprehensively planned community with a mix of uses including up to 400 new residential units and 100 accessory dwelling units, agricultural tourism, local neighborhood retail, community facility uses, and over 1,400 acres of protected agricultural and open space. The project site is located north of Interstate 80, Jameson Canyon, and the Hidden Meadows subdivisions (City of Fairfield); south of existing unincorporated subdivisions and the Green Valley Country Club in upper Green Valley; west of Suisun Valley and the Rockville Hills; and northwest of the Eastridge subdivision (City of Fairfield), the MGVSP is more specifically located in the map as provided as Attachment A. In total, the project area encompasses approximately 1,905 acres.

Per the MGVSP, historically the primary land use in the area has been agriculture, ranching, and large lot rural residential. There are presently approximately 55 single family homes and ancillary agricultural structures within the MGVSP proposal area. Each property has on-site septic system since there is no other public wastewater service provider. It is important to note that existing development on septic systems will not be required to connect to the FSSD; however, it is an option that may be elected by the landowner. (New development in the MGVSP will be required to connect to the District pursuant to the Solano County permitting requirements).

AB 530 Summary:
As stated in the bill analysis, AB 530 allows the FSSD to provide necessary sewer services to

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1 The District also operates a drainage maintenance system that performs specified storm water management services in conjunction with the cities it serves.

2 AB 776 Sec. 48 allowed the following: *(b) The district may accept and contract for the disposal of sewage emanating from buildings outside the district if those buildings are connected to the district's sewage treatment system on March 1, 2002. (c) Pursuant to Section 56133 of the Government Code, the district may contract with Solano County or another public entity for the disposal of sewage emanating from buildings outside the district if the board of the district determines that the contract furthers the protection of public health and safety and is in the best interests of the district.*

the current and future residents of MGV while maintaining the existing LAFCO approval process. As it relates to the MGVSP and the LAFCO process, AB 530 can be summarized in the following:

1. Identifies and establishes the August 8, 2017, Solano Board of Supervisors' approved MGVSP as the defined service extension area;
2. Establishes GC §56133 as the principal code to address the FSSD wastewater service issue;
3. Waives GC §56133(b) Sphere of Influence condition;
4. Waives GC §56133(b) condition of a later change of organization;
5. Waives GC §56133(c) condition of a documented health and safety threat, and;
6. Determines that, "Notwithstanding any sphere of influence and subdivisions (b) and (c) of Section 56133 of the Government Code, the district may, upon request of a landowner, accept and contract for the disposal of sewage that will emanate or that is emanating from buildings within the Middle Green Valley Specific Plan if approved pursuant to subdivisions (a) and (d) of Section 56133 *of the Government Code."* (AB 530 Sec 48(c)).

Furthermore, GC §56133 subdivision (a) states, "A city or district may provide new or extended services by contract or agreement outside its jurisdictional boundary only if it first requests and receives written approval from the commission." As outlined in Solano LAFCO's "Out-Of-Agency Service Contracts" policy, in order to request/initiate a review for written approval, Solano LAFCO requires the applicant to submit an application. The District submitted an application in September 2020.

State and Local Policies:
As noted, AB 530 requires written approval from LAFCO. Per Solano LAFCO policy, the applicant was required to address and include the following in their application packet: a) resolution or documentation to initiate the application, b) plan for providing service, c) response to Solano LAFCO's Mandatory Standards 1 through 6 and Standard 7 (which requires a map of the proposal area), d) party disclosure form, e) indemnity and fee agreement, and application fee. Additionally, Solano LAFCO's policy and practice requires noticing affected: agencies, voters, landowners, and other potential service providers. Below provides an explanation on how these State and Solano LAFCO requirements were met.

Project Initiation:
As noted in AB 530, the District may upon the request of a landowner accept and contract for disposal of sewage that is or will emanate from buildings within MGVSP. As proof of this requirement, the District submitted formal written request signed by several landowners within MGV. In addition, the District submitted FSSD Resolution 2018-02 which supports the amendments to the Fairfield-Suisun Sewer District Act and Resolution 2019-08 sponsoring and supporting AB 530 (Attachment F). Thus, these documents provide the required documentation to initiate the subject proposal as outlined in AB 530.

Plan for Providing Services:
The District as required submitted their Plan for Providing Service, included as Attachment G. The following summarizes the District's plan in a narrative format.

Currently, the District owns and operates a conveyance system which consists of a12-inch main pipe at the intersection of Green Valley Road and Westlake Drive approximately .25 miles south of the proposal site boundary. An onsite collection system will be constructed and connected to the existing FSSD sewer system. The wastewater that is generated from the proposal site will be conveyed from the structures within MGV to the FSSD. The sewage from the MGVSP local sewer system will flow through the District's conveyance system to the District's wastewater treatment facility located four miles southeast of the proposal site in accordance with all local, state, and federal requirements.

Per the District, the cost of building the lateral sewer and the onsite infrastructure improvements responsibility will be borne by the landowners in the MGVSP. The District collects a capacity charge for each connection of $6,281 per equivalent dwelling unit. In addition, FSSD has a rate schedule for each customer type that uses their system. The current charge is $41.85 per month or approximately $500 per year per residential unit while commercial customers pay a charge based on water consumption. As with other FSSD customers, charges for residential service will be placed on the Solano County Tax Role while commercial accounts will be billed directly by FSSD to the customer.

In 2020, FSSD completed a Wastewater Collection System Master Plan (Attachment C) and included analysis of the impacts based on the MGVSP anticipated demands. The Master Plan reports no expansion of the FSSD sewers will be required to service MGVSP. The District estimates the wastewater demand for the MGVSP as 134.8 acre-feet per year (AFY). The wastewater flow projection of 134.8 AFY converts to 0.12 million gallons per day (mgd) and the capacity of the wastewater treatment plant has been established by the California Regional Water Quality Control Board at 23.7 mgd[3]. The average dry weather influent flow for 2019 was approximately 11.0 mgd. The table identifies the water and wastewater demand that will be generated in the MGVSP by development type.

	Water			Wastewater	
	Units	Unit Demand (AFY)	Total Demand (AFY)	Unit Demand (AFY)	Total Demand (AFY)
Residential (units)	400	0.34	136.0	0.25	100.00
Secondary Res. (units)	100	0.17	17.0	0.13	13.00
Chapel (seats)	200	0.09	17.2	0.05	1.00
Meeting Hall/Farm Stand (acres)	0.069	1.73	0.12	1.52	0.10
Community Rec Center (acres)	0.184	1.50	0.28	1.32	0.24
Conservancy/Post Office (acres)	0.057	1.50	0.09	1.32	0.08
School (students)	300	0.02	4.95	0.01	4.36
Commodity Processing, Commercial Nurseries (acres)	1.148	1.00	1.15	0.88	1.01
Ag. Tourism Retail (acres)	0.230	1.73	0.40	1.52	0.35
Inn (rooms)	25	0.15	3.75	0.13	3.25
Winery Production (cases of wine)	100,000	0.00004	4.42	0.00002	2.21
Neighborhood Commercial (acres)	0.230	1.73	0.40	0.88	0.20
Total Annual Water Requirements		185.7		134.8	

Table 4-3: Total Water Demand Forecast for Middle Green Valley

LAFCO Standards One Through Seven:

Solano LAFCO has adopted standards pursuant to GC Section 56375(g). The Commission's policy states that the first six standards are mandatory and that the Commission must make determinations of full compliance with the mandatory standards to approve a proposal. While Standard Seven is a discretionary standard, it was included as a requirement to highlight the

3 Per FSSD, the published capacity is declared under the Average Dry Weather Flow condition.

boundary of the MGVSP proposal area.

Standard No. One: Consistency with the Sphere of Influence (SOI) Boundaries
The application is submitted pursuant to AB 530, which waives the requirement that the subject area is located within the District's SOI, therefore, this standard is not applicable.

Standard No. Two: Change of Organization and Reorganization to the Limits of the SOI Boundaries
As noted in Standard One, this requirement is waived pursuant to AB 530.

Standard No. Three: Consistency with Appropriate City General Plan, Specific Plan, Area-Wide Plan and Zoning Ordinance:
Standard Three is applicable to city annexations only and this Standard is not applicable. Note that the County's approved General Plan included the MGVSP as a special study area. The County Board of Supervisor's approved the MGVSP via Ordinance 2017-1785 and found that it is consistent with the goals, policies, implementation programs, and other provisions of the Solano County General Plan.

Standard No. Four: Consistency with the County General Plan of Proposed Change of Organization or Reorganization outside a City's Sphere of Influence Boundary.
Standard Four applies to city annexations only and is not applicable.

Standard No. Five: Requirement for Pre-Approval
As required by AB 530, several landowners submitted formal written request to the District to initiate the subject proposal. In addition, the District submitted FSSD Resolution 2018-02 which supports the amendments to the Fairfield-Suisun Sewer District Act and Resolution 2019-08 sponsoring and supporting AB 530 (Attachment F). This standard has been met.

Standard No. Six: California Environmental Quality Act (CEQA):
On October 25, 2016, the Board of Supervisors certified the revised Environmental Impact Report and enacted Ordinance No. 2016-1778, readopting the Middle Green Valley Specific Plan as originally adopted in 2010 together with minor revisions to the Plan considered and approved by the Board in 2014. Included in Exhibit 1 to Resolution No. 2016-1778's "CEQA Findings of Fact and Statement of Overriding Considerations for the Middle Green Valley Specific Plan Project" are EIR mitigation measures.

EIR Mitigation Measure 16-4 considered three options for wastewater service: 1. Connection of the Specific Plan development area to the FSSD via an existing City of Fairfield conveyance system; Option 2) establish an onsite wastewater collection and treatment system to service the area, and; Option 3) establish an onsite wastewater treatment plant in combination with connection to the FSSD wastewater treatment/conveyance services. It is important to note that utilizing FSSD reduces the impact to less than significant.

The complete DEIR, FEIR, and related documents including the Specific Plan in their entirety are provided electronically and made part of this report via this link:
https://www.solanocounty.com/depts/rm/documents/eir/middle_green_valley_specific_plan.asp

Standard No. Seven: – Mapping Requirement
A map of the MGVSP area is included as Attachment A, Exhibit A. This Standard has been met.

Party Disclosure Form
Pursuant to CA Government Code Section 84308, applicants or subjects of a proceeding pending before LAFCO are prohibited from making a campaign contribution of $250 or more to any commissioner or alternate. Staff has not received disclosure forms; thus, this requirement has been met.

Indemnification and Fee Agreement, and Application Fee
The Commission's adopted policy requires applicant to sign an indemnity and fee agreement, prior to the Executive Officer issuing a Certificate of Filing. These two signed documents were submitted as part of the application packet along with the required application fee. Thus, the applicant has met these requirements.

Noticing
In order to promote transparency, the Commission's standard process is notice public hearing items. For the subject proposal, affected agencies, the landowners and voters within the MGVSP, and those landowners and voters located within 300' of the exterior boundary of the proposal area were noticed at least 21 days prior to the public hearing. In addition, a public hearing notice was published in the local paper also within 21 days of the public hearing. There are no other public agencies that could provide service. With the notice that was provided, the noticing requirement has been met.

Conclusion:
As set forth in AB530, the District is required to request approval from the Commission upon the request of a landowner, to accept and contract for the disposal of sewage that will emanate or that is emanating from buildings within the MGVSP. As described in this staff report, AB 530 waived various elements of the Government Code specific to out of agency extension of service under Section 56133. In order to comply with State law and local LAFCO policies, the applicant submitted a plan for providing service which outlines the anticipated service demand and the District's capacity and capability to provide service to the proposal area in accordance with local, state, and federal guidelines. The applicant submitted documentation to demonstrate compliance with local policies including compliance with the Commission's adopted Standards including CEQA. The applicant also submitted a fee and indemnity agreement as well as the appropriate application fee. The subject proposal was noticed in compliance with applicable State laws and local policies. Therefore, staff is recommending the Commission approve the proposal via the attached Resolution 20-11.

Attachments:
A – Proposed Resolution 12-11
    Exhibit A - Map Exhibit of the MGV Specific Plan Area
    Exhibit B – Statement of Overriding Considerations and Mitigation Monitoring Program
B - AB 530
C - Wastewater Collection System Master Plan
D - Solano County Ordinance 2017-1785
E – Application to LAFCO
F - District Resolutions 2018-02 and 2019-08
G – Plan for Providing Services
H – Response to the Solano LAFCO Standards

LAFCO RESOLUTION NO. 20-11

RESOLUTION OF THE LOCAL AGENCY FORMATION COMMISSION OF SOLANO COUNTY APPROVING THE OUT OF AGENCY EXTENSION OF SERVICE AREA FOR THE FAIRFIELD SUISUN SEWER DISTRICT EXTENSION OF WASTEWATER SERVICES TO THE MIDDLE GREEN VALLEY SPECIFIC PLAN AREA

(LAFCO PROJECT No. 2020-06)

WHEREAS, an application for the out of agency extension of service area was filed with the Executive Officer of this Local Agency Formation Commission (LAFCO/Commission) pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization (CKH) Act, commencing with Section §56000, *et seq.* of the California Government Code by the Fairfield Suisun Sewer District (FSSD/District); and,

WHEREAS, the Executive Officer has examined the proposal and certified that it is complete and has accepted the proposal for filing as of November 10, 2020; and,

WHEREAS, the proposal was noticed pursuant to Government Code (GC) Section 56157 *et seq.* on November 23, 2020, at least 21 days prior to the public hearing to all registered voters and landowners within the proposal area and within 300' of the exterior boundary of the proposal area; and,

WHEREAS, the proposal was noticed pursuant to GC Section 56153 *et seq.* on November 18, 2020, at least 21 days prior to the public hearing in the Daily Republic, a newspaper of general circulation within the proposal area; and,

WHEREAS, the Executive Officer, pursuant to Government Code §56665, has reviewed this proposal and prepared a report including his recommendations, and has furnished a copy of this report to each person entitled to a copy; and,

WHEREAS, the environmental documents were approved by Solano County as the lead agency on October 25, 2016 (State Clearinghouse #2009062048) and are found to satisfy the requirements of the California Environmental Quality Act (CEQA). The environmental impacts of the subject extension of service area have been disclosed and adequately addressed by the lead agency and the potential environmental effects have been adequately mitigated. Solano County has fulfilled its obligations under CEQA and the EIR and associated documents for the Middle Green Valley Specific Plan adequately disclose and describe the subject extension of service; and,

WHEREAS, the Commission has received, heard, discussed and considered all oral and written testimony related to the proposal, including but not limited to comments and objections, the staff report and recommendation, AB 530, the district's application packet including compliance with the Solano LAFCO Standards, plans for providing service, the Wastewater Collection System Master Plan, the District's Municipal Service Review, and the County's General Plan, the Middle Green Valley Specific Plan, and related environmental documents; and,

WHEREAS, the Commission does hereby make the following findings and determinations regarding the proposal:

1. AB 530 as chaptered allows FSSD to provide necessary sewer services to the current and future residents of the Middle Green Valley Specific Plan (MGVSP) area through a LAFCO process.

2. The MGVSP area was established by the Solano County Board of Supervisor's on August 8, 2017 and a map of the MGVSP is included as Exhibit A to this resolution.

3. Landowners of the MGVSP submitted formal requests to accept and contract for the disposal of sewage that is or will emanate from buildings within the proposal area.

4. The FSSD submitted an application in accordance with Solano LAFCO's policy and as required by AB 530.

5. LAFCO approval of this proposal will allow the District to contract with Solano County or another public entity to provide wastewater services to the Middle Green Valley Specific Plan. No other municipal services will be extended as a result of this approval.

6. The FSSD is the only agency capable of providing wastewater service to the proposal area.

7. The Commission determines the proposal is in full compliance with the Commission's six mandatory Standards.

8. The FSSD prepared a Plan for Providing Service which states the District currently owns and operates a conveyance system .25 miles south of the proposal area. An onsite collection system will be constructed and connected to the District's existing system.

9. The FSSD is an enterprise district and will be able to collect fees for active connections to fund the District's services and related activities.

10. No base tax exchange will occur because of this proposal; the FSSD does not receive property tax revenue.

11. The FSSD completed a Wastewater Collection System Master Plan in 2020 which indicates sufficient capacity to serve anticipated demands for the MGVSP and reports no expansion of the FSSD sewers will be required to serve the proposal area.

12. The map prepared for the subject proposal provide certainty regarding the boundary of the affected territory.

13. The proposal is within the land use jurisdiction of Solano County and will remain subject to all County regulations.

NOW, THEREFORE, BE IT HEREBY RESOLVED, DETERMINED, AND ORDERED as follows:

1. LAFCO Project Number 2020-06 Out of Agency Extension of Service Area: Fairfield Suisun Sewer District Extension of Wastewater Service to the Middle Green Valley Specific Plan Area is approved.

2. Said territory is approved as proposed and as set forth and described in the attached descriptive map marked “Exhibit A” and by this reference incorporated herein.

3. Pursuant to the CEQA Guidelines, the Commission as the Responsible Agency hereby adopts the Lead Agency’s Statement of Overriding Considerations and Mitigation Monitoring Program marked “Exhibit B” and by this reference incorporated herein.

4. Pursuant to the CEQA Guidelines, the Executive Officer is directed to file a Notice of Determination in compliance with CEQA Guidelines and local ordinances implementing the same.

5. All subsequent proceedings in connection with this out of agency extension of service area shall be conducted only in compliance with the approved boundaries and conditions set forth in the attachments and any terms and conditions specified in this resolution.

The foregoing resolution was duly passed and adopted by the Local Agency Formation Commission of Solano County at a regular meeting, held on the 21st day of December 2020, by the following votes:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Nancy Shopay, Chair
Presiding Officer Solano Local Agency Formation Commission

ATTEST:

_____
Jeffrey Lum, Clerk to the Commission

NUMBER	APN
①	0148-020-160
②	0148-020-150
③	0148-020-140
④	0148-020-130
⑤	0148-020-060
⑥	0025-190-310
⑦	0025-190-300
⑧	0025-190-020
⑨	0025-190-030
⑩	0025-190-060
⑪	0025-190-260
⑫	0025-190-120
⑬	0025-190-130
⑭	0025-190-140
⑮	0025-190-150
⑯	0025-190-180
⑰	0025-190-190
⑱	0025-190-200
⑲	0025-190-220
⑳	0025-190-240
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㉒	0025-540-010

NUMBER	APN
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㉔	0025-540-050
㉕	0025-540-020
㉖	0025-540-030
㉗	0025-540-040
㉘	0025-200-140
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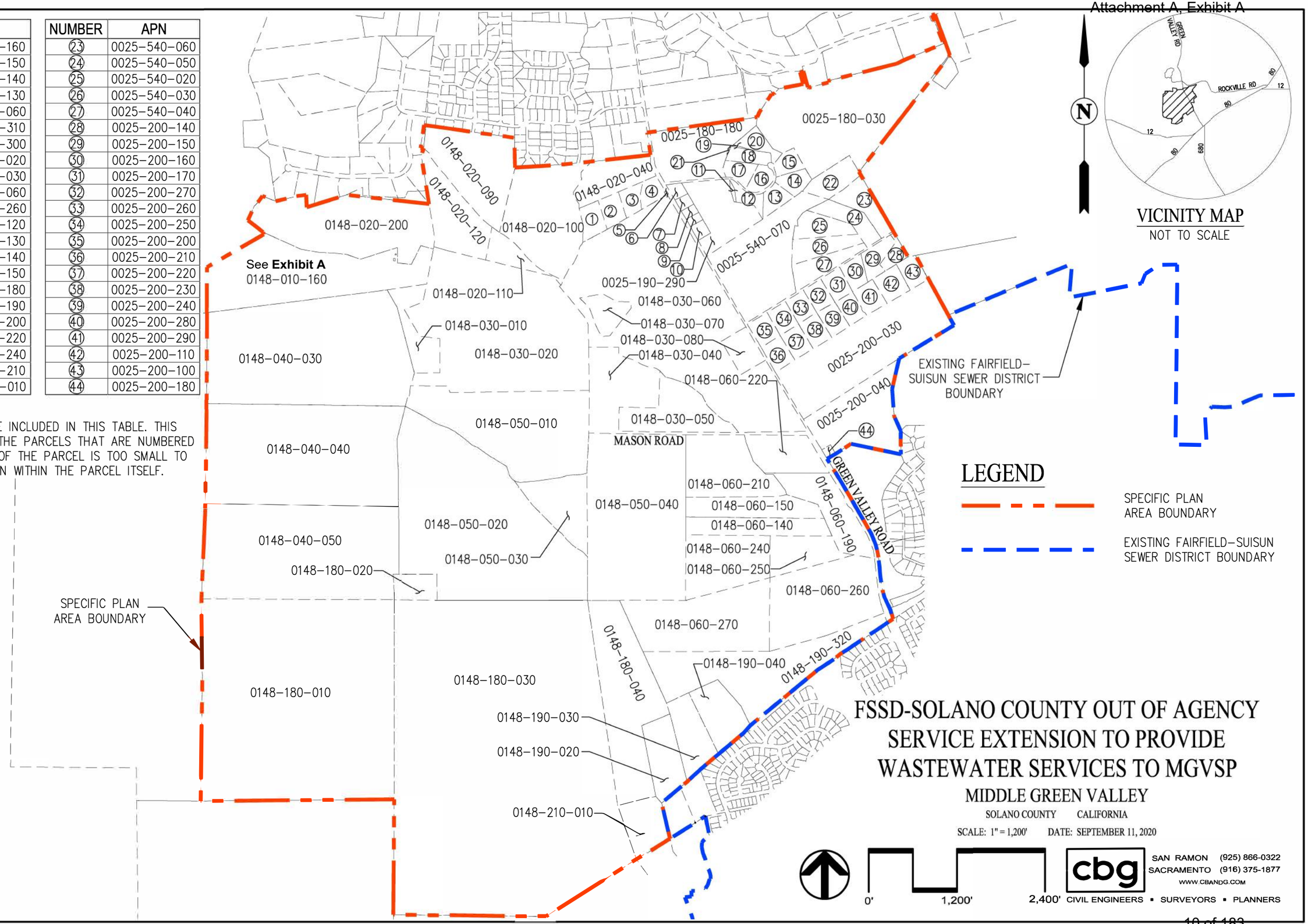
㊷	0025-200-110
㊸	0025-200-100
㊹	0025-200-180

NOTE:
NOT ALL PARCELS ARE INCLUDED IN THIS TABLE. THIS TABLE IS A KEY FOR THE PARCELS THAT ARE NUMBERED BECAUSE THE SHAPE OF THE PARCEL IS TOO SMALL TO SHOW THE INFORMATION WITHIN THE PARCEL ITSELF.



VICINITY MAP
NOT TO SCALE

LEGEND

SPECIFIC PLAN AREA BOUNDARY

EXISTING FAIRFIELD-SUISUN SEWER DISTRICT BOUNDARY

FSSD-SOLANO COUNTY OUT OF AGENCY SERVICE EXTENSION TO PROVIDE WASTEWATER SERVICES TO MGVSP

MIDDLE GREEN VALLEY

SOLANO COUNTY CALIFORNIA

SCALE: 1" = 1,200' DATE: SEPTEMBER 11, 2020

0' 1,200' 2,400'

cbg
SAN RAMON (925) 866-0322
SACRAMENTO (916) 375-1877
WWW.CBANDG.COM
CIVIL ENGINEERS ▪ SURVEYORS ▪ PLANNERS

G:\1454-020\ACAD\EXHIBITS\MIDDLE GREEN VALLEY SPECIFIC PLAN PARCELS EXHIBIT - 11X17.DWG

SEPTEMBER 15, 2020
JOB NO.: 1454-20

PORTION OF APN: 0148-010-160
EXHIBIT A
DESCRIPTION
SOLANO COUNTY, CALIFORNIA

REAL PROPERTY, SITUATE IN THE COUNTY OF SOLANO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEING A PORTION OF THE PARCEL DESCRIBED IN THAT GRANT DEED RECORDED SEPTEMBER 18, 2015 AS DOCUMENT NUMBER 201500085482 IN OFFICE OF THE COUNTY RECORDER, SOLANO COUNTY AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST EASTERLY CORNER OF SAID PARCEL, SAID CORNER BEING THE MOST SOUTHEASTERLY CORNER OF PARCEL ONE AS SAID PARCEL IS DESCRIBED IN THE GRANT DEED RECORDED JULY 23, 2003 AS DOCUMENT NUMBER 200300120061 AND SHOWN ON THE RECORD OF SURVEY FILED IN BOOK 26 OF SURVEYS AT PAGE 6, SOLANO COUNTY RECORDS;

THENCE, FROM SAID POINT OF BEGINNING, SOUTH 12°01'27" WEST 491.04 FEET TO THE SOUTHEASTERLY CORNER OF SAID PARCEL(201500085482) AND BEING THE SOUTHEAST CORNER OF THE "1000 ACRE DEALY TRACT" AS CONVEYED TO JAMES DEALY BY DEED RECORDED DECEMBER 14, 1872 IN BOOK 48 OF DEEDS AT PAGE 321, SOLANO COUNTY RECORDS;

THENCE, ALONG THE SOUTHERLY LINE OF SAID PARCEL(201500085482) AND SAID "1000 ACRE DEALY TRACT" SOUTH 82°01'27" WEST 2,989.80 FEET TO THE POINT OF INTERSECTION WITH THE QUARTER SECTION LINE OF SECTION 34, TOWNSHIP 5 NORTH, RANGE 3 WEST, MOUNT DIABLO BASE AND MERIDIAN, SAID POINT BEING THE NORTHWEST CORNER OF THE LAND DESCRIBED IN THE GRANT DEED RECORDED JANUARY 3, 2013 AS DOCUMENT NUMBER 201300000884 IN THE OFFICE OF THE COUNTY RECORDER, SOLANO COUNTY RECORDS;

THENCE, LEAVING SAID SOUTHERLY LINE, NORTH 01°36'05" EAST 695.98 FEET;

THENCE, NORTH 59°36'04" EAST 845.12 FEET TO A CORNER ON THE SOUTHERLY LINE OF SAID PARCEL ONE(200300120061);

THENCE, ALONG SAID SOUTHERLY LINE THE FOLLOWING ELEVEN(11) COURSES:

1) SOUTH 65°40'04" EAST 561.28 FEET;

2) SOUTH 79°41'25" EAST 235.80 FEET;

3) SOUTH 86°26'27" EAST 288.81 FEET;

4) SOUTH 82°14'11" EAST 121.69 FEET;

5) SOUTH 69°58'20" EAST 179.10 FEET;

6) NORTH 72°30'23" EAST 119.74 FEET;

7) NORTH 72°23'33" EAST 408.03 FEET;

8) SOUTH 00°37'42" EAST 209.59 FEET;

9) SOUTH 84°07'27" EAST 191.19 FEET;

10) NORTH 26°46'35" EAST 285.36 FEET;

11) SOUTH 75°27'51" EAST 175.74 FEET TO SAID POINT OF BEGINNING.

CONTAINING 45.79 ACRES OF LAND, MORE OR LESS.

END OF DESCRIPTION

9/16/2020

MARK H. WEHBER, P.L.S.
L.S. NO. 7960

EXHIBIT B

STATEMENT OF OVERRIDING CONSIDERATIONS

OF THE COUNTY OF SOLANO
Board of Supervisors

for the

MIDDLE GREEN VALLEY SPECIFIC PLAN PROJECT

July 27, 2010

Statement of Overriding Considerations for Project Approval

As described in the CEQA Statement of Findings of Fact (**Exhibit A**), the EIR found that all adverse environmental impacts of the Project can be feasibly mitigated to a level of less than significant, except for the following: Impact 3-3: Project Contribution to General Plan-Identified Countywide Impacts on County Visual Character; Impact 4-1: Impact on Prime Farmland; Impact 5-3: Long-Term Regional Air Emissions Increases; Impact 7-1: Specific Plan-Related and Cumulative Increase in Greenhouse Gas Emissions; Impact 13-4: Specific Plan-Facilitated and Cumulative Traffic Noise Impacts on Green Valley Road; Impact 17-1: Baseline Plus Project Impacts on Intersection Operations; and Impact 17-2: Cumulative Plus Project Impacts on Intersection Operations.

In accordance with CEQA Guidelines Section 15093, the Board of Supervisors has, in determining whether or not to approve the Project, balanced the economic, legal, social, technological, and other benefits of the Project against these unavoidable environmental risks, and has found that the benefits of the Project outweigh these unavoidable adverse environmental effects, for the reasons set forth below. The following statements specify the reasons why, in the Board of Supervisors' judgment, the benefits of the Project outweigh its unavoidable environmental risks. The Board of Supervisors also finds that any one of the following reasons for approval cited below is sufficient to justify approval of the Project. Thus, even if a court were to conclude that not every reason is supported by substantial evidence, the Board of Supervisors will stand by its determination that each individual reason is sufficient. The substantial evidence supporting the Board of Supervisors' findings and the benefits described below can be found in the Record of Proceedings.

Economic Benefits

The quality of life experienced by Green Valley residents is greatly benefitted by the protection of the natural resources and rural characteristics which define much of the local environment. Many things, from home prices to the economic viability of local agriculture, are benefitted by the protection of open space provided in the Specific Plan. Agriculture has long been vital to the Solano County economy, with walnuts, tomatoes, alfalfa, corn, and livestock among the commodities leading its production. Agriculture generates about $370 million (commodity sales and related activities) annually and occupies approximately 362,000 acres, 62 percent of the county's total area. In 2010, the County ranks 26th in the state in agricultural production, but the gross value of Solano County's agricultural production for 2009 was 14% less than in 2008.

The Middle Green Valley Specific Plan helps to carry out economic objectives articulated in the Agriculture chapter of the 2008 General Plan related to Solano County's agricultural economy. The General Plan's Agriculture chapter (chapter 3), outlines several objectives related to economic development and increasing tourism, especially agritourism, to Solano County. Policies permitting increased agricultural local sales uses, as well as programs to encourage increased agritourism and branding of local Solano County produce, were intended to help maintain the locally prominent position of agriculture.

The Middle Green Valley Specific Plan also promotes and complements related goals and policies in the Economic Development Element of the General Plan. One of the County's goals is to "[p]reserve and expand the county's agricultural base by allowing for a wide range of economic activities that support local agriculture." (Goal ED.G-6.) Policies call for the support

of agriculture, tourism and recreation in areas such as Middle Green Valley. (General Plan, Economic Development Element, p. ED-7.)

The General Plan's policies for Middle Green Valley specifically called for the creation of additional methods to assist landowners who choose to continue farming, including, but not limited to: enforcing the right-to-farm act and educating residents on the act; and investigating mechanisms for providing farmers with economic assistance to ensure agricultural viability. (General Plan Policy SS.P-8.)

The current zoning in the plan area, or comparable zoning, does not: (i) guarantee that the area will remain undeveloped; (ii) provide any mechanism to support the economic viability of local agriculture; (iii) allow for clustering; or (iv) require the permanent preservation of open space. Local agricultural prosperity is driven mostly by forces beyond the control of County government—global, national and regional markets for commodities, also technologies developed elsewhere, the demand for farmland for residential use, and such social patterns as intergenerational farm family relations. Consistent with the 2008 General Plan, the Specific Plan includes tools for the clustering and the preservation and support of viable local agriculture. These tools include the transfer of development rights; indeed, the General Plan specifically calls for the use of TDRs as a means of ensuring the long-term preservation of viable agricultural land. (See General Plan, Agricultural Element, pp. AG-13 – AG-14; Policies AG.P-6 [encouraging participation in agricultural preserve program], AG.P-7 [calling for implementation of TDR program].)

As described in detail in the Agricultural chapter of the General Plan, agricultural land in Solano County is in great demand for rural homesites. (See General Plan, Agricultural Element, pp. AG-11 – AG-12.) Large minimum parcel sizes in agricultural zones, like A-20 and A-40, does help to limit demand, but 20-acre minimums alone will not substantially impede the purchase of agricultural land for residential purposes. The evidence lies in the escalation of local land prices in recent years beyond the level of affordability for local agricultural producers and the continued conversion of prime farmland from crop production into rural residences in the surrounding area. (*Ibid*.) Properties to the north, east and south and within the Specific Plan boundary have been subdivided into small subdivisions and are no longer appropriate for agricultural production. A common development pattern in Solano County that illustrates this exposure of conflicting land uses is the positioning of rural residences in the middle of agricultural parcels, requiring long driveways to connect to local roads. Options for avoiding future inefficiencies and negative impacts on agricultural production include size and locational controls on new residences, confining them to parcel edges, corners, and in cluster arrangements with homesites on adjacent parcels, and providing incentives such as density credits and transfer of development rights programs for new purchasers to keep their land in agricultural production.

The Middle Green Valley Specific Plan helps to realize these economic objectives and other benefits for agriculture in the following ways:

- The Conservancy, as described in the Specific Plan, is the County's first 501(c)(3) non-profit organization to directly link the value of local real estate to the support of local agriculture and the protection of nearby natural resources. The mechanism of a voluntary transfer fee is one of several methods to lessen the burdens of government for a sector that is under significant economic pressure and to provide financial support for sustainable local agriculture and open space.

- The Conservancy's role is one of facilitator, and the funds that it will disburse will depend on a comprehensive analysis of the agricultural business plans from many different landowners. This voluntary, incentive-based program is meant to provide scale and collaborative opportunities for increased market strength to relatively small landowners in an environment when the economics of farming favor large landowners.
- Although 123 acres of prime farmland land is being converted to development, over 577 acres of prime farmland, 50 acres of unique farmland, and over 1,200 acres of non-prime farmland and natural open space will be permanently protected through the transfer of development rights program and conservation easements. The amount of prime farmland that will be permanently protected by the Project will be more than 4.5 times the amount of land being converted, and the total amount of farmland (prime, unique and non-prime combined) that will be permanently protected by conservation easements will be nearly 15 times the amount being converted. The permanent open space will not only sustain current agricultural uses, but the Project is intended to improve the value of such uses with the assistance of the Conservancy, to allow local farmers an economic way to derive value from their land without selling it at residential land prices.
- The permanent preservation of over 1,800 acres of agricultural and natural open space will support and improve the value of local real estate in the plan area and the surrounding area.
- In addition to the potential endowment of the local Conservancy, the fees and taxes generated by the 400 new homes in Green Valley are significant. For example, approximately $3 million in new school impact fees will be generated for the local public school district in addition to significant upgrades to Fairfield intersections at impacted roads. At full buildout, these 400 homes will produce approximately $3 million in property taxes every year – approximately 100 times the amount of the current annual income from the affected parcels.
- The construction in Middle Green Valley will produce local construction jobs, and sustaining local agriculture will produce local agricultural jobs.

Legal Benefits

As described in more detail below, the Middle Green Valley Specific Plan is the culmination of a County-initiated, collaborative, community process to implement the policies of the 2008 General Plan. One result of the Project is to resolve and minimize historical conflicts that have lead to litigation over land use approvals. A benefit of the Project is that, as a result of the collaborative, community-based processes envisioned under the Specific Plan, the potential for litigation over future land use approvals may be reduced, which will avoid burdens on the legal system.

Social Benefits

The Project is intended to serve as a guide for both future conservation and land development in the Plan Area and provides a possible model of rural redevelopment that could be further expanded upon elsewhere in California. The Specific Plan contains the policy and planning framework necessary to fulfill the 2008 General Plan vision for Middle Green Valley: to protect and maintain the rural character of Middle Green Valley while allowing opportunities for compatible residential development to occur.

The community vision reflected in that General Plan goal SS.G-1, and the related policies and implementation programs for the area, provides the foundation for all of the goals and policies of the Middle Green Valley Specific Plan and defined how the community envisions the future for Middle Green Valley. The Middle Green Valley Specific Plan built on this vision in publicly supported collaboration among landowners, County staff and residents, neighbors and interested groups to plan for the future development of Middle Green Valley based on shared values and interests. The Citizen's Advisory Committee involved in the production of this design endorsed the Project.

One important outcome of the Project is to resolve and minimize historical social conflicts that have lead to disputes and litigation over land use approvals. A benefit of the Project is that, as a result of this collaborative, community-based process, the potential for future disputes and litigation over future land use approvals may be reduced, which will provide a social benefit to the County and its residents.

The Project will also provide housing, and will thus help achieve the County's housing goals. As set forth in the County's draft update to the Housing Element of its General Plan, "[t]he County of Solano and its incorporated cities have a joint responsibility to ensure that there is an adequate supply of housing to meet projected countywide housing needs. As developable land becomes scarcer and increasingly costly in the inner Bay Area, demand continues to increase for housing within Solano County jurisdictions, including the unincorporated areas." (Draft Housing Element Update, p. HE-8 (2010).)

The County is required to accommodate the Regional Housing Needs Allocation (RHNA) adopted by the Association of Bay Area Governments (ABAG). The County must zone sufficient land to accommodate the County's RHNA, or otherwise accommodate the development of these units. The current RHNA assignment for unincorporated Solano County calls for the development of a total of 99 housing units during the 2007-2014 period, consisting of 26 units for very low-income households, 16 units for low-income households, 18 units for moderate-income households, and 39 units for above moderate-income households. (Draft EIR, p. 14-3; Draft Housing Element Update, p. HE-9.)

The County General Plan includes policies concerning housing:

- *Provide sufficient residential lands jointly with the cities to meet Solano County's projected housing needs.* (Policy LU.P-13)

- *Require a variety of housing types (affordable and market rate) near jobs, services, transit, and other alternative transportation serving locations (e.g., rideshare lots).* (Policy LU.P-18)

The Project would provide for an increase of up to 400 new primary housing units, plus the potential for up to 100 new secondary housing units. This increase would result in a local housing supply benefit and assist the County in meeting its RHNA for 2007 through 2014 (99 housing units). Housing development enabled by the Specific Plan would also further Solano County General Plan policies calling for rural residential development, secondary dwelling units as a means to expand the overall supply of housing, and provision of sufficient residential lands to meet the County's projected housing needs. (Draft EIR, pp. 14-7 – 14-8.) The Project calls for up to 400 residential units of varying housing types at a range of densities. The Project establishes distinct neighborhoods calling for development of housing of types and at densities suitable for specific portions of the plan area. For example, the Green Valley Road corridor is

designated for limited development in order to preserve its rural character. (Specific Plan, § 3.5.5(a).) Densities in the Elkhorn neighborhood, by contrast, will accommodate up to 225 units at densities up to eight dwelling units/acre within a "rural mixed-use center." (Specific Plan, § 3.5.5(B).) Up to 100 secondary units will be provided. The Project is therefore anticipated to meet the housing needs of varying household types and household income levels.

Other social benefits include:

- Over 10 miles of publicly accessible multi-use trails in an area that has not been accessible to the public and that will increase the visibility and awareness of local agriculture and natural resources.
- The permitted use of neighborhood buildings such as farm stands, wineries, bed & breakfast, a non-denominational chapel, a small private school, play fields, and a local post office will present opportunities for community interaction that currently do not exist.

Technological and Other Benefits

The Conservancy, which will be formed and funded by the Project is intended to support the development and implementation of sustainable farming techniques, including facilitating application of advances in agricultural technology and production techniques.

Other benefits include:

- The Middle Green Valley Specific Plan will require future construction to exceed the Title 24 energy efficiency standards by at least 20%.
- The Specific Plan's standards for water and wastewater are designed to result in water usage that is significantly more efficient than typical usage rates.
- The Specific Plan will require future construction to exceed the stormwater control requirements of the current County Stormwater Management Plan to provide additional water quality protection.

Any one of these reasons is sufficient in and of itself to support the approval of the Project notwithstanding the significant and unavoidable environmental impacts. In light of the foregoing benefits to the County, pursuant to CEQA Guidelines section 15093, the Board of Supervisors finds and determines that these considerable benefits of the Project outweigh the unavoidable adverse effects and the "adverse environmental effects" that cannot be mitigated to a level of environmental insignificance are deemed "acceptable."

MITIGATION MONITORING CHECKLIST— MIDDLE GREEN VALLEY SPECIFIC PLAN

This Mitigation Monitoring Checklist contains the Mitigation Monitoring and Reporting Program for the Middle Green Valley Specific Plan. The mitigation measures in the table represent the final language of all project mitigation measures. The mitigation measures listed in column two below have been incorporated into the Middle Green Valley Specific Plan, or the Board of Supervisors has otherwise determined that they shall be implemented, in order to mitigate identified environmental impacts. A completed and signed chart will indicate that each mitigation requirement has been completed and that monitoring requirements have been fulfilled with respect to Public Resources Code Section 21081.6.

Following direction from the Solano County Board of Supervisors to implement all mitigation measures, all measures described in the Mitigation Monitoring and Reporting Program will be implemented through a combination of one or more of the following, as appropriate to nature of the measure: (1) incorporation into the Specific Plan, the plan's policies, regulations, or project designs; (2) incorporation into conditions of approval, permits, entitlements, and agreements with contractors and other parties concerning plan implementation; or (3) carried out directly by County staff. It should be noted that the term "individual project applicants" includes, to the extent relying upon this environmental impact report (EIR) for approvals or actions undertaken, any governmental entities such as the County Services Area (CSA) or Solano Irrigation District (SID).

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
AESTHETICS						
Impact 3-1: Impacts on Scenic Vistas. Prominent views from the plan area of the Western Hills have been identified in the Solano County General Plan as one of the County's important "scenic vistas." The Draft Specific Plan (DSP) neighborhood and open lands framework (DSP section 3.2.1) and associated visual resource protection policies, development standards, and design guidelines (DSP sections 3.2, 3.3, 3.4, 4.2, 4.4, and 5.1 through 5.9) have been specifically formulated with the intent to ensure that future plan area land use and development under the Specific Plan remains compatible with, benefits from, enhances and protects the rural character and unique scenic features of Middle Green Valley, including views of the Western Hills, as well as views of plan area riparian corridors, meadows and foothills. The DSP calls for establishment of a system of environmental stewardship (section 3.3.4) to implement the plan's visual and agricultural landscape preservation and enhancement goals, to be applied in conjunction with a plan area *Neighborhood Design Code* and associated Design Review Process. The Design Code would identify project-specific design submittal requirements for all future discretionary development. The proposed plan area Design Review Process is intended to supplement the requirements of the standard County development review process with a newly-established Middle Green Valley Conservancy Design Review Committee. Nevertheless, until individual project-specific applications are submitted with associated detailed design information sufficient to verify to Green Valley Conservancy Design Review Committee and County staff satisfaction adequate protection of scenic vistas and adequate visual screening from Green Valley Road, it is assumed that future individual development	**Mitigation 3-1:** Prior to County approval of any future plan area subdivision or other discretionary development application, the project applicant/developer shall provide site plan, architectural, landscape and infrastructure design details demonstrating to the satisfaction of the Middle Green Valley Conservancy Design Review Committee, County staff and County Planning Commission that the development design: ▪ sufficiently protects existing visual access from Green Valley Road and other important plan area vantage points towards foreground and middle-ground rural landscapes and the Western Hills background; ▪ protects existing intervening landforms and vegetative buffers; ▪ maintains building rooflines that do not exceed existing intervening landforms and vegetative screening; and ▪ emphasizes building forms, designs, colors, materials, etc. that are reflective of and conducive to the surrounding rural landscape. Implementation of this measure would reduce this potential impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	MGV Conservancy Design Review Committee and County.	Prior to any subdivision or other discretionary approval.		

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projects undertaken in accordance with the Specific Plan may disrupt views of the Western Hills and plan area riparian, meadow and foothill features, from Green Valley Road and other important vantage points. In particular, development within the DSP-designated neighborhood areas nearest Green Valley Road would have the potential to alter foreground and middle-ground views from Green Valley Road. This possible Specific Plan effect on scenic vistas represents a **potentially significant impact**.						
Impact 3-2: Increase in Nighttime Lighting and Glare. The DSP includes a streetscape lighting description (section 5.7.6) that suggests, but does not mandate, "low-level lighting."…"where nighttime events may warrant a lighted trail or path of travel for safety" and "directional and/or facility identification signs" that "may integrate low levels of light for visibility." The DSP also indicates that "All fixtures used in the landscape will be full-cut-off fixtures that will help maintain the dark nighttime sky." (DSP page 5-113). Nevertheless, although the degree of darkness experienced in Middle Green Valley and views of stars and other features in the nighttime sky would not be substantially diminished as a result of Specific Plan implementation, project-specific new development permitted by the Specific Plan in the four designated neighborhoods, as well as the farmstand envisioned along Green Valley Road immediately north of Mason Road, would include new sources of exterior lighting in an otherwise rural setting that could result in localized "light trespass" into the nighttime sky (i.e., new sources of sky-glow) or towards Green Valley Road, Mason Road, or other plan area travel routes. In addition, development of neighborhood facilities such as the anticipated school and firehouse could include new exterior lighting features with noticeable and potentially adverse light and glare effects. The possible Specific Plan light and glare effects represent a **potentially significant impact**.	**Mitigation 3-2:** To minimize glare and "sky glow" from new outdoor area lighting, prior to County approval of any future plan area subdivision or other discretionary development application that includes exterior lighting, the project applicant/developer shall include in the project application materials lighting design measures that ensure protection of surrounding uses from spillover light and glare, use of low lighting fixtures, use of adequately shielded light sources, use of light sources that provide a natural color rendition, and avoidance of light reflectance off of exterior building walls. Incorporation of these and similar measures by a qualified design professional into the project-specific design would reduce this potential for light and glare impacts to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	MGV Conservancy Design Review Committee and County.	Prior to any subdivision or other discretionary approval.		
Impact 3-3: Project Contribution to General Plan-Identified Countywide Cumulative Impacts on the County Visual Character. The General Plan EIR has determined that cumulative development of General Plan-permitted urban land uses throughout Solano County would permanently change views, including valued scenic vistas, throughout the County and would substantially alter the visual character of the County through conversion of agricultural and open space	**Mitigation 3-3:** No mitigation has been identified which would be sufficient to eliminate the project contribution; therefore the project contribution to this impact would be **significant and unavoidable.**	--	--	--		

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lands to developed urban uses. The General Plan EIR notes that, although implementation of General Plan-required project-specific comprehensive design guidelines and architectural standards would reduce project-specific impacts on aesthetic resources, "there is no mechanism to allow implementation of development projects while avoiding the conversion of the local viewsheds from agricultural land uses and open spaces to urban…development." The General Plan EIR has also determined that no feasible mitigation measures or policies are available that could fully preserve existing visual qualities countywide while allowing development of urban uses under the adopted General Plan, and "Therefore, this impact would remain **significant and unavoidable"** (General Plan Draft EIR page 4.11-9). Existing vegetative screening would block views of Draft Specific Plan-designated neighborhood development from Green Valley Road. The Draft Specific Plan land use and open space framework and associated stringent development standards and design guidelines would also minimize project visual impacts. The Draft Specific Plan would also retain about 78 percent of the plan area in permanent agricultural and open space use. In addition, the Draft Specific Plan includes detailed development standards and form-based design guidelines that would serve to substantially reduce the aesthetic impacts of development within the various Specific Plan-designated neighborhood areas. Nevertheless, the project contribution to this General Plan-identified cumulative impact would not be "de minimis" (the commonly-used CEQA term for an effect so small or minimal in difference to the status quo that it does not constitute an environmental impact). Therefore, under CEQA, the project contribution to this General Plan-identified significant unavoidable cumulative impact would be **significant**.						
AGRICULTURAL AND MINERAL RESOURCES						
Impact 4-1: Impact on Prime Farmland. The 2008 Solano County General Plan indicates that the county included approximately 365,650 acres of agricultural land in 2007, including approximately 157,740 acres of "Important Farmland." This "Important Farmland" included state-designated "Prime Farmland" (farmland considered to have the soil quality, growing season, and moisture supply needed to produce sustained high	**Mitigation 4-1:** The DSP would facilitate rural development within the plan area in accordance with the adopted 2008 Solano County General Plan. It has been determined that such development could, over time, permanently remove up to an estimated 123 acres of Prime Farmland from agricultural production. Chapter 19 of this Draft EIR, Alternatives to the Proposed Action, evaluates an alternative Specific	--	--	--		

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yields) and "Farmland of Statewide Importance" (farmland similar to "Prime Farmland," but with minor shortcomings, such as greater slopes, etc.). The plan area includes approximately 700 acres of Prime Farmland. A principal goal of the Draft Specific Plan (DSP), implemented through the DSP-proposed Green Valley Agricultural Conservancy, Agricultural Business Plan, Resource Management Plan, and Transfer of Development Rights program, is to return the substantial portion of this 700-acre total that has not been in recent cultivation back to cultivated agricultural use. Nevertheless, the DSP-designated Elkhorn, Nightingale and Three Creeks neighborhood areas overlap some areas of Prime Farmland in the plan area. The DSP-designated Agriculture Residential (5-acre minimum residential lots) and Rural Farm (2 to 5 acres per unit) land use categories within these three neighborhoods, totaling roughly 66 acres, would not preclude continued primary use for sustained high-yield agricultural production. However, the DSP-designated Rural Neighborhood (1 to 4 units per acre) and Rural Mixed-Use Center (4 to 8 units per acre) categories within these neighborhoods, totaling roughly 123 acres, would preclude continued high-yield agricultural production. The DSP would therefore, over time, convert up to approximately 123 acres of Prime Farmland to non-agricultural use. Although this DSP-related Prime Farmland loss would constitute a small (0.08 percent) portion of the County's total "Important Farmland" inventory, and would be offset by the DSP measures to return other plan area Prime Farmlands to high-yield agricultural production, it would nevertheless represent a **significant environmental impact** under CEQA.	Plan land use layout that would avoid all plan area Prime Farmland (Alternative 19.2). The evaluation indicates that the land use layout changes necessary to accommodate the County General Plan-suggested maximum development capacity of up to 400 new primary residential units and up to 100 new secondary residential units in a manner that avoids the 123 acres of plan area Prime Farmland would force more development into sensitive viewsheds and wildlife habitat and corridors, thereby defeating many of the key project objectives listed in section 2.3 of this Draft EIR. Therefore, it has been determined that no feasible mitigation is currently available to avoid this impact, this Specific Plan-related long-term potential for conversion of Prime Farmland in the plan area to urban use would represent a **significant and unavoidable impact.**					
Impact 4-2: Indirect Impacts on Prime Farmland. DSP-facilitated development in the Elkhorn, Nightingale and Three Creeks neighborhoods could cause conflicts between new, project-facilitated Residential or Community Services (e.g., private school) uses and adjacent or nearby Prime Farmland agricultural activity. The large size of most DSP-proposed residential lots would allow substantial building setbacks from this property line, which would reduce the possibility for conflicts. Nevertheless, the introduction of new residential uses near existing Prime Farmland operations could result in land use compatibility problems for the existing farmland operations, such as nuisance complaints from new	**Mitigation 4-2:** Chapter 2.2 of the Solano County Code protects farm operations from nuisance complaints associated with residential uses located next to active agricultural operations. The County's "right-to-farm ordinance," as it is commonly known, guarantees existing farm owners the right to continue agricultural operations, including, but not limited to, cultivating and tilling the soil, burning agricultural byproducts, irrigating, raising crops and/or livestock, and applying approved chemicals in a proper manner to fields and farmland. The ordinance limits the circumstances under which agriculture may be considered a nuisance. To prevent future residential/agriculture conflicts in the County, notice of this ordinance is currently required to	Individual project applicants (must demonstrate compliance to County satisfaction).	County	Prior to any subdivision or other discretionary approval.		

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residents, livestock disturbance by domestic pets, trespassing, and vandalism. Nuisance complaints can potentially cause farm operators to curtail operations, and can deter additional investment in farm-related improvements that support the county's agriculture economy. This potential conflict between DSP-facilitated existing farmland operations, residential development and existing agricultural uses represents a **potentially significant impact**.	be given to purchasers of real property. Consistent with the Solano County Code, and as a condition of future subdivision and other discretionary development approvals in the plan area, the County shall require the development applicant/developer to provide notification in writing to all prospective purchasers of Residential or Community Services property of the potential nuisances associated with adjacent and nearby farm operations and the existence of the County right-to-farm ordinance. Implementation of this measure would reduce the potential for project indirect impacts on Prime Farmland to a **less-than-significant level**.					
AIR QUALITY						
Impact 5-1: Construction-Related Air Quality Impacts. Construction or demolition activities permitted and/or facilitated by the proposed Specific Plan may generate construction-period exhaust emissions and fugitive dust that could temporarily but noticeably affect local air quality. This would represent a **potentially significant impact.**	**Mitigation 5-1.** The County shall require construction contractors to comply with Solano County General Plan Implementation Program HS.I-59 (best management practices) and Implementation Program RS.I-49 (requirements for diesel vehicles). In addition, for all discretionary grading, demolition, or construction activity in the Specific Plan area, the County shall require implementation of the following measures by construction contractors, where applicable: *Dust (PM_{10}) control measures that apply to all construction activities:* ▪ Water all active construction areas that have ground disturbances at least twice daily and more often during windy periods. ▪ Cover all hauling trucks or maintain at least two feet of freeboard. ▪ Pave, apply water at least twice daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas. ▪ Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas, and sweep streets daily (with water sweepers) if visible soil material is deposited onto the adjacent roads. *Enhanced dust (PM_{10}) control measures (for construction sites that are greater than four acres, are located adjacent to sensitive receptors, or otherwise warrant additional control measures):* ▪ Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (i.e., previously graded areas that are inactive for 10 days or more).	Individual project applicants and their construction contractors (must demonstrate compliance to County satisfaction).	County	Condition of subdivision map approval; verified during individual project construction.		

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	▪ Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles. ▪ Limit traffic speeds on any unpaved roads to 15 miles per hour. ▪ Replant vegetation in disturbed areas as quickly as possible. ▪ Suspend construction activities that cause visible dust plumes to extend beyond the construction site. *Measures to reduce diesel particulate matter and $PM_{2.5}$:* ▪ Post clear signage at all construction sites indicating that diesel equipment standing idle for more than five minutes shall be turned off. This would include trucks waiting to deliver or receive soil, aggregate, or other bulk materials. Rotating drum concrete trucks could keep their engines running continuously as long as they were onsite or adjacent to the construction site. ▪ Prevent the use of construction equipment with high particulate emissions. Opacity is an indicator of exhaust particulate emissions from off-road diesel powered equipment. The project shall ensure that emissions from all construction diesel-powered equipment used on the project site do not exceed 40-percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40-percent opacity (or Ringelmann 2.0) shall be repaired or replaced immediately. ▪ Ensure that contractors install temporary electrical service whenever possible to avoid the need for independently powered equipment (e.g. compressors). ▪ Properly tune and maintain equipment for low emissions. The above measures are BAAQMD-identified "feasible control measures for construction emissions of PM_{10}." Implementation of these measures would reduce the construction-related air quality impact to a **less-than-significant level**.					
Impact 5-2: Odor Impacts on "Sensitive Receptors." Specific Plan-facilitated development in the plan area may expose sensitive receptors, such as housing and potentially a school, to odors. This effect is considered to be a **potentially significant project and cumulative impact.**	**Mitigation 5-2.** In reviewing projects proposed in accordance with the Specific Plan, the Middle Green Valley Conservancy and County shall implement Solano County General Plan policies and implementation programs to reduce the potential for odor impacts on sensitive receptors, including Implementation Program HS.I-58 (encouraging	MGV Conservancy and County-implemented education program; individual project	MGV Conservancy and County-implemented ongoing monitoring program (for best	Ongoing inspection/ monitoring of ag. operations by MGV Conservancy and County to		

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	agricultural best management practices) and Implementation Program HS.I-63 (establishing buffers). Implementation of these measures would be expected to reduce odor impacts on sensitive receptors to a **less-than-significant level**.	applicant-implemented development design measures.	management practices); MGV Conservancy Design Review Committee and County verification of adequate buffering through design review (for buffer requirement).	advocate best management practices; condition of subdivision map approval (for buffering).		
Impact 5-3: Long-Term Regional Air Emissions Increases. Specific Plan-facilitated development is not reflected in the latest applicable Clean Air Plan (CAP). In addition, future traffic increases associated with Specific Plan-facilitated development would generate regional emissions increases that would exceed the latest proposed BAAQMD emission-based threshold of significance for reactive organic gases (ROG). The effect of long-term regional emissions associated with Specific Plan-facilitated development is therefore considered to be a **significant project and cumulative impact.**	**Mitigation 5-3.** In addition to the energy-efficiency and other emissions-reducing measures already included in the Specific Plan (e.g., provisions of sidewalks, bicycle lanes, etc.), the County shall require that the Specific Plan include the following requirements: ▪ Wire each housing unit to allow use of emerging electronic metering communication technology. ▪ Restrict the number of fireplaces in residences to one per household and/or require residential use of EPA-certified wood stoves, pellet stoves, or fireplace inserts. EPA-certified fireplaces and fireplace inserts are 70- to 90-percent effective in reducing emissions from this source. Also encourage the use of natural gas-fired fireplaces. ▪ Require outdoor outlets at residences to allow use of electrical lawn and landscape maintenance equipment. ▪ Make natural gas available in residential backyards to allow use of natural gas-fired barbecues. ▪ Require that any community services operation in the plan area use electrical or alternatively fueled equipment for maintenance of the areas under its jurisdiction. These strategies can be expected to reduce Specific Plan-related regional emissions assumed in the air quality analysis by perhaps 5 percent. This amount would fall short of the 23-percent reduction needed for emissions to fall below the proposed BAAQMD significance threshold for ROG. The finding of a significant impact is based primarily on inconsistencies among the land use projections used in various plans (i.e., the proposed Specific Plan, the recently adopted Solano County General Plan, and the 2005 Bay Area Ozone Strategy). As a result, the	County, by incorp. these requirements into Specific Plan; individual project applicants, by incorp. into project designs.	MGV Conservancy Design Review Committee and County.	Prior to any subdivision or other discretionary approval.		

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	Specific Plan's inconsistency with the CAP is primarily an administrative effect, in that the CAP is out-of-date and does not reflect current planning projections. The BAAQMD is likely to adopt an updated CAP that would include the latest County projections, including proposed development in the Specific Plan area. Until the current CAP is updated to reflect changed assumptions regarding the County General Plan and Specific Plan projections, adoption and implementation of the Specific Plan would remain technically inconsistent with the current CAP. In addition, however, Specific Plan-facilitated development would likely exceed the proposed BAAQMD significance threshold for ROG, should that threshold be adopted. Since no additional feasible full mitigation has been identified, the Specific Plan's effect on long-term regional emissions increases, as reflected in these administrative provisions, would therefore represent a **significant and unavoidable impact**.					
BIOLOGICAL RESOURCES						
Impact 6-1: General Areawide Impacts on Biological Resources. The Draft Specific Plan (DSP) neighborhood and open lands framework (DSP sections 3.2.1 and 3.3.2), street network (DSP section 3.4.3) and associated environmental stewardship provisions and habitat protection objectives (DSP sections 3.3.4 and 5.5.6) have been formulated with the intent to avoid and protect mixed oak woodland forest, grassland pockets, and Hennessey Creek and Green Valley Creek riparian corridors, and to minimize biological resource impacts in general. The Draft Specific Plan also specifically acknowledges the framework that would be established by the Bureau of Reclamation and Solano County Water Agency's proposed Solano Multi-Species Habitat Conservation Plan (HCP) (DSP section 2.4.3) for complying with federal and state regulations for special-status species while accommodating future urban growth. In addition, the tree and habitat protection objectives identified in the DSP (section 5.5.6) specifically call for the protection of existing mature hardwood and oak trees; preservation, conservation and enhancement of open lands that provide wildlife habitat; minimization of tree and shrub removal in foothill areas; and repair of environmental degradation that has previously occurred. Nevertheless, based on the evaluation of biological resources occurring or potentially occurring	**Mitigation 6-1.** The County shall encourage avoidance, minimization and compensatory mitigation of identified biological resources, including careful consideration by prospective individual project applicants of the biological resource constraint information provided in this EIR during the pre-application project design phase. In addition, prior to County approval of any future plan area subdivision or other discretionary development application, the project proponent shall submit a *biological resources assessment report* prepared by a qualified biologist for County review and approval. The *biological resources assessment report* shall contain a focused evaluation of project-specific impacts on biological resources, including any protocol level surveys for biological resources that have been performed as may be necessary for temporary and indirect impacts, as well as all related biological impact avoidance, minimization, and compensatory mitigation measures included in the project. If the assessment results in a determination that: (a) no oak woodland area, potentially jurisdictional wetland area, or riparian habitat or other stream features would be affected; and (b) no special-status plant or animal species habitat known to occur or potentially occur on or in the vicinity of the project would be affected; no further mitigation would be necessary. If the assessment results in a	Individual project applicants (must demonstrate compliance to County satisfaction).	MGV Conservancy Design Review Committee and County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
within or in the vicinity of the DSP-designated development areas by the EIR consulting biologist, it has been determined that future individual development projects undertaken in accordance with the DSP may result in potential site-specific impacts on biological resources including sensitive vegetation and aquatic communities, special-status plant species, and special-status wildlife species, due to future individual project-level residential, commercial and mixed- use development, landscaped parkland construction, active open space land uses, and associated road and utility/infrastructure construction activities. This possibility represents a **potentially significant impact.**	determination that one or more of these features would be affected, the assessment shall identify associated avoidance, minimization, and/or compensatory mitigation measures shall be consistent with the requirements of corresponding Mitigation 6-2 through 6-13 which follow in this EIR chapter, as well as all other applicable state and federal laws and regulations. Prior to project approval, the County shall also confirm that project-level development has received the necessary permits, approvals, and determinations from applicable biological resource agencies as identified under Mitigations 6-2 through 6-13 which follow. Implementation of these measures would reduce the potential impact to a **less-than-significant level**.					
Impact 6-2: Potential Conflict with Solano County Multispecies Habitat Conservation Plan. The Draft Specific Plan includes substantial measures intended to minimize potential conflicts between future individual developments undertaken under the Specific Plan with the policies of the Bureau of Reclamation and Solano County Water Agency's Administrative Draft Solano County Multispecies Habitat Conservation Plan (HCP). Nevertheless, if future individual project-level development undertaken under the Specific Plan includes aspects, or proposes special-status species impact avoidance, minimization and/or compensatory mitigation measures, that are not consistent with the HCP as ultimately adopted, the individual project would conflict with the provisions of an adopted Habitat Conservation Plan. This possibility represents a **potentially significant impact.**	**Mitigation 6-2.** The County shall ensure that, prior to construction, project-level applicants implement (a) multispecies impact avoidance, minimization and compensatory mitigation measures consistent with the Solano HCP (even if the individual project-level application does not require a jurisdictional approval from an HCP implementing agency such as the SCWA, City of Fairfield Municipal Water, or SID); or (b) comparable measures approved by applicable resource agencies. This measure would reduce the potential impact to a **less-than-significant level**. *[Note: This mitigation measure is intended to incorporate the final HCP, once adopted.]*	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
Impact 6-3: Impact on Oak Woodlands. The Draft Specific Plan includes land use and circulation configurations and associated measures intended to avoid or minimize potential impacts on existing oak woodlands. Nevertheless, future individual project-level development undertaken in accordance with the Specific Plan may result in direct, temporary and/or indirect impacts on oak woodland communities, representing a **potentially significant impact.**	**Mitigation 6-3.** Prior to approval of future individual, site-specific development projects within the plan area, the project proponent shall submit an *oak woodland management plan*, prepared by a trained arborist or forester, which is consistent with the requirements of the Specific Plan and this EIR (see below). The *oak woodland management plan* may be integrated into the *biological resources assessment report* (see *Mitigation 6-1*). Direct impacts on oak woodland shall be mitigated by (a) conservation of oak woodland through the proposed Transfer of Development Rights program (or other method if necessary) at a minimum of a 1:1 ratio by acreage, and (b) replanting of removed heritage oaks at a 1:1 ratio. Transplantation of existing oaks	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	would not require compensatory mitigation, unless subsequent monitoring shows that the transplanted oak has not survived the process. Implementation of this measure, combined with the detailed mitigation provisions included in the Specific Plan (see below), would reduce the potential impact to a **less-than-significant level**.					
Impact 6-4: Impacts on Riparian Communities. The Draft Specific Plan includes land use and circulation configurations and associated measures intended to avoid or minimize potential impacts on Green Valley Creek and Hennessey Creek riparian communities. Nevertheless, future, individual project-level development undertaken in accordance with the Specific Plan may result in direct, temporary, indirect impacts on riparian communities in the plan area, representing a **potentially significant impact.**	**Mitigation 6-4.** Proponents of projects that have been determined through *Mitigation 6-1* (biological resource assessment report) to involve potential impacts on riparian vegetation communities shall: (a) contact the California Department of Fish and Game (CDFG) to determine whether a Lake and Streambed Alteration Agreement is necessary; and (b) provide a detailed description of the potential riparian habitat impacts and proposed mitigation program to the Regional Water Quality Control Board (Water Board) as part of the project's Water Quality Certification application. Final mitigation for direct and permanent impacts on riparian vegetation/habitat would be subject to *jurisdictional agency approval*--i.e., approval by the CDFG and Water Board. (The term "jurisdictional agency" as used throughout the mitigation program description in this EIR chapter refers to the federal and state resource agencies with authority pertaining to the subject impact--i.e., the applicable combination of USFWS, Corps, CDFG and/or Water Board, based on the jurisdictional authorities described in sections 6.2.2 and 6.2.3 herein.) Mitigation shall include: (a) preservation of riparian habitat at the jurisdictional agency-established minimum ratio (or a 1:1 ratio, whichever is more), measured by acreage, either onsite or at an approved mitigation bank; and (b) replanting riparian vegetation in preserved riparian areas at the jurisdictional agency-established minimum ratio (or a 1:1 ratio, whichever is more) as measured by acreage, either onsite or at an approved mitigation bank. Temporary impacts on riparian habitat may be mitigated by replanting of riparian vegetation at the jurisdictional agency-established minimum ratio (or a 1:1 ratio, whichever is more). Preserved riparian habitat areas shall be protected in perpetuity by a conservation easement. New development lot lines and the edges of cultivated agricultural fields in preserved lands shall be set back from preserved riparian corridors by a minimum of 50	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	feet for tributaries and a minimum of 100 feet from Green Valley Creek and lower Hennessey Creek. The potential for introduction of invasive species into riparian communities shall be minimized through use of the planting palettes recommended in the Specific Plan, or a comparable palette approved by the authorized jurisdictional agencies. The use of native plants shall be encouraged. To provide additional direct mitigation for project impacts on Hennessey Creek riparian vegetation, and potential indirect, in-kind mitigation for riparian impacts elsewhere in the plan area, a *Hennessey Creek conceptual restoration plan* shall be prepared. This conceptual restoration plan shall be prepared to meet all jurisdictional agency requirements prior to final approval of any future plan area subdivision map or other discretionary approval involving direct impacts on Hennessey Creek riparian communities, or impacts on riparian communities elsewhere in the plan area that may be subject to in-kind mitigation. The plan shall identify steps necessary for implementation, including securing funding from the Conservancy or elsewhere as necessary to carry out the plan. Implementation of these measures would reduce the potential impact to a **less-than-significant level**.					
Impact 6-5: Impact on Wetlands, Streams, and Ponds. The Draft Specific Plan includes land use and circulation configurations and associated measures intended to avoid or minimize potential impacts on existing wetlands, streams and ponds. Nevertheless, future, individual project-level development undertaken in accordance with the Specific Plan may result in direct, temporary, and/or indirect impacts on wetlands, streams, and ponds in the plan area, representing a **potentially significant impact.**	**Mitigation 6-5.** Proponents of projects that have been determined through *Mitigation 6-1* (biological resources assessment report) to involve potential impacts on wetlands, streams and ponds shall: (a) contact the California Department of Fish and Game (CDFG) to determine whether a Lake and Streambed Alteration Agreement is necessary; and (b) submit a Section 404 permit application to the U.S. Army Corps of Engineers (Corps) and a Water Quality Certification application to the Regional Water Quality Control Board (Water Board). A jurisdictional Section 404 delineation must be approved by the Corps before permits can be issued by the above-listed agencies. Final mitigation for direct and temporary impacts on wetlands, streams, and ponds shall be subject to the approval of the CDFG and Water Board. Mitigation for direct impacts shall include a minimum of (a) preservation of wetland, stream, and/or pond habitat at the jurisdiction agency-established minimum ratio, measured by acreage, either onsite or at an approved mitigation bank; and (b) creation of wetland, stream,	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	and/or pond habitat in preserved areas at the jurisdiction agency-established minimum ratio, either onsite or at an approved mitigation bank. Onsite preserved habitat areas shall be protected in perpetuity by a conservation easement. New development lot lines and the edges of cultivated agricultural fields in preserved lands shall be set back from preserved wetlands, streams, and ponds by a minimum of 50 feet from tributaries and a minimum of 100 feet from Green Valley Creek and lower Hennessey Creek. New and expanded road crossings over streams shall be designed and constructed to minimize disturbance to the stream channel by the use of measures such as clear span bridges or arch span culverts when feasible, and minimizing the number and area of footings placed in and at the margins of stream channels. The Hennessey Creek conceptual restoration area (see *Mitigation 6-4*) shall be made available to provide for mitigation of direct impacts on Hennessey Creek riparian communities, or potential in-kind mitigation for riparian impacts elsewhere in the plan area. As indicated in *Mitigation 6-4*, the potential for introduction of invasive species shall be minimized through use of the planting palettes recommended in the Specific Plan, or a comparable palette approved by the authorized jurisdictional agencies. The use of native plants shall be encouraged. These measures would reduce the potential impact to a **less-than-significant level**.					
Impact 6-6: Impact on Special-Status Plant Species Observed or Known to Occur in the Plan Area. Development undertaken in accordance with the Specific Plan may result in direct, temporary, or indirect impacts on one special-status plant species observed or known to occur in the plan area, Northern California black walnut, which is a California Native Plant Society (CNPS) List 1B species. This possibility represents a **potentially significant impact.**	**Mitigation 6-6.** Prior to approval of future individual project-level development plans in the plan area, the potential for occurrence of special-status plant species in the proposed project area should be evaluated under *Mitigation 6-1* (biological resources assessment report requirements) by a qualified professional biologist and based on the information provided by this EIR and other appropriate literature resources. If suitable habitat for special-status plant species is present in the proposed project area, protocol-level special-status plant surveys shall be conducted during the appropriate blooming period by a qualified professional biologist. The results of the report shall be provided as part of a protocol-level *special-status plant survey report*, or integrated into other biological documentation. If special-status plant species are found during	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	protocol-level special-status plant species surveys, the special-status plant species survey report shall provide a discussion of avoidance, minimization, and mitigation measures as appropriate for each species population. Species observed to be present shall be avoided if feasible. If avoidance of these species is not feasible, the special-status plant species shall be transplanted to suitable habitat areas using techniques most suited for the species based on best available science. This may include seed collection, transplantation, or other appropriate methods depending on the observed plant species. Potential indirect hydrology impacts shall be evaluated as part of the *special-status plant species survey report*. If special-status plant species populations could be affected by changes in hydrology as a result of the proposed project, measures such as establishment of appropriate buffers and/or changes to grading contours (if feasible) shall be recommended to maintain preserved and avoided plant species populations. The potential for introduction of invasive species shall be minimized through use of planting palettes recommended in the Specific Plan or a comparable palette approved by the authorized jurisdictional agencies. The use of native plants is encouraged. Construction activities shall disturb the minimum area necessary to complete construction work and disturbed areas seeded with a mix containing native species as soon as possible following disturbance. Construction equipment shall be kept clean of vegetative material, and construction traffic shall be restricted to those areas necessary to complete construction. Implementation of these measures to the satisfaction of the listing jurisdictional agency would reduce the potential impact to a **less-than-significant level**. The listing jurisdictional agency is the federal, state and/or local agency--i.e., the USFWS, or CDFG, CNPS, or County--that has recognized (i.e., listed) the species as a special status species deserving special consideration because of its rarity or vulnerability.					
Impact 6-7: Impacts on Special-Status Plant Species with Potential Habitat in the Plan Area. Development undertaken in accordance with the Specific Plan may result in direct, temporary or indirect impacts on special-status plant species that have not yet been observed or are not yet known to occur, but could potentially occur, based on habitat conditions in	**Mitigation 6-7.** Implement *Mitigation 6-6*. Implementation of this measure as a condition of future individual discretionary project approvals, to the satisfaction of the listing jurisdictional agency (CDFG), would reduce this potential impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
the plan area, including CNPS List 1B species (Alkali milk-vetch, Big-scale balsamroot, Big tarplant, Narrow-anthered California brodiaea, Mt. Diablo fairy lantern, Tiburon paintbrush, Holly-leaved ceanothus, Pappose tarplant, Western leatherwood, Adobe lily, Diablo helianthella, Brewer's westernflax, Robust monardella, Baker's navarretia, Snowy Indian clover, and Saline clover) and CNPS List 2 species (Dwarf downingia, Rayless ragwort, and Oval-leaved viburnum). This possibility represents a **potentially significant impact.**						
Impact 6-8: Impacts on Special-Status Wildlife Species Observed or Known to Occur in the Plan Area. Development undertaken in accordance with the Specific Plan may result in direct, temporary or indirect impacts on special-status wildlife species observed or known to occur in the plan area, including CDFG Species of Special Concern (Loggerhead Shrike, Grasshopper Sparrow, and Western Pond Turtle), a USFWS Bird of Conservation Concern (Lewis's Woodpecker), a Federal Threatened Species (Steelhead) and a CDFG Protected Species (Monarch Butterfly). This possibility represents a **potentially significant impact.**	**Mitigation 6-8.** The *biological resources assessment reports* submitted by applicants for project-level developments in the plan area shall evaluate the potential for special-status wildlife species to occur in the proposed project areas and shall identify appropriate avoidance, minimization and/or compensatory measures. In accordance with *Mitigation 6-2*, the *biological resources assessment reports* shall refer to the anticipated Solano HCP for appropriate avoidance and minimization measures. Impacts on avian species protected by the Migratory Bird Treaty Act (MBTA) shall be avoided through preconstruction breeding bird surveys and avoidance of occupied nests. Implementation of this measure as a condition of individual discretionary project approval, to the satisfaction of the listing jurisdictional agency(ies), would reduce this potential impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
Impact 6-9: Impacts on Special-Status Wildlife Species with Potential Habitat in the Plan Area. Development undertaken in accordance with the Specific Plan may also result in direct, temporary or indirect impacts on special-status species that have not yet been observed or are not yet known to occur, but could potentially occur, based on habitat conditions in the plan area, including CDFG Species of Special Concern (Pallid Bat, various Western Bat species, American Badger, and Northern Harrier), CDFG Fully Protected Species (Golden Eagle and White-Tailed Kite), State Threatened Species (Swainson's Hawk) and a USFWS Bird of Conservation Concern (Golden Eagle). This possibility represents a **potentially significant impact**.	**Mitigation 6-9.** Implement *Mitigation 6-8*. Implementation of this measure as a condition of future individual discretionary project approvals, to the satisfaction of the listing jurisdictional agency (CDFG), would reduce this potential impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
Impact 6-10: Impact on Loggerhead Shrike, Lewis's Woodpecker, Grasshopper Sparrow and Other Protected Bird Species. Future, individual project-level development undertaken in accordance with the	**Mitigation 6-10.** If construction or other disturbance to suitable nesting habitat for these and other potential special-status bird species is conducted between February 1 and August 31, pre-construction breeding	Individual project applicants (must demonstrate compliance to	County.	Prior to any subdivision or other discretionary		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
Specific Plan may result in direct, temporary, and/or indirect impacts on nesting and foraging habitat for protected bird species known to occur in the plan area, including Loggerhead Shrike, Lewis's Woodpecker, and Grasshopper Sparrow, as well as other special-status and Migratory Bird Treaty Act-protected bird species with the potential to occur in the plan area, representing a **potentially significant impact**.	bird surveys shall be conducted by a qualified biologist no later than 30 days prior to the anticipated start of construction. Construction and removal of suitable nesting vegetation may be initiated without pre-construction surveys if removal and disturbance of suitable nesting habitat is conducted between September 1 and January 31. If breeding birds are observed during pre-construction surveys, disturbance to active nests shall be avoided by establishment of a buffer between the nest and construction activities. Appropriate buffer distances are species- and project-specific but shall follow the guidelines of the ADHCP: for example, a minimum of 500 feet would be required for Swainson's Hawk and a minimum of 250 feet for Special Management Species (Loggerhead Shrike, Grasshopper Sparrow, and Tricolored Blackbird). For all other special-status bird species, a minimum buffer distance of at least 50 feet shall be required. The *biological resources assessment reports* required under *Mitigation 6-1* for all individual discretionary development projects in the plan area shall contain analysis of measures that would be used by a proposed development project to minimize and avoid potential indirect impacts on special-status bird species. Implementation of these measures would reduce the potential impact to a **less-than-significant level**.	County satisfaction).		approval.		
Impact 6-11: Impact on Western Pond Turtle. Future individual discretionary project-specific development undertaken in accordance with the Specific Plan may result in direct, temporary, and/or indirect impacts on Western Pond Turtle and suitable habitat for this species, representing a **potentially significant impact**.	**Mitigation 6-11.** The presence of suitable aquatic and dispersal habitat for WPT shall be evaluated by a qualified biologist as part of the *biological resources assessment report* required under *Mitigation 6-1*. Projects containing suitable aquatic habitat for WPT shall provide an analysis of potential impacts, along with avoidance, minimization, and mitigation measures for potential impacts on WPT. It is recommended that final avoidance, minimization, and mitigation measures be developed in consultation with CDFG and/or be consistent with the measures outlined in the anticipated Solano HCP. Direct impacts on WPT habitat shall be mitigated through implementation of the mitigation measures described above for wetlands, streams, and ponds (*Mitigation 6-5*). Indirect hydrology and water quality impacts on WPT shall be mitigated through implementation of mitigation measures recommended in chapter 11, Hydrology and Water Quality, of this EIR.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

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		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	These measures would reduce the potential impact to a **less-than-significant level**.					
Impact 6-12: Impact on Steelhead. The Draft Specific Plan includes land use and circulation configurations and associated measures intended to avoid or minimize potential direct and indirect impacts on plan area streams and stream habitats. Nevertheless, future individual project-specific discretionary development undertaken in accordance with the Specific Plan may result in direct, temporary, and/or indirect impacts on Steelhead in Green Valley Creek, a Federal Threatened Species, representing a **potentially significant impact.**	**Mitigation 6-12.** Utility crossings and new and expanded road crossings over streams shall be designed and constructed to minimize disturbance to the stream channel by using measures such as clear span bridges or arch span culverts when feasible, and by minimizing the number and area of footings placed in and at the margins of stream channels. Appropriate construction Best Management Practices (BMPs) such as those recommended in this EIR or in the anticipated Solano HCP to minimize impacts on Steelhead shall also be implemented. Design and minimization measures are subject to approval, and may change, based on consultation with the National Marine Fisheries Service (NMFS). Riparian vegetation mitigation measures outlined in *Mitigation 6-4* shall also be implemented to reduce impacts on riparian vegetation that may affect Steelhead. Mitigation measures for stormwater quality and quantity identified recommended in chapter 11, Hydrology and Water Quality, of this EIR shall be implemented to minimize indirect impacts on Steelhead from stormwater and water quality changes due to construction. Implementation of these measures would reduce the potential impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
Impact 6-13: Impact on Wildlife Habitat Corridors and Linkages. Compared to other forms of development, the cluster development patterns proposed by the Specific Plan would greatly reduce the potential impact on habitat corridors and linkages, and the proposed preservation of large open space areas would help preserve opportunities for wildlife habitat use and movement. Nevertheless, future individual discretionary project-level development undertaken pursuant to the Specific Plan has the potential to impact wildlife habitat corridors and linkages, through the introduction of barriers to wildlife movement in the form of wider roads with increased traffic and increased development and human presence, representing a **potentially significant impact.**	**Mitigation 6-13.** As part of the *biological resources assessment report* required under *Mitigation 6-1*, each project undertaken pursuant to the Specific Plan shall include minimization and mitigation measures for potential impacts on wildlife corridors. Measures may vary based on project location, project design, and habitat types present. Project-level developments shall maintain the limits of development specified in the Specific Plan to provide adequate buffers for habitat corridors. Stream setbacks specified in *Mitigation 6-4* shall be implemented to maintain adequate corridor widths in riparian areas to allow for movement of wildlife. Implementation of these measures would reduce the potential impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
Impact 6-14: Cumulative Impact on Biological Resources. Development in the Specific Plan area, in combination with other future development elsewhere	**Mitigation 6-14.** The County shall ensure that *Mitigations 6-1* through *6-13* above are implemented. With successful implementation of these measures,	Individual project applicants (must demonstrate	County.	Prior to any subdivision or other		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
in the county and subregion, could contribute to cumulative biological resources impacts, including cumulative losses of special-status species, Heritage Trees, and other vegetation and wildlife. These cumulative impacts have been considered in the preparation and adoption of the Solano County General Plan and County-certified General Plan EIR, as well as in similar documents prepared for and adopted in other jurisdictions. The Specific Plan's potential contribution to cumulative effects on biological resources would represent a **potentially significant cumulative impact**.	the Specific Plan's contribution to the cumulative biological resources impact would be reduced to a **less-than-significant level**.	compliance to County satisfaction).		discretionary approval.		
CLIMATE CHANGE						
Impact 7-1: Specific Plan-Related and Cumulative Increase in Greenhouse Gas Emissions. Construction and ongoing operation of Specific Plan-facilitated development would result in a net increase in carbon dioxide and other greenhouse gas emissions. The Specific Plan contains guidelines and principles for encouraging energy efficiency in new development within the plan area. In addition, Specific Plan-facilitated new building construction and other improvements would be required to meet California Energy Efficiency Standards for Residential and Nonresidential Buildings, helping to reduce associated future energy demand and associated Specific Plan contributions to cumulative regional greenhouse gas emissions. Nevertheless, conservatively assuming construction emissions of 66 to 1,443 tons per year and an estimated ongoing "worst case" net increase in greenhouse gas emissions of approximately 10,779 metric tons per year (or 6.65 metric tons per year per capita), the proposed Specific Plan could be expected to result in a **significant project and cumulative global climate change impact.**	**Mitigation 7-1.** The proposed Specific Plan contains measures to encourage energy efficiency in new Specific Plan-facilitated development. To further ensure that the proposed Specific Plan facilitates growth in a manner that reduces the rate of associated greenhouse gas emissions increase, discretionary approvals for Specific Plan-related individual residential, commercial, agricultural, and public services projects in the Specific Plan area shall be required to comply with the Climate Action Plan to be developed and adopted by the County. In the interim, Specific Plan-related discretionary approvals shall incorporate an appropriate combination of the following greenhouse gas emissions reduction measures (from Table 7.3): ▪ features in the project design that would accommodate convenient public transit and promote direct access for pedestrians and bicyclists to major destinations; ▪ adoption of a project design objective for residential and commercial buildings to achieve Leadership in Energy and Environmental Design (LEED) New Construction "Silver" Certification or better, in addition to compliance with California Code of Regulations Title 24 Energy Efficient Standards; ▪ planting of trees and vegetation near structures to shade buildings and reduce energy requirements for heating and cooling; ▪ preservation or replacement of existing onsite trees; ▪ construction and demolition waste recycling (see Mitigation 16-12 of this EIR); and ▪ preference for replacement of project exterior lighting, street lights and other electrical uses with	Individual project applicants (must demonstrate compliance to County satisfaction).	MGV Conservancy Design Review Committee and County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	energy efficient bulbs and appliances. Implementation of appropriate combinations of these mitigation measures in individual Specific Plan-related developments would substantially reduce Specific Plan-related greenhouse gas emissions impacts. However, because the effectiveness of this mitigation program in reducing the Specific Plan-related contribution to cumulative greenhouse gas emissions in the region cannot be reasonably quantified, it has been determined that the Specific Plan, when combined with anticipated overall cumulative development in the region as a whole, would potentially produce a substantial net increase in greenhouse gas emissions, representing a **significant unavoidable project and cumulative climate change impact.**					
CULTURAL, HISTORIC AND PALEONTOLOGICAL RESOURCES						
Impact 8-1: Disturbance of Archaeological Resources. The Draft Specific Plan (DSP) neighborhood and open lands framework (DSP sections 3.2.1 and 3.2.2), streetwork (DSP section 3.4.3) and associated environmental stewardship objectives (DSP section 3.3.4) have been formulated with the intent to preserve and protect archaeological resources. The DSP proposes development of housing, community/public service uses, "agricultural tourism uses," and neighborhood commercial uses clustered around four neighborhoods, with the remaining 78 percent of the plan area preserved as open land. The DSP-proposed Green Valley Conservancy, a non-profit conservation organization, would oversee these preserved areas. Nevertheless, DSP-designated development and agricultural areas have the substantial potential to contain buried or obscured prehistoric cultural resources, as verified by the EIR consulting archaeologist. Agricultural activities and grading activities associated with future individual development projects undertaken in accordance with the DSP may disturb existing unrecorded sensitive archaeological resources in the plan area. This possibility represents a **potentially significant impact.**	**Mitigation 8-1.** During the County's normal project-specific environmental review (Initial Study) process for all future, discretionary, public improvement and private development projects in the Specific Plan area, the County shall determine the possible presence of, and the potential impacts of the action on, archaeological resources, based on the information provided by this EIR. For projects involving substantial ground disturbance, the individual project sponsor or environmental consultant shall be required to contract with a qualified archaeologist to conduct a determination in regard to cultural values remaining on the site and warranted mitigation measures. In general, to make an adequate determination, the archaeologist shall conduct a preliminary field inspection to (1) assess the amount and location of visible ground surface, (2) determine the nature and extent of previous impacts, and (3) assess the nature and extent of potential impacts. Such field inspection may demonstrate the need for some form of additional subsurface testing (e.g., excavation by auger, shovel, or backhoe unit), or, alternatively, the need for onsite monitoring of subsurface activities (i.e., during grading or trenching). To complete the inventory of prehistoric cultural resources, mechanical testing is recommended in areas adjoining Hennessey Creek and Green Valley Creek where ground disturbance may be proposed. In addition, evaluative testing may be necessary to determine whether a resource is eligible for inclusion on the California Register of Historic Places.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Ongoing inspection/ monitoring during construction.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	If a significant archaeological resource is identified through this field inspection process, the County and project proponent shall seek to avoid damaging effects on the resource. Preservation in place to maintain the relationship between the artifact(s) and the archaeological context is the preferred manner of mitigating impacts on an archaeological site. Preservation may be accomplished by: ▪ planning construction to avoid the archaeological site; ▪ incorporating the site within a park, green space, or other open space element; ▪ covering the site with a layer of chemically stable soil; or ▪ deeding the site into a permanent conservation easement (e.g., an easement administered by the proposed Green Valley Conservancy). When in-place mitigation is determined by the County to be infeasible, a *data recovery plan*, which makes provisions for adequate recovery of culturally or historically consequential information about the site, shall be prepared and adopted prior to any additional excavation being undertaken. Such studies shall be submitted to the California Historical Records Information System (CHRIS). If Native American artifacts are indicated, the studies shall also be submitted to the Native American Heritage Commission. Identified cultural resources shall be recorded on form DPR 422 (archaeological sites). Mitigation measures recommended by these two groups and required by the County shall be undertaken, if necessary, prior to resumption of construction activities. A *data recovery plan* and data recovery shall not be required if the County determines that testing or studies already completed have adequately recovered the necessary data, provided that the data have already been documented in another EIR or are available for review at the CHRIS (CEQA Guidelines section 15126.4[b]). In the event that subsurface cultural resources are otherwise encountered during approved ground-disturbing activities for a plan area construction activity, work in the immediate vicinity shall be stopped and a qualified archaeologist retained to evaluate the finds following the procedures described above. If human remains are found, special rules set forth in					

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	State Health and Safety Code section 7050.5 and CEQA Guidelines section 5064.5(e) shall apply. Implementation of this measure would supplement the County's existing General Plan policies and implementation programs and would reduce this impact to a **less-than-significant level**.					
Impact 8-2: Destruction/Degradation of Historic Resources. The planning process for the Draft Specific Plan (DSP) included consideration of the Secretary of the Interior's standards and other provisions for protecting historic resources. In addition, the 55 existing housing units in the plan area--some of which represent historic-period resources--would not be affected by DSP-facilitated neighborhood and infrastructure framework. Nevertheless, future project-specific development in accordance with the Specific Plan may result in substantial adverse changes in the significance of one or more individual potentially significant historic properties in the plan area. If a historic resource were the subject of a future, site-specific development proposal, substantial adverse changes that may potentially occur include physical demolition, destruction, relocation, or alteration of one or more of these identified resources, such that the resource is "materially impaired." A historic resource is considered to be "materially impaired" when a project demolishes or materially alters the physical characteristics that justify the determination of its significance (CEQA Guidelines section 15064.5[b]). Such an adverse change to a CEQA-defined historic resource would constitute a **potentially significant impact.**	**Mitigation 8-2.** Generally, for any future discretionary action within the Specific Plan area that the County determines through the CEQA-required Initial Study review process may cause a "substantial adverse change" to an identified historic resource, the County and applicant shall incorporate measures that would seek to improve the affected resource in accordance with either of the following publications: ▪ The Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*; or ▪ The Secretary of the Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*. In accordance with the recommendations of the Holman & Associates cultural resources inventory, evaluation of the affected resource shall include consideration of (a) the research potential of the property type, (b) the total number of similar resources in the Specific Plan area and potential impacts on the plan area as a whole, and (c) the preservation and study priorities identified in the Holman & Associates inventory. Each site shall be formally recorded on State of California primary record forms (form DPR 523) and applicable attachments. Recording shall consolidate as many of the structures and features as possible into one site (i.e., record form) where there is a clear historical association, despite the frequent dispersal of features across the plan area. Successful incorporation of these measures would supplement the County's existing General Plan policies and implementation programs and would reduce the impact to a **less-than-significant level** (CEQA Guidelines section 15126.4[b]). This mitigation shall be made enforceable by its incorporation into the Specific Plan as a County-adopted requirement to be implemented through subsequent development-specific permits, conditions, agreements, or other measures, pursuant to CEQA Guidelines section 15064.5(b)(3-5).	County (CEQA-required Initial Study responsibility) and individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to issuance of grading or building permit.		

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		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	For any future discretionary action that would result in the demolition of an identified historic resource, or otherwise cause the significance of the resource to be "materially impaired," the County shall determine through the Initial Study process that the resulting potential for a significant impact is unavoidable, thereby requiring a project-specific EIR (CEQA Guidelines section 15064.5[a] and [b]). In these instances, potentially significant standing structures and/or features shall be evaluated by a qualified architectural historian familiar with the region and its resources. The County shall use this information to formulate a mitigation plan for the resource, including avoiding the structure or feature or moving it to another location and/or donating some features or samples of artifacts to local historical guilds for public interpretation and permanent curation. If standing structures would be moved or destroyed, potential subsurface impacts and the presence/absence of below-ground features, such as buried foundations and filled-in privies and wells, shall be evaluated and addressed. While existing archival information may be sufficient to address applicable research issues for some resources, focused documentary research and/or oral histories may be required to develop an appropriate contextual framework for interpretation and evaluation of other resources.					
Impact 8-3: Destruction/Degradation of Paleontological Resources. Development facilitated by the Specific Plan could disturb existing known or unrecorded paleontological resources in the plan area. This possibility represents a **potentially significant impact.**	**Mitigation 8-3.** During the County's normal project-specific environmental review (Initial Study) process for all future, discretionary public improvement and private development projects in the Specific Plan area, the County shall determine the possible presence of, and the potential impacts of the action on, paleontological resources. For projects involving substantial ground disturbance, the County shall require individual project applicants to carry out the following measures: *(1) Education Program.* Project applicants shall implement a program that includes the following elements: ▪ Resource identification training procedures for construction personnel; ▪ Spot-checks by a qualified paleontological monitor of all excavations deeper than seven feet below ground surface; and ▪ Procedures for reporting discoveries and their geologic content. *(2) Procedures for Resources Encountered.* If	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Ongoing inspection/ monitoring during construction.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	subsurface paleontological resources are encountered, excavation shall halt in the vicinity of the resources and the project paleontologist shall evaluate the resource and its stratigraphic context. The monitor shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts on paleontological resources. During monitoring, if potentially significant paleontological resources are found, "standard" samples shall be collected and processed by a qualified paleontologist to recover micro vertebrate fossils. If significant fossils are found and collected, they shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of material collected and identified shall be provided to the museum repository with the specimens. Significant fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a museum repository for permanent curation and storage. A report documenting the results of the monitoring and salvage activities, and the significance of the fossils, if any, shall be prepared. The report and inventory, when submitted to the lead agency, shall signify the completion of the program to mitigate impacts on paleontological resources. Implementation of this measure would reduce the impact to a **less-than-significant level**.					
GEOLOGY AND SOILS						
Impact 10-1: Landslide and Erosion Hazards. The Specific Plan would allow development in areas that may be subject to landslide and erosion hazards, representing a **potentially significant impact.**	**Mitigation 10-1.** At County discretion and consistent with Solano County General Plan policies HS.P-12 through HS.P-15 and HS.P- 17 and implementation programs HS.I-21 and HS.I-22, future subdivision and other discretionary development approvals may be subject to *detailed, design-level geotechnical investigations* that include analysis of landslide and erosion hazards and recommend stabilization measures. The County may also require preparation of Preliminary Grading Plans and/or Preliminary Geotechnical Reports, prepared by a licensed Engineering Geologist, before approval of specific developments within the plan area. Under this existing County authority, the investigating Engineering Geologist may be required to determine the extent of any necessary landslide remediation and supervise remediation activities during project construction to ensure that any existing or potential future landslides	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	are fully stabilized. Mitigation measures (e.g., soil replacement, setbacks, retaining walls) shall be required as needed to protect against damage that might be caused by slope failure. Required compliance with these existing Solano County policies, implementation programs and development review procedures to the satisfaction of the County would reduce the potential effects of landsliding and soil erosion to a **less-than-significant level**.					
Impact 10-2: Expansive Soil Hazards. Most of the areas proposed for development under the Specific Plan have "moderate" to "high" shrink-swell potential. The plan area's moderately to highly expansive soils would be expected to undergo repeated cycles of shrinking and swelling in response to changes in soil moisture. Utility lines, road and building foundations, and sidewalks and concrete flatwork constructed on top of naturally occurring expansive soils, or based on fills that contain a high percentage of expansive soils, would be subject to long-term damage, representing a **potentially significant impact.**	**Mitigation 10-2.** The *detailed, design-level geotechnical investigations* required at the County's discretion (see *Mitigation 10-1*) shall include analysis of expansive soil hazards and shall recommend warranted stabilization measures. The individual project Engineering Geologist shall inspect and certify that any expansive soils underlying individual building pads and all roadway subgrades have been either removed or amended in accordance with County-approved construction specifications, or shall make site-specific recommendations for grading, drainage installation, foundation design, the addition of soil amendments, and/or the use of imported, non-expansive fill materials, as may be required to fully mitigate the effects of weak or expansive soils and prevent future damage to project improvements. These recommendations shall be reviewed and approved by a County-retained registered geologist and incorporated into a report to be included with each building permit application and with the plans for all public and common area improvements. Implementation of these measures to the satisfaction of the County, combined with conformance with standard Uniform Building Code and other applicable regulations, would reduce the potential effects of expansive soils to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
Impact 10-3: Groundwater Impacts. Mass grading, construction of cuts and fills, redirection of existing drainage patterns, and installation of landscaping irrigation as part of future development allowed by the Specific Plan could affect existing patterns of groundwater flow in the plan area, resulting in slope instabilities that would represent a **potentially significant impact.**	**Mitigation 10-3.** Onsite drainage systems shall be regularly maintained to ensure that storm water runoff is directed away from all slope areas. Educational materials that discourage overwatering in landscaped areas shall be furnished to all future lot owners and property managers at the time of purchase and periodically thereafter (perhaps by inclusion with water or tax bills), as part of an effort to control groundwater seepage. Implementation of these measures to the satisfaction of the County would reduce this potential effect to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
HYDROLOGY AND WATER QUALITY						
Impact 11-1: Construction-Period Impacts on Water Quality. Surface water pollutants associated with Specific Plan-facilitated construction activity, including soil disturbance associated with grading activities, could significantly degrade the quality of receiving waters in Hennessey Creek, Green Valley Creek and, ultimately, Suisun Bay, representing a **potentially significant impact.**	**Mitigation 11-1.** The County shall ensure that the developer of each future Specific Plan-facilitated discretionary development in the plan area complies where applicable with all current state, regional, and County water quality provisions, and in particular, complies with the process of development plan review established in the County's Storm Water Management Plan (SWMP), and associated County NPDES permit issuance requirements instituted to address short-term and long-term water quality issues, including construction period activities. Implementation of this requirement would reduce this impact to a **less-than-significant level.**	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
Impact 11-2: Ongoing Impacts on Water Quality. Ongoing activities associated with project-facilitated development could increase the level of contaminants in receiving waters. Sources of pollutants could include (a) runoff from new roadways, parking areas, and other paved areas; (b) increased soil disturbance, erosion and sedimentation in surface waters due to expanded and new agricultural activities; and (c) herbicides, pesticides, and fertilizers used in expanded and new agricultural activities and new domestic landscaping. These factors could combine to significantly reduce drainage channel capacities and degrade the quality of receiving waters in Hennessey Creek, Green Valley Creek, and ultimately, Suisun Bay, representing a **potentially significant impact.**	**Mitigation 11-2.** As a condition of future discretionary development approvals in the plan area, the County shall ensure that developers comply with applicable Solano County Storm Water Management Plan and NPDES permit requirements, including implementation of erosion and sediment control measures for farming activities in accordance with Solano County storm water management requirements and best management practices. In addition, as recommended in the County General Plan under Implementation Program RS.I-67, the minimum riparian buffer width to protect water quality and ecosystem function shall be determined according to existing parcel size. For parcels more than 2 acres in size, a minimum 150- foot development setback shall be provided. For parcels of 0.5-2.0 acres, a minimum 50-foot setback shall be provided. For parcels less than 0.5 acre a minimum 20-foot setback shall be provided. Exceptions to these development setbacks apply to parcels where a parcel is entirely within the riparian buffer setback or development on the parcel entirely outside of the setback is infeasible or would have greater impacts on water quality and wildlife habitat. Implementation of this measure would reduce the impact to a **less-than-significant level.**	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
Impact 11-3: Flooding Impacts. For the most part, the Specific Plan-designated development areas avoid identified creek and dam failure inundation areas. Nevertheless, a limited number of Specific Plan-designated Agricultural-Residential (5-acre minimum lots), Rural Farm (1 to 5 acres per unit) and Rural Neighborhood (1 to 4 units per acre) land use	**Mitigation 11-3.** As a condition of future residential subdivision and other discretionary development approvals in these particular areas, the County shall ensure that project-specific applications comply with Solano County General Plan policies and requirements related to flood hazard protection, including policies HS.P-5 (appropriate elevation and flood proofing),	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
designations in the proposed Elkhorn, Nightingale and Three Creeks neighborhoods overlap the Solano County General Plan-identified Lakes Madigan & Frey Dam Inundation Area and Green Valley Creek 100-year flood zone, the latter as mapped by the Federal Emergency Management Agency (FEMA) flood insurance rate map (FIRM) program. Since there are as yet no specific development proposals associated with these residential land use designations, direct flooding impacts cannot be determined. Nevertheless, these Specific Plan-designated residential development area overlaps could potentially result in the placement of housing within a dam failure inundation zone or 100-year flood hazard area, with associated risks to public safety and property damage, and could result in the placement of structures in the flood zone which would impede or redirect flood flows. These possible effects represent a **potentially significant environmental impact.**	HS.P-7 (mitigation requirements to bring risks from dam failure inundation to a reasonable level), and HS.I-11 (applicant-prepared engineering report requirements for new development for human occupancy in designated dam failure inundation areas). Implementation of this measure would reduce the impact to a **less-than-significant level.**					
NOISE						
Impact 13-1: Impact of Green Valley Road Traffic Noise on Specific Plan-Facilitated Residential Development. The Draft Specific Plan (DSP) designated neighborhood framework (DSP section 3.2.1) has been formulated with the intent to separate noise sensitive land uses from Green Valley Road. Nevertheless, DSP-designated residential development in the Three Creeks Neighborhood along Green Valley Road may be exposed to traffic noise that exceeds "normally acceptable" levels established by the Solano County General Plan (i.e., noise greater than 60 dBA L_{dn}), representing a **potentially significant impact.**	**Mitigation 13-1.** For project-specific residential development proposals on sites adjoining Green Valley Road, the County shall require applicants to conduct site-specific noise studies that identify, to County satisfaction, noise reduction measures that would be included in final design to meet State and County noise standards. These measures may include the following: ▪ Minimizing noise in residential outdoor activity areas (i.e., ensuring that noise levels would be below 65 dBA L_{dn}) by locating the areas at least 50 feet from the center line of Green Valley Road and/or behind proposed buildings. ▪ Providing air conditioning in all houses located within 100 feet of Green Valley Road so that windows can remain closed to maintain interior noise levels below 45 dBA L_{dn}. Implementation of these measures would reduce the impact to a **less-than-significant level.**	Individual project applicants (must demonstrate compliance to County satisfaction).	MGV Conservancy Design Review Committee and County.	Prior to any subdivision or other discretionary approval.		
Impact 13-2: Effect of Proposed Noise-Generating Land Uses on Noise-Sensitive Land Uses. Noise-generating land uses facilitated by the Draft Specific Plan, such as agricultural activities, commercial uses, and the possible fire station and wastewater treatment plant, may expose noise-sensitive uses such as housing, recreational areas, and the possible future	**Mitigation 13-2.** New noise-generating uses facilitated by the Specific Plan shall be subject to the noise compatibility guidelines, standards, policies, and implementation programs established by the Solano County General Plan. In accordance with General Plan Implementation Program HS.I-67, noise analysis and acoustical studies shall be conducted for proposed	Individual project applicants (must demonstrate compliance to County satisfaction).	MGV Conservancy Design Review Committee and County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
onsite school to noise and/or vibration. Possible noise exposure exceeding State and Solano County standards represents a **potentially significant impact**.	noise-generating uses, as determined necessary by the County, and noise abatement measures shall be included to County satisfaction to ensure compliance with applicable guidelines and standards. In addition, new noise-sensitive uses developed adjacent to noise-generating uses shall be designed to control noise to meet the noise compatibility guidelines, standards, policies, and implementation programs established by the Solano County General Plan. In accordance with General Plan Implementation Program HS.I-67, noise analysis and acoustical studies shall be conducted for proposed noise-sensitive uses, as determined necessary by the County, and noise attenuation features shall be included to ensure compliance with applicable guidelines and standards. Implementation of these measures would reduce this impact to a **less-than-significant level**.					
Impact 13-3: Specific Plan-Facilitated Construction Noise. Existing and future rural residential and other potential noise-sensitive land uses throughout the Specific Plan area could be intermittently exposed to noise from Specific Plan-facilitated future, project-specific construction activity, representing a **potentially significant impact.**	**Mitigation 13-3.** To reduce noise impacts from Specific Plan-related construction activities, the County shall require future project-specific discretionary developments to implement the following measures, as appropriate: ▪ *Construction Scheduling.* Ensure that noise-generating construction activity is limited to between the hours of 7:00 AM to 8:00 PM, Monday through Friday, and that construction noise is prohibited on Saturdays, Sundays, and holidays. ▪ *Construction Equipment Mufflers and Maintenance.* Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. ▪ *Equipment Locations.* Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project site. ▪ *Construction Traffic.* Route all construction traffic to and from the construction sites via designated truck routes where possible. Prohibit construction-related heavy truck traffic in residential areas where feasible. ▪ *Quiet Equipment Selection.* Use quiet construction equipment, particularly air compressors, wherever possible. ▪ *Noise Disturbance Coordinator.* For larger construction projects, designate a “Noise	Individual project applicants (must demonstrate compliance to County satisfaction).	MGV Conservancy Design Review Committee and County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	Disturbance Coordinator" who would be responsible for responding to any local complaints about construction noise. The Disturbance Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. 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. (The County should be responsible for designating a Noise Disturbance Coordinator and the individual project sponsor should be responsible for posting the phone number and providing construction schedule notices.) Implementation of these measures would reduce this impact to a **less-than-significant level**.					
Impact 13-4: Specific Plan-Facilitated and Cumulative Traffic Noise Impacts on Green Valley Road. Traffic from Specific Plan-facilitated development would increase traffic noise levels on Green Valley Road by 3 to 4 dB above existing levels. While the Specific Plan-related traffic noise increase alone would not represent a significant impact, its contribution to the cumulative traffic noise increase on Green Valley Road south of Eastridge Drive would represent a **significant cumulative impact**.	**Mitigation 13-4.** To reduce the traffic noise increase along Green Valley Road, the County should consider the use of noise-reducing pavement, along with traffic calming measures (which could achieve noise reductions of approximately 1 dBA for each 5 mile-per-hour reduction in traffic speed). These measures may not be feasible, however, and may not be directly applicable to the Specific Plan, particularly since the segment of Green Valley Road where the highest traffic noise increase is expected (the northbound segment south of Eastridge Drive) is not within the Specific Plan area. The Specific Plan's contribution to the cumulative traffic noise increase along Green Valley Road is therefore considered a **significant unavoidable impact**.	County.	County.	None.		
PUBLIC HEALTH AND SAFETY						
Impact 15-1: Future Storage and Use of Agricultural Chemicals. In all four Draft Specific Plan-designated neighborhoods, the plan would permit residential development adjoining agricultural uses, some of which may store and/or use pesticides or other hazardous substances. Agricultural uses allowed by the Draft Specific Plan would also adjoin certain offsite residential areas, such as the upper Green Valley neighborhood north of the Specific Plan area and the Hidden Meadows subdivision south of the plan area. In addition, in the proposed Nightingale Neighborhood, the Specific Plan would also allow development of an elementary school in the northwestern corner of the	**Mitigation 15-1.** As an amendment to the proposed Specific Plan (Policy OL-11) and/or as part of the proposed Resource Management Plan and/or Agricultural Business Plan, the County shall require a minimum 200-foot-wide buffer between residential and school uses and locations on agricultural properties within and adjoining the Specific Plan area where agricultural pesticides or other hazardous substances may be stored or used. In addition, the County shall ensure that agricultural operators within the Specific Plan area comply with all applicable local, state, and federal regulations regarding hazardous materials, including Solano County General Plan provisions,	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
neighborhood, close to but not adjoining agricultural areas. The potential exposure of residents or other site occupants to pesticides or other hazardous substances used in agriculture would represent a **potentially significant impact**.	Solano County Code requirements, and the permitting processes of the Solano County Department of Resource Management and Solano County Agriculture Department. These measures would reduce the impact to a **less-than-significant level**.					
Impact 15-2: Hazardous Materials from Proposed Onsite Wastewater Treatment Plant (Wastewater Options B and C). Operation of the proposed wastewater treatment plant within the Specific Plan area under proposed Wastewater Option B (Onsite Treatment) and Wastewater Option C (Fairfield-Suisun Sewer District Connection/ Onsite Treatment Combination) would involve regular handling, use, and disposal of hazardous materials and wastes during the course of normal operations. In addition, the onsite wastewater treatment plant would create the potential for release of raw or treated sewage or other stored hazardous materials through mishandling or an emergency situation. These potential hazards would represent a **potentially significant impact**.	**Mitigation 15-2.** Implement *Mitigation 16-5*. In addition, after the wastewater treatment plant and associated collection system have been installed, the County shall confirm that a full environmental regulatory compliance review has been conducted to verify that, based on the actual equipment stalled and specific quantities of hazardous materials handled, used, and disposed, the facility is operating in compliance with applicable environmental laws and regulations. These measures would reduce the impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
PUBLIC SERVICES AND UTILITIES						
Impact 16-1: Water Supply Adequacy to Meet Project Domestic Demands--Option B (Onsite Groundwater). The proposed Specific Plan would result in an increased demand for water supplies. Studies indicate that sufficient groundwater supplies are available to meet existing and projected future demands in addition to the proposed project through 2035 under all water year types (e.g., normal, single-dry, and multiple-dry years). However, without implementation of established County and State water system regulations and review procedures, this would be a **potentially significant impact** related to adequacy of water supply.	**Mitigation 16-1a**: Prior to subdivision map approval, a Water Master Plan for water supply Option B shall be prepared that describes engineering specifications and other related components necessary for completion of established County and State well and public water system permitting requirements and review procedures. The Water Master Plan shall be approved by Solano County. The Water Master Plan shall contain as one of its components engineering specifications including, but not limited to: ▪ well locations and depths; ▪ water pumping, filtration, and disinfection specifications; and ▪ water storage and distribution facilities and sizing. The Water Master Plan and its components shall be designed to provide water service only to the Specific Plan designated development areas, so as to preclude any growth-inducing impacts on adjoining designated agricultural and open space lands (pursuant to General Plan Housing Element Policy G.2). As part of the Water Master Plan process, the applicant shall obtain input from the Cordelia Fire	MGV County Service Area or Solano Irrigation District.	County.	Under Water Supply Option B (Onsite Groundwater): Monitoring and reporting procedure shall be established to County satisfaction prior to approval of first subdivision map.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	Protection District to ensure that the plan meets District fire flow rate and duration standards (pursuant to General Plan Policies and Implementation Programs PF.I-35, PF.P-38, PF.P-39, HS.P-23, and HS.I-28). The Water Master Plan shall contain as one of its components the information required for application to the California Department of Public Health (CDPH) for a public water system initial operating permit, which requires demonstration that the proposed water system (including well, pumping, storage, and distribution components) meets State (including Title 22) requirements. The proposed operator of the public water system shall complete the CDPH public water system initial operating permit issuance process. (It is anticipated that the County Services Area [CSA] will need to have been formed prior to or as part of preparation of the Water Master Plan, including completion of the applicable LAFCO review process, for the Water Master Plan to be able to describe the technical, managerial, financial, and other information that the CDPH permit process requires.) The Water Master Plan shall contain as one of its components the information required for application to the County Environmental Health Services Division for well permits to construct the public water system wells. The applicant or operator shall complete the County well construction permit issuance process. **Mitigation 16-1b**: Prior to subdivision map approval, the County shall comply with the statutory requirements of SB 221 (Government Code Section 66473.7), which includes preparation of a water supply verification to demonstrate with firm assurances that there is a sufficient water supply for the project. Implementation of these measures would ensure that, under water supply Option B, the project would result in a **less-than-significant impact** related to adequacy of water supply.					
Impact 16-2: Project Domestic Water Facilities Impacts on Existing Wells and Stream Habitats--Option B (Onsite Groundwater) and Option C1 (Solano Irrigation District [SID] Surface Water and Onsite Groundwater). Implementation of water supply Option B or Option C1 would involve the extraction of groundwater from the aquifer system in the Suisun-Fairfield Valley Groundwater Basin via the use of at least three new groundwater wells (or at least one well under Option C1). Under water supply Options B or C1,	**Mitigation 16-2a**: The wells under water supply Option B or Option C1 shall be designed to avoid any potential interference between new Plan wells and (1) other Plan wells, (2) existing nearby private wells, and (3) surface streams. A non-exclusive list of the tools and methods to be used to accomplish avoidance are: appropriate well siting, placement, and spacing; selection of well depths and of equipment for pumping and testing; and monitoring, including testing and monitoring wells.	MGV County Service Area or Solano Irrigation District.	County.	Under Water Supply Option B (Onsite Groundwater) or Option C1 (SID Surface Water and Onsite Groundwater): Prior to any		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
placement and use of at one or more new groundwater wells could, if improperly placed, contribute to underperformance or failure of existing nearby domestic wells and could have substantial adverse effects on stream hydrology or riparian habitat. Until the proposed well locations are identified and tested, analyzed, and monitored, this impact would be **potentially significant**.	Based on available water supply, aquifer characteristics, post-project demand, and the number and location of existing wells and surface streams, it is expected that a well design plan could be devised that avoids adverse impacts on neighboring wells and surface streams. The well design process will also generate additional information in the future. The well design process shall precede, and under industry practice would precede, determination of the engineering specifications for well locations and depths. The engineering specifications for well locations and depths are required to be identified as part of the Water Master Plan specified under Mitigation 16-1a. The Water Master Plan is required to be prepared prior to subdivision map approval (a discretionary approval subject to CEQA). Additional information resulting from the well design process will therefore be available at a time when subsequent activities and approvals are later examined in light of this program EIR to determine whether an additional environmental document would then need to be prepared in conformance with the requirements of CEQA. At the latest, additional information resulting from the well design process would be available prior to subdivision map approval by the County, but for purposes of approval of CSA formation or issuance of an operating permit, Solano County Local Agency Formation Commission (LAFCO) or CDPH, respectively, may require some or all of the information resulting from the well design process to be available earlier. If the well design process generates new relevant factual information relating to Impact 16-2, that information will be generated at a time when it would be examined in conformance with CEQA's requirements for subsequent review following a program EIR. Implementation of this measure would provide for avoidance of any potential interference between new Plan wells and (1) other Plan wells, (2) existing nearby private wells, and (3) surface streams, such that any potentially significant effect would be reduced to a **less-than-significant level**. Although Mitigation 16-2a would provide for avoidance sufficient to reduce Impact 16-2 to a less-than-significant level, in response to public concerns expressed to the County regarding potential interference with private water supply wells the County would additionally implement the Mitigation Measure 16-2b in the unlikely event that groundwater pumping			subdivision or other discretionary approval. Ongoing inspection/ monitoring of operations.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	associated with the proposed project resulted in adverse effects to existing nearby wells. **Mitigation 16-2b**: If, in the unlikely event that ongoing monitoring conducted as part of the well design plan or water supply Option B or Option C1 operation reveals potentially significant drawdown may be occurring in existing wells in the vicinity of the new project wells, some or all of the following measures to mitigate those impacts will be implemented by the CSA or SID until subsequent monitoring shows that drawdown is not adversely affecting operations of existing wells to the satisfaction of the County Division of Environmental Health: ▪ lowering existing pumping equipment within the well structure in affected well(s), ▪ deepening or replacing the affected well(s), ▪ altering the amount or timing of pumping from the project well (i.e., shifting some pumpage to another project well and/or drilling a supplemental project well) to eliminate the adverse impact, ▪ providing replacement project well(s), and/or ▪ providing a water supply connection for the property/uses served by the affected well(s) to the Option B or Option C1 water supply system, sufficient to provide the property/uses with a substantially similar quality of water and the ability to use water in substantially the same manner that they were accustomed to doing if the project had not existed and caused a decline in water levels of their wells.					
Impact: SID System Adequacy to Meet Project Agricultural Irrigation Demands--Options A (Municipal Connection), B (Onsite Groundwater), and C (SID Surface Water). The project would increase the demand for agricultural irrigation water, which would be supplied by SID, consistent with its current practice of supplying water for agricultural irrigation needs within its boundaries. Because SID has confirmed it has sufficient water supply to meet this increased demand, this impact would be **less than significant**.	*Although this impact is determined appropriately to be less than significant in the Final EIR, in comments on the Notice of Preparation in 2009, SID indicated that a developer should expect that some additional facilities may be needed because the existing agricultural distribution system in the Plan Area may be serving at or near its capacity. SID also indicated that SID has a number of district development requirements concerning facilities, such as a requirement that a separate "turnout" be provided at the developer's expense for each newly created parcel that would receive agricultural water service within the District, a requirement that an SID inspector be onsite during system installation, and similar matters reflected below in Mitigation 16-2c. Including the following SID district development requirements within the requirements for*	Individual project applicants (must demonstrate compliance to County satisfaction).	County	Under Water Supply Option A (Municipal Connection), Option B (Onsite Groundwater) or Option C (SID Surface Water): Prior to any subdivision or other discretionary approval.		

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE	MONITORING			VERIFICATION	
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	the project will help ensure that any required facilities are prepared according to SID's requirements. Implementation of SID's district development requirements will further help to ensure that any additional system features that may be needed will be provided in an appropriate manner. **Mitigation Measure 16-2c:** Implement the following: (1) SID will not serve any lands located outside the SID boundary. SID service to any lands within the plan area that are outside the existing SID boundary would require annexation to SID. Annexation of land to SID shall conform to the requirements of SID, USBR, and the Solano County Local Agency Formation Commission (LAFCO). For any proposed SID annexation, complete the additional analysis deemed necessary by SID to determine whether sufficient capacity is available to serve the proposed annexation area, and satisfy the other annexation requirements of SID, USBR, and LAFCO. (2) Per SID Rules and Regulations, a separate water service (turnout) shall be provided to each newly created parcel within the district (i.e., with the current SID boundary or annexed plan area land) at the applicant/ developer's expense. SID and the applicant/ developer will need to determine how, if, and what type of service (agricultural irrigation or municipal landscape irrigation) each separate parcel is to receive. The applicant/developer may be required to pay to have SID's engineer perform an analysis of the existing system to determine if there is sufficient capacity to serve the proposed development. (3) Landscape irrigation service to the proposed development would require the design and installation of a municipal-style water system. At a minimum, the applicant/ developer shall provide for a headworks pumping plant, either off one of SID's pipelines or off the USBR Green Valley Conduit, to provide pressurized service to each parcel of the development. Depending on anticipated demand and existing SID system capacity, the applicant/developer may be required to pay for any necessary upgrades to existing SID water facilities required to adequately serve all parcels of the development at the same times, since rotated water service deliveries are impractical and difficult to enforce on municipal-type systems.					

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	(4) If additional SID agricultural service to the proposed development is required, the design and installation of individual turnouts to each parcel and a rotational service schedule would need to be determined and followed. At a minimum, the applicant/developer shall provide for pipelines and appurtenances to provide service to each parcel of the development. In addition, the applicant/developer may be required to pay for any necessary upgrades to existing SID water facilities required to adequately serve all parcels of the development at the same time, depending on the proposed demand and system capacity. (5) All costs associated with the design and installation of any SID water extension system shall be at the expense of the applicant/ developer. SID shall review and approve the proposed system design prepared by the applicant/developer's engineer. (6) System installation shall be to SID's standards. SID would require the applicant/ developer to sign a work order acknowledging and approving all costs associated with the review of the design and to have a SID inspector onsite during system installation. (7) Arrangements satisfactory to SID shall be made for the design and construction of the new system before SID will approve a parcel map. (8) The applicant/developer shall provide easements for all new pipelines and facilities that would be granted to SID, including all facilities up to and including individual lot meters. (9) No permanent structures shall be allowed to be constructed over SID's existing rights-of-way, nor shall any trees be planted within 6 feet of the edge of any SID pipelines. (10) SID pipelines shall not be located within any of the proposed residential lots. (11) Water that could be provided by SID is non-potable and not for human consumption, and cannot be treated onsite for potable uses. Therefore, before SID provides non-potable water service, the developer shall provide proof of an alternate source of potable water for the property. Since each parcel would be served with both potable and non-potable water, all lines and fixtures connected to SID's non-potable service shall be clearly marked "NON-POTABLE – DO					

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	NOT DRINK." (12) Upon completion of construction of non-potable service to the subject properties, land owners shall contact SID to establish water service accounts. (13) The SID certificate shall be added to all final parcel maps, subdivision maps, and improvements plans in the plan area, and SID shall review, approve, and sign all maps and plans.					
Impact 16-3: Project Construction Impacts on Existing SID, USBR, City of Fairfield, and City of Vallejo Facilities in the Plan Area--Options A (Municipal Connection), B (Onsite Groundwater), and C (SID Surface Water). Construction activity associated with buildout under the proposed Specific Plan, including general development activity as well as Specific Plan-proposed water and wastewater facilities construction, may affect existing Solano Irrigation District (SID), U.S. Bureau of Reclamation (USBR), City of Fairfield, and City of Vallejo water easements and facilities in the plan area, representing a **potentially significant environmental impact**.	**Mitigation 16-3:** Plans for development contiguous to SID, USBR, City of Fairfield, and City of Vallejo easements and facilities, or roadway or utility crossings of these facilities, shall be submitted to and approved by these agencies prior to implementation. Any submittal to the USBR shall be through the SID. No permanent structures shall be located over or within these existing pipeline easements without an alternative route being offered at developer expense. Utility crossings shall provide a minimum of three feet of clearance between the utility and the pipelines. Proposals for roadway crossings of any of these pipes shall include an engineered stress analysis on the pipe to ensure the pipeline would withstand proposed roadway loadings. Residential lots shall not be located within SID, USBR, City of Fairfield, City of Vallejo easements. Wastewater lines and other facilities on residential lots shall be kept clear of SID and USBR easements. Any sewer lines crossing USBR facilities shall be installed in a secondary casing across the USBR right-of-way. The applicant/developer shall sign an "Agreement for Protection of Facilities" before the start of any construction on or contiguous to any SID or USBR facilities. The agreement shall be followed during construction contiguous to or crossing any SID or USBR pipelines and easements. At the applicant/ developer's expense, SID would repair any construction damage to SID or USBR facilities, and the City of Fairfield or City of Vallejo would repair any construction damage to City facilities. Implementation of this measure would reduce this impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Under Water Supply Option A (Municipal Connection), Option B (Onsite Groundwater) or Option C (SID Surface Water): Prior to any subdivision or other discretionary approval.		
Impact 16-4: Potential Project Exceedance of FSSD Wastewater Treatment System Capacity--Options A (FSSD Connection) and C (FSSD Connection/Onsite Treatment Combination). Specific Plan wastewater	**Mitigation 16-4:** The Specific Plan proposes establishment of a County Service Area (CSA) pursuant to California Government Code section 25210.1 et seq. to provide the financing and	Individual project applicants (must demonstrate compliance to	County.	Prior to any subdivision or other discretionary		

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treatment Option A would involve connection of the proposed Specific Plan development area to the Fairfield Suisun Sewer District (FSSD) via an existing City of Fairfield conveyance system. The proposed Specific Plan development program would generate an estimated approximately 135 acre feet per year of wastewater treatment demand not specifically accounted for in current FSSD wastewater management planning, including the current FSSD Master Plan. The adequacy of the FSSD treatment plant, Cordelia Pump Station and associated City of Fairfield collection mains to accommodate the project contribution to anticipated cumulative future treatment demands has not been determined. The project-plus-cumulative demands for wastewater treatment may therefore exceed future City of Fairfield conveyance and FSSD treatment capacity, representing a **potentially significant project and cumulative environmental impact**.	management for providing wastewater treatment services to the proposed Specific Plan development areas. Once approved, the CSA would be granted limited funding and management powers and the Board of Supervisors may act as the CSA board. The proposed CSA may issue general obligation bonds or revenue bonds to finance the necessary wastewater and other common infrastructure, which would be funded by development connection and user fees. Prior to County approval of any future residential subdivision map or substantive discretionary non-residential development application in the plan area under wastewater treatment Options A or C, implement the following: (1) establish the Specific Plan-proposed County Services Area (CSA) for the development area; (2) formulate and adopt the Specific Plan-proposed Wastewater Master Plan for the development area; (3) establish agreement with the FSSD to serve the ultimate development area wastewater treatment need identified in the Wastewater Master Plan; and (4) establish associated wastewater system connection and user fees sufficient to fund the ultimate development area wastewater treatment facility needs identified in the Wastewater Master Plan, including purchase of required FSSD treatment capacity and construction of associated sewer system infrastructure--e.g., onsite collection system, offsite parallel municipal sewer main installation, associated capacity upgrades to the Cordelia Pump station, etc. (CSA Responsibility). Incorporation of these measures as Specific Plan policy would reduce this potential impact to a **less-than-significant level**.	County satisfaction).		approval.		
Impact 16-5: Potential Project Inconsistency with State Tertiary Wastewater Discharge Standards--Options B (Onsite Treatment) and C (FSSD Connection/Onsite Treatment Combination). Under proposed wastewater service Option B (onsite wastewater treatment system), Wastewater from the Specific Plan development areas would be collected and treated onsite using a local collection system similar to Option A, but instead of a connection to the FSSD, the collected wastewater would be conveyed to an onsite Membrane Bioreactor (MBR) package wastewater treatment plant that would treat the	**Mitigation 16-5:** Prior to County approval of any future residential subdivision map or discretionary non-residential development application in the plan area under wastewater treatment option B or C, implement the following: (1) establish the Specific Plan-proposed CSA for the Specific Plan development area; (2) formulate and adopt the Specific Plan-proposed Wastewater Master Plan for the proposed development areas (CSA responsibility); (3) establish associated wastewater system connection and user fees sufficient to fund ultimate	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

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collected wastewater to tertiary recycled water standards. The tertiary treated wastewater would then be reused onsite for agricultural irrigation, ornamental landscaping irrigation, park and playing field landscaping irrigation, toilet flushing, and other jurisdictionally permitted uses. Although the Specific Plan proposes to treat all collected wastewater to County and State tertiary cycled water standards, until the Specific Plan proposed Master Wastewater Plan for Options B and C, including complete engineering specifications for the onsite treatment system, are completed to County satisfaction and the associated recycled wastewater reuse aspect is approved by the RWQCB and CDPH, it is assumed that Options B and C may not comply with the wastewater treatment water quality and environmental health protection standards, and ongoing monitoring and reporting requirements, administered by these two state agencies, representing a **potentially significant environmental impact**.	Specific Plan development area wastewater treatment facility needs identified in the Wastewater Master Plan, including construction and ongoing operation, monitoring and maintenance of the onsite wastewater treatment and disposal system (CSA responsibility); and (4) complete the RWQCB Discharge Permit process for the proposed irrigation in designated areas, and CDPH permit procedures pursuant to CCR Title 22 standards for the proposed use of tertiary treated wastewater for irrigation (CSA responsibility).					
Impact 16-6: Potential Project Inconsistencies with SID Standards--Options B (Onsite Treatment) and C (FSSD Treatment Combination/Onsite Treatment). The Specific Plan proposes that, under wastewater treatment Options B or C, tertiary-treated wastewater would be reused onsite for agricultural and domestic irrigation purposes in conjunction with Solano Irrigation District (SID) water. The Solano Irrigation District (SID) may determine that delivery of tertiary effluent from the onsite MBR treatment plant via the existing SID conveyance system for agricultural and domestic irrigation purposes may be unsuitable for certain types of irrigation and therefore undesirable to the District. This proposed aspect of Wastewater treatment Options B and C may therefore be infeasible, representing a **potentially significant impact**.	**Mitigation 16-6:** In addition to compliance with California Department of Public Health (CDPH) and San Francisco Bay Regional Water Quality Control Board (RWQCB) groundwater and environmental health protection standards (see Mitigation 16-1-2), any project Wastewater Management Plan proposal to use SID conveyance or delivery components to supplement the project recycling system shall be designed to SID satisfaction or eliminated. One possible approach may involve SID delivery of raw water to a single point in the proposed CSA system, for plan area distribution by a CSA-operated distribution system. Formulation of this Wastewater Master Plan component to SID satisfaction would reduce this impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
Impact 16-7: Project Impact on Fire Protection and Emergency Medical Services. Development in accordance with the Specific Plan may increase the demand for fire protection and emergency medical services sufficiently to create a need for new or altered facilities, representing a **potentially significant impact**.	**Mitigation 16-7.** Before approval of the first Tentative Subdivision Map application in the Specific Plan area, the County shall obtain written verification from the Cordelia Fire Protection District (CFPD) that either (1) the CFPD's need for a new fire station in the general vicinity has been met (e.g., by plans for a new station on the Rockville Trails Estates site), or (2) a new fire station is needed within the Specific Plan area. If the latter is verified, the County shall require plans for construction of a fire station within the plan area as a condition of Tentative Subdivision Map approval, and confirm that any	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

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	necessary additional environmental review is conducted. Incorporation of these measures as Specific Plan policy would reduce the impact to a **less-than-significant level**.					
Impact 16-8: Project Impacts on Emergency Response, Evacuation, and Access. Development in accordance with the Specific Plan would cause traffic increases and congestion on Green Valley Road, possibly delaying emergency response and evacuation, representing a **potentially significant impact**.	**Mitigation 16-8.** Implement mitigation measures identified in chapter 17, Transportation and Circulation, to reduce the impacts of Specific Plan-related traffic on Green Valley Road and other local roads. In addition, before approval of each Tentative Subdivision Map in the Specific Plan area, the County shall obtain written verification from the CFPD and Cal-Fire that proposed emergency access provisions meet CFPD and Cal-Fire road design and emergency access standards and require any necessary changes as a condition of map approval. Incorporation of these measures as Specific Plan policy would reduce impacts on emergency response, evacuation, and access to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
Impact 16-9: Project Wildfire Hazard Impact--Ongoing. The Specific Plan would introduce residential (Rural Meadow, Rural Neighborhood and Agriculture-Residential) and residential/commercial (Rural Neighborhood/ Community Service) land within or adjacent to areas where wildland fire danger is "moderate" to "very high." Specific Plan-facilitated development within or abutting these areas would create an "urban/wildland interface," increasing the risk of wildland fires and associated needs for additional fire protection personnel and facilities. Failure to sufficiently reduce this urban/wildland interface fire hazard through appropriate fuel management and other fire suppression techniques and/or provide the necessary fire equipment access, emergency evacuation, and additional fire protection personnel and facilities, could result in substantial safety hazard and impair CFPD response time and evacuation efforts, representing a **potentially significant impact**.	**Mitigation 16-9.** Implement *Mitigation 16-7* and *Mitigation 16-8*. In addition, as a condition of Certificate of Occupancy approval, each individual discretionary development project in the Specific Plan area shall meet all applicable California Building Code and California Uniform Fire Code standards (including standards for building materials, construction methods, fire sprinklers, etc.) and all applicable State and County standards (including Solano County General Plan policies) for fuel modification and/or brush clearance in adjacent areas. Incorporation of these measures as Specific Plan policy would reduce the impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to County issuance of Certificate of Occupancy.		
Impact 16-10: Project Wildfire Hazards--Construction Period. Construction in Specific Plan-designated development areas may involve handling and storage of fuels and other flammable materials, creating temporary fire hazards in the "urban/wildland interface" and representing a **potentially significant impact**.	**Mitigation 16-10.** As a condition of each Tentative Subdivision Map in the Specific Plan area, the County shall require that construction contractors conform to all applicable fire-safe regulations in applicable codes, including California Occupational Safety and Health Administration (OSHA) and local requirements for appropriate storage of flammable liquids and prohibition of open flames within 50 feet of flammable storage areas. Incorporation of these measures as	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

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	Specific Plan policy would reduce the impact to a **less-than-significant level**.					
Impact 16-11: Impact of Specific Plan Proposed Trails on Bay Area Ridge Trail Plan. Unless subsequent trail implementation plans are coordinated with the Bay Area Ridge Trail Council, proposed trails within the Specific Plan area may not meet Bay Area Ridge Trail standards, representing a **potentially significant impact**.	**Mitigation 16-11.** As a condition of each Tentative Subdivision Map in the Specific Plan area, the County shall require written verification that the Bay Area Ridge Trail Council has reviewed and approved final trail design and construction to ensure that trails within the Specific Plan area comply with Bay Area Ridge Trail standards, as appropriate. Incorporation of this measure as Specific Plan policy would reduce the impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
Impact 16-12: Project Construction-Period and Long-Term Solid Waste Impact on Landfills. Construction and operation of land uses proposed by the Specific Plan would generate solid waste that would require disposal at a landfill. While landfill capacity is currently expected to be adequate to serve this development, the situation could change over the life of the Specific Plan, particularly if the currently pending Potrero Hills Landfill expansion proposal is not approved before the scheduled landfill closure date of January 1, 2011. Any potential for inadequate landfill capacity or the potential need for new facilities would represent a **potentially significant impact**.	**Mitigation 16-12.** The project shall comply with Solano County General Plan policies and other provisions calling for source reduction and recycling in construction and ongoing operations. As a condition of each Tentative Subdivision Map in the Specific Plan area, the County shall require the applicant to provide written verification from the appropriate landfill operator that adequate landfill capacity is available to accommodate construction and operation of the project. In addition, the applicant shall be required to prepare and implement a recycling plan for the construction phase of the project. The recycling plan shall address the major materials generated by project construction and identify means to divert a portion of these materials away from the chosen solid waste landfill. Incorporation of this measure as Specific Plan policy would reduce the impact to a **less-than-significant level**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		
TRANSPORTATION AND CIRCULATION						
Impact 17-1: Baseline Plus Project Impacts on Intersection Operations. The project would contribute significantly to baseline level of services impacts (i.e., intersection turning movement volumes) at the following local intersections during typical weekday peak hours: *Weekday AM Peak Hour:* (Intersection #9) Green Valley Road at the I-80 Westbound On-Ramp (project-generated traffic would exacerbate already unacceptable baseline operations [LOS F] by increasing the overall intersection traffic	**Mitigation 17-1:** (1) Baseline plus project impacts on this stop sign controlled intersection 5, Green Valley Road at Westlake Drive, would trigger the need for mitigation sufficient to bring project-plus-baseline operations back to LOS B and C in the AM and PM peak hours respectively. If the City of Fairfield determines in the future that a traffic signal is warranted at this intersection, the City and County shall agree on a fair-share portion of the signal installation cost to be assigned to the plan area, and the County shall identify an associated fair	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

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volume by more than one percent at this stop-sign controlled intersection) (Intersection #10) Green Valley Road at the I-80 Eastbound Ramps (project-generated traffic would exacerbate already unacceptable baseline operations [LOS F] by increasing the overall intersection traffic volume by more than one percent at this signalized intersection) *Weekday PM Peak Hour:* (Intersection #5) Green Valley Road at Westlake Drive (project-generated traffic would result in an LOS change from C under baseline conditions to E under baseline plus project conditions at this stop sign controlled intersection) (Intersection #7) Green Valley Road at Business Center Drive (project-generated traffic would result in an LOS change from E under baseline conditions to F under baseline plus project conditions at this signalized intersection) (Intersection #9) Green Valley Road at the I-80 Westbound On-Ramp (project-generated traffic would exacerbate already unacceptable baseline operations [LOS F] by increasing the overall intersection traffic volume by more than one percent at this stop-sign controlled intersection) (Intersection #10) Green Valley Road at the I-80 Eastbound Ramps (project-generated traffic would result in an LOS change from E under baseline conditions to F under baseline plus project conditions at this signalized intersection) These project-generated intersection LOS changes would represent a **significant impact**.	share per residential unit contribution as a condition of subsequent individual subdivision map approvals in the plan area. Implementation of this measure would reduce this particular intersection impact to a **less-than-significant level**. (2) For project impacts on intersections 7 and 9, the City and County shall agree on a proportionate fair-share of the cost of planned interim improvements to the Green Valley Road/I-80 interchange that have been identified by the City of Fairfield to be assigned to future subdivision and other discretionary development approvals in the plan area, including: ▪ At signalized intersection 7, Green Valley Road at Business Center Drive, improvement plans are being developed to allow for free right-turn movements on the northbound and southbound approaches to the intersection. The southbound free right-turn would also include construction of a separate right-turn lane for the southbound Green Valley Road approach to Business Center Drive. ▪ At unsignalized intersection 9, Green Valley Road at the I-80 Westbound on-ramp, the on ramp leg of the intersection is to be realigned to allow for the addition of a separate left-turn lane for northbound Green Valley Road, along with a new traffic signal. The County and City shall agree on a fair-share cost to be assigned to the plan area for these improvements, and the County shall identify an associated fair share per residential unit contribution as a condition of subsequent individual subdivision map approvals in the plan area. (3) For project impacts on signalized intersection 10, Green Valley Road at the I-80 Eastbound Ramps, the planned reconstruction of the Green Valley Road/I-80 interchange would ultimately mitigate the anticipated AM and PM peak hour baseline plus project operational impacts; however, no feasible interim improvements to the interchange have been identified to mitigate this impact (mitigation would ultimately require reconstruction--i.e., widening--of the overpass). Implementation of the mitigation measures identified above for intersections 7 and 9 would substantially reduce the amount of peak hour delay per vehicle at these two intersections, but not to less than significant					

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	levels. The projected background plus project peak hour ratings at study intersections 7, 9, and 10 would remain at LOS E or F. In addition, because the County does not have jurisdiction over any of these study intersections within the City of Fairfield, implementation of the mitigation measures listed above for intersections 5, 7 and 9 cannot be assured. Therefore, until the proposed City/County fair-share funding program for intersections 5, 7 and 9 is established, and the planned I-80/I-680/SR 12 Interchange Improvement Project (the planned reconstruction of the I-80/I-680/SR 12 and Green Valley Road interchange, as described in section 17.1.3 herein) is funded and implemented, the projected interim baseline plus project intersection impacts on intersections (5), (7), (9) and (10) are considered to be **significant and unavoidable**.					
Impact 17-2: Cumulative Plus Project Impacts on Intersection Operations. Under projected cumulative (2030) plus project conditions, the project would contribute significantly to further deterioration of traffic operations at intersection 5, Green Valley Road at Westlake Drive, in the PM peak hour, reducing operations from LOS C to LOS E. This intersection LOS change would represent a **potentially significant cumulative impact**.	**Mitigation 17-2:** The cumulative plus project condition at this intersection would not warrant installation of a traffic signal. It is recommended that this intersection remain in its current unsignalized condition, since the project-related significant delay would be limited to the left-turn movement at the side street (Westlake Drive) approach in the PM peak hour only, and alternative routes are available to motorists at this location. This impact is therefore considered to be **significant and unavoidable**.	Individual project applicants (must demonstrate compliance to County satisfaction).	County.	Prior to any subdivision or other discretionary approval.		

Assembly Bill No. 530

CHAPTER 69

An act to amend Sections 18, 27, 29, 46, 48, 56, 59, 150, and 153 of, to repeal Section 28 of, and to repeal and add Section 34 of, the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951), relating to the Fairfield-Suisun Sewer District, and declaring the urgency thereof, to take effect immediately.

[Approved by Governor July 10, 2019. Filed with Secretary of State July 10, 2019.]

LEGISLATIVE COUNSEL'S DIGEST

AB 530, Aguiar-Curry. The Fairfield-Suisun Sewer District.

The existing Fairfield-Suisun Sewer District Act creates the Fairfield-Suisun Sewer District and grants to the district various powers relating to the treatment and disposal of sewage. The existing act provides for the election of a board of directors for the district and administrative procedures for the operation of the district. Violation of regulations adopted by the board is a misdemeanor.

This bill would make various administrative changes to the act, including removing the requirement that the district appoint a clerk and changing the posting requirements for regulations.

Existing law requires all county officers to be liable upon their several official bonds for the faithful discharge of the duties imposed by the act.

This bill would instead authorize the board of the district to require any of its employees or officers to be bonded. The bill would require the district to pay the cost of the bonds.

Existing law prohibits the district from accepting or contracting for the disposal of sewage emanating from outside the district, except sewage from a public building or buildings of a public utility. Existing law authorizes the district to accept and contract for the disposal of sewage emanating from outside the district if those buildings are connected to the district's sewage treatment system on March 1, 2002.

This bill would remove the authorization to accept sewage from buildings of a public utility. The bill would authorize the district, upon the request of a landowner, to accept and contract for the disposal of sewage that will emanate or that will be emanating from any building within the Middle Green Valley Specific Plan, if approved as specified. The bill would also authorize the district to accept organic materials, as defined, originating from within or outside the district as the board determines to be in the best interests of the district.

This bill would make legislative findings and declarations as to the necessity of a special statute for the Fairfield-Suisun Sewer District.

This bill would declare that it is to take effect immediately as an urgency statute.

The people of the State of California do enact as follows:

SECTION 1. Section 18 of the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951), as amended by Section 31 of Chapter 985 of the Statutes of 1985, is amended to read:

Sec. 18. In the application to the district of laws, the procedure of which is made applicable to proceedings of the district, the terms used in those laws shall have the following meanings:

(a) "Auditor" means the person or entity designated as the auditor by the board.

(b) "Clerk" means the clerk of the district.

(c) "Middle Green Valley Specific Plan" means the type, location, density, and extent of development, conditioned by conservation easements, as planned in the version of the Middle Green Valley Specific Plan adopted by the board of supervisors on August 8, 2017.

(d) "Organic materials" means material that is organic in nature, including, but not limited to, plant material, food and beverage waste, and paper products, that can be recycled using treatment processes like composting, digestion, and other processes that decompose organic matter. The gas produced from the process may be captured and used to generate electricity and heat.

(e) "Tax collector" means the person designated as the tax collector by the board.

(f) "Treasurer" means the person designated as the treasurer by the board.

SEC. 2. Section 27 of the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951) is amended to read:

Sec. 27. The board shall choose one of its members as president and elect other officers in accordance with board policy.

SEC. 3. Section 28 of the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951) is repealed.

SEC. 4. Section 29 of the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951) is amended to read:

Sec. 29. All contracts, deeds, warrants, releases, receipts, and documents shall be signed in the name of the district in accordance with board policy.

SEC. 5. Section 34 of the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951) is repealed.

SEC. 6. Section 34 is added to the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951), to read:

Sec. 34. The board may require an employee or officer to be bonded. The district shall pay the cost of the bonds.

SEC. 7. Section 46 of the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951) is amended to read:

Sec.46. The district may cooperate and contract with the United States or any agency thereof, with the State or any political subdivision thereof, or with either of the cities for the joint acquisition, construction, or use, or aid in the construction, of a facility that the district is empowered to construct under this act, including assignment to the district of any subventions of either of the cities.

SEC. 8. Section 48 of the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951), as amended by Section 1 of Chapter 426 of the Statutes of 2002, is amended to read:

Sec.48. (a) Except as otherwise provided in subdivisions (b), (c), and (d), the district may not accept or contract for the disposal of any sewage emanating from outside the district except sewage from a public building.

(b) The district may accept and contract for the disposal of sewage emanating from buildings outside the district if those buildings are connected to the district's sewage treatment system on March 1, 2002.

(c) Notwithstanding any sphere of influence and subdivisions (b) and (c) of Section 56133 of the Government Code, the district may, upon request of a landowner, accept and contract for the disposal of sewage that will emanate or that is emanating from buildings within the Middle Green Valley Specific Plan if approved pursuant to subdivisions (a) and (d) of Section 56133 of the Government Code.

(d) Pursuant to Section 56133 of the Government Code, the district may contract with the County of Solano or another public entity for the disposal of sewage emanating from buildings outside the district if the board of the district determines that the contract furthers the protection of public health and safety and is in the best interests of the district.

(e) Every user that is connected to the district's sewage treatment system is subject to the district's ordinances, resolutions, and other laws.

(f) The district may accept organic material originating from within or outside the district as the board determines is in the district's best interest.

SEC. 9. Section 56 of the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951), as amended by Section 14 of Chapter 18 of the Statutes of 1992, is amended to read:

Sec.56. The district may contract for the purchase or sale of any effluent resulting from the operation of any sewage treatment plant as the board determines is necessary and in the district's best interest. Sections 6520.7 and 6520.9 of the Health and Safety Code are applicable to the district.

SEC. 10. Section 59 of the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951) is amended to read:

Sec.59. The district may adopt all necessary regulations for all sanitary purposes not in conflict with the laws of this state. A person who violates a regulation of the district is guilty of a misdemeanor. A regulation of the board shall be adopted by ordinance, shall be published pursuant to Section 6061 of the Government Code, and shall take effect upon expiration of the week of publication. A subsequent finding of the board, entered in its minutes, that publication has been made is conclusive evidence that the publication was properly made.

SEC. 11. Section 150 of the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951), as amended by Section 10 of Chapter 489 of the Statutes of 1997, is amended to read:

Sec.150. There is created in the treasury of the district a fund entitled the "Fairfield-Suisun Sewer District General Fund."

SEC. 12. Section 153 of the Fairfield-Suisun Sewer District Act (Chapter 303 of the Statutes of 1951), as amended by Section 11 of Chapter 489 of the Statutes of 1997, is amended to read:

Sec.153. There is created, at the discretion of the board, in the district treasury, a fund called the "Fairfield-Suisun Sewer District Bond Fund, Series ___," (inserting series number) in which the treasurer shall keep money levied by the board for that fund.

SEC. 13. The Legislature finds and declares that a special statute is necessary and that a general statute cannot be made applicable within the meaning of Section 16 of Article IV of the California Constitution because of the special circumstances facing the Fairfield-Suisun Sewer District and the need for acceptance and disposal of sewage in the Middle Green Valley Specific Plan area.

SEC. 14. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the California Constitution and shall go into immediate effect. The facts constituting the necessity are:

In order to ensure that the residents of the County of Solano have adequate sewer services, it is necessary that this measure take effect immediately.

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FAIRFIELD-SUISUN SEWER DISTRICT

Wastewater Collection System Master Plan Update

Final Report

Prepared by:

WOODARD &CURRAN

February 2020

Table of Contents

Appendices

List of Tables

List of Figures

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List of Abbreviations

AB InBev	Anheuser-Busch InBev
ABWF	Average base wastewater flow
ADWF	Average dry weather flow
APN	Assessor parcel number
BWF	Base wastewater flow
CHLS	Cement Hill Lift Station
CIP	Capital Improvement Program
Cor	Cordelia Pump Station
County	Solano County
CPS	Central Pump Station
d/D	Ratio of flow depth to pipe diameter
DDF	Depth-duration-frequency
District	Fairfield-Suisun Sewer District
DU	Dwelling unit
DWF	Dry weather flow
ENR-CCI	Engineering News Record Construction Cost Index
FM	Flow meter
fps	Feet per second
FSSD	Fairfield-Suisun Sewer District
GIS	Geographic Information System
gpad or gpd/ac	Gallons per day per acre
gpd	Gallons per day
GWI	Groundwater infiltration
HGL	Hydraulic gradeline
HP	Horsepower
IDF	Intensity-duration-frequency
I/I	Infiltration/inflow
IPS	Inlet Pump Station
lf	Linear feet
LRLS	Lopes Road Lift Station
LS	Lift Station
MAP	Mean annual precipitation

MG	Million gallons
mgd	Million gallons per day
NFPS	Northeast Fairfield Pump Station
PDWF	Peak dry weather flow
PS	Pump Station
PWWF	Peak wet weather flow
R	Ratio of RDI/I volume to rainfall volume
RDI/I	Rainfall-dependent infiltration/inflow
RG	Rain gauge
SCWA	Solano County Water Agency
SECAP	System Evaluation and Capacity Assurance Plan
SOI	Sphere of Influence
SPS	Suisun Pump Station
sq. ft.	Square feet
SSMP	Sewer System Management Plan
SSO	Sanitary sewer overflow
TAFB	Travis Air Force Base
TM	Technical Memorandum
TSSP	Train Station Specific Plan
V&A	V&A Consulting Engineers
VFD	Variable frequency drive
WWTP	Wastewater Treatment Plant

Executive Summary

This report summarizes the results and recommendations of the Wastewater Collection System Master Plan Update (Master Plan) for the Fairfield-Suisun Sewer District (FSSD or District). The Master Plan was prepared by Woodard & Curran in close coordination with District staff. The Master Plan will be used to guide improvements to the FSSD wastewater collection system to accommodate current and future development and ensure that the District's customers continue to receive a high level of service.

Background and Purpose of Master Plan

The Fairfield-Suisun Sewer District is located in central Solano County and encompasses the cities of Fairfield and Suisun City. The District provides wastewater conveyance and treatment for customers in the two cities, including Travis Air Force Base (TAFB), as well as to a few parcels outside the city limits that are served under special agreements. The study area for this Master Plan comprises the District's current sewer service area plus some other areas of potential future development outside the current city limits as identified by the two cities. The study area also includes the unincorporated Middle Green Valley Specific Plan area of Solano County, which the District will be allowed to serve under special legislation passed by the State of California. **Figure ES-1** shows the Master Plan study area.

The District's collection system consists of the 12-inch and larger trunk sewers, while the cities own and operate their own wastewater collection systems (10-inch and smaller sewers) that collect and convey wastewater to the District's trunk sewer system and then to the FSSD Wastewater Treatment Plan for treatment and disposal. The existing collection system is shown in **Figure ES-2**.

Over the past 30+ years, the District has proactively planned for capacity improvements to its wastewater collection system. The District prepared sewer system capacity studies and master plans in 1986, 1994, 2002, and most recently in 2008, including interim updates to incorporate results of additional flow monitoring, modeling, and land use revisions. The most recent revision was a limited update in 2016 to reflect recent planning documents.

The District has recognized the need to upgrade its previous hydraulic modeling software used to assess system performance and identify system capacity needs, incorporate the most current development plans for its service area, particularly in the rapidly growing northeast portion of Fairfield, as well as re-examine the flow projections on which its Capital Improvement Program (CIP) is based. Therefore, this study is intended to provide a comprehensive update of the District's collection system master plan to reflect the most accurate information on projected growth, wastewater flows, and collection system performance. This Master Plan will also allow the District to update the System Evaluation and Capacity Assurance Plan element of its Sewer System Management Plan (SSMP), as required under the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

The overall objectives of this Master Plan are to develop wastewater flow projections for the District's sewer service area using up-to-date development and land use information and flow monitoring data; develop a new hydraulic model of the trunk sewer system; use the model to identify existing capacity deficiencies and future capacity requirements; and develop a phased CIP, including budget estimates, for implementing the required capacity improvements to the sewer system.

This Executive Summary is presented in two parts:

- ***How the Capacity Assessment Was Prepared*** describes the scope and methodologies of the planning effort, including the key planning and technical assumptions incorporated into the sewer system capacity analysis.

- ***Recommended Capital Improvement Program*** presents the recommended Capital Improvement Program (CIP), including capacity improvement projects, phasing, and estimated costs. In addition, recommendations are presented for implementing the proposed CIP.

How the Capacity Assessment Was Prepared

The FSSD wastewater collection system includes approximately 80 miles of sewer pipelines, including 67 miles of gravity sewers ranging in size from 12 to 48 inches in diameter, 13 miles of force mains, four major pump stations, and ten other smaller wastewater lift stations. A hydraulic model of the District's system was developed for this study. The model included all of the District's gravity trunk sewers and seven of the pump and lift stations and associated force mains. A few segments of City of Fairfield pipes were also included in the model in areas where staff had identified significant capacity issues. The model was used to assess how the system would perform under various planning and flow scenarios and to identify pipes that may not have sufficient capacity to convey the predicted flows under existing or future conditions.

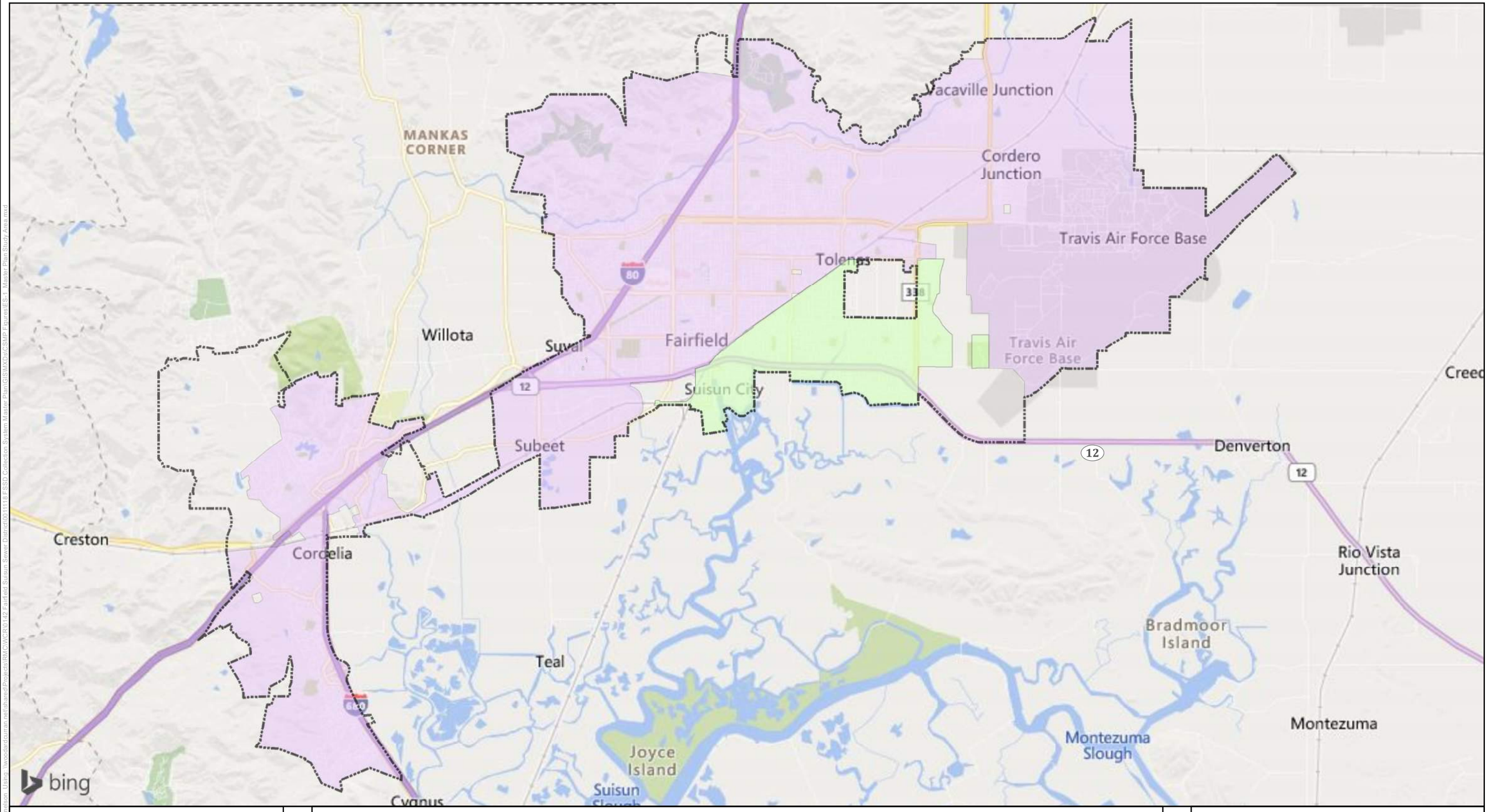
Capacity Assessment Considers Existing and Future Planning Scenarios

Various planning scenarios, representing existing conditions and future development in 5-year increments through 2035 and beyond, were evaluated for this study. The existing scenario examined the current capacity of the system based on existing development, with base wastewater flows defined based on winter water use data and calibrated to actual flow monitoring data. The future scenarios assumed increases in residential dwelling units and commercial/industrial development based on information provided by the cities on potential development projects, or General Plan land usage where no specific projects were known at this time. Anticipated new development and redevelopment represent over 18,0000 new residential dwelling units and over 20 million square feet of non-residential building floor space. The hydraulic model was used to examine the impact on the system of future increases in wastewater flows due to new development and redevelopment and determine the required sewer system capacity needed in the FSSD system. It should also be noted that a few city sewers (less than 12-inch diameter) were included in the District's hydraulic model where the District was aware of possible capacity deficiencies.

Potential Capacity Deficiencies Under Existing and Future Flow Conditions

For each of the planning scenarios examined, projected dry and wet weather flows were simulated in the hydraulic model. The model was calibrated to flow monitoring data to ensure that it represents a reasonably accurate depiction of system conditions. For this study, a wet weather flow monitoring program consisting of 16 temporary flow meters and 5 rain gauges installed in the system during the early 2018 wet weather season was conducted to provide data to calibrate the hydraulic model and verify existing system flows. The temporary meters were supplemented with data from permanent meters on the District's major pump stations and two major dischargers, TAFB and Anheuser-Busch InBev.

The model integrates various dry and wet weather flow parameters to assess system hydraulic performance and capacity requirements under different flow and planning scenarios. Key flow components incorporated into the model include: base (dry weather) wastewater flow, representing the sanitary and process flow contributions from existing and future customers; groundwater infiltration, which occurs when water seeps into pipes under the ground through cracks and pipe joints; and rainfall-dependent infiltration and inflow (RDI/I) during storm events. For this Master Plan, a 24-hour duration, 10-year return period storm event based on historical rainfall statistics was selected as the design event for evaluating system capacity and sizing required system improvements.



FAIRFIELD-SUISUN SEWER DISTRICT

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Legend

Master Plan Study Boundary

City of Fairfield

Suisun City

0 0.5 1 2 Miles

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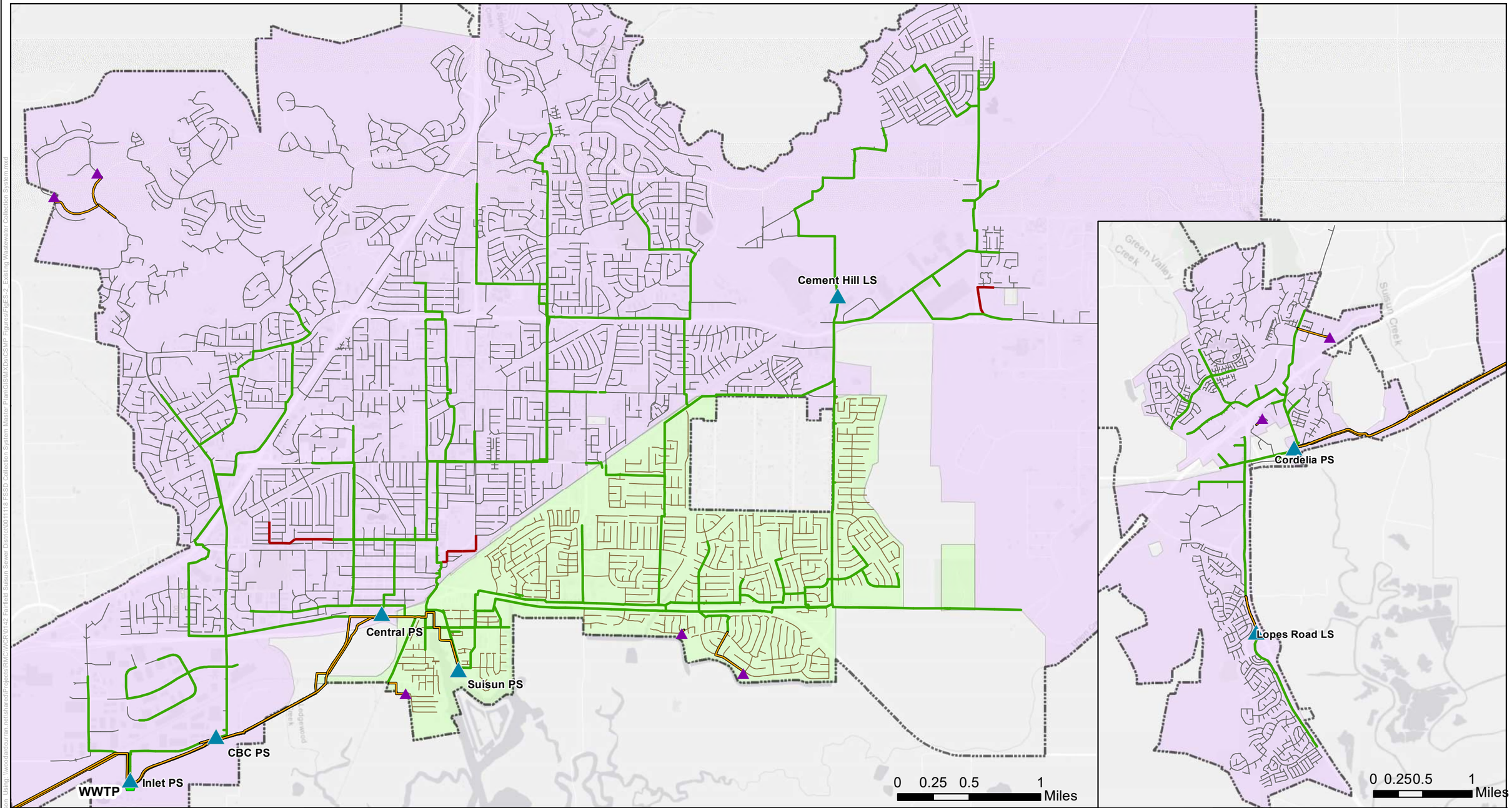
Figure ES-1:
Master Plan Study Area

Collection System Master Plan Update



FAIRFIELD-SUISUN SEWER DISTRICT

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Legend

- WWTP
- Trunk System Pump Stations
- Other Pump Stations
- FSSD Gravity Sewers
- Forcemains
- Fairfield City sewers added to model
- Fairfield City Sewers
- Suisun City Sewers
- City of Fairfield
- Suisun City
- Master Plan Study Boundary

N

Figure ES-2: Existing Wastewater Collection System

Collection System Master Plan Update

Table ES-1 presents the estimated existing and future average base wastewater flow (BWF), peak flow on a non-rainfall (dry) day, and peak wet weather flow (PWWF) for the selected design storm for the FSSD system developed based on the modeling conducted for this study.

Table ES-1: Collection System Flow Estimates

	Existing (mgd)	Future (mgd)
Average Base Wastewater Flow		
Residential	7.7	11.1
Non-Residential	1.6	3.6
TAFB and AB In-Bev	1.1	1.1[a]
Total	10.4	15.8
Peak Flow on Non-Rainfall Day[b]	16.1	23.0 / 24.3[d]
Peak Wet Weather Flow[c]	66.3	71.2 / 82.6[d]

a. Future changes not known.
b. Includes groundwater infiltration for a typical wintertime period.
c. For design storm.
d. First value is based on flow in existing system without correction of deficiencies that may limit flows conveyed downstream; second value assumes that upstream trunk sewer and pump station capacity deficiencies are relieved.

Figure ES-3 shows the model results for future PWWF conditions, indicating existing trunk sewers that were predicted by the model to be surcharged (water levels in manholes above the crowns of the pipes) due to "throttle" conditions (peak flow exceeding full pipe capacity) or due to backwater from a downstream throttle condition, and locations of model-predicted overflows. Model results were examined to determine trunk system capacity improvement needs, as indicated by areas where the flow in the pipes would exceed their capacity and cause surcharge conditions to within five (5) feet of manhole rims under PWWF conditions, or cases where any predicted surcharging was due solely to new development. Note that pump stations were considered capacity deficient if pumping capacity with the largest pumping unit out of service (called "firm capacity") resulted in upstream sewer backups with surcharging to within 5 feet of the manhole rims.

Note that the locations of surcharge or overflows shown in the figure are not necessarily the locations of the actual capacity-deficient pipes or pump station facilities, but are typically located further upstream due to backwater from downstream deficiencies. The specific pipe reaches or pump stations with capacity deficiencies that result in capacity deficiency criteria violations are highlighted in yellow on **Figure ES-3** and listed in **Table ES-2**. All of these locations except for the sewers along Peabody Road and Huntington Drive were also predicted to be capacity issues under existing PWWF.

Table ES-2: Model-Predicted Capacity Deficiencies

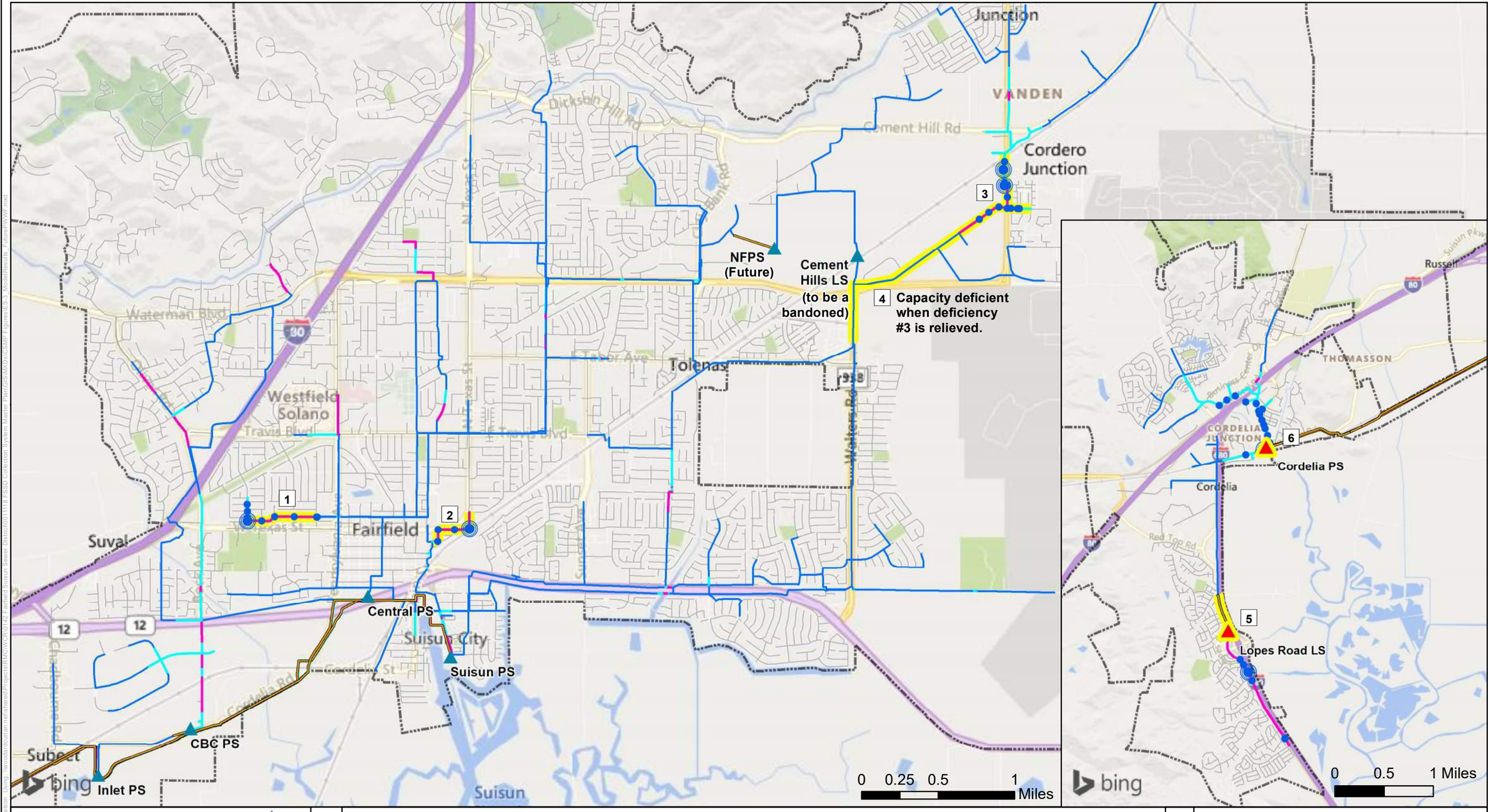
No.	Deficiency Location[a]	Scenario	Approx. Length (ft.)	Existing Diam. or Firm Capacity	Required Diam. or Firm Capacity[b]	Predicted Minimum Freeboard (ft.)[b]
1	From 5th St. north of West Texas St. to Empire St. at 1st St. (includes both Fairfield and FSSD sewers)	Existing	2,500	10", 12"	12", 15"	Overflow
2	Texas St. at Taft St. to Clay St. south of Texas St. (Fairfield sewers only)	Existing	2,300	10"	21"	Overflow
3	Peabody Rd. north of Huntington Dr. to Huntington Dr. at Stanford Ct.	Future[d]	2,800	12"	Parallel 21"	Overflow
4	Huntington Dr. at Stanford Ct. to Walters Rd. north of E. Tabor Ave.[c]	Future[d]	6,200	24"	Parallel 21"	Overflow
Potential deficiencies requiring additional verification[e]						
5	Lopes Road Lift Station	Existing	--	3.1 mgd[f]	4.0 mgd	Overflow
6	Cordelia Pump Station	Existing	--	10.8 mgd[f]	14.4 mgd[g]	4.0

a. Deficiency location is location of throttled pipes or pump stations lacking firm capacity that result in upstream capacity criteria violations under future PWWF conditions.
b. Under future PWWF conditions.
c. Although not indicated as a capacity deficiency in Figure ES-3, the existing 21- and 24-inch trunk sewers in Huntington Drive and Walters Road would become surcharged due to the increase in flows conveyed downstream once capacity relief is provided for the upstream 12-inch sewers in Peabody Road and Huntington Drive.
d. Deficiencies on Peabody Road and Huntington Drive are triggered by future PDWF.
e. Additional flow monitoring is recommended to confirm model-predicted flows.
f. Firm capacity (capacity with largest pump out of service).
g. Includes flow from Middle Green Valley. (Note: Middle Green Valley would contribute approximately 0.4 mgd to the predicted Cordelia Pump Station PWWF; however, existing pipelines would be adequate to convey the flow.)

Solutions to Potential Capacity Deficiencies

To address the capacity deficiencies identified through the modeling effort, three primary types of capacity relief alternatives were explored:

- Upsizing pipes (i.e., replacing existing pipes with larger ones)
- Construction of parallel pipes
- Flow diversions to other sewers with available capacity or to new sewer pipelines
- Adding or replacing pumps at capacity-deficient pump stations



FAIRFIELD-SUISUN SEWER DISTRICT

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- Model Freeboard < 5 ft
- Model Predicted Overflow
- Pump Station
- Capacity Deficient Pump Station

Modeled Sewers

- Not surcharged
- Backwater surcharge
- Throttle surcharge

- 1 Deficiency ID
- Capacity Deficient Area
- FSSD Forcemains
- Master Plan Study Boundary

N

Figure ES-3:
Modeled Results under Future Peak Wet Weather Flow
Collection System Master Plan Update

Potential flow routing and capacity improvement alternatives were developed and tested, and proposed improvements were verified using the hydraulic model. Each proposed project site was reviewed in the field and/or on aerial maps to identify site constraints and assess potential construction conditions, methods, and issues. Based on these analyses, recommended capacity improvement projects were developed.

Recommended Capital Improvement Program

The Capital Improvement Program (CIP) recommended in this study is designed as guidance for the District to provide for adequate sewer system capacity for the District's existing and anticipated future development. **Table ES-3** and **Figure ES-4** present the recommended capacity improvement projects. Relative priorities or phases have been assigned to the projects based on the severity and extent of existing capacity deficiencies or timing of future development that triggers the need for the project. Note that the model-predicted capacity deficiencies in the City of Fairfield sewers in Texas at Taft to Clay Streets have not been addressed in this Master Plan because these deficiencies strictly involve City of Fairfield sewers and, even if relieved, would not result in any capacity issues in downstream District trunk sewers. However, because the District's trunk sewer in Empire Street extends upstream into the City's sewers and a consolidated solution was considered desirable, a project (West Texas Street Sewer Improvements) has been included in the Master Plan for this area.

The total estimated capital cost of the CIP is approximately $15.1 million in late 2019 dollars, as shown in **Table ES-3**. These costs include baseline construction costs for trunk sewers using open-cut or trenchless methods, new sewer structures, and pump station upgrades; and costs allowances for project mobilization/demobilization, traffic control, and bypass pumping as needed. The total estimated construction costs also include a 30 percent allowance for contingencies for unknown conditions, and the total estimated capital cost includes an allowance of 25 percent of construction cost for engineering, administration, construction management, and legal costs. The estimated costs are planning or conceptual level estimates to be used for budgeting purposes only, and are considered to have an estimated accuracy range of -30 to +50 percent. (Note: The District's overall collection system CIP includes other projects, including condition-related improvements; however, these projects are not addressed in this Master Plan report.)

Northeast Fairfield

The Northeast Fairfield area covers a large area from Claybank Road and Air Base Parkway on the west and south extending north and east to the city limits. The area includes a number of ongoing and future developments, including the Villages of Fairfield, Goldridge, Hawthorne Mill/Cooper's Landing, and developments within the Train Station Specific Plan area. The area is currently served by three trunk sewers that generally run north to south along Claybank Road, Peabody Road/Huntington Drive, and through an easement from the end of Strassberger Drive east and then south to the northern end of Walters Road. The latter trunk sewer includes the City of Fairfield's Cement Hill Lift Station. The proposed Northeast Fairfield Pump Station would divert flow from this sewer to the trunk sewer in Claybank Road, allowing the Cement Hill Lift Station to be abandoned. **Figure ES-5** shows the configuration of the future Northeast Fairfield trunk sewer system and the approximate boundaries of the sewersheds that would drain to the Claybank and Peabody/Huntington trunk systems. Note that as development continues in Northeast Fairfield, there may be additional branch trunk sewers constructed to serve these developments.

Table ES-3: Recommended Capacity Improvement Projects

Project ID	When Needed	Project Name	Description	Approx. Pipe Length	Estimated Capital Improvement Cost[a]
1	2020	West Texas Street Sewer Improvements	Divert flow from easement parallel to W. Texas St. to new 12" pipe flowing south in Fifth St. and then east in West Texas St. to Pennsylvania Ave.	3,400 lf	$ 3,002,000
2	2030[b]	Peabody Road Sewer Improvements Phase 1	New parallel 21" sewer in Peabody Rd. north of Huntington Dr. and in Huntington Dr. from Peabody Rd. to Stanford Ct.	2,800 lf	$ 3,208,000
3	After 2035[b]	Peabody Road Sewer Improvements Phase 2	New parallel 21" sewer in Huntington Dr. from Stanford Ct. to Walters Rd. and in Walters Rd. to north of E. Tabor Ave.	6,200 lf	$ 6,448,000
4	2020[c]	Lopes Road Lift Station and Force Main Capacity Improvements	New 20 HP package pump station adjacent to existing station; new parallel 12" force main to replace existing 6" force main	2,000 lf	$ 1,686,000
5	2020[c]	Cordelia Pump Station Capacity Improvements	New 250 HP pump to replace one existing 125 HP pump	--	$ 940,000
			Total Estimated Capital Cost:		**$ 15,284,000**

a. Costs are conceptual level estimates presented in current (late 2019) dollars. Construction costs includes a 30% allowance for contingencies for unknown conditions, and total estimated capital costs includes 25% for engineering, administration, and legal costs.

b. Actual need for project would be based on rate of development. Peabody Road Phase 1 improvements would be required before adding approximately 550 equivalent single family units, and Phase 2 improvements before connection of about 3,700 units, based on 2018 baseline.

c. Additional flow monitoring is recommended to confirm need for and timing of project. Although the pump stations lack sufficient firm capacity, they both have adequate total capacity to convey design peak wet weather flows.

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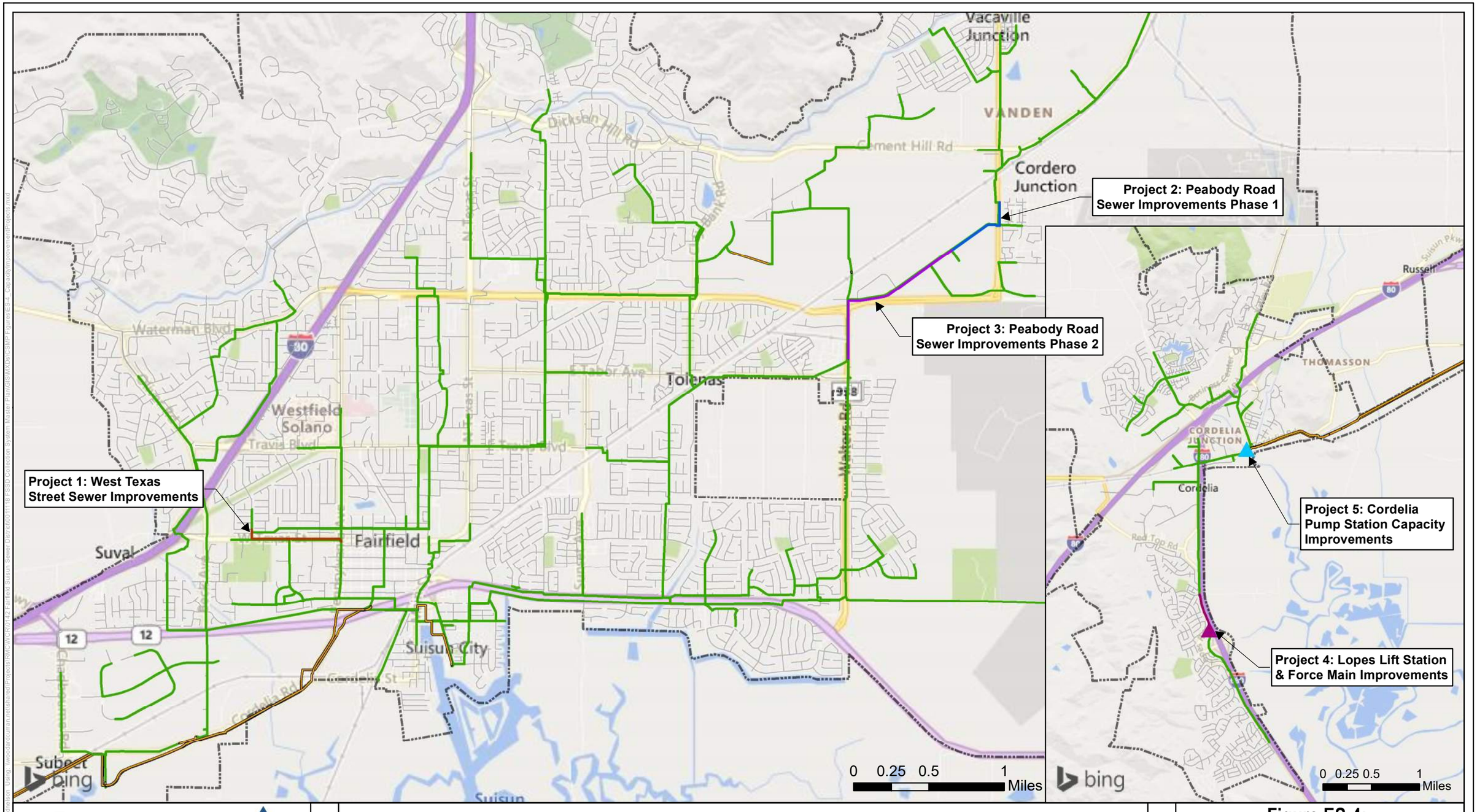

FAIRFIELD-SUISUN SEWER DISTRICT

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Project #: 0011118
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Legend

- Pump Station Capacity Project
- Sewer Capacity Projects

Modeled Sewers

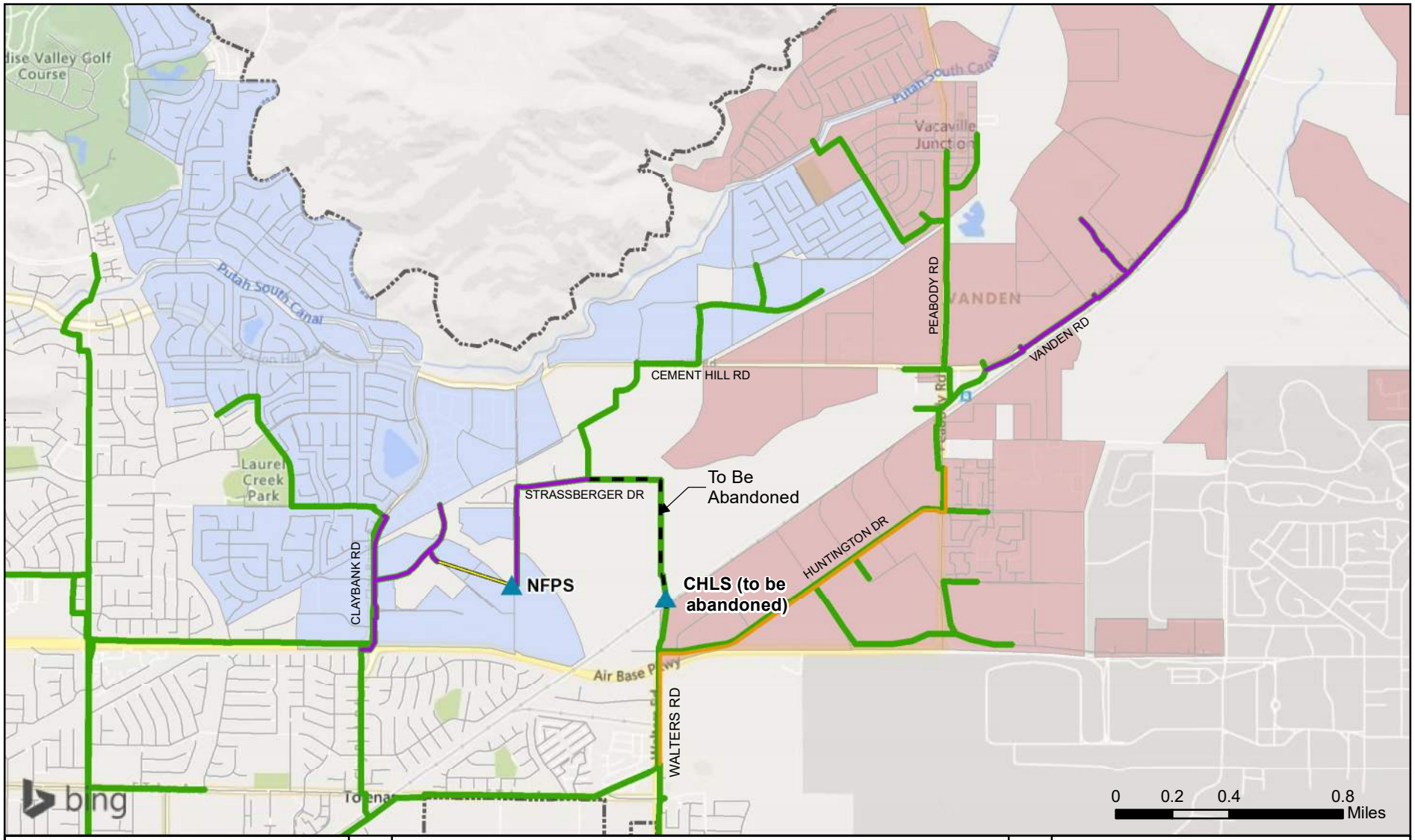
- Gravity sewers
- Forcemains

Master Plan Study Boundary

N

Figure ES-4: Recommended Capacity Improvement Projects

Collection System Master Plan Update



FAIRFIELD-SUISUN SEWER DISTRICT

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Project #: 0011118
Map Created: October 2019

Legend

- Pump stations
- Future gravity sewers
- Future gravity sewers (to be constructed by developers)
- Future force main
- Gravity sewers
- Unmodeled Sewers
- Areas draining to Clay Bank Rd
- Areas draining to Peabody Rd
- Master Plan Study Boundary

N

Figure ES-5:
Northeast Fairfield Trunk Sewer Configuration

Collection System Master Plan

Implementation Recommendations

The District should begin implementation of the Capital Improvement Program recommended in this Master Plan, starting with projects needed to address existing system capacity deficiencies. The following items should be considered in project scheduling and design, and in future updates of the Master Plan.

- The District should consider conducting additional flow monitoring or observation to document flow levels during large storm events at locations in the system where the model predicts significant surcharge. Flow levels during large storm events should be compared to the water levels simulated by the hydraulic model to verify if the modeling predictions for the design storm seem reasonable, and to confirm the need for and refine project sizing if necessary.

- The alignments and sizes of all recommended projects should be verified with detailed predesign analyses, including topographic surveys, geotechnical investigations, utility research, and constructability reviews.

- The decision to parallel or replace existing sewers should consider the physical condition and remaining useful life of the existing pipelines; the availability of pipeline corridors for new sewer construction; and operation and maintenance concerns.

- The hydraulic model has been developed to assist the District in performing capacity analyses and updating the Master Plan in the future. The model should be kept up-to-date with any changes to existing sewer connections, development plans, and sewer system facilities.

This Master Plan report is intended to be a working document to be refined and updated as additional data and new planning information becomes available. The capacity assessment should be updated whenever there are major changes in planning assumptions or, at a minimum, every five to ten years.

Chapter 1 Introduction

This report presents the results and recommendations of the Fairfield-Suisun Sewer District (FSSD, District) Wastewater Collection Master Plan Update (Master Plan) prepared by Woodard & Curran under a contract with the District dated January 22, 2018.

1.1 Background and Study Objectives

The Fairfield-Suisun Sewer District is located in central Solano County and encompasses the cities of Fairfield and Suisun City. The District provides wastewater conveyance and treatment to approximately 135,000 residential, commercial, and industrial customers and government agencies in the two cities, as well as to Travis Air Force Base (TAFB). A few parcels outside of the city limits are served by special agreements, including the Solano Community College and other nearby parcels along Suisun Valley Road; areas in unincorporated portions of old Cordelia; and the Tolenas Elementary School in the unincorporated community of Tolenas.

The District's collection system consists of 12-inch and larger "trunk" sewers, while the cities own and operate their own wastewater collection systems (10-inch and smaller sewers) that collect and convey wastewater to the District's trunk sewer system. **Figure 1-1** shows the boundary of the District's sewer service area, which is the study area for this Master Plan.

The land use in the District's service area is predominantly single-family residential, but also includes medium- and high-density residential developments, commercial, and industrial land uses, and public facilities (e.g. offices, schools, etc.). The two largest non-residential point source flow contributors are TAFB and the Anheuser-Bush InBev (AB InBev) Brewing Company.

Over the past 30+ years, the District has proactively planned for capacity improvements to its wastewater collection system. The District prepared sewer system capacity studies and master plans in 1986, 1994, 2002, and most recently in 2008, including interim updates to incorporate results of additional flow monitoring, modeling, and land use revisions. The most recent revision was a limited update in 2016 to reflect recent planning documents.

For the past 15 years, the District has used a hydraulic modeling software program called HYDRA™ for its capacity analyses. The program was very popular in the 1980s and 1990s, but has since been supplanted by more accurate and advanced modeling programs. For this Master Plan, the District recognized the need to upgrade its modeling software to ensure that it has the best tool available to plan for its future capacity needs.

In addition to updating modeling methodology, the District recognized that its capacity planning needed to incorporate the most current development plans for its service area, particularly in the rapidly growing northeast portion of Fairfield, as well as re-look at the flow projections on which its Capital Improvement Program (CIP) is based. Therefore, this study is intended to provide a comprehensive update of the District's collection system master plan to reflect the most accurate information on projected growth, wastewater flows, and collection system hydraulic performance.

The District is also required to include a System Evaluation and Capacity Assurance Plan (SECAP) as part of its Sewer System Management Plan (SSMP). The SSMP addresses the overall management, operation, and maintenance of the sanitary sewer system and is required for all sewer system agencies under the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, adopted in 2006 by the State Water Resources Control Board. The District last updated its SSMP in January 2019. This Master Plan will provide information to update the SECAP element of the SSMP.

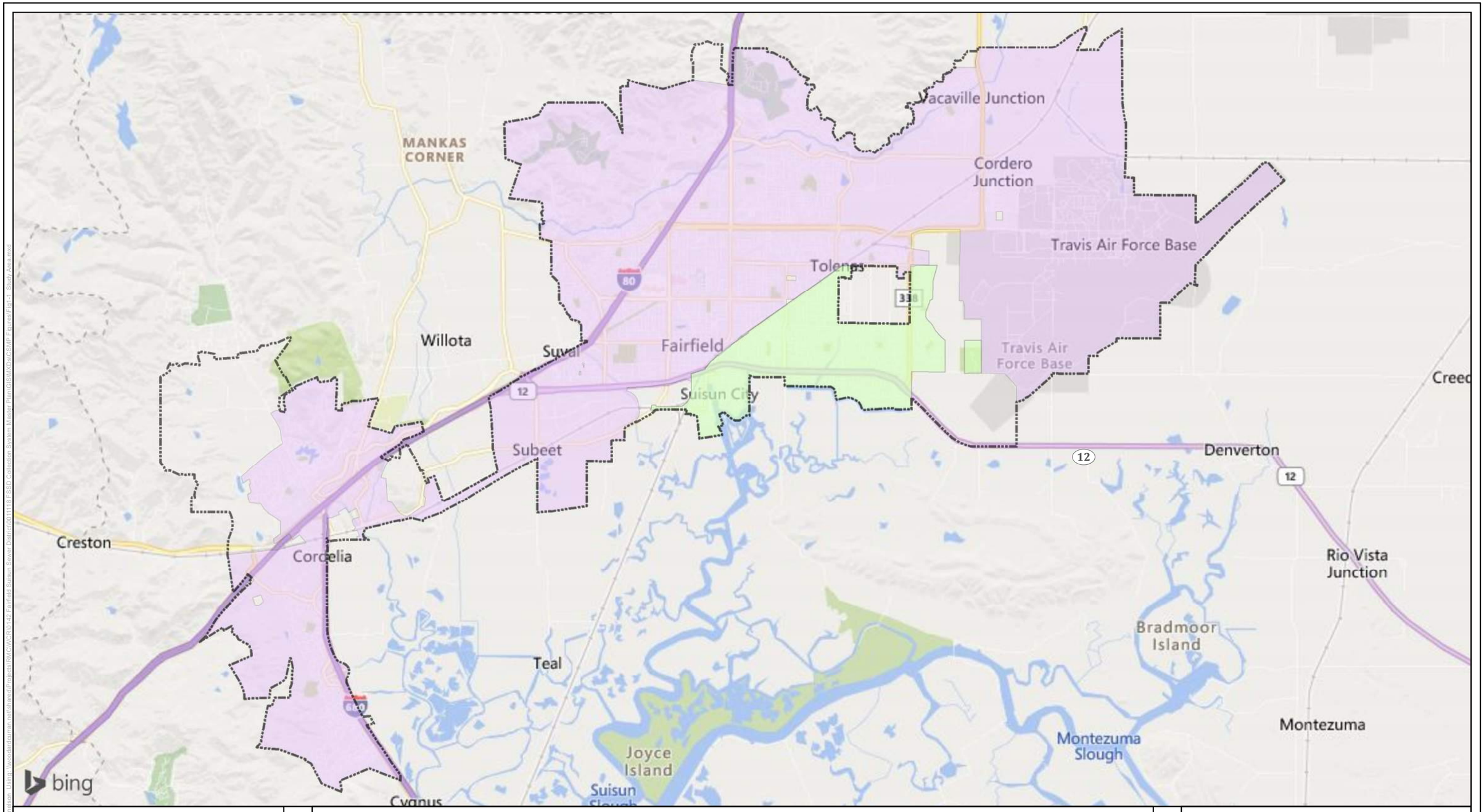
The overall objectives of this Master Plan are to develop wastewater flow projections for the District's sewer service area using up-to-date development and land use information and flow monitoring data; develop a new hydraulic model of the trunk sewer system; use the model to identify existing capacity deficiencies and future capacity requirements; and develop a phased CIP, including budget estimates, for implementing the required capacity improvements to the sewer system.

1.2 Wastewater Collection System

The FSSD wastewater collection system includes approximately 82 miles of sewer pipelines, including about 67 miles of gravity sewers ranging from 12 to 48 inches in diameter and 15 miles of force mains ranging from 4 to 48 inches. The system includes four major wastewater pump stations (Cordelia, Central, Suisun, and Inlet), three other trunk system pump stations, and seven other smaller wastewater lift stations. The system conveys wastewater to the FSSD Wastewater Treatment Plant (WWTP), located on Chadbourne Road south of Cordelia Road in Fairfield. Treated wastewater is discharged to Boynton Slough located southeast of the treatment plant, with a portion of the wastewater recycled for irrigation, marsh enhancement, and in-plant uses. The collection system is shown in **Figure 1-2**. **Table 1-1** provides tabulations of the footage by diameter of existing gravity sewers and force mains.

Table 1-1: FSSD Gravity Collection System Inventory

Pipe Diameter (in.)	Gravity Sewer Pipe Length		Force Main Pipe Length	
	Feet	Percent	Feet	Percent
<12	791	<1	11,866	15
12	118,841	31	2,035	3
14-16	36,892	10	46	<1
18	53,653	14	17,390	22
20-21	19,194	5	700	1
24	36,370	10	207	<1
27	23,156	6	17,346	22
30-33	42,542	11	288	<1
36-39	31,653	8	16,969	22
42	6,735	2	-	-
48	11,197	3	11,817	15
Total	**381,024**		**78,664**	



FAIRFIELD-SUISUN SEWER DISTRICT

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Legend

Master Plan Study Boundary

City of Fairfield

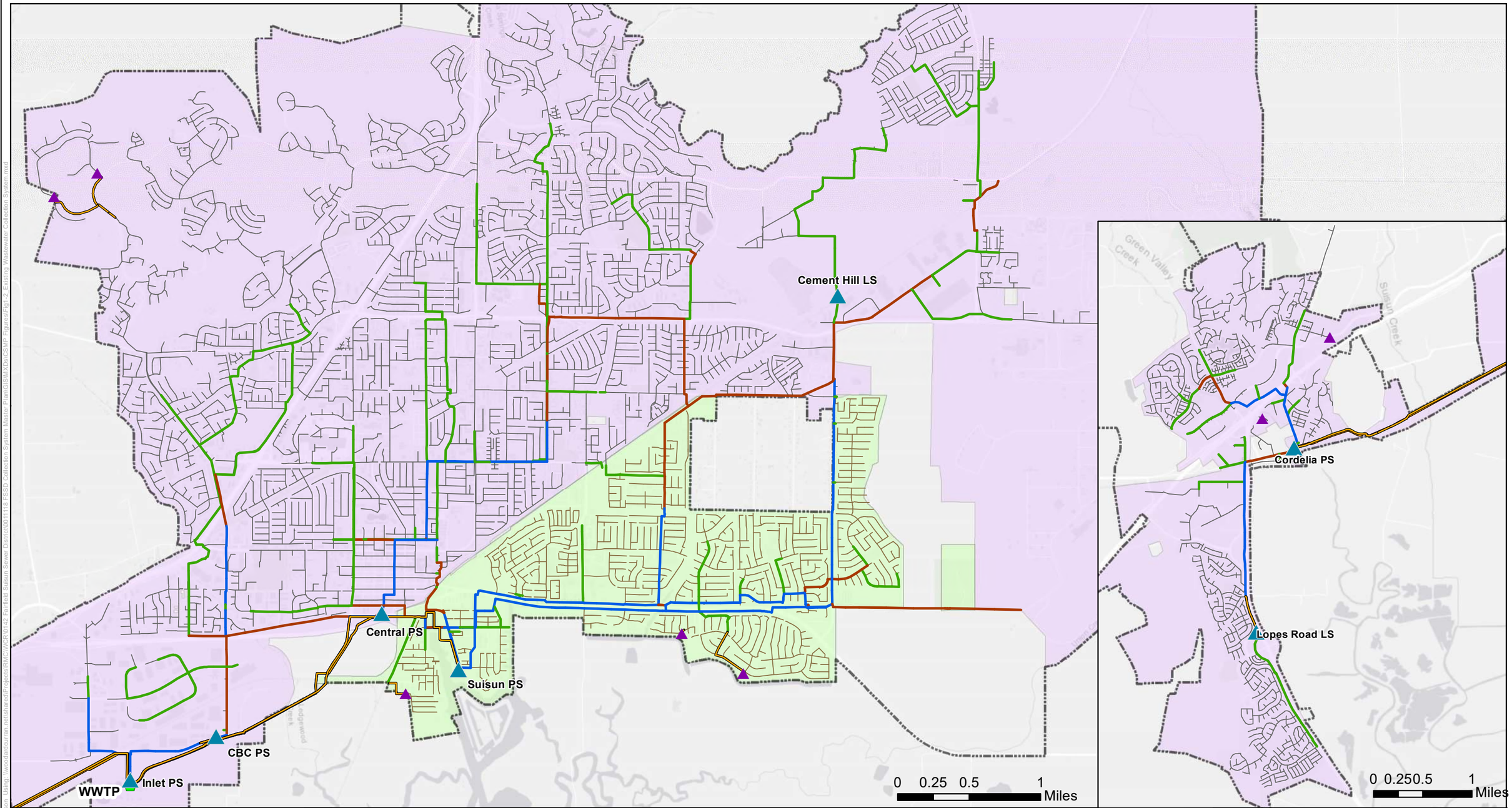
Suisun City

0 0.5 1 2 Miles

N

Figure 1-1: Study Area

Collection System Master Plan Update



FAIRFIELD-SUISUN SEWER DISTRICT

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Project #: 0011118
Map Created: October 2019

Legend

- WWTP
- Trunk System Pump Stations
- Other Pump Stations

FSSD Gravity Sewers

- 12" - 18"
- 21" - 27"
- > 27"

- Forcemains
- Suisun City Sewers
- Fairfield City Sewers

- City of Fairfield
- Suisun City
- Master Plan Study Boundary

N

Figure 1-2: Existing Wastewater Collection System

Collection System Master Plan Update

1.3 Scope of Study

The scope of the Master Plan, as well as a brief discussion of work conducted under each task, are described below.

- **Task 1 – Project Management and Coordination.** Periodic progress meetings and teleconferences were held with the District staff to review project status and discuss project issues, and monthly status reports were prepared to document the work completed.
- **Task 2 – Data Collection and Review.** Data, maps, GIS files, and previous reports related to the wastewater collection system were reviewed to identify the information available for completing the Master Plan.
- **Task 3 – Flow Monitoring.** A flow monitoring program, consisting of 16 flow meters and 5 rain gauges installed in the system from mid-February through mid-April 2018 was conducted to obtain data to characterize flows in the system and calibrate the hydraulic model. Flow data were also obtained for the District's four largest pump stations and the WWTP from the District's SCADA system, as well as monitored flows from its two largest dischargers, TAFB and AB InBev.
- **Task 4 – Develop/Confirm Future Growth Projections.** Meetings were held with cities of Fairfield and Suisun City planning staff to identify specific areas of future growth and development. City staff provided detailed listings of planned development projects and anticipated timing of development. A technical memorandum (TM) was prepared to document the information compiled in this task.
- **Task 5 – Hydraulic Model Update and Calibration.** A hydraulic model of the FSSD trunk sewer system was developed using InfoWorks™ ICM modeling software. The model was developed from the District's GIS data, and pipe, manhole, and pump station data were populated based on information from GIS, record drawings, and field verification conducted by District staff. Subcatchments (areas of unmodeled city sewers that contribute flow to the modeled system) were delineated to define areas loading to the model, and existing base wastewater flow (BWF) loads to the model were developed using recent winter water use data. The model was calibrated for dry weather conditions, and then calibrated for wet weather conditions using actual storm events from the flow monitoring program. A TM was prepared to document the model development and calibration.
- **Task 6 – Review and Refine System Performance Criteria.** This task involved establishing the design storm and hydraulic criteria to be used to assess system capacity and size needed system improvements. Various approaches and sources of information for defining the design wet weather condition for the Master Plan were discussed with District staff, and criteria for evaluating capacity deficiencies and design of capacity improvements were developed. A TM was prepared to document the results of this task.
- **Task 7 – Assess System Capacity and Develop Solutions.** The model was used to determine system capacity requirements and identify capacity deficiencies in the trunk sewer system under peak dry and wet weather flow conditions, defined based on the selected design storm and system performance criteria. Potential solutions to capacity deficiencies were identified and tested in the model.
- **Task 8 – Capital Improvement Program Development.** Potential improvements to address identified capacity deficiencies were evaluated and developed in detail, including estimating costs. The recommended capacity improvement projects were prioritized to develop a phased CIP.
- **Task 9 – Master Plan Preparation.** This report was prepared to summarize and present the results and recommendations of the study.

1.4 Report Organization

This report includes six chapters, which are described below.

- **Chapter 1, Introduction,** presents the background, objectives, and scope of the Wastewater Collection System Master Plan Update.
- **Chapter 2, Basis of Flow Estimates,** discusses the service area land use projections, the basis for developing estimates for each component of wastewater flows, and the base wastewater flow projections for the service area.
- **Chapter 3, Hydraulic Model Development,** describes the modeled trunk sewer system, development of the model network and model loads, flow monitoring program, and model calibration.
- **Chapter 4, Capacity Analysis,** describes the capacity analysis and design criteria, model results, and preliminary solutions for identified capacity deficiencies.
- **Chapter 5, Recommended Capital Improvement Program,** presents the recommended capacity improvement CIP, including project costs, phasing, and implementation recommendations.

The Appendices to this report include the three TMs prepared for this study (including attachments containing tabulations of future development assumptions by parcel, plots of the flow monitoring data, and model calibration graphs); tabulation of model subcatchment loads; model network data and results; and documentation for the recommended CIP, including project descriptions and cost estimates.

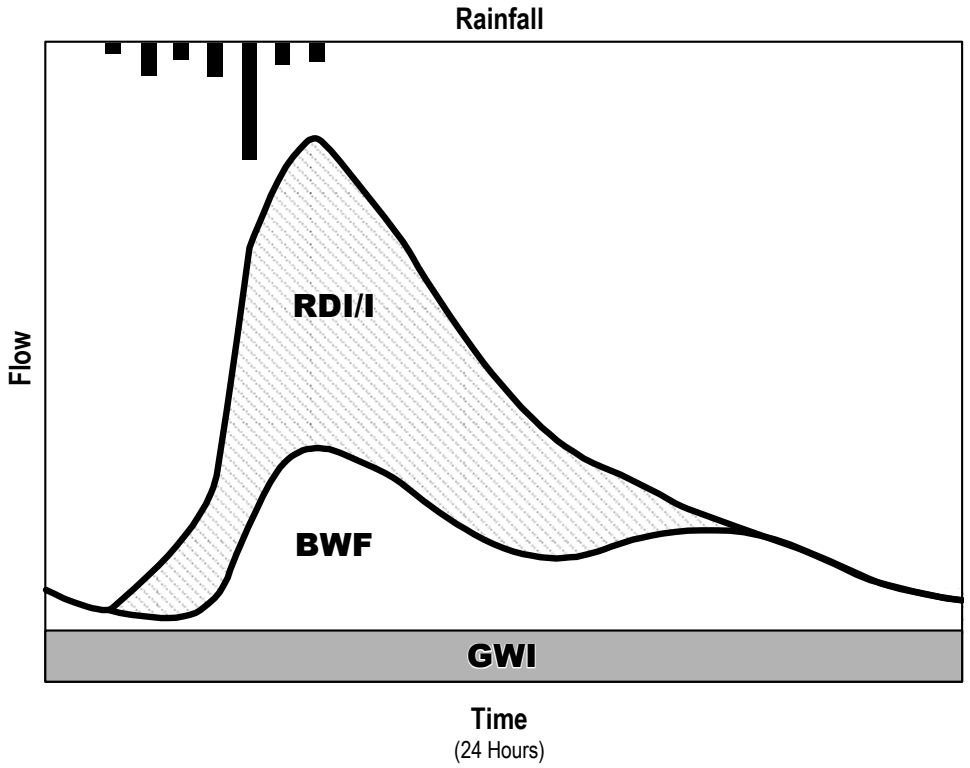
Chapter 2 Basis of Flow Estimates

This chapter presents the basis of wastewater flow estimates for the FSSD service area. The section describes the wastewater flow components used in the hydraulic model and the existing and projected future land uses for the service area, which form the basis for generating base wastewater flows. Design flow estimates were developed based on criteria developed for each flow component: base wastewater flow, groundwater infiltration, and rainfall-dependent infiltration and inflow, and confirmed through model calibration, as described in Chapter 3 of this report.

2.1 Wastewater Flow Components

Wastewater flows include three components: base wastewater flow (BWF), groundwater infiltration (GWI), and rainfall-dependent infiltration/inflow (RDI/I), as illustrated conceptually in **Figure 2-1**. BWF represents the sanitary and process flow contributions from residential, commercial, institutional, and industrial users of the system. GWI is groundwater that infiltrates into defects in sewer pipes and manholes, particularly in winter and springtime in low-lying areas. GWI is typically seasonal in nature and remains relatively constant during specific periods of the year. RDI/I is storm water inflow and infiltration that enter the system in direct response to rainfall events, typically through direct connections such as holes in manhole covers or illegally connected roof leaders or area drains, or, more commonly, through defects in sewer pipes, manholes, and service laterals. RDI/I typically results in short term peak flows that recede quickly after the rainfall ends, but can result in extended periods of elevated flows in some areas.

Figure 2-1: Wastewater Flow Components
(Not to scale)



2.2 Base Wastewater Flow

BWF loads were developed for both existing and future development conditions. Existing loads were developed based on winter water consumption data, and future loads were based on development projects anticipated by the two cities. The loading methodology for existing conditions and for projecting future BWF are discussed in the following subsections.

2.2.1 Existing Base Wastewater Flow

Existing land uses in the FSSD service area are predominantly residential, but also include commercial, industrial, and public facilities (e.g., government offices, schools, etc.). Residential and non-residential BWF was estimated based on winter (December 2017 through March 2018) water consumption data provided by the District for each of the two cities. Metered water use during the winter months most closely approximates wastewater generation, since outdoor water use is at a minimum. A detailed description of the assumptions and process used to assign BWF to existing developed parcels is provided in the TM on Model Development and Calibration in **Appendix A**.

Other users that were considered in determining existing BWF loads to the system were the District's significant industrial users. Information on the average flows discharged by these users was provided by the District. The two largest dischargers are Travis Air Force Base and Anheuser-Busch InBev. The District maintains flow meters recording the discharge from these two users, and the data from those meters were used directly as flow inputs to the model. The estimated flows from the large users are also documented in the Model Development and Calibration TM.

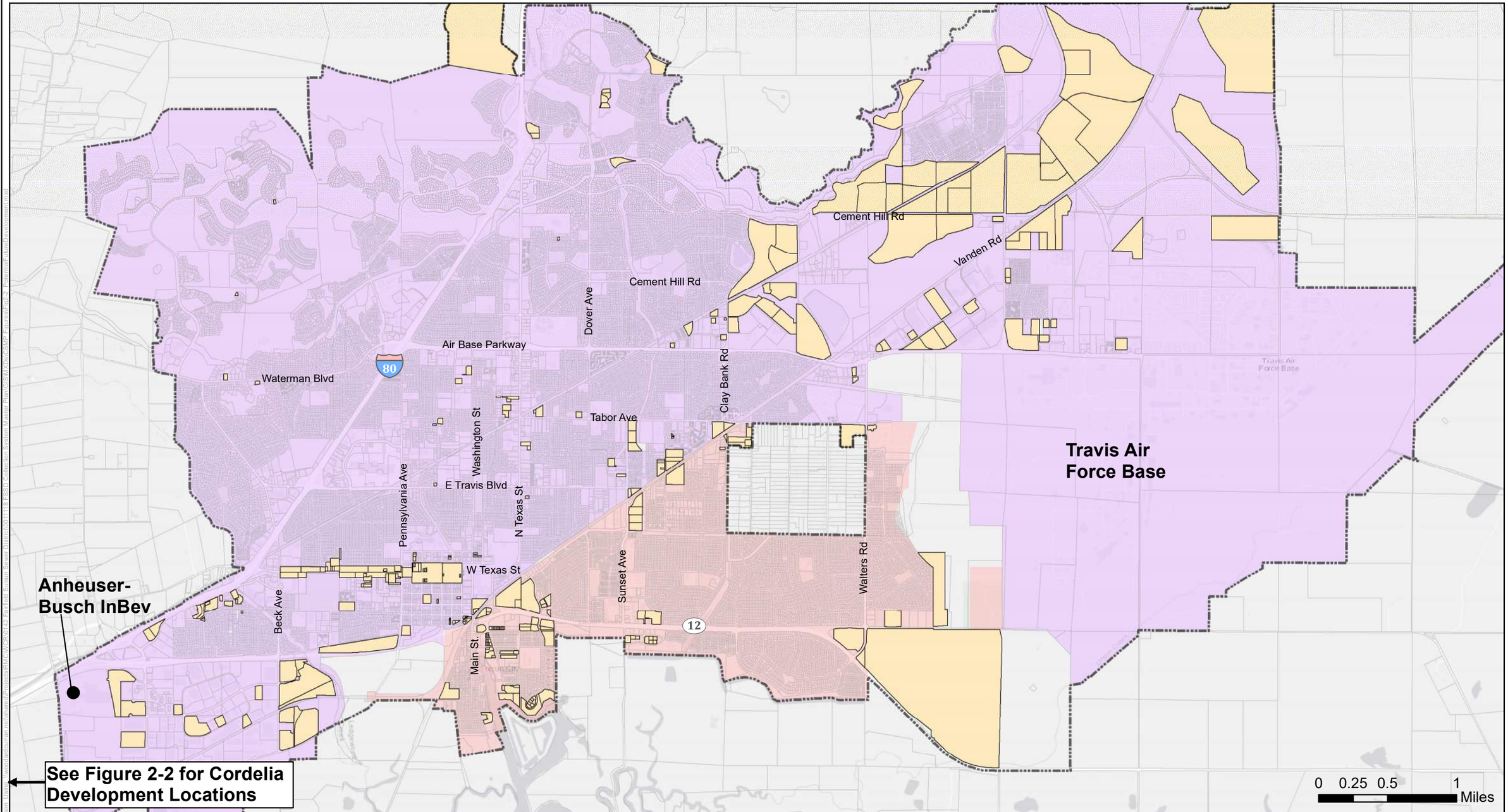
Total existing BWF in the District's system is calculated to be approximately 10.4 million gallons per day (mgd), of which approximately 75 percent is contributed by residential users. The total estimated BWF represents about 90 to 95 percent of the summertime influent dry weather flow to the WWTP. The difference can probably be attributed to dry weather GWI in the system.

2.2.2 Future Base Wastewater Flows

The Future Growth Projections TM included in **Appendix B** provides a detailed description of projected land uses and the basis for the development of future base wastewater flow estimates for this Master Plan. This information is summarized in the paragraphs below. Locations of anticipated future development in the District's service area are shown in **Figure 2-2** and **Figure 2-3**.

City of Fairfield

The major area of current and future growth in the City of Fairfield is the Northeast Fairfield area, generally located east of Clay Bank Road and north of Air Base Parkway and Vanden Road. Northeast Fairfield includes the Train Station Specific Plan (TSSP) area as well as several other major developments in various stages of planning and implementation, including the Villages of Fairfield, Hawthorne Mill/Coopers Landing, and Goldridge. The City has also adopted the "Heart of Fairfield" plan to guide redevelopment in the downtown area. Other areas of growth include Cordelia, areas north of I-80 along Green Valley Road and Suisun Valley Road, and the industrial and office park areas south of Highway 12. The City is also projecting future development in a few areas that are currently outside the city limits but within its sphere of influence and/or urban limit line. One notable project is the planned Pacific Flyway Center east of I-680.



FAIRFIELD-SUISUN SEWER DISTRICT

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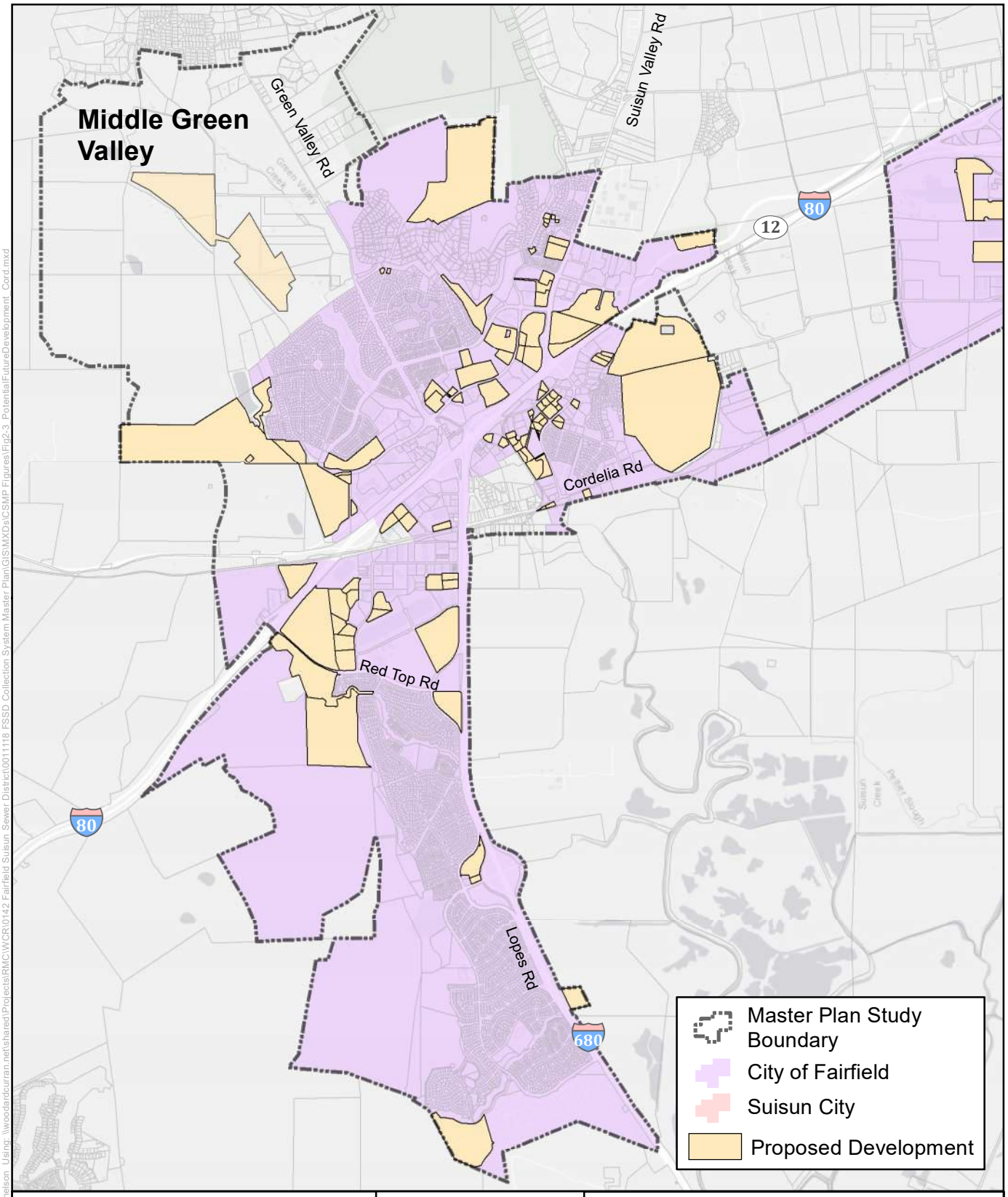
- City of Fairfield
- Suisun City
- Master Plan Study Boundary
- Proposed Development

N

Figure 2-2:
Future Development Locations

Collection System Master Plan Update



FAIRFIELD-SUISUN SEWER DISTRICT

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Project #: 0011118
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0 0.2 0.4 0.8 Miles

Figure 2-3: Future Development Locations (Cordelia)

Collection System Master Plan Update

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources: FSSD, Cities of Fairfield and Suisun City, Solano Co.**

Figure Exported: 12/9/2019 By: dnelson Using: \\woodardcurran.net\shared\Projects\RMC\WCR\0142 Fairfield Suisun Sewer District\0011118 FSSD Collection System Master Plan\GIS\MXDs\CSMP Figures\Fig2-3_PotentialFutureDevelopment_Cord.mxd

City of Suisun City

Suisun City's General Plan identifies a number of opportunity areas for development, as well as its downtown and Waterfront districts. In addition, the planning area also includes areas of potential development outside of its current city limits but within its sphere of influence, including the proposed Mount Calvary Baptist Church development and the Special Planning Area ("Suisun 365") east of Walters Road.

Middle Green Valley

Middle Green Valley is an unincorporated area of Solano County located north of Fairfield. The County has adopted a Specific Plan for the area, which calls for development of about 400 homes and associated commercial and public facilities, primarily located along a corridor east of Hennessey Creek. Legislation has recently been passed at the State level to allow the District to provide service to Middle Green Valley. Therefore, future flows from Middle Green Valley have been included in the future flow projections for this Master Plan.

Future BWF Estimates

Future BWF was estimated by applying unit flow factors to the number and type of future dwelling units or square footage of non-residential building floor space based on development and redevelopment information provided by the cities of Fairfield and Suisun City. The planning staff of the two cities compiled detailed listings of projected developments and anticipated date of construction in 5-year increments through 2035 (or beyond 2035 if not anticipated to be developed within the next 15 years) (see Future Growth Projections TM in **Appendix B**). Information was tabulated by assessor parcel number (APN) where known or by delineating the development area on a map in GIS.

Table 2-1 summarizes the projected development by type and timeframe.

Table 2-1: Projected Future Development

Type of Development	To 2020	2020 - 2025	2025 - 2030	2030 - 2035	Total through 2035	Beyond 2035	Total at Buildout
Residential							
Single Family (DUs)	995	2,055	1,941	3,554	**8,545**	1,372	**9,917**
Multi-Family (DUs)	25	1,032	3,849	1,094	**6,000**	2,260	**8,260**
Total DUs	1,020	3,087	5,790	4,648	**14,545**	3,632	**18,177**
Non-Residential							
Commercial (1,000 sq ft)	520	1,937	2,624	2,682	**7,762**	2,822	**10,584**
Industrial (1,000 sq ft)	12	768	1,350	1,823	**3,952**	5,665	**9,617**
Hotel (rooms)	190	0	104	0	**294**	0	**294**

Note: Projections in this table do not include Middle Green Valley. See Future Growth Projections TM for breakdown between Fairfield and Suisun City.

To convert the dwelling units and non-residential square footage to flow, unit flow factors, as shown in **Table 2-2**, were assigned for each type of land use. The resulting future average BWF is summarized in **Table 2-3**.

Table 2-2: Unit Base Wastewater Flow Factors for Future Development

Development Type	Unit	BWF factor (gpd/unit)
Single Family Residential	DU	200
Multi-Family Residential	DU	170
Commercial	Sq. ft.	0.1
Industrial	Sq. ft.	0.1
Hotel	Room	100

DU = dwelling unit
Sq. ft. = square footage of building floor space

Table 2-3: Base Wastewater Flow Projections

Type of Development	Average Base Wastewater Flow (mgd)				
	Existing	Incremental through 2035	Total through 2035	Incremental Beyond 2035	Total at Buildout[a]
Residential	**7.70**	2.73	**10.4**	0.66	**11.1**
Non-Residential	**1.58**	1.20	**2.8**	0.85	**3.6**
TAFB & AB InBev[b]	**1.08**	N/A	**1.1**	N/A	**1.1**
Total	**10.36**	**3.93**	**14.3**	**1.51**	**15.8**

a. Not including Middle Green Valley. Based on information provided in the Middle Green Valley Specific Plan, estimated BWF to be conveyed to FSSD is 0.12 mgd.
b. Future changes in BWF are not anticipated.

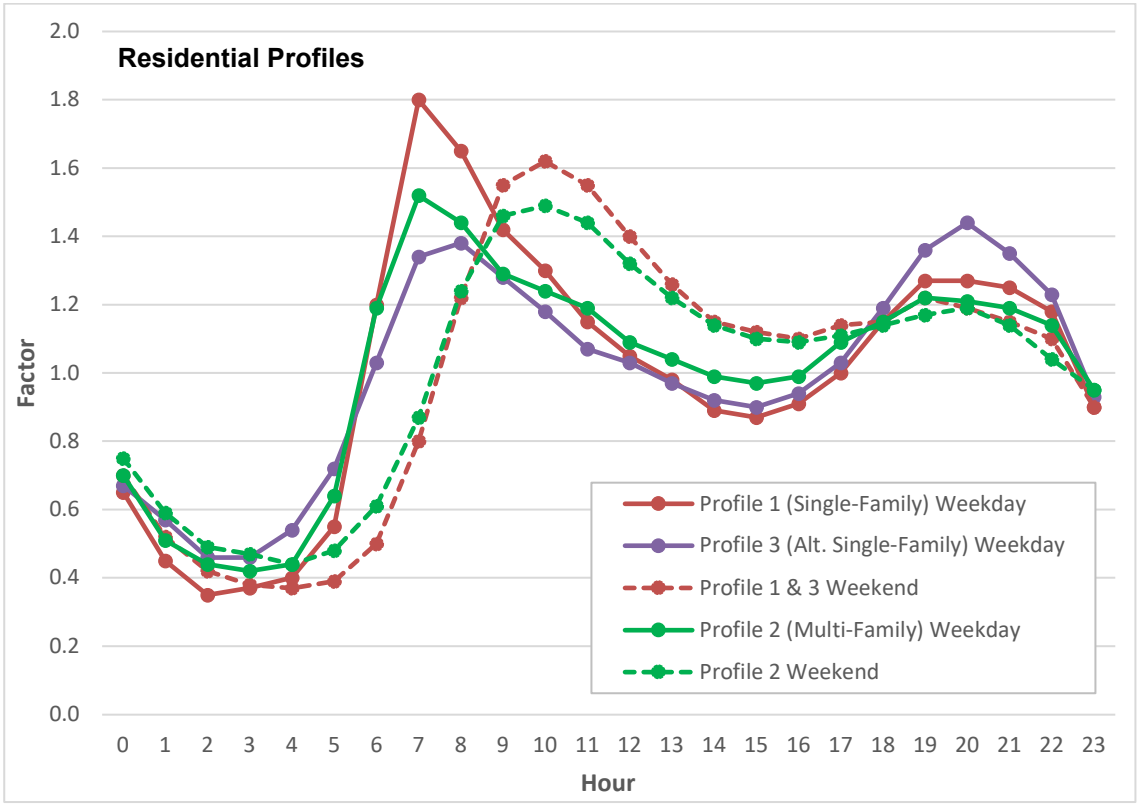
2.2.3 Diurnal Curves

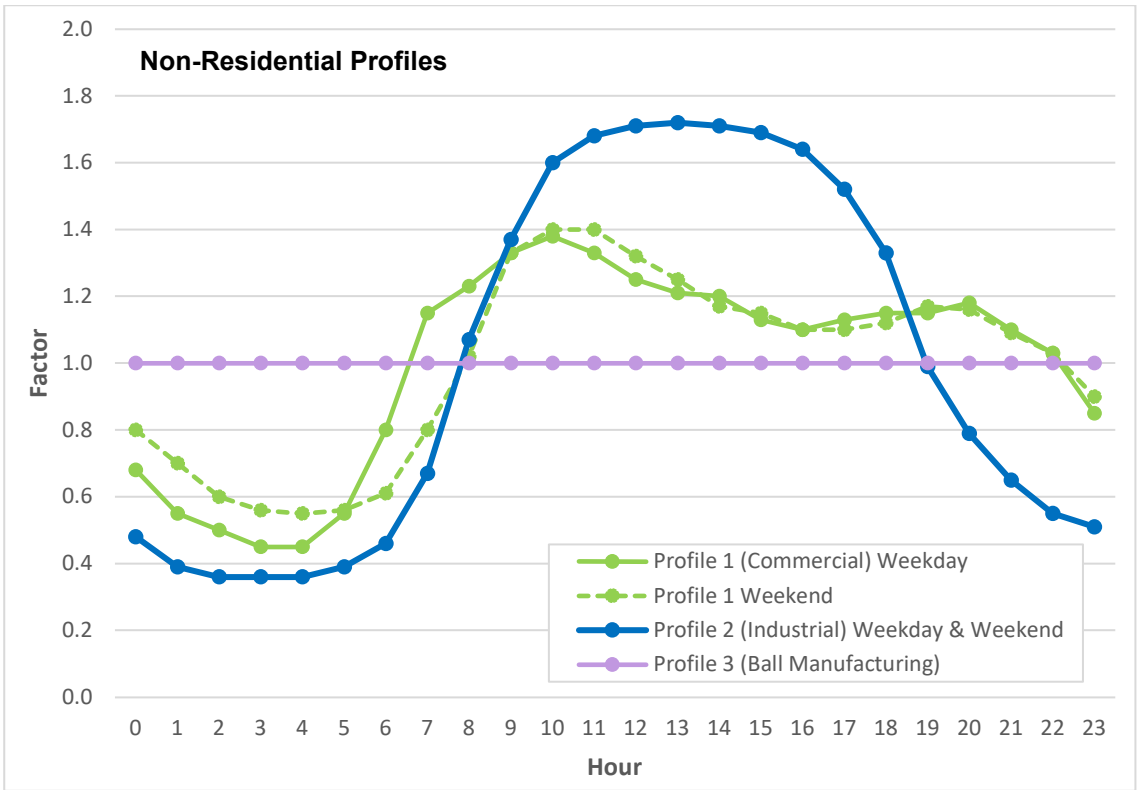
BWF varies throughout the day in a typical way, generally peaking early in the morning in upstream sewers, and later and less sharply in larger downstream sewers. Typical hourly peaks from small residential areas tend to be about twice the average flow, whereas peak flows further downstream may be less than 1.5 times average flows due to flow attenuation in the collection system. Higher peaks can occur on atypical days of the year (e.g., on major holidays such as Thanksgiving or at halftime on Super Bowl Sunday).

Diurnal profiles were developed for typical single family residential, typical multi-family residential, and typical commercial patterns for weekday and weekend flow patterns. During model calibration, discussed in Chapter 3, an alternate single family residential pattern was also developed to better match observed diurnal patterns for certain areas. An additional pattern was also developed to represent areas with more industrial uses. Note that one industrial discharger, Ball Manufacturing, appeared to have no significant diurnal variation; therefore a separate (24-hour, 7 days-per-week constant flow) diurnal pattern was used for that industry.

The residential and non-residential diurnal profiles used for the Master Plan are shown in **Figure 2-4**.

Figure 2-4: Diurnal Profiles





2.3 Groundwater Infiltration

Groundwater infiltration is generally quantified based on actual flow monitoring data, since it is difficult to predict GWI rates based on physical system data alone. In the context of this Master Plan, GWI represents the seasonal increase in wastewater flows due to infiltration of groundwater that occurs during the wet weather season above the "baseline" infiltration level during the driest months of the year.

GWI can be estimated based on comparison of estimated minimum BWF versus observed minimum flows during non-rainfall periods within a wet weather flow monitoring period. Minimum flows typical occur during the nighttime or early morning hours when base wastewater flows are at a low. Alternately, GWI can be estimated as the difference between average metered flow during non-rainfall periods and computed average BWF. In either case, the resulting GWI, is expressed on a unit basis (gallons per day per acre, gpd/acre or gpad) by dividing the GWI flow by the sewered acreage of the monitored area. Typical GWI rates may range from zero to over 1,000 gpad.

GWI flows were estimated through the model calibration process (described in Chapter 3) by comparing model-simulated BWF to actual flow measurements from the temporary flow monitoring program. Cases where model-predicted BWF was noticeably lower than monitored flow indicated the possible occurrence of GWI.

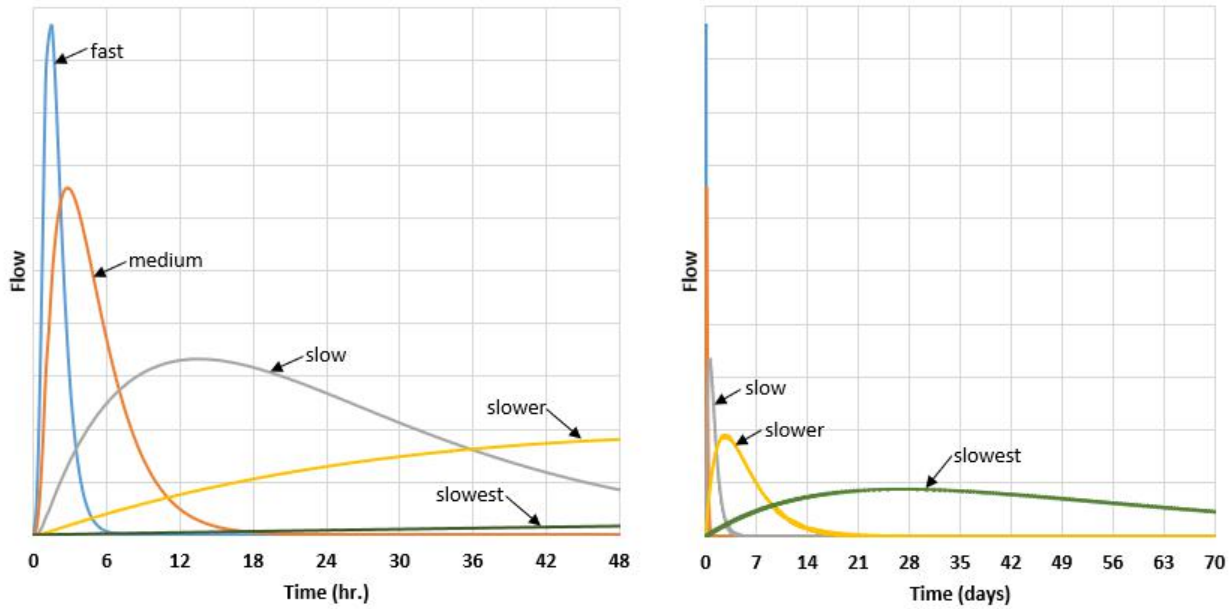
2.4 Rainfall-Dependent I/I

RDI/I flows result from rainfall events that produce infiltration and inflow of storm water runoff into the sewer system. RDI/I can be quantified as the difference between the total flow during and immediately following a storm event and the non-rainfall "base flow" (BWF plus GWI) that is estimated to have occurred during the storm period. The magnitude of the resulting RDI/I response is typically described by the percentage of the rainfall volume (called the "R value") entering the sewer system as represented by the volume of the RDI/I hydrograph. The R value for any specific area may depend on such factors as topography, type of soil, and the condition of the sewers, manholes, and service laterals in the area. R values can also vary from storm to storm, depending on such factors as the magnitude and intensity of the storm event rainfall and degree of soil saturation (due to antecedent rainfall) prior to the storm event.

The shape of the RDI/I hydrograph is also important in determining the peak RDI/I response. The RDI/I hydrograph shape is often defined by separating the total RDI/I hydrograph volume into components, representing different response times to rainfall, as illustrated in **Figure 2-5.** Up to three or more response patterns may be used. Summing all of the component hydrographs for the duration of the rainfall events results in the total RDI/I hydrograph for that area. In most sewer systems, the "fast" component of the hydrograph usually has the biggest impact on the magnitude of the peak wet weather flow response, while the slower components can contribute significantly to the total volume of the RDI/I response. The slowest response component can extend up to many days or weeks after the rainfall (alternately, this component could be represented as an increase in GWI). These parameters, when applied to a different rainfall pattern, can be used to estimate the RDI/I response to that particular rainfall event.

As described in Chapter 3, R values and hydrograph parameters are determined through the process of model calibration, in which actual observed rainfall events are simulated in the hydraulic model, and the resulting model hydrographs are compared to the measured flows at flow meter locations. The RDI/I parameters are adjusted as needed to achieve the best match of modeled to monitored flows. Once calibrated, the model RDI/I parameters can be applied to a design storm to simulate wet weather flows for a design event.

Figure 2-5: RDI/I Hydrograph Components



Chapter 3 Hydraulic Model Development

This chapter of the report describes the development of the hydraulic model used for the capacity assessment for this Master Plan. The modeling software used for the study was InfoWorks™ ICM by Innovyze, a fully dynamic hydraulic modeling program that has been used for many other collection systems in the greater San Francisco Bay Area. This chapter provides an overview of the model development process, including description of the modeled sewer network and subcatchments, the flow monitoring program that was conducted for this study, and the calibration of the model. Additional detail about the model is provided in the TM on Model Development and Calibration in **Appendix A**.

3.1 Modeling Terminology

Key modeling terms are defined below.

- **Network** refers to the representation of the physical facilities being modeled. Modeled network components include pipes, manholes, and pump stations.
- **Nodes** are primarily manholes, but also include pump station wet wells and outfalls (discharge points from the modeled system). Key data associated with nodes include manhole ground elevations and pump station wet well elevations and cross-sectional areas.
- **Pipes** or **conduits** are connections between nodes, and include both gravity sewers (including inverted siphons) and force mains. Key data associated with pipes are upstream and downstream node IDs, pipe length, diameter, roughness factor, and upstream and downstream invert elevations.
- **Controls** refer to model features such as weirs, valves, sluice gates and orifice plates located within manhole structures. These features are typically designed or set to constrict flow in one direction in order to send flow in another direction, and are represented as "links" between nodes in the model.
- **Pumps** are modeled individually, connecting pump station wet wells with the upstream node of the associated force mains. Data associated with pumps include type (e.g., fixed or variable speed), on and off levels, pump capacities, and pump discharge curves.
- **Subcatchments** (also called sewersheds or subbasins) are areas that contribute flow to the modeled sewer network and represent the unmodeled sewers in the cities' collection systems. Data associated with subcatchments include base wastewater flow (BWF), computed as described in Chapter 2, diurnal BWF profile, infiltration/inflow (I/I) parameters, and the node at which the flow from the subcatchment enters the modeled system.
- **Model loads** are the flows entering the modeled sewer system from each subcatchment. Model loads include residential and commercial BWF, groundwater infiltration (GWI), and rainfall-dependent I/I (RDI/I). As a sum, they represent the total wastewater flow applied to the model.
- **Models** are the combination of a modeled network, its associated subcatchments and loads, and other data (e.g., rainfall, diurnal profiles, inflows from other areas, etc.) that comprise a specific model scenario.

3.2 Modeled System

The model network for this Master Plan included all District pipes (which are all sewers 12 inches and larger in diameter), and several Fairfield pipe segments of concern between 8 and 10 inches in size. In total, the network included about 82 miles of pipelines: 67 miles of District gravity mains, 2 miles of small diameter City of Fairfield pipes, and 13 miles of force mains. These sewer lines form an integrated network

that ultimately conveys flow to the District's four major pump stations, which discharge directly to the headworks of the WWTP.

The city sewers originally included in the model were:

- 8-inch gravity sewer in Dobe Lane and Peabody Road
- 10-inch gravity sewer in 5th Street and Empire Street
- 10-inch gravity sewer in Clay Street and North Texas Street

The latter two reaches of sewers were added because of known capacity issues in the city's collection system in those areas. Note that later in the study, additional city sewers in West Texas Street between 5th Street and Pennsylvania Avenue and extending downstream along Gregory Street were added to the model at the request of the City of Fairfield in order to further evaluate capacity requirements for serving redevelopment along West Texas Street and potential alternatives to relieve capacity deficiencies in the City's and District's sewers in Empire Street.

The model network of the existing system includes seven pump and lift stations, as listed in **Table 3-1.** Several smaller District lift stations that pump into city gravity sewers were not included in the model (these pump stations are assumed to have adequate capacity to convey the flow downstream to the District's trunk network). The future model network also includes the proposed Northeast Fairfield Pump Station. Besides pump and lift stations, other critical features included in the hydraulic model are 14 flow diversion structures and 12 inverted siphons. The existing modeled network is shown in **Figure 3-1**.

The District's service area is sub-divided into four major drainage basins corresponding to the four major pump stations. The typical drainage pattern in the Suisun, Central, and Inlet Pumps Station basins is from north to south and then west to the WWTP. In the Cordelia drainage basin, the sewer system drains north and south to the Cordelia Pump Station and then east to the WWTP.

The CBC, Lopes, and Cement Hill Lift Stations discharge to downstream gravity sewers in the District's system. The CBC and Lopes Lift Stations are located upstream of the Inlet Pump Station and the Cordelia Pump Station, respectively. The Cement Hill Lift Station, which is owned and operated by the City of Fairfield, is located in the northeast area of Fairfield in the Suisun Pump Station drainage basin. The Northeast Fairfield Pump Station is a proposed pump station that has been designed but not yet constructed. It will serve future developments in the northeastern portions of the service area and will allow the current Cement Hill Lift Station to be eliminated.

Table 3-1: Modeled Pump Stations

Pump/Lift Station	Type	No. of Pumps	Firm Capacity[a] (mgd)	Total Capacity (mgd)	Force Main Dia. (in.)
Central (CPS)	VFD	4	26.5	30.7	30/36[b]
Cordelia (COR)	VFD	3	10.8[c]	15.4	18, 27 (parallel)
Inlet (IPS)	VFD	3	16.0	25.4	24
Suisun (SPS)	VFD	4	33.0	40.5	36/48[b]
CBC	VFD	3	9.0	12.5	20
Lopes Road (LRLS)	VFD	2	3.1	4.0	6, 12 (parallel)
Cement Hill (CHLS)	Fixed Speed	2	1.6[d]	N/A	10

a. Capacity with largest pump out of service.

b. Capacity estimates assume Central PS is connected to the 36-inch force main and the Suisun PS is connected to the 48-inch force main at the force main intertie vault, as recommended in 2010[1].

c. Cordelia PS has a single large wet weather pump, not included in firm capacity calculation. Capacity of wet weather pump is 11.3 mgd.

d. Based on modeling assumptions from 2008 Master Plan.

[1] HDR Inc., September 2010, *Hydraulic Analysis of Suisun Pump Station, Central Pump Station, and Interconnected System*

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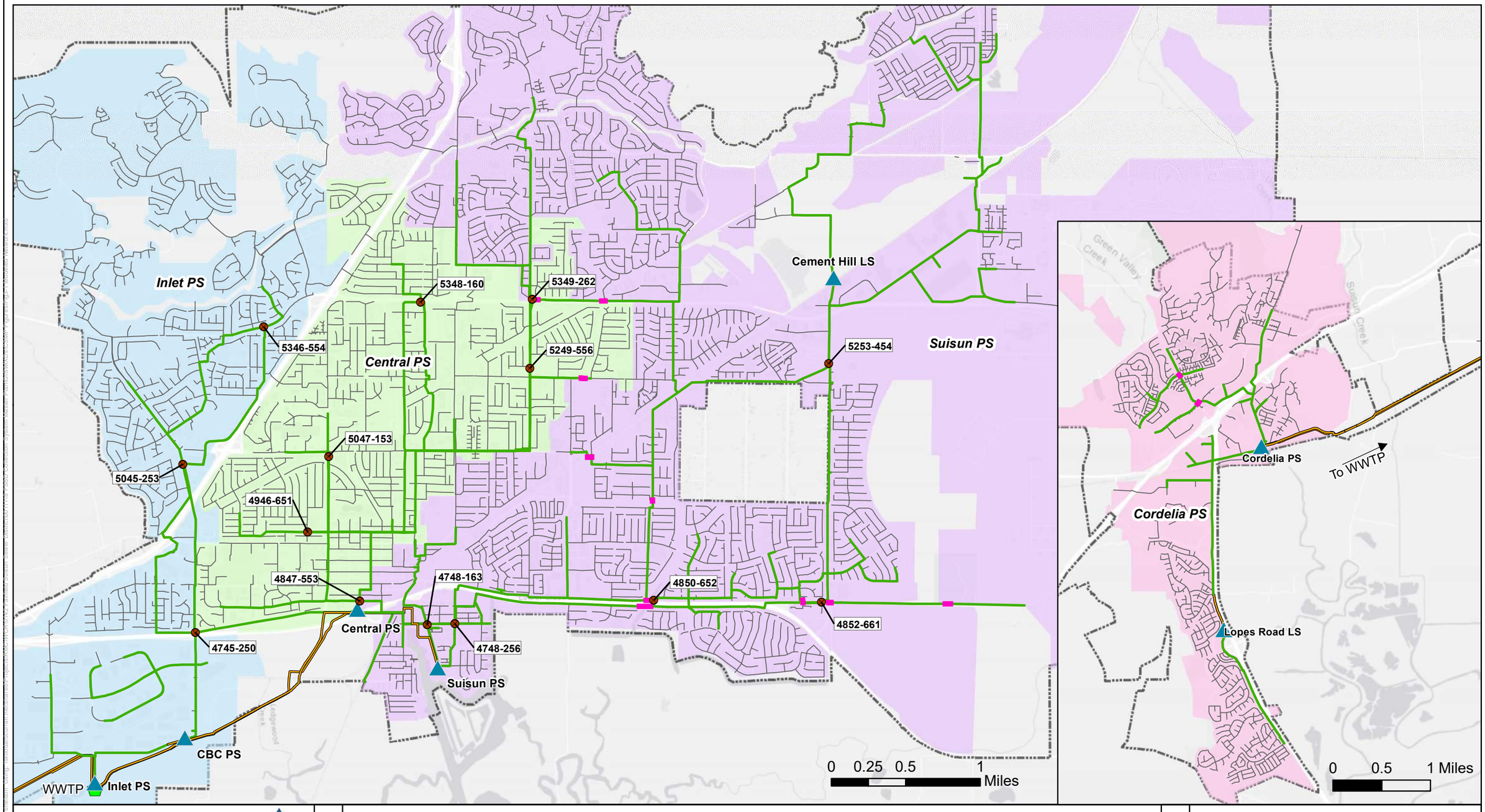


FAIRFIELD-SUISUN SEWER DISTRICT

WOODARD &CURRAN

Project #: 0011118
Map Created: October 2019

Legend

- Diversions
- Pump Stations
- Inverted Siphons
- Gravity Sewers
- Forcemains
- Unmodeled Sewers
- Major Pump Station Basins
- Master Plan Study Boundary

N

Figure 3-1:
Existing Modeled Trunk System

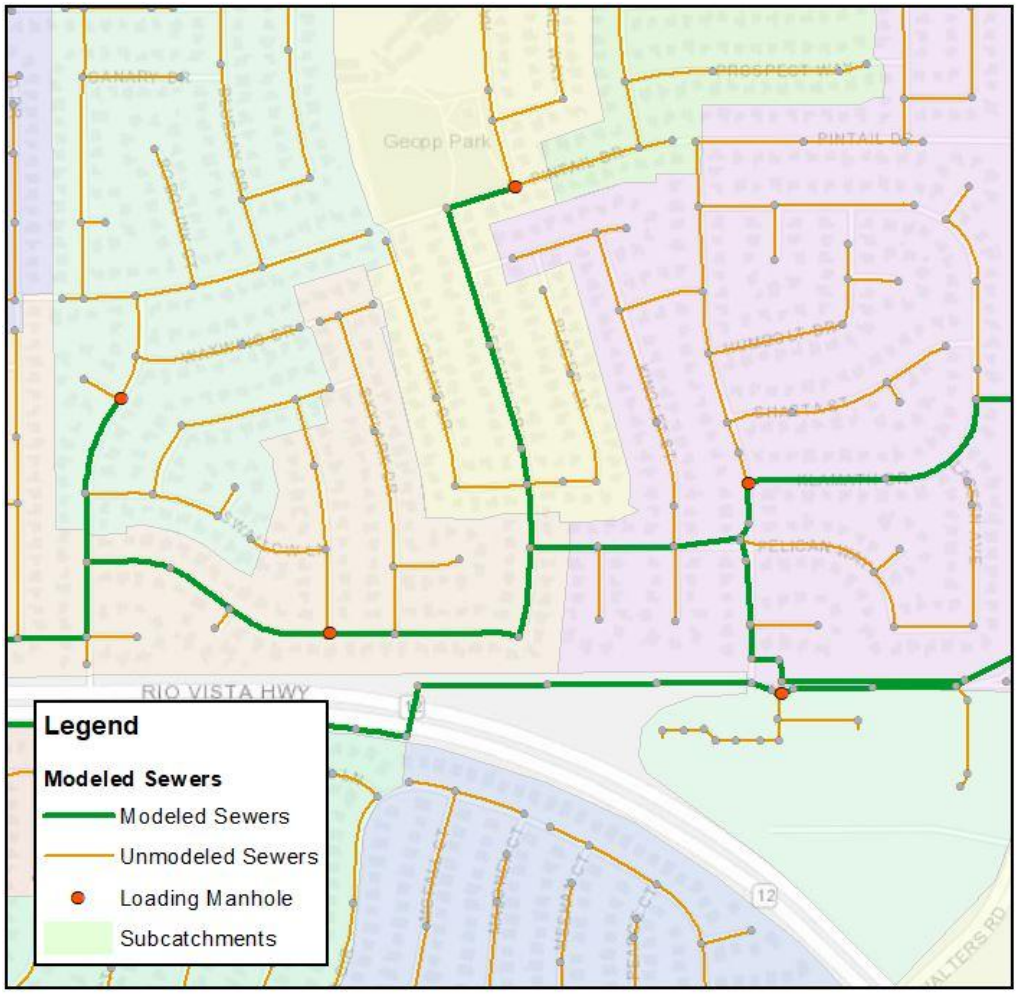
Collection System Master Plan Update

3.3 Sewer Subcatchments and Load Manholes

Flows are loaded into the modeled network at "load manholes," which are typically the manhole where flows from unmodeled city sewers discharge into the modeled network. "Subcatchments" are the polygon areas delineated to show the areas contributing flows to the load manholes. The District's existing and potential future service area was divided into approximately 500 subcatchments with an average size of approximately 20 acres. After development of future model loads, some of these subcatchments and associated load manholes were refined to better reflect the configuration of proposed local collection sewers in planned developments.

An example zoomed-in area illustrating the delineation of sewer subcatchments and load manholes is shown in **Figure 3-2.**

Figure 3-2: Example Sewer Subcatchments



3.4 Flow Monitoring Program

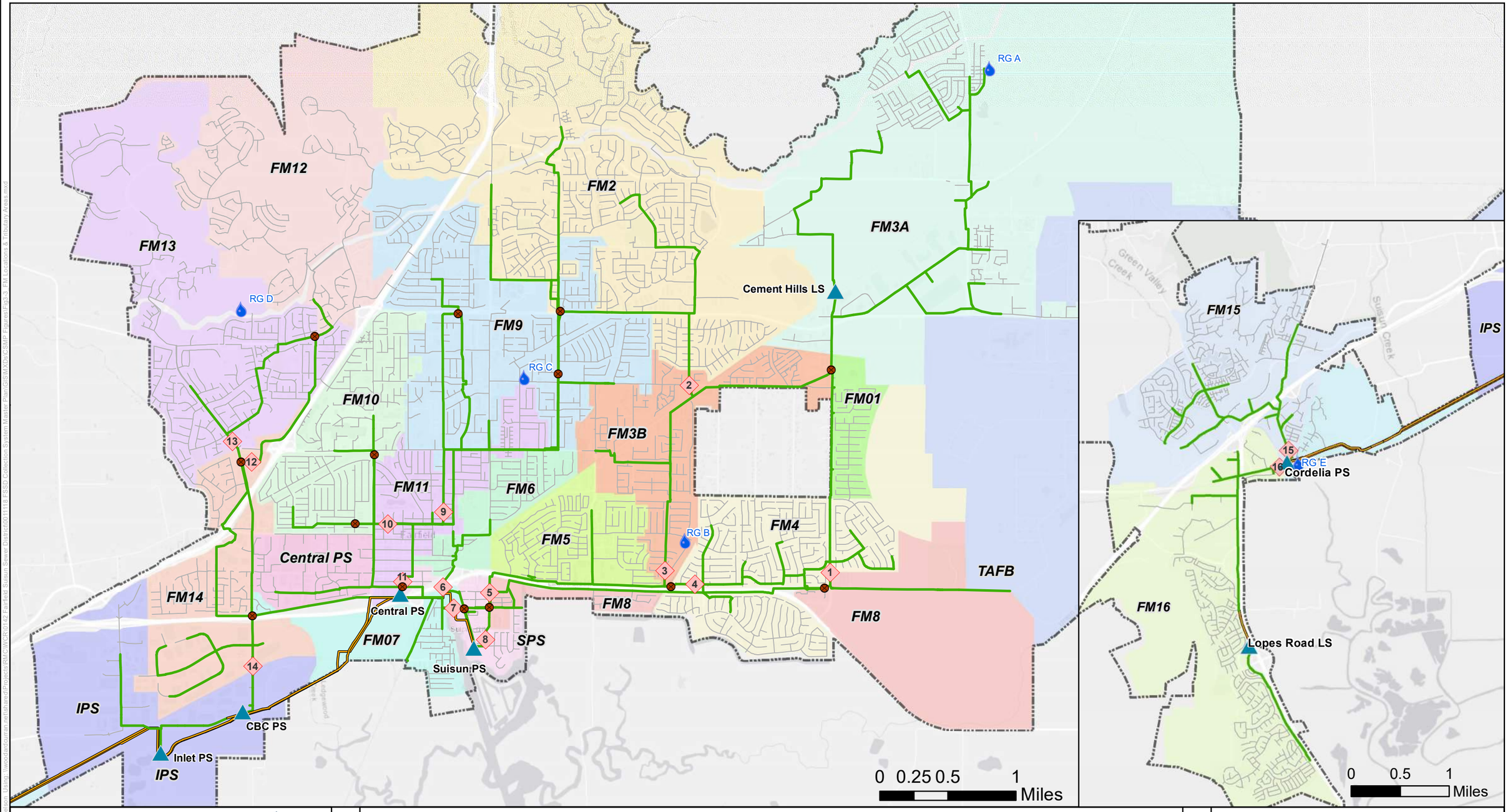
A temporary flow monitoring program consisting of 16 flow meters and 5 rain gauges installed in the FSSD system during the period from mid-February through mid-April 2018 provided data for calibration of the hydraulic model. The monitoring was conducted by V&A Consulting Engineers (V&A) under contract to the District. The locations of the flow meters and rain gauges are shown in **Figure 3-3**. The figure also shows the associated tributary area (basin) for each flow meter. Note that seven of the meters were located downstream of other meters; therefore, the tributary areas shown for these meters are the "incremental" areas between the flow meter and the tributary basins of the upstream flow meters. The locations of the flow meters relative to each other and to flow splits within the system are shown schematically in **Figure 3-4**.

Table 3-2 lists the flow meter locations, pipe diameters, and downstream and upstream meters. In addition to the temporary meters, the District provided flow data from its SCADA system for the four major pump stations, WWTP influent, and for Travis AFB and AB InBev.

Table 3-2: Flow Meter Locations

Flow Meter ID	Location	Dia. (in)	Downstream Meter(s)	Upstream Meters	Basin
FM1	Walters Rd n/o Petersen Rd	36	FM8, FM4[a]	N/A	Suisun PS
FM2	Claybank Rd at E. Tabor Ave	27	FM3	N/A	Suisun PS
FM3	Honker Ln at Wigeon Wy	30	FM5	FM2	Suisun PS
FM4	Harlequin Wy w/o Labrador Wy	30	FM8, FM5[a]	FM1[b], TAFB[b]	Suisun PS
FM5	Josiah Wy at Lotz Wy	39	Suisun PS	FM3, FM4[b]	Suisun PS
FM6	Main St. n/o Lotz Wy	24	Suisun PS	N/A	Suisun PS
FM7	Driftwood Dr e/o Main St	30	Suisun PS	FM11[b], FM12[b], FM13[b]	Suisun PS
FM8	Harbor Park Dr n/o Catamaran Wy	48	Suisun PS	FM1, FM4, TAFB	Suisun PS
FM9	Union Ave n/o Kentucky St	36	FM11	N/A	Central PS
FM10	Empire St w/o Taylor St	24	FM11	N/A	Central PS
FM11	Madison St b/w Illinois & Ohio	48	Central PS	FM9, FM10	Central PS
FM12	Holiday Ln e/o Oliver Rd	18	FM14	N/A	Inlet PS
FM13	Oliver Rd n/o Travis Blvd	18	FM14	N/A	Inlet PS
FM14	Beck Ave s/o Courage Dr	27	Inlet PS	FM12, FM13	Inlet PS
FM15	Pittman Rd n/o Cordelia Rd	36	Cordelia PS	N/A	Cordelia PS
FM16	Cordelia Rd e/o Bridgeport Ave	24	Cordelia PS	N/A	Cordelia PS

Notes:
a. Indicates an overflow diversion that could potentially divert flow to that meter.
b. Indicates an overflow diversion that could potentially divert flow from that meter.



FAIRFIELD-SUISUN SEWER DISTRICT

WOODARD &CURRAN

Project #: 0011118
Map Created: October 2019

Legend

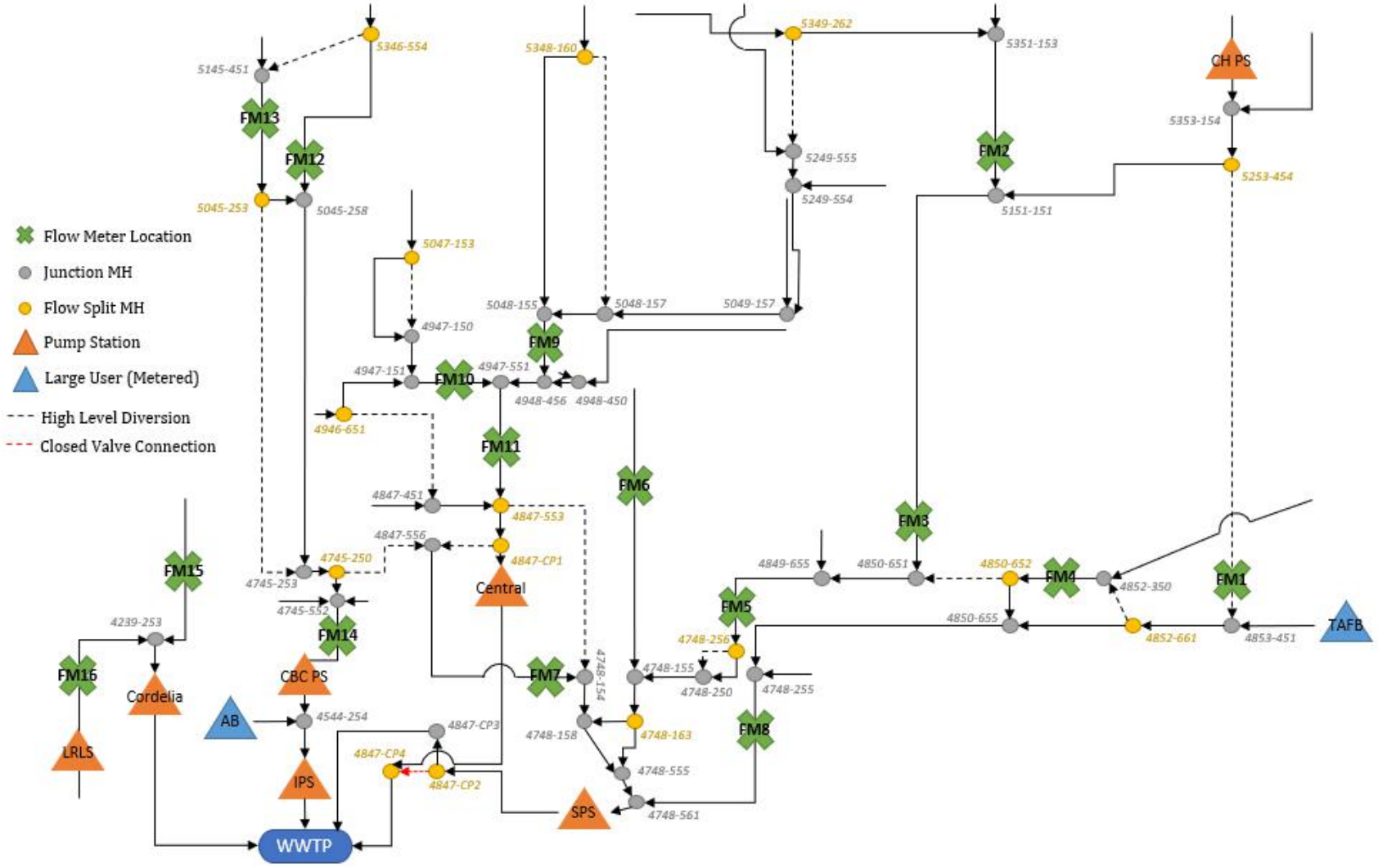
- Diversions
- Flow Meters
- Rain Gauges
- Pump Stations
- Gravity Sewers
- Forcemains
- Unmodeled Sewers
- Master Plan Study Boundary
- Flow Meter Basin

N

Figure 3-3: Flow Meter Locations & Tributary Areas

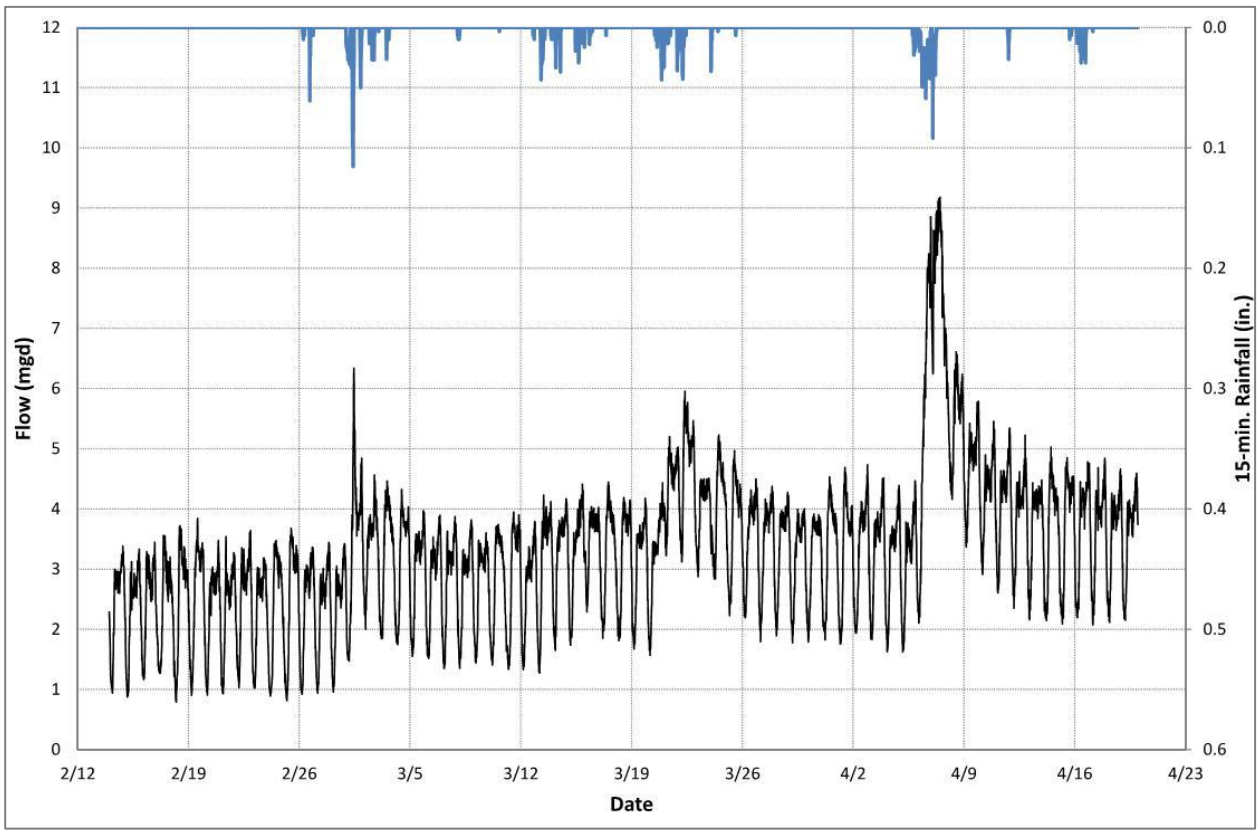
Collection System Master Plan Update

Figure 3-4: Flow Meter and System Schematic



A total of about 8 inches of rain fell during the flow monitoring period. Although the March 1, 2018 storm had the highest intensity of rainfall, the early April storm generated the highest rainfall volume and, because the soil was fairly saturated and flows already elevated due to previous rainfall, that storm typically generated the highest peak flows. **Figure 3-5** shows a typical plot of measured flow and rainfall for one of the flow meters. Plots of the flow data for all of the monitoring sites are included in the Model Development and Calibration TM in **Appendix A**.

Figure 3-5: Example Flow Monitoring Data (Meter FM11)



3.5 Development of Model Loads

As noted previously, flows are loaded into the model at "load manholes," each of which represents the point where flows from the unmodeled sewers discharge into the modeled network. The unmodeled sewers were grouped into sewer subcatchments, each with a unique load manhole in the network.

Chapter 2 described how BWF model loads were developed from water use and land use and growth projections. GWI and RDI/I flows were also loaded to the model by subcatchment by associating each subcatchment with a flow meter area. For each subcatchment, the total sewered area (i.e., area that potentially contributes I/I) was determined by summing the acreage of non-open space land uses in the subcatchment. Non-open space land uses include residential, commercial, industrial, and institutional uses, but do not include parks, drainage channels, and large roadways such as freeways. I/I flows for each subcatchment were computed in the model by applying the appropriate meter area GWI and RDI/I parameters (determined during the model calibration process described below) to the sewered area of the subcatchment. **Appendix D** includes a detailed tabulation of the model sewer subcatchments and loads.

3.6 Model Calibration

Model calibration is the process of comparing model-simulated flows to monitored (observed) flows and adjusting model parameters until a reasonably good match is achieved. Model calibration is achieved first through comparison of modeled versus metered flows during a dry weather (non-rainfall) period to achieve an accurate prediction of BWF and GWI, then during the wet weather period to estimate RDI/I response.

As described above, a temporary flow monitoring program was conducted in the FSSD system from mid-February through mid-April 2018. The data collected during the flow monitoring program were used for model calibration. The model calibration procedure and results are presented in detail in the Model Development and Calibration TM in **Appendix A**. The paragraphs below provide a summary of the model calibration methodology and results.

3.6.1 Dry Weather Calibration

The non-rainfall period from February 14 to 25, 2018 was used as the dry weather calibration period for comparing flow data to the model results. This period was selected because it was not impacted by previous rainfall and a majority of the meters showed consistent readings.

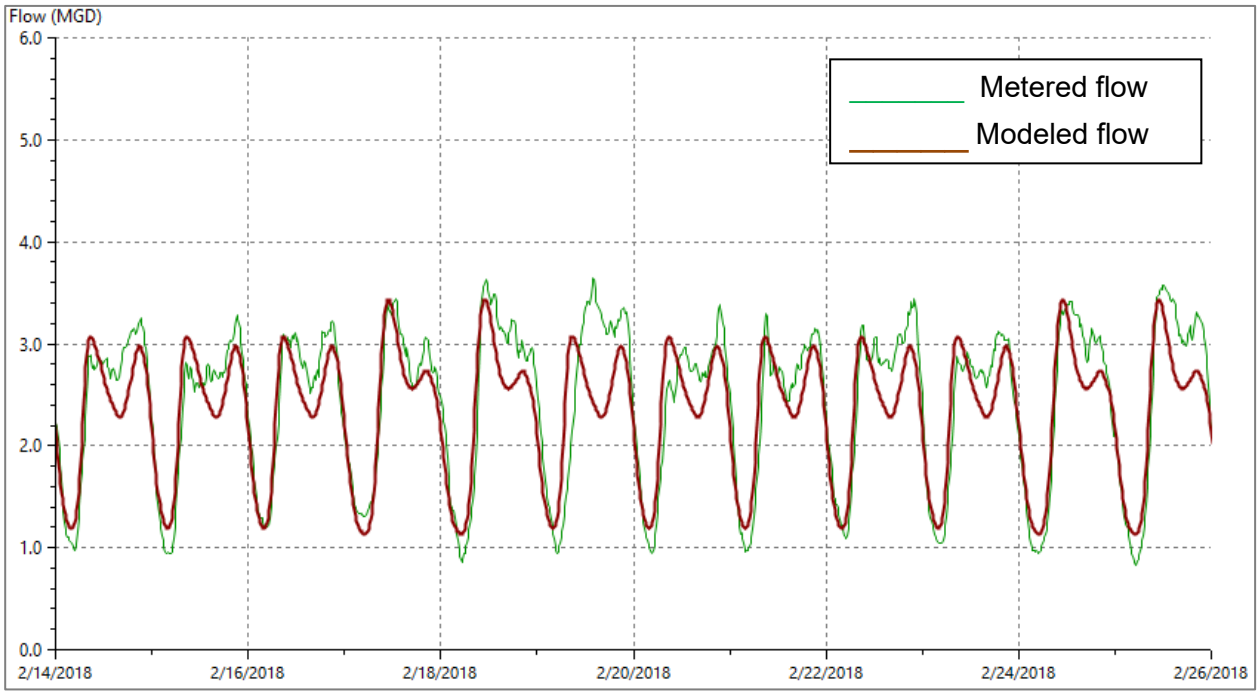
Figure 3-6 shows an example plot of model vs. metered flow for one of the flow meters. In this graph, the green line represents the monitored (observed) flow, and the red line is the model-simulated flow. It is interesting to note that because Monday, February 19, 2018 was a holiday (President's Day), the observed flow more closely approximates a weekend diurnal profile, even though the modeled flow is shown as a weekday pattern.

The primary focus of the dry weather calibration was to confirm that the calculated average BWF based on winter water consumption was consistent with the measured flows at the meter locations. The other objectives of the dry weather calibration were to confirm the flow routing in the system, particularly in areas where flow can be diverted in more than one direction (flow splits), as well as to confirm the diurnal profiles used to represent the hourly variations in BWF.

GWI was added when the observed (metered) dry weather hydrographs were greater than the model-simulated hydrographs by a relatively constant value throughout the day. GWI ranging from about 100 to 800 gpd/acre was applied in eight of the flow meter areas. One area upstream of the Inlet PS (but downstream of meter FM14) appeared to have a very high GWI rate (0.5 mgd or over 2,000 gpd/acre). This could be due to meter discrepancy or unknown flow from one or more point sources, and further investigation is recommended. It should be noted that it may be difficult to assess the actual amount of GWI, as the relative accuracy of the flow monitoring data, water consumption data, and other model assumptions will affect the amount of flow attributed to GWI. However, this methodology is considered adequate for modeling purposes.

The model calibration resulted in a reasonably good match of modeled to metered flow (within 10 percent) at most locations, with total average modeled flow to within 8 percent of metered flow at the WWTP. A few meters had larger differences, which could be due to inaccuracies in the meter data or in the configuration of the system (e.g., upstream flow splits). The calibration process did result in further investigation and adjustments to several flow split locations in the model, and every effort was made to resolve as many of the calibration differences as possible.

Figure 3-6: Example Dry Weather Calibration Graph (Meter FM11)



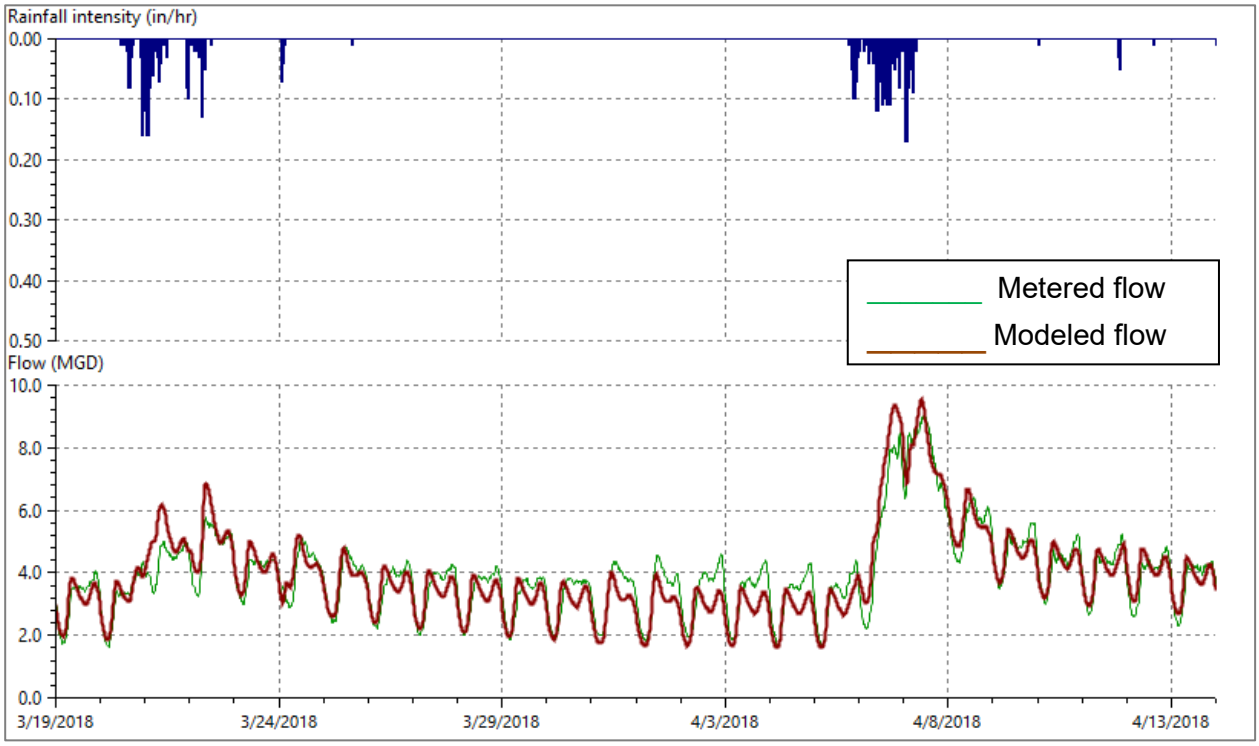
3.6.2 Wet Weather Calibration

The period from February 28 to April 14, 2018 was used as the wet weather calibration period for comparing flow data to the model results. As the initial storm beginning on February 28 occurred on dry soils, the calibration primarily tried to match flows during the latter part of the season. However, the initial storm resulted in elevated flows throughout the flow monitoring period for several flow meters, so all model runs included the entire wet weather period.

During wet weather calibration, the percentage volume of each of five RDI/I component parameters illustrated in **Figure 2-5** were adjusted to simulate the volume and timing of RDI/I for monitored storm events in order to best match the overall wet weather hydrograph shape and magnitude of peak flows. Rainfall was assigned to subcatchments using data from the closest of five rain gauges maintained by V&A during the monitoring period. Through the wet weather calibration process, RDI/I hydrograph parameters were developed for each metered area. **Figure 3-7** shows an example plot of model versus metered wet weather flow for the latter part of the wet weather calibration period.

Note that because initial model runs indicated potentially significant capacity issues upstream of the Lopes Road Lift Station, additional wet weather calibration was conducted using 2019 wet season data for the Cordelia Pump Station and Lopes Road Lift Station. The District provided wet weather season (November 2018 through March 2019) SCADA flow data for the Cordelia Pump Station and wet well level and pump speed data for the Lopes Road Lift Station (used to reconstruct estimated flows for the Lopes Road station). The flows were then compared to model predictions. Based on that evaluation, calibration parameters for meters FM15, FM16, and Cordelia Pump Station were adjusted, and new parameters were developed for the area upstream of Lopes Road Lift Station.

Figure 3-7: Example Wet Weather Calibration Graph (Meter FM11)



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Chapter 4 Capacity Analysis

This chapter describes the hydraulic analysis and design criteria used to evaluate system performance and size capacity relief projects, the capacity deficiencies based on the results of model runs, and preliminary solutions to identified capacity deficiencies.

4.1 Design Event Criteria

Peak design flows for sewer systems consist of dry weather base wastewater flow (BWF), groundwater infiltration (GWI), and rainfall-dependent infiltration/inflow (RDI/I). Criteria for computing existing BWF, GWI, and RDI/I (developed as part of model calibration), and unit flow assumptions for future development were discussed in the previous chapters. However, the peak design flow criteria must also specify the set of conditions (e.g., design storm rainfall and timing with respect to seasonal GWI and diurnal BWF) that will generate the highest peak flows that the sewer system must be capable of hydraulically conveying.

The following subsections discuss the design event used in this Master Plan. Key factors needed to define a design storm include return period, storm duration, rainfall depth and spatial variation, temporal distribution of rainfall, storm timing, and antecedent conditions. These factors are discussed in detail in the TM on Performance and Design Criteria included in **Appendix C** and summarized in the paragraphs below.

4.1.1 Rainfall Return Period

The return period defines the probability that the design rainfall will be exceeded in any given year. The chosen return period reflects the degree of risk of experiencing sanitary sewer overflows (SSOs) due to future storm events that the District is willing to accept. The District's 2008 Master Plan defined 10- and 20-year design storms as the basis for capacity analysis. Although there is no regulatory standard for design storm return periods for wastewater collection systems, the majority of Bay Area agencies that have adopted a specific return period have selected return periods of 5 or 10 years. As discussed further below, depending on the type of rainfall distribution chosen, although the overall return period for the full storm is as stated, shorter durations within each storm may or may not be an equivalent return period. It should also be noted that the return period from a rainfall event can differ from the return period of a resulting peak flow occurring in the collection system due to other factors such as the timing of the storm with respect to the normal diurnal wastewater pattern, and the antecedent conditions under which the storm occurs.

For this Master Plan, 5-, 10-, and 20-year return period design storms were developed, with a 10-year design storm being used as the basis for the capacity assessment and the smaller and larger events used to help prioritize potential capacity improvement projects.

4.1.2 Storm Duration

A storm duration must be specified for the design storm along with the return period. Most Bay Area agencies use a 24-hour storm, constructed such that the more intense rainfall occurs during a shorter (e.g., 4- to 6-hour) period. A 24-hour duration design storm was used for this Master Plan.

4.1.3 Rainfall Depth and Spatial Variation

Synthetic design storms are typically based on rainfall intensity-duration-frequency (IDF) statistics that have been compiled for a local area. These statistics give the rainfall depths for various return periods and durations. Rainfall depths for Solano County for various return periods and durations were developed for the Solano County Water Agency (SCWA) *June 1999 Hydrology Manual*[2]. These values vary by location based on mean annual precipitation (MAP), which for the District's service area ranges from about 19 to

[2] Solano County Water Agency, June 1999 Hydrology Manual, Appendix A - Design Rainfall Report

29 inches. Based on the SCWA Hydrology Manual data, the 24-hour rainfall for a 10-year return period event in the District's service area ranges from about 3.4 to over 5 inches depending on location.

4.1.4 Rainfall Temporal Distribution

The temporal rainfall distribution of a design storm may be based on a synthetic storm or an actual historical event. For this Master Plan, a 24-hour synthetic rainfall distribution known as a "SCS Type IA" distribution, as defined in the document *Urban Hydrology for Small Watersheds*[3], has been used to define the temporal rainfall distribution of the design storm.

4.1.5 Storm Timing

The timing of the rainfall with respect to the sewer BWF diurnal profile must also be defined. For example, the rainfall can be timed to generate peak RDI/I that occurs at approximately the same time as the peak BWF in most areas (referred to as "peak-on-peak" timing). This consideration is most important in systems where flow due to RDI/I is relatively small compared to BWF and in systems where the response to rainfall occurs relatively quickly (over hours instead of days). For this Master Plan, the design storm was timed to achieve "peak-on-peak" flow conditions. Note that timing the storm to produce peak-on-peak results is generally thought to create a return period in the peak wastewater flow that is greater than the return period of the design rainfall event itself (i.e. a 10-year storm event occurring at the same time as the peak base wastewater flow would occur less often than a 10-year storm occurring at any other time during the day).

4.1.6 Antecedent Conditions

As discussed in Chapter 3, flow response to rainfall in the FSSD service area is characterized by prolonged elevated flows extending for many weeks after storm events. Thus, a storm falling later in the season after several large events have occurred will produce higher peak flows because the ground is saturated and flows are already elevated due to preceding events. This antecedent condition can be modeled as a prolonged RDI/I response (when the model simulation includes multiple events) or as an elevated, antecedent GWI condition (when modeling a single event such as a design storm). Since it is not unusual for large storm events to occur after periods of preceding rainfall, as occurred in the 2018 flow monitoring period, this Master Plan assumes the design storm falls on wet antecedent conditions.

4.1.7 Master Plan Design Event

Based on the above discussions, the following design event parameters have been adopted for the Master Plan capacity assessment:

- Storm return period 10 years
- Rainfall depth Per SCWA Hydrology Manual (see **Table 4-1**)
- Storm duration 24 hours
- Rainfall distribution SCS Type IA
- Storm timing "peak-on-peak"
- Antecedent conditions wet/saturated soil

Figure 4-1 shows the storm rainfall pattern for the 10-year design event for a central location in Fairfield. Note that the rainfall is timed to have a peak intensity at about 6 a.m., which would tend to generate a peak RDI/I response about an hour or so later, coinciding with the weekday peak diurnal BWF for typical residential areas ("peak-on-peak" timing). **Table 4-1** indicates the 24-hour rainfall depth for 5-, 10-, and 20-year return periods for the range of MAP in the District's service area.

[3] U.S. Department of Agriculture, Natural Resources Conservation Service, Urban Hydrology for Small Watersheds, TR-55 (June 1986), Appendix B – Synthetic Rainfall Distributions and Rainfall Data Sources

Figure 4-1: FSSD 10-year Design Storm Event (Central Fairfield)

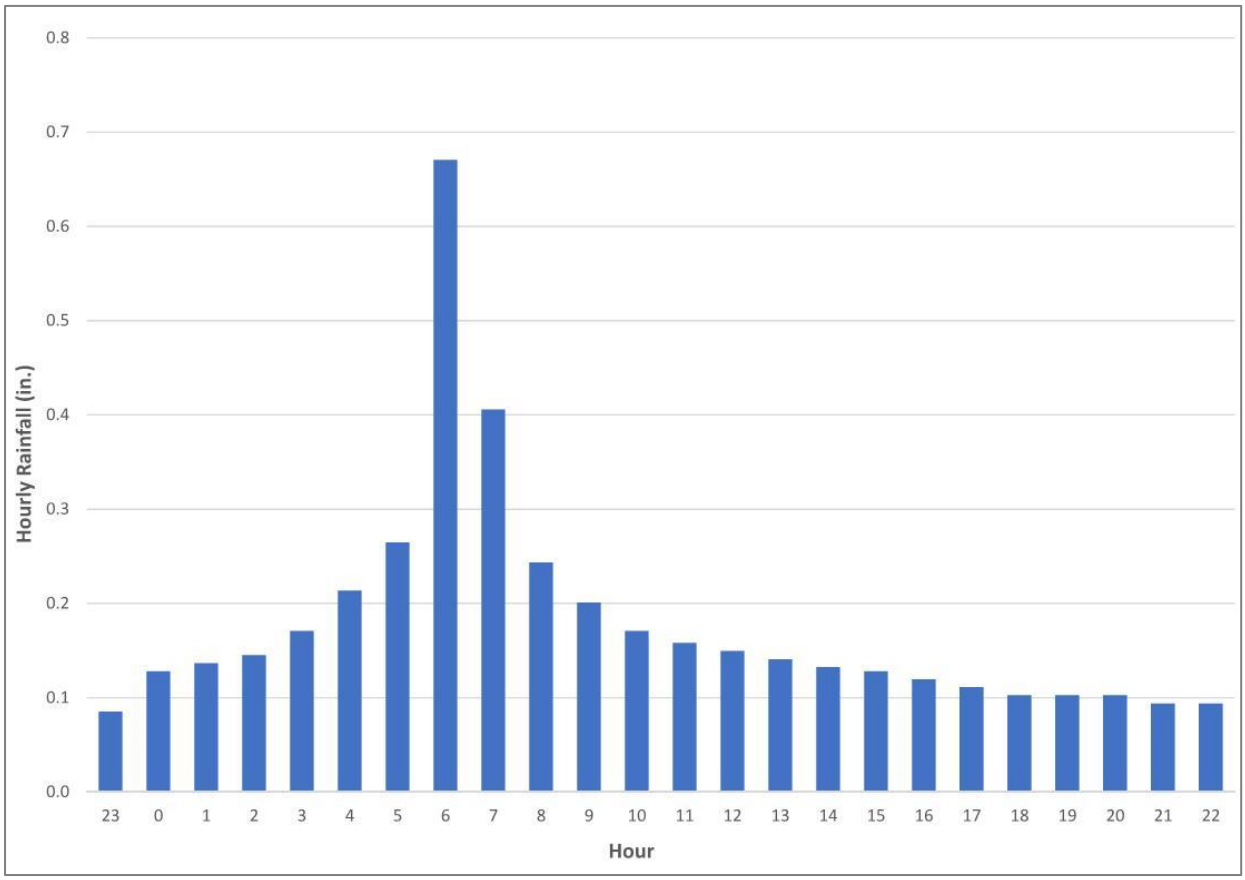


Table 4-1: Design Storm 24-Hour Rainfall

Mean Annual Precipitation (MAP) (in.)	24-Hour Rainfall (in.)[a]		
	5-Year Return Period	10-Year Return Period	20-Year[b] Return Period
19	2.83	3.38	3.87
24	3.57	4.27	4.89
29	4.32	5.16	5.91

a. Based on SCWA Hydrology Manual, Appendix A, Table 1A
b. Average of 15- and 25-year return periods

4.1.8 Future Conditions

It is not known if I/I will increase over time due to further deterioration of the sewer system, and/or whether the District's and cities' current and future sewer rehabilitation efforts will be sufficient to prevent such increases. However, studies to assess such changes in other systems throughout the country have not produced conclusive results that such increases will occur. Furthermore, new sewer construction will primarily use more watertight pipe materials that will minimize any new sources of I/I. Therefore, this Master Plan assumes that I/I in the existing system will not increase in the future and that any increases due to new sewer construction to serve future development will be minimal.

4.2 Hydraulic Criteria

Hydraulic criteria include both capacity deficiency criteria, which are used to identify the sewer pipes or pump stations needing relief due to inadequate capacity, and design criteria, which determine how large new sewers or facilities should be. The criteria used by the District should ideally be stringent enough to ensure that sewer overflows caused by capacity limitations are very rare occurrences, but not so conservative that they result in pipes that are so large that cleaning velocities cannot be achieved or pump stations cannot operate efficiently under normal flow conditions, or that cause the District to spend capital improvement funds unnecessarily.

Capacity deficiency criteria and design criteria are discussed in the paragraphs below.

4.2.1 Capacity Deficiency Criteria

Capacity deficiency criteria are used to determine if the capacity of an existing sewer facility is exceeded to the extent that a capacity relief project is needed. These criteria are sometimes called "trigger" criteria, in that they trigger the need for a capacity relief project, unlike design criteria that are applied to determine the size of a new facility. The difference between deficiency criteria and design criteria reflect the fact that some existing facilities can continue to provide adequate, if not optimal, conveyance capacity, but new facilities should be designed to a higher standard.

For this Master Plan, a sewer capacity deficiency was identified under the following conditions:

- Any modeled surcharging under peak dry weather flow (PDWF).
- Any modeled overflow or surcharge reaching within 5 feet of ground under 10-year design storm peak wet weather flow (PWWF), or any modeled overflow under 20-year storm PWWF.

Note: A Manning's 'n' of 0.013 is assumed for the capacity evaluation of existing sewers.

Pump stations were considered capacity deficient if the design storm PWWF with the largest pumping unit out of service (i.e. firm capacity) resulted in upstream overflows or backwater surcharge reaching within 5 feet of the ground.

Note however that if surcharge in existing trunk sewers are triggered solely by future development, then the District would consider any surcharge to be a capacity deficiency requiring a relief project before additional development could be connected to the system.

Note that the potential impact of capacity criteria violations, based on such factors as proximity to land uses with higher risk of public exposure or to sensitive water bodies, would be considering in prioritizing sewer improvements rather than determining the need for them. Project prioritization is discussed in Chapter 5.

4.2.2 Design Criteria for New Sewer Facilities

The District's "Pump Station and Collection System Design Standards" (January 2016) specify criteria for hydraulic design of trunk sewer facilities.

Gravity Sewers

The District's standards include the following design standards for gravity sewers:

- Maximum allowable depth-to-diameter ratio (d/D) of 0.9 at design flow
- Manning's 'n' of 0.011 for polyvinyl chloride (PVC) pipe and 0.013 for vitrified clay pipe (VCP) and reinforced concrete pipe (RCP)
- VCP for sewers greater than 12 through 24 inches in diameter (District to be consulted for pipes greater than 24 inches)
- Minimum velocity of 2 fps at half-full pipe
- Minimum and maximum slopes as shown below:

Pipe Inside Dia. (in.)	Minimum Slope	Maximum Slope
12	0.0022	0.04
15	0.0015	0.03
18	0.0012	0.026
21	0.0010	0.020
24	0.0009	0.018
27	0.0008	0.015
30	0.0008	0.013
33	0.0008	0.012
36	0.0008	0.010
>36	0.0008	0.009

- Four (4) feet minimum cover (unless more stringent requirements specified by cities or County)
- Maximum manhole spacing of 500 feet
- Matching crowns at junctions of side sewers and trunks sewers; drop manholes not allowed

Pump Stations and Force Mains

Criteria for force mains specified in the District Design Standards include:

- Velocities between 3 and 8 fps
- Hazen-Williams C-value of 100, but must have proper operation at C-value of 120
- PVC material
- Four (4) feet minimum cover

For pump stations, the District's Design Standards specify that duty pumps be sized for the buildout design PWWF. Pump station design must also account for pumping efficiency under dry weather and more "normal" wet weather flow conditions, and phasing in determining the number and size of pumps.

4.3 Capacity Analysis Results and Preliminary Solutions

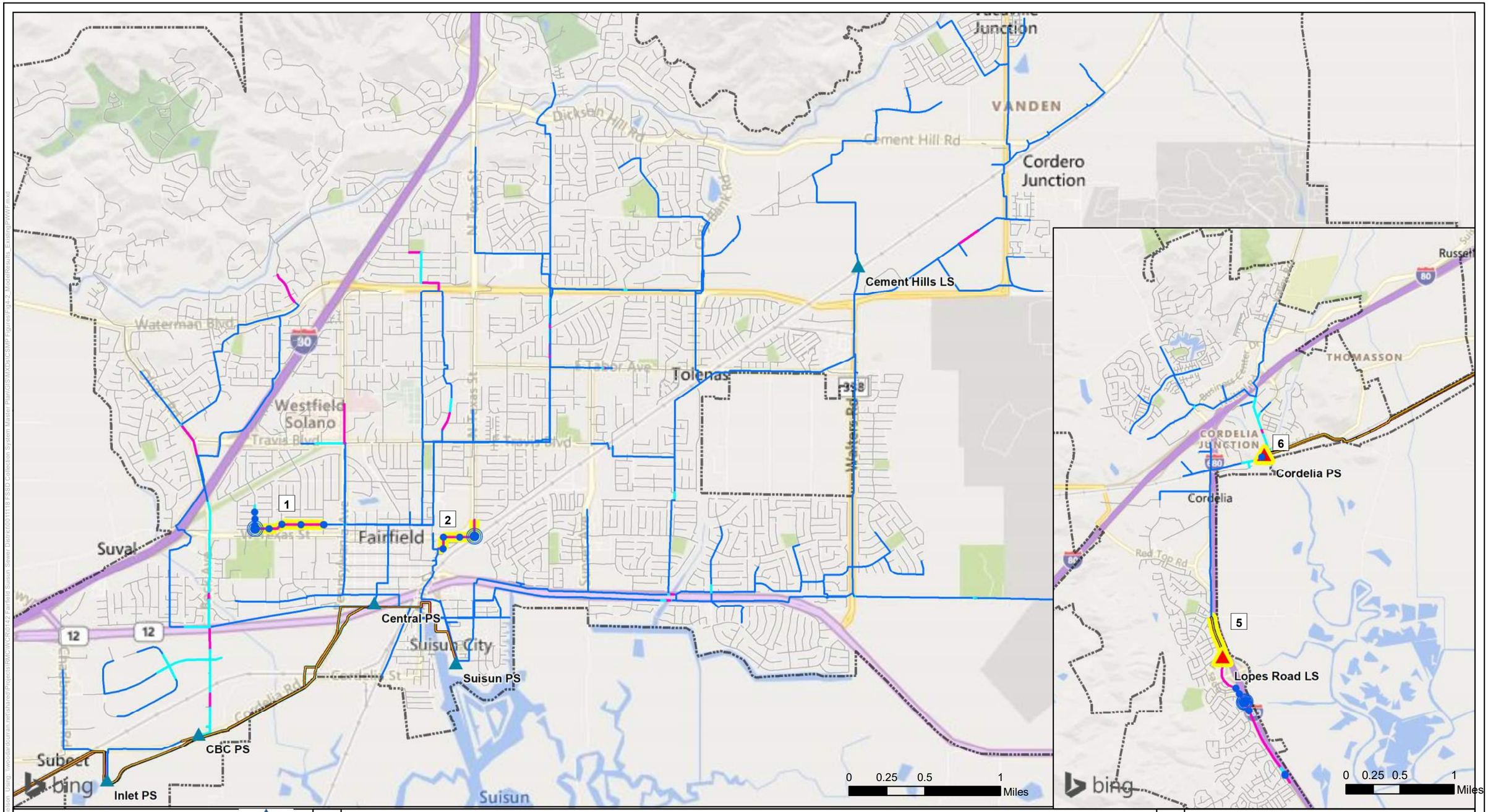
Based on the criteria described above, the hydraulic model was run for multiple sets of conditions representing combinations of existing or future development and dry weather flow or design storm wet weather flow. **Table 4-2** summarizes the results of these model runs, indicating the resulting peak flow to the WWTP, the volume of model-predicted overflows, and the length of pipe with capacity criteria violations. **Table 4-3** summarizes the model results for each of the modeled pump stations. **Figure 4-2** and **Figure 4-3** show the model results for existing and future 10-year design storm PWWF conditions, respectively, indicating pipes that are predicted to be surcharged due to "throttle" (peak flow exceeding full pipe capacity) or due to backwater from a downstream throttle condition, plus any model-predicted freeboard violations or overflows. Note that the results for existing and future conditions are similar except for the Northeast Fairfield area, where future development will drive the need for capacity relief. Note also that under existing PDWF conditions, no pipe segments were found to be surcharged, and under future PDWF conditions, only the Peabody Road/Huntington Drive trunk sewers were found to be surcharged and therefore requiring capacity relief. The areas of capacity deficiencies are described in **Table 4-4**. **Appendix E** contains tables listing model data and results for each pipe in the modeled network for existing and future scenarios.

Preliminary solutions for the identified capacity deficiencies (upsizing of capacity-deficient pipes or increasing pump station capacity) were developed in order to assess the potential extent of required capacity improvements and to estimate the resulting peak flow to the WWTP once capacity deficiencies are relieved. **Table 4-4** also indicates the results of these preliminary "solutions" model runs for future wet weather conditions and describes the preliminary solutions (diameter and length of required upsized or parallel pipe or capacity of upgraded pump stations). More detailed analyses of potential alternative solutions were conducted on a project-specific basis in order to identify the most feasible projects from a constructability standpoint. The recommended improvement projects are presented in Chapter 5

Table 4-2: Summary of Capacity Analysis Results

Model Scenario	Peak Flow to WWTP (mgd)	Volume of Model Overflows	Length of Pipe with Criteria Violations or Length of Preliminary Improvements[a]
Existing Trunk Sewer Network			
Existing Dry Weather Flow	16.1	-	-
Existing Wet Weather Flow	66.3	1.5 MG	9,400 ft.
Future Dry Weather Flow	23.0	2.3 MG	3,700 ft.
Future Wet Weather Flow	71.2	5.0 MG	21,800 ft.
Trunk Sewer Network with Preliminary Solutions			
Future Wet Weather Flow	82.6	0	10,400 ft.

a. For existing trunk sewer network, this is the length of pipe where freeboard criteria are violated (may be due to a downstream throttle condition). For the preliminary solutions network, this is the length of pipe that must be improved to correct the criteria violations. Numbers are rounded to the nearest 100 feet.



FAIRFIELD-SUISUN SEWER DISTRICT

WOODARD &CURRAN

Project #: 0011118
Map Created: October 2019

Legend

- Model Freeboard < 5 ft
- Model Predicted Overflow
- Pump Station
- Capacity Deficient Pump Station

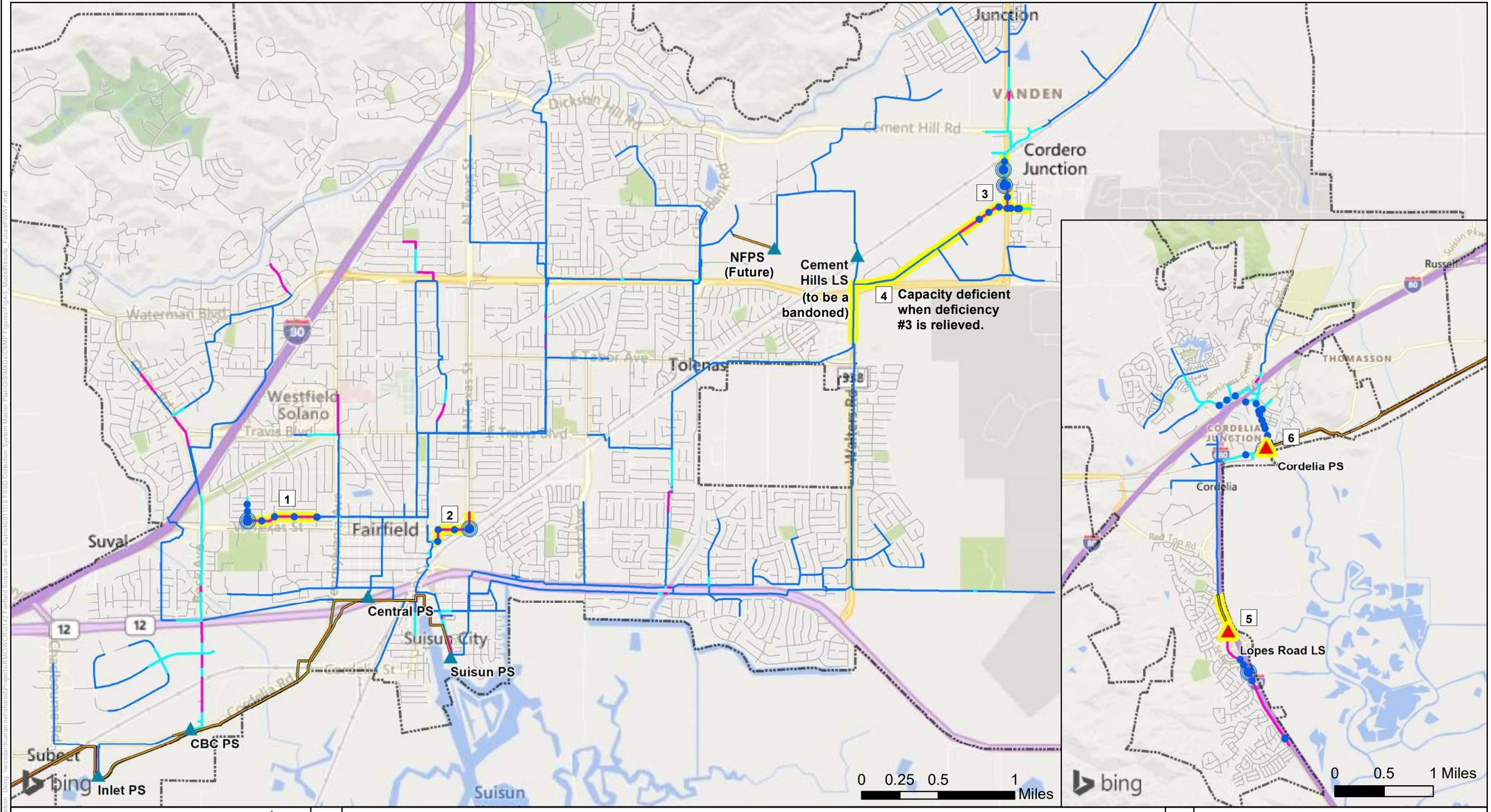
Modeled Sewers

- Not surcharged
- Backwater surcharge
- Throttle surcharge

- 1 Deficiency ID
- Capacity Deficient Area
- FSSD Forcemains
- Master Plan Study Boundary

N

Figure 4-2:
Modeled Results - Existing Design Storm PWWF
Collection System Master Plan Update



FAIRFIELD-SUISUN SEWER DISTRICT

WOODARD &CURRAN

Project #: 0011118
Map Created: October 2019

Legend

- Model Freeboard < 5 ft
- Model Predicted Overflow
- Pump Station
- Capacity Deficient Pump Station

Modeled Sewers

- Not surcharged
- Backwater surcharge
- Throttle surcharge

- 1 Deficiency ID
- Capacity Deficient Area
- FSSD Forcemains
- Master Plan Study Boundary

N

Figure 4-3:
Modeled Results - Future Design Storm PWWF
Collection System Master Plan Update

Table 4-3: Summary of Pump Station Flows

Pump/Lift Station	Firm Capacity (mgd)	Total Capacity (mgd)	Existing PDWF (mgd)	Existing PWWF[a] (mgd)	Future PDWF (mgd)	Future PWWF[a] (mgd)
Central (CPS)	26.5	30.7	3.8	20.7	4.6	21.2
Cordelia (COR)	10.8[b]	15.4	2.7	12.7	4.6[c]	14.4[c]
Inlet (IPS)	16.0	25.4	3.3	14.2	5.0	15.1
Suisun (SPS)	33.0	40.5	6.5	25.7	15.6	34.2
CBC	9.0	12.5	2.7	9.6	3.9	9.8
Lopes Road (LRLS)	3.1	4.0	0.9	3.9	1.4	4.0
Cement Hill (CHLS)	1.6	N/A	0.23	0.5	N/A	N/A
Northeast Fairfield (NFPS)	N/A	N/A	N/A	N/A	0.7	1.3

a. Assumes that upstream capacity deficiencies are relieved.
b. Cordelia PS has a single large wet weather pump, not included in firm capacity calculation. Capacity of wet weather pump is 11.3 mgd.
c. Includes Middle Green Valley. Estimated future PWWF without Middle Green Valley is 14.0 mgd.

Table 4-4: Capacity Deficiencies and Preliminary Solutions

No.	Deficiency Location[a]	Scenario	U/S MHID	D/S MHID	Approx. Length (ft.)	Existing Diam. or Firm Capacity	Required Diam. or Firm Capacity[b]	Predicted Minimum Freeboard (ft.)[b]
1	From 5th St. north of West Texas St. to Empire St. at 1st St. (includes both Fairfield and FSSD sewers)	Existing	U15-603	4946-651	2,500	10", 12"	12", 15"	Overflow
2	Texas St. at Taft St. to Clay St. south of Texas St. (Fairfield sewers only)	Existing	U18-303	4948-455	2,300	10"	21"	Overflow
3	Peabody Rd. north of Huntington Dr. to Huntington Dr. at Stanford Ct.	Future[d]	5554-651	5454-451	2,800	12"	Parallel 21"	Overflow
4	Huntington Dr. at Stanford Ct. to Walters Rd. north of E. Tabor Ave.[c]	Future[d]	5454-451	5253-454	6,200	24"	Parallel 21"	Overflow
Potential deficiencies requiring additional verification[e]								
5	Lopes Road Lift Station	Existing	--	--	--	3.1 mgd[f]	4.0 mgd	Overflow
6	Cordelia Pump Station	Existing	--	--	--	10.8 mgd[f]	14.4 mgd[g]	4.0

a. Deficiency location is location of throttled pipes or pump stations lacking firm capacity that result in upstream criteria violations under future PWWF conditions.
b. Under future PWWF conditions.
c. Although not indicated as a capacity deficiency in Figure 4-3, the existing 21- and 24-inch trunk sewers in Huntington Drive and Walters Road would become surcharged due to the increase in flows conveyed downstream once the upstream 12" sewer in Peabody Road and Huntington Drive is relieved.
d. Deficiencies on Peabody Road and Huntington Drive are driven by future PDWF.
e. Additional flow monitoring is recommended to confirm model-predicted flows.
f. Firm capacity (capacity with largest pump out of service).
g. Includes flow from Middle Green Valley. (Note: Middle Green Valley would contribute approximately 0.4 mgd to the predicted Cordelia Pump Station PWWF; however, existing pipelines would be adequate to convey the flow.)

Chapter 5 Recommended Capital Improvement Program

This section summarizes the capacity improvement projects recommended for FSSD's trunk sewer system. Recommended improvements were developed from the results of hydraulic modeling of the trunk sewer system for predicted future flow conditions, as described in Chapter 4. This section discusses the projects needed to address potential capacity deficiencies in the existing trunk sewer system including estimated capital costs and priorities for construction. The chapter also describes trunk sewer improvements that are anticipated to be required in the Northeast Fairfield area to serve future development.

5.1 Development of Capacity Improvement Projects

Additional analyses were conducted to refine and confirm the preliminary solutions presented in Chapter 4. Several types of capacity relief alternatives were explored, including:

- Upsizing pipes (i.e., replacing existing pipes with larger ones)
- Construction of parallel pipes
- Flow diversions to other sewers with available capacity or to new sewer pipelines
- Adding or replacing pumps at capacity-deficient pump stations

Potential flow routing and capacity improvement alternatives were developed and tested, and proposed improvements were verified using the hydraulic model. Each proposed project was reviewed on aerial mapping to identify potential design, permitting, environmental, and constructability issues. Feasible construction methods were also identified for each project, and preliminary estimates of probable construction costs were prepared.

Estimated costs include baseline construction costs for gravity sewers using open-cut or trenchless methods, costs for new sewer structures, and cost allowances for project mobilization/demobilization, traffic control, and bypass pumping if required. Unit costs were derived from similar projects in the greater San Francisco Bay area. Factors considered in estimating pipe construction costs included depth of trench excavation, size of new pipe being installed, saw cut and excavation of trench, removal and handling of existing sewer pipe, trench bedding, pipe placement, trench backfill, and pavement restoration requirements. Unit costs for manholes include existing manhole removal if necessary. For pump stations, costs include site work, mechanical and electrical equipment specific to each station.

Estimated construction costs include a 30 percent allowance for contingencies for unknown conditions, and estimated capital costs include an allowance of 25 percent of the estimated construction cost for engineering, administration, construction management, and legal costs. The costs are conceptual level estimates, considered to have an estimated accuracy range of -30 to +50 percent, suitable for use for budget forecasting, capital improvement program development, and project evaluations, with the understanding that refinements to project details and costs would be necessary as projects proceed to design and construction. Material and labor price fluctuations are likely to affect project cost at the time of scheduled construction. All costs are presented in late 2019 dollars.

Table 5-1 presents the recommended capacity improvement projects, including brief project descriptions and estimated capital costs, and **Figure 5-1** shows the locations of the proposed improvements. Relative priorities or phases have been assigned to the projects based on the severity and extent of existing capacity deficiencies, as reflected in model-predicted overflow volume or freeboard under peak wet weather flow conditions as indicated in **Table 4-4**, or timing of future development that triggers the need for the project.

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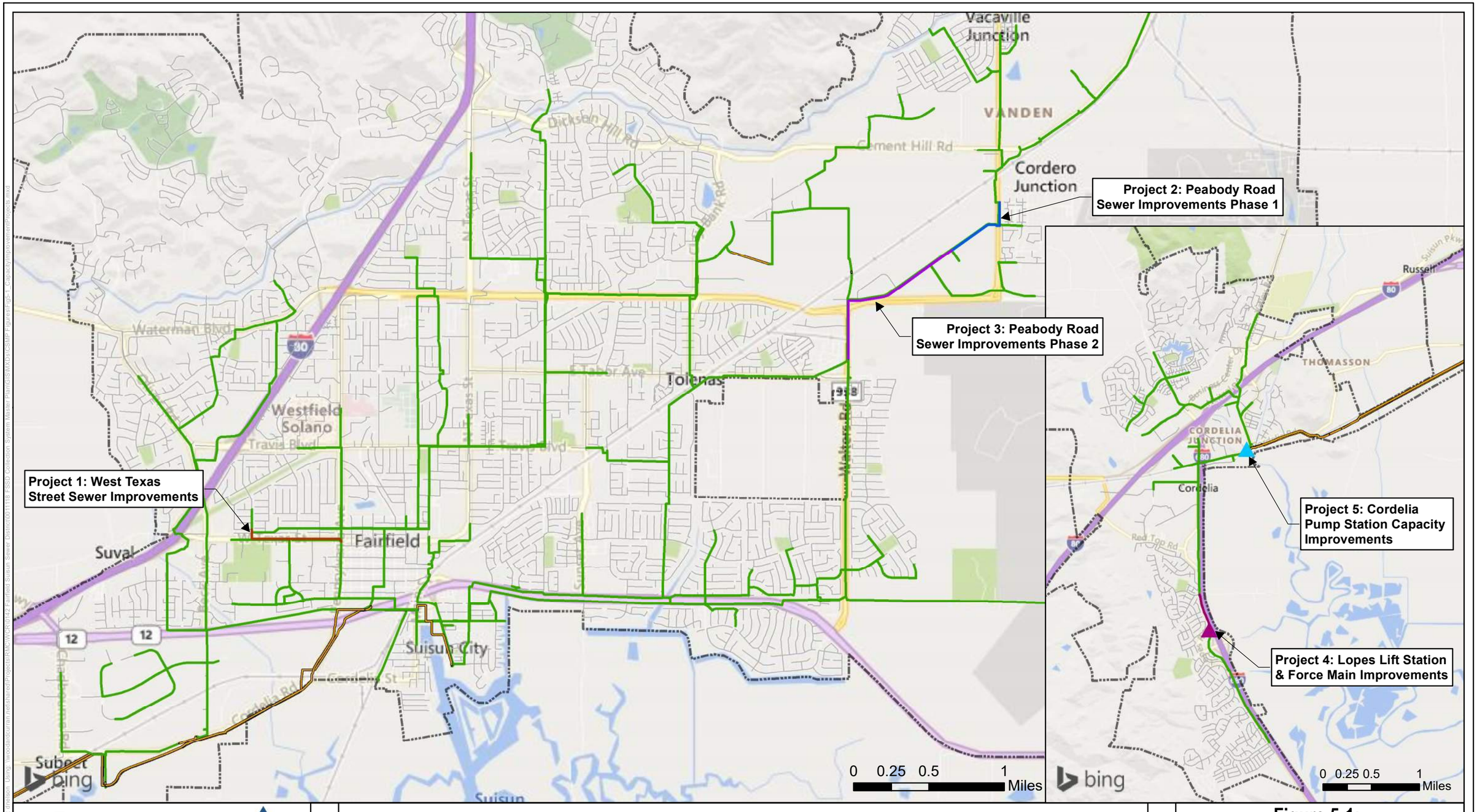
Table 5-1: Proposed Capacity Improvement Projects

Project ID	When Needed	Project Name	Description	Approx. Pipe Length	Estimated Capital Improvement Cost[a]
1	2020	West Texas Street Sewer Improvements	Divert flow from easement parallel to W. Texas St. to new 12" pipe flowing south in Fifth St. and then east in West Texas St. to Pennsylvania Ave.	3,400 lf	$ 3,002,000
2	2030[b]	Peabody Road Sewer Improvements Phase 1	New parallel 21" sewer in Peabody Rd. north of Huntington Dr. and in Huntington Dr. from Peabody Rd. to Stanford Ct.	2,800 lf	$ 3,208,000
3	2035[b]	Peabody Road Sewer Improvements Phase 2	New parallel 21" sewer in Huntington Dr. from Stanford Ct. to Walters Rd. and in Walters Rd. to north of E. Tabor Ave.	6,200 lf	$ 6,448,000
4	2020[c]	Lopes Road Lift Station and Force Main Capacity Improvements	New 20 HP package pump station adjacent to existing station; new parallel 12" force main to replace existing 6" force main	2,000 lf	$ 1,686,000
5	2020[c]	Cordelia Pump Station Capacity Improvements	New 250 HP pump to replace one existing 125 HP pump	--	$ 940,000
			Total Estimated Capital Cost:		**$ 15,284,000**

a. Costs are conceptual level estimates presented in current (late 2019) dollars. Construction costs includes a 30% allowance for contingencies for unknown conditions, and total estimated capital costs includes 25% for engineering, administration, and legal costs.

b. Actual need for project would be based on rate of development. Peabody Road Phase 1 improvements would be required before adding approximately 550 equivalent single family units, and Phase 2 improvements before connection of about 3,700 units, based on 2018 baseline.

c. Additional flow monitoring is recommended to confirm need for and timing of project. Although the pump stations lack sufficient firm capacity, they both have adequate total capacity to convey design peak wet weather flows.



FAIRFIELD-SUISUN SEWER DISTRICT

WOODARD &CURRAN

Project #: 0011118
Map Created: October 2019

Legend

- Pump Station Capacity Project
- Sewer Capacity Projects

Modeled Sewers

- Gravity sewers
- Forcemains

Master Plan Study Boundary

N

Figure 5-1: Recommended Capacity Improvement Projects

Collection System Master Plan Update

Note that the model-predicted capacity deficiencies in the City of Fairfield sewers in Texas at Taft to Clay Streets have not been addressed in this Master Plan because these deficiencies strictly involve City of Fairfield sewers and, even if relieved, would not result in any capacity issues in downstream District trunk sewers. However, because the District's trunk sewer in Empire Street extends upstream into the City's sewers and a consolidated solution was considered desirable, the West Texas Street Sewer Improvements project has been included in the Master Plan for this area. More detailed project descriptions and cost estimates for the projects are included in **Appendix F.** A brief discussion about each of the projects follows.

5.1.1 Project 1: West Texas Street Sewer Improvements

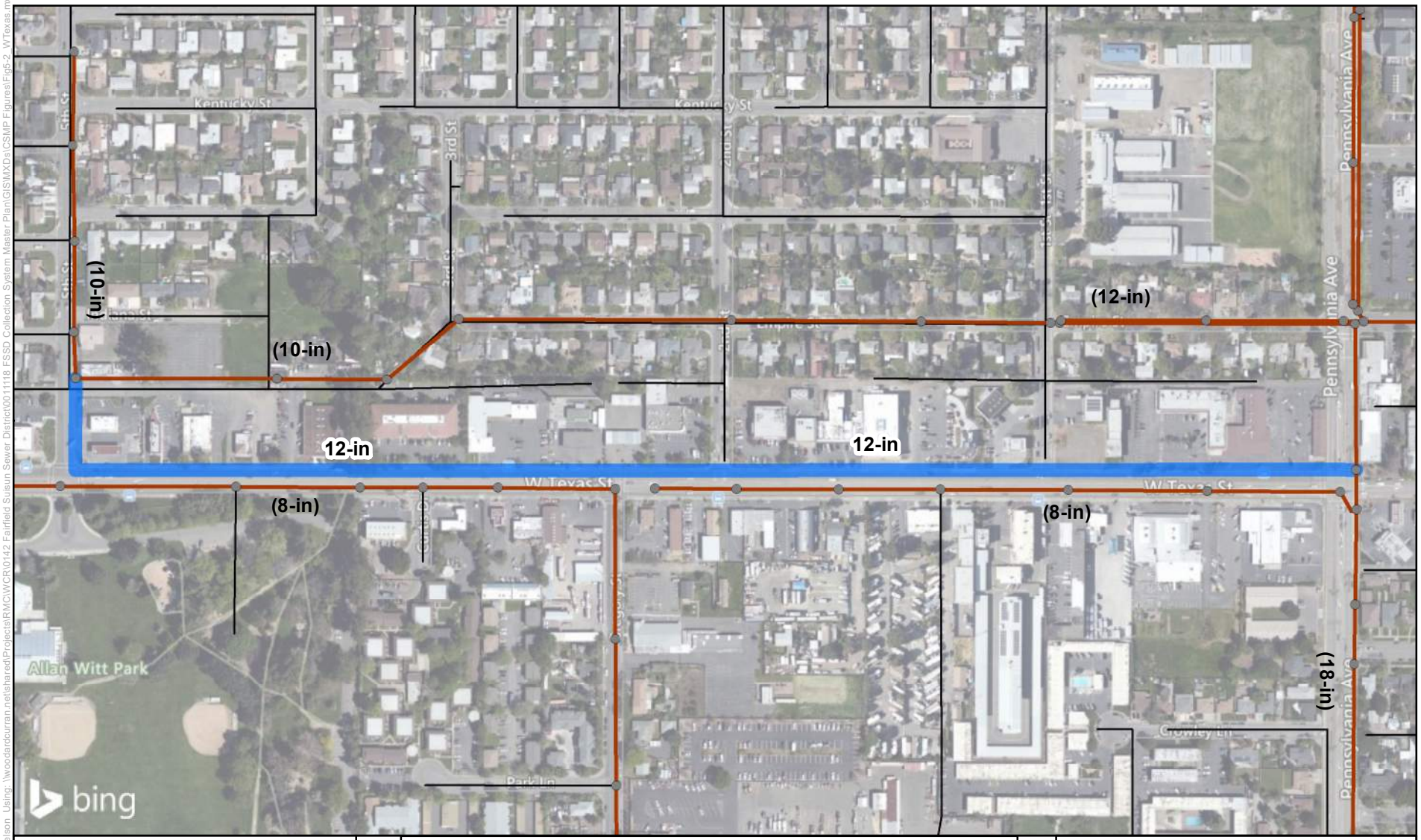
As presented in Chapter 4, the hydraulic model results indicate that the District's 12-inch sewer in Empire Street at First Street and the City of Fairfield's 10-inch sewer extending upstream to Fifth Street are capacity deficient, resulting in potential overflows under both existing and future design peak flow conditions. Replacing the 10-inch sewer with a larger pipe would be required to relieve this deficiency. However, Empire Street only extends upstream to Third Street, and the existing sewer runs in a backyard easement between Third Street and Fifth Street, making it challenging to replace. Furthermore, there is a current development project on West Texas Street adjacent to this section of the easement sewer which, if connected to the sewer, would further exacerbate the capacity problems. Therefore, other potential solutions were investigated to accommodate this and any other potential future developments in the Heart of Fairfield redevelopment area, as well as relieve the capacity issues in the Empire Street and easement sewers.

The proposed project, as indicated in **Table 5-1**, would divert flow away from the easement sewer into a new 12-inch pipe extending south on Fifth Street and east on West Texas Street, connecting into the District's 18-inch trunk sewer in Pennsylvania Avenue. The recommended project is shown in **Figure 5-2**.

5.1.2 Projects 2 and 3: Peabody Road Sewer Improvements

The need for capacity improvements to the trunk sewers along Peabody Road, Huntington Drive, and Walters Road serving the eastern portion of the Northeast Fairfield area (referred to as the "Peabody Shed") was recognized in previous District master plans and are driven by future PDWF from proposed developments. As the first phase of accommodating development in this area, a new 27-inch sewer was constructed in 2013 parallel to Peabody Road extending approximately 1,500 feet south from Vanden Road. By 2030, the remaining 12-inch pipe in Peabody Road extending south to Huntington Drive and in Huntington Drive to Stanford Court will need to be paralleled with a 21-inch line (Project 2), as increased development occurs in the Train Station Specific Plan and Hawthorne Mill East areas. By 2035, a 21-inch parallel line continuing downstream along Huntington Drive and Walters Road to connect to the 36-inch trunk sewer in Walters Road north of East Tabor Avenue (Project 3) will also be needed. The proposed Peabody Road improvement projects are shown in **Figure 5-3**.

Based on the proposed development density, Project 2 (Peabody Road Phase 1) would be required before adding approximately 550 additional single family units (or equivalent non-residential development or multi-family units assuming 200 gpd per single family unit) and Project 3 (Peabody Road Phase 2) would be required before adding the equivalent of approximately 3,700 single family units, above 2018 development.



FAIRFIELD-SUISUN SEWER DISTRICT

WOODARD & CURRAN

Project #: 0011118
Map Created: October 2019

Legend

- Modeled Manhole
- Modeled Sewers
- Proposed Capacity Improvement Project
- Unmodeled Sewers

10-in Proposed Diameter
(8-in) Existing Diameter

0 150 300 600 Feet

N

Figure 5-2:
West Texas Street Sewer Improvements
Collection System Master Plan Update

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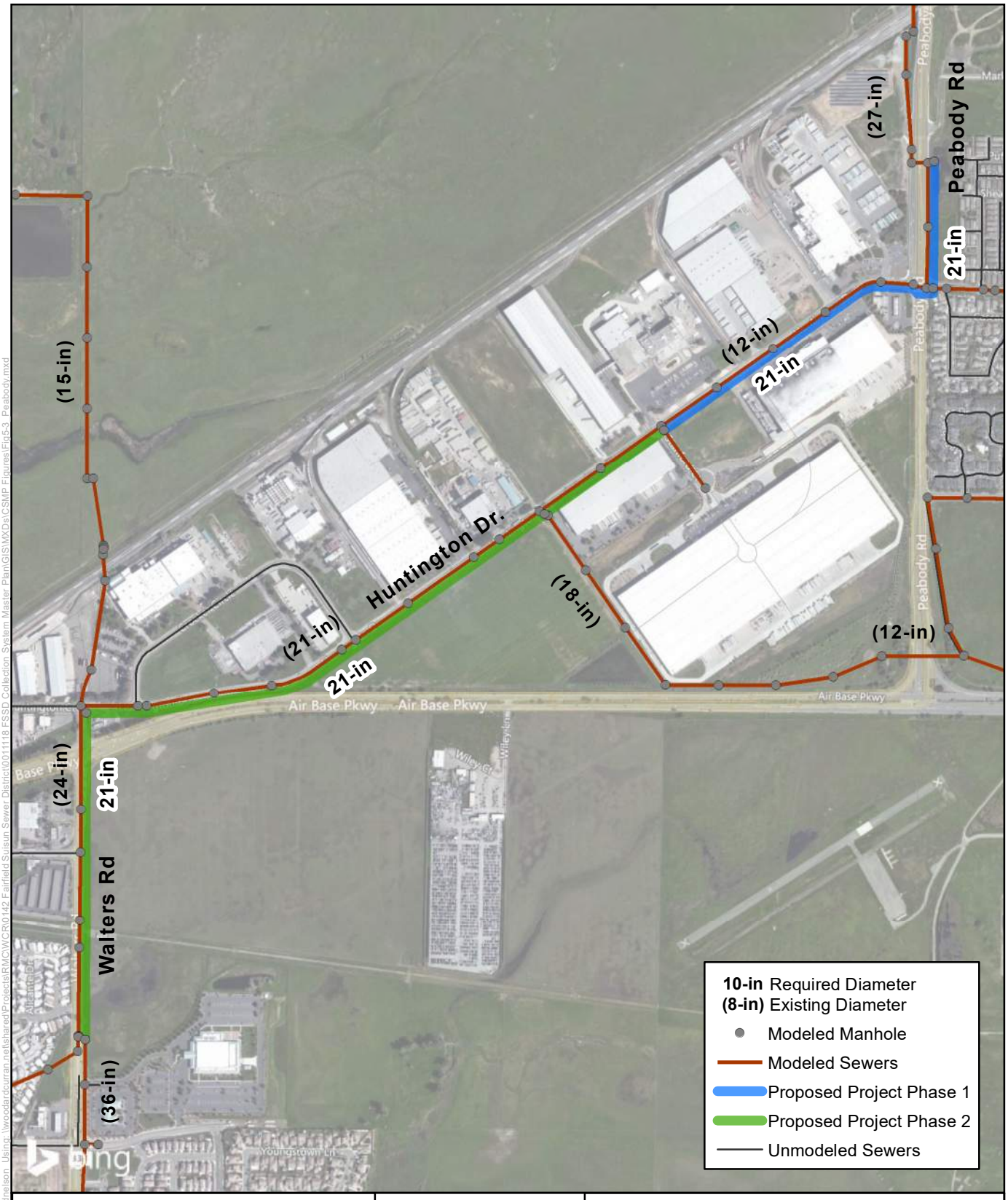

FAIRFIELD-SUISUN SEWER DISTRICT

WOODARD &CURRAN

Project #: 0011118
Map Created: October 2019

N

0 225 450 900 Feet

Figure 5-3: Peabody Road Sewer Improvements

Collection System Master Plan Update

Third Party GIS Disclaimer: This map is for reference and graphical purposes only and should not be relied upon by third parties for any legal decisions. Any reliance upon the map or data contained herein shall be at the users' sole risk. **Data Sources: FSSD, Cities of Fairfield and Suisun City, Solano Co.**

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5.1.3 Project 4: Lopes Road Lift Station and Force Main Capacity Improvements

As indicated in **Table 4-3**, the model results indicate that the Lopes Road Lift Station has insufficient firm capacity to convey the predicted design storm PWWF. This capacity shortfall would result in significant surcharge and potential overflows upstream of the station in the event that one of the two existing 20 HP pumps at the station was out of service. The proposed capacity improvements would upgrade the pump station to increase firm capacity to 4.0 mgd. This would require the installation of a third 20 HP pump. However, as the existing station does not have space for addition of another pump, the project would involve construction of a separate package pump station with wet well and single pump adjacent to the existing station, and piping to split the influent flow between the two wet wells. In addition, the existing 6-inch parallel force main would be abandoned and replaced with a new 12-inch parallel force main**. Figure 5-4** shows the pump station location and force main alignment. The improvements to the pump station are shown in a markup of the plan view of the original pump station in **Appendix F**.

5.1.4 Project 4: Cordelia Pump Station Capacity Improvements

As indicated in **Table 4-3**, the model results indicate that the Cordelia Pump Station has insufficient firm capacity to convey the predicted design storm PWWF. The existing station includes two 150 HP pumps and a single 250 HP wet weather pump. The proposed capacity improvements would upgrade the pump station to replace one of the existing 150 HP pumps with a second 250 HP pump, thereby providing adequate firm capacity. The improvements to the pump station are shown in a markup of the existing pump room floor plan in **Appendix F**.

5.2 Future Northeast Fairfield Trunk Sewer System

The Northeast Fairfield area covers a large area from Claybank Road and Air Base Parkway on the west and south extending north and east to the city limits. The area includes a number of ongoing and future developments, including the Villages of Fairfield, Goldridge, Hawthorne Mill/Coopers Landing, and developments within the Train Station Specific Plan area. The area is currently served by three trunk sewers that generally run north to south along Claybank Road, Peabody Road/Huntington Drive, and through an easement from the end of Strassberger Drive east and then south to the northern end of Walters Road. The latter trunk sewer includes the City of Fairfield's Cement Hill Lift Station. The proposed Northeast Fairfield Pump Station would divert flow from this sewer to the trunk sewer in Claybank Road, allowing the Cement Hill Lift Station to be abandoned. **Figure 5-5** shows the configuration of the future Northeast Fairfield trunk sewer system and the approximate boundaries of the sewersheds that would drain to the Claybank and Peabody/Huntington trunk systems. Note that as development continues in Northeast Fairfield, there may be additional branch trunk sewers constructed to serve these developments.

5.3 Other Areas of Potential Capacity Issues

Although the improvement projects identified in this chapter are the only areas of the system where the hydraulic modeling has predicted capacity deficiencies, as defined based on the capacity deficiency criteria adopted for this Master Plan, there are a few additional areas that showed surcharge under the 10-year design PWWF conditions which could become issues in the future under more severe storm conditions. Potential capacity improvement projects were developed for these areas, and project descriptions and maps, as appropriate, are included in **Appendix G**.

FAIRFIELD-SUISUN SEWER DISTRICT

WOODARD &CURRAN

N

0 65 130 260 Feet

Project #: 0011118
Map Created: October 2019

Figure 5-4: LRLS and Force Main Improvements

Collection System Master Plan Update

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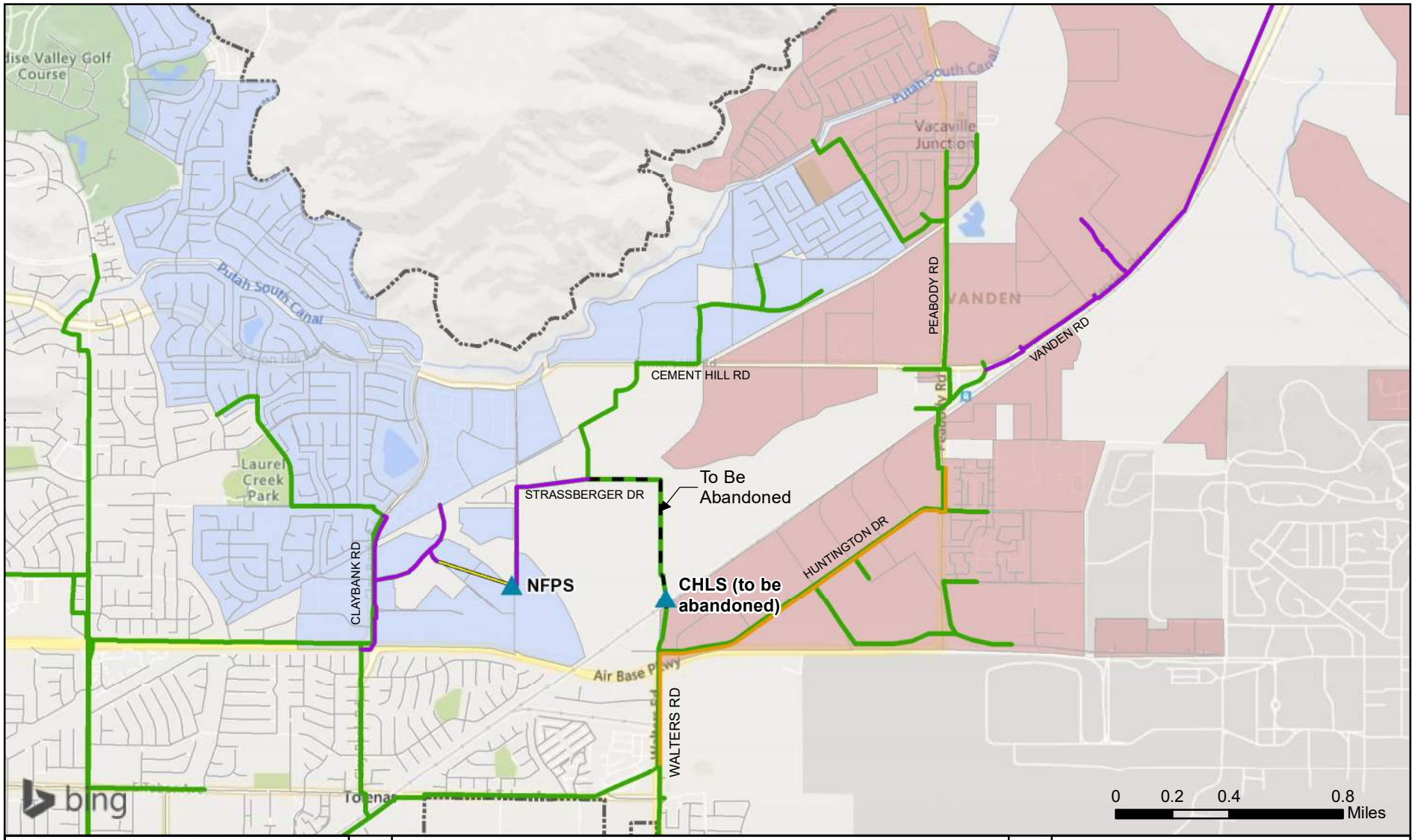


FAIRFIELD-SUISUN SEWER DISTRICT

WOODARD &CURRAN

Project #: 0011118
Map Created: October 2019

Legend

- Pump stations
- Future gravity sewers
- Future gravity sewers (to be constructed by developers)
- Future force main
- Gravity sewers
- Unmodeled Sewers
- Areas draining to Clay Bank Rd
- Areas draining to Peabody Rd
- Master Plan Study Boundary

N

Figure 5-5:
Northeast Fairfield Trunk Sewer Configuration

Collection System Master Plan

5.4 Implementation Recommendations

The District should begin implementation of the Capital Improvement Program recommended in this Master Plan, starting with projects needed to address existing system capacity deficiencies. The following items should be considered in project scheduling and design, and in future updates of the Master Plan.

- The District should consider conducting additional flow monitoring or observation to document flow levels during large storm events at locations in the system where the model predicts significant surcharge. Flow levels during large storm events should be compared to the water levels simulated by the hydraulic model to verify if the modeling predictions for the design storm seem reasonable, and to confirm the need for and refine project sizing if necessary.
- The alignments and sizes of all recommended projects should be verified with detailed predesign analyses, including topographic surveys, geotechnical investigations, utility research, and constructability reviews.
- The decision to parallel or replace existing sewers should consider the physical condition and remaining useful life of the existing pipelines; the availability of pipeline corridors for new sewer construction; and operation and maintenance concerns.
- The hydraulic model has been developed to assist the District in performing capacity analyses and updating the Master Plan in the future. The model should be kept up-to-date with any changes to existing sewer connections, development plans, and sewer system facilities.

This Master Plan report is intended to be a working document to be refined and updated as additional data and new planning information becomes available. The capacity assessment should be updated whenever there are major changes in planning assumptions or, at a minimum, every five to ten years.

ORDINANCE NO. 2017 - 1785

**AN ORDINANCE ADOPTING
REVISIONS TO THE MIDDLE GREEN VALLEY SPECIFIC PLAN**

The Board of Supervisors of the County of Solano ordains as follows:

Section 1. Findings and Statement of Purpose:

1.1. On July 27, 2010, the Board of Supervisors certified an Environmental Impact Report and enacted Ordinance No. 2010-1708, adopting the Middle Green Valley Specific Plan.

1.2. Pursuant to a Writ of Mandate issued by the Superior Court in *Upper Green Valley Homeowners v. County of Solano, et al.* (Solano County Superior Court Case No. FCS036446), the Board of Supervisors enacted Ordinance No. 2012-1729 on June 5, 2012, vacating its 2010 adoption of the Middle Green Valley Specific Plan.

1.3. In response to the Superior Court's ruling, the County conducted further environmental review and revised the Environmental Impact Report for the Middle Green Valley Specific Plan Project.

1.4. On October 25, 2016, the Board of Supervisors certified the revised Environmental Impact Report and enacted Ordinance No. 2016-1778, readopting the Middle Green Valley Specific Plan as originally adopted in 2010 together with minor revisions to the Plan considered and approved by the Board in 2014.

1.5. The Upper Green Valley Homeowners and the County subsequently entered into a Settlement Agreement to resolve all remaining issues related to the adequacy of the revised Environmental Impact Report. The Superior Court discharged its Writ of Mandate on April 12, 2017.

1.6. Under the Settlement Agreement, the County agreed to revise the Mitigation Monitoring and Reporting Program, which revisions were approved by the Board on July 25, 2017.

1.7. The Solano County Department of Resource Management has proposed various revisions to the text and land use tables of the Specific Plan, as adopted October 25, 2016. The purpose of these proposed revisions is to incorporate into the Specific Plan certain aspects of the revised Mitigation Monitoring and Reporting Program and to update the Specific Plan, which has not be substantively reviewed and updated since 2010 due to the litigation.

1.8. The Solano County Planning Commission has reviewed the Department's proposed revisions to the Specific Plan, in a noticed public hearing conducted July 6, 2017, and has recommended that the revisions be approved.

1.9. A Notice of Public Hearing was duly posted, mailed, and published for consideration of the revisions to the Specific Plan by the Board on August 8, 2017, and on that date, a public hearing was opened, held, and closed.

1.10. The proposed revisions to the Specific Plan are minor in nature and do not substantially change the adopted Specific Plan. None of the conditions described in Sections 15162 or 15163 of the California CEQA Guidelines, calling for preparation of a subsequent or supplemental EIR, have occurred. The Department of Resource Management has prepared an Addendum to the Environmental Impact Report for the Middle Green Valley Specific Plan project, certified on October 25, 2016, and the Board considered the Addendum with the certified Environmental Impact Report prior to taking action on the revisions.

1.11. The proposed revisions to the Specific Plan are consistent with the goals, policies, implementation programs, and other provisions of the Solano County General Plan.

Section 2. Adoption of Revisions to the Middle Green Valley Specific Plan

2.1. The revisions to the Middle Green Valley Specific Plan, attached to this Ordinance as **Exhibit 1** and incorporated herein by this reference, are adopted.

2.2. The Department of Resource Management is directed to prepare and publish a revised version of the Middle Green Valley Specific Plan that incorporates and fully reflects the actions of the Board of Supervisors in adopting the Specific Plan on October 25, 2016, and in adopting revisions to that plan on August 8, 2017. The Department of Resource Management is directed to make all necessary and appropriate clerical, typographical, and formatting corrections to the adopted Middle Green Valley Specific Plan. Any such corrections shall not alter the substance, effect, or effective date of any action taken by the Board of Supervisors in adopting the Specific Plan. The Department of Resource Management shall provide a report and a copy of the final published Specific Plan to the Board.

Section 3. Fees

3.1. Pursuant to Government Code section 65456, subdivision (a), the Board of Supervisors may impose a fee upon persons seeking governmental approvals which are required to be consistent with an adopted specific plan. The fees shall be established so that, in the aggregate, they defray but as estimated do not exceed, the cost of preparation, adoption, and administration of the specific plan, including costs incurred pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code (the California Environmental Quality Act). As nearly as can be estimated, the fee charged shall be a prorated amount in accordance with the applicant's relative benefit derived from the specific plan. Section 65456 states the intent of the Legislature in providing for such fees to charge persons who benefit from specific plans for the costs of developing those specific plans which result in savings to them by reducing the cost of documenting environmental consequences and advocating changed land uses which may be authorized pursuant to the specific plan.

3.2. After adoption of revisions to the Middle Green Valley Specific Plan by this ordinance, the County shall establish and impose a fee or fees upon persons seeking governmental approvals that are required to be consistent with the Middle Green Valley Specific Plan. The amount of the fee or fees shall defray the costs of preparing, adopting, and administering the specific plan, including costs incurred pursuant to the California Environmental Quality Act.

3.3. The Department of Resource Management shall prepare and submit for action by the Board of Supervisors a proposed fee amount. The fee may be established and the amount of the fee may be adopted by appropriate action of the Board of Supervisors by ordinance or by resolution, or combination thereof, from time to time. The fee or fees shall consist of at least two components, separately stating amounts corresponding to (1) costs of preparation and adoption, and (2) administration. The component relating to costs of preparation and adoption shall not be applied to Developers who execute the Master Development Agreement and who pay the amount established pursuant to Section 3.12 of the Master Development Agreement

Section 4. Severability

If any provision of this ordinance is for any reason held by a court of competent jurisdiction to be invalid, including but not limited to being preempted by state law, that portion shall be deemed a separate, distinct and independent provision and such holding shall not affect the validity of the remaining portion hereof nor other applications of the ordinance which can be given effect without the invalid provision or application.

Section 5. Effective Date

This ordinance shall be effective thirty (30) days after its passage.

Ordinance No. 2017-1785

Section 6. Publication

A summary of this ordinance shall be published once within fifteen (15) days after its adoption, in the Fairfield Daily Republic, a newspaper of general circulation in the County of Solano.

Passed and adopted by the Solano County Board of Supervisors at its regular meeting on August 8, 2017 by the following vote:

AYES: Supervisors Hannigan, Brown, Spering, Thomson and Chair Vasquez

NOES: Supervisors None.

EXCUSED: Supervisors None.

JOHN M. VASQUEZ, Chair
Solano County Board of Supervisors

ATTEST:

BIRGITTA E. CORSELLO, Clerk
Solano County Board of Supervisors

By: _____
Jeanette Neiger, Chief Deputy Clerk

Exhibit 1: Revisions to the Middle Green Valley Specific Plan

Middle Green Valley Specific Plan-
Errata #2
June 2017

Global updates:

Page #	*Section #*	*Description of text, figure or table revision*
		Change all references of "Special Study Area" or "SSA" to "Specific Project Area"
		Change all references of "Secondary Dwelling Unit", "Second Unit" to "*Accessory Dwelling Unit*".
		Delete all references to "Guest House", and if appropriate, change to "*Accessory Structure*".

Section 1 - VISION

Page #	*Section #*	*Description of text, figure or table revision*
1-20	1.4	Update Appendix list to include Appendix F – *Green Valley Creek Restoration Project* (Attachment A of Settlement Agreement)

Section 2 – PLAN PURPOSE, AUTHORITY AND CONTEXT

Page #	*Section #*	*Description of text, figure or table revision*
2-11	2.4.4	Update Figure 2-7 to show current ownership, (replace "Siebe" ownership on northern boundary to be "Frei"). Cross-reference this Figure to table 4-1. Update asterisk note regarding approved tentative map as follows "**Property east of Green Valley Road has ~~an approved tentative~~ a recorded final map on file with Solano County for 6 ~~new~~ Lots. The Lots are included in the maximum 400 unit count for this Specific Plan."*

Section 3 – THE NEIGHBORHOOD PLAN

Page #	*Section #*	*Description of text, figure or table revision*
3-8	3.2.1A	Update Built Fabric paragraph to locate the "Grange Hall " function at the existing Barn to the west, as follows: *To reinforce the visibility and viability of agriculture, a small local produce stand – The Green Valley Farm Stand with complimentary uses such as a café or restaurant and a community gathering facility (a grange hall) ~~is~~ are located just north of the new roundabout at Mason and Green Valley Roads. The Green Valley Farm Stand will be one of the first tangible results of the Specific Plan. It will celebrate and further the area's agricultural traditions and help to satisfy burgeoning local and regional demand for fresh local food. ~~In addition, it~~ The grange hall, or community gathering facility, will be located just to the west of the Farm Stand in the existing barn, adjacent to Green Valley Creek to*

Exhibit 1

		compliment the Farm Stand. The Farm Stand and community gathering facility will provide the opportunity to strengthen the connections to local farmers and regional farmlands. ~~This facility~~ The grange hall/barn is a multi-purpose, flexible building that could be used to accommodate open air community, interpretive or educational events.
3-51	3.5.3	Update Figure 3-44 to relocate the LeMasters RF designation from the current location on the south side of property to existing site location to the north, and add ATO overlay (blue star) to existing Barn location in the MGV Corridor.
3-53	3.5.4	Insert the following text under Permit Requirements to include a Minor Use Permit process for some land uses: *1. "p" – These uses are permitted subject to compliance with all applicable provisions of this Specific Plan, and design review requirements.* *2. "m" – These uses are allowed subject to the approval of a minor use permit.* *~~2.~~ 3. "c" – These uses are allowed subject to the approval of a conditional use permit* *~~3.~~ 4. "-" – These uses are not allowed in the applicable area.*
3-54 to 3-55	3.5.	Update Allowed Uses, Table 3-4, to accomplish the following main items: - clarify agricultural tourism uses and permitting, by aligning more closely to County's framework and permitting structure. - Align land uses with County's existing permitting structure and use definitions - Clarify "Special Events" uses - Add "Wireless Communication Facilities" uses -
3-56	3.5.5	Update Figure 3-45 (same updates as Figure 3-44, see above)
3-57	3.5.5	Update language to be consistent with the new location of the "grange" hall facility: *A Farm Stand, an agricultural tourism use (ATO) with complimentary uses, and a community gathering facility (CS) ~~such as a grange hall,~~ located in the existing Barn just to the west of the Farm Stand, are located across from the Vintage Lane access drive. ~~These two buildings would be a maximum of 3,000 sf~~. This farm stand and community assembly area are to support local agricultural viability and provide a gathering place for the community. Refer to Section 4.5 - Development Sequencing for details regarding development timing requirements.*
3-66	3.5.6G	Change Building Type descriptor to Accessory Dwelling Unit as follows: ***G. ~~Secondary unit~~**Accessory Dwelling Unit~~/Ancillary~~ Accessory ~~structures~~*** *Forms: The intent of this Building Type is to reinforce the idea of a collection of buildings that grew over time to respond to evolving needs. These Building Types are subordinate to the main structure, while*

		utilizing the same, human scale qualities and forms of rural architecture. These buildings are to utilize similar or complementary materials to the main structure but may be more whimsical or playful in style. They may be either connected by architectural projections or freestanding to the main structure. ~~Secondary~~ Accessory Dwelling Units may only occur with specific Building Types, while ~~Ancillary~~ Accessory Structures may occur with all Building Types. Accessory Structures may include the use of Temporary Structures or facilities, such as portable sanitation, and temporary research, food or event facilities/structures. Refer to Section 5.4.1 - Building Types for specific details and Appendix A for specific definitions.
3-66	3.5.6G	Remove outdated definition in green box for "Secondary Unit."
3-67	3.6	Remove outdated "Housing Element" information in green box.

Section 4 - IMPLEMENTATION

Page #	*Section #*	*Description of text, figure or table revision*
4-12	2.4.4	Update text in second paragraph to be consistent with settlement agreement to read: *Resource Management Plan (RMP) An RMP will be developed for the Plan Area by the Conservancy in cooperation with the landowners based on the General Plan, the Specific Plan Goals and Policies, the Final EIR (FEIR) and applicable federal or state permits related to natural resources. The RMP will also include the Green Valley Creek Restoration Project "GVCRP" in accordance with Appendix F, which sets out specific budgets, team members, activities and monitoring and reporting programs.*
4-18	4.2.3	Update Table 4-1 for updated land ownership and unit distribution information, cross reference to Figure 2-7 (see attached).
4-20	4.3.1	Update second paragraph under Wastewater Treatment System to read, "Water and wastewater treatment Option A would require City of Fairfield, FSSD, Solano County, and Solano County Local Agency Formation Commission (LAFCO) approvals."

Section 5 – THE NEIGHBORHOOD DESIGN CODE

Page #	*Section #*	*Description of text, figure or table revision*
5-6 to 5-7	5.3	Update Table 5-1 to add the following: Open Lands/Active uses add: -"Special Events/Community Gathering" to all zones except T1. Building Types add: -Accessory Dwelling Units to all Zones with the exception of T1 and T2. -Accessory Structures to all Zones with the exception of T1 -Temporary Structures to all Zones

5-8	5.3.2	Update Figure 5-1 – *Regulating Plan* to be consistent with relocated LeMasters residence on southern area in the Green Valley Road corridor.
5-12	5.4.1 TYPE A	Clarify that the Agricultural/Community Building Type includes Accessory Structures and Temporary agricultural structures as follows: *Definition: These are the dominant, expressive, agricultural building forms that remind us of where we are in the world and the rich legacy we are living in. They draw from the simple, bulky, honest forms of barns, water towers, and agricultural service and utility buildings that dot the farming landscape. This includes both the primary agricultural building forms as well as the agricultural accessory and Temporary Structures that are important to agricultural operations, servicing and agricultural tourism (see also Building Type G – Accessory Dwelling Unit and Accessory Structures).*
5-13	5.4.1 TYPE A	Update Building Placement for the Agriculture/Community buildings to the following setbacks: *Setbacks:* *>>Front Yard Setback Zone* *30 feet* *>>Rear Yard Setback* *20 feet* *>>Side Street Setback Zone (corner)* *15 feet* *Encroachment Zone:* *>>Front* *15 feet* *>>Side Street (corner or open lands)* *7 feet* *>>Rear* *10 feet* *Miscellaneous:* *>> Street façade elevation must utilize a minimum of a 5' offset (building projection or jog) for every 60 feet of horizontal plane.* *>>Building placement ~~Guidelines~~ for the Agricultural/Community Building ~~are~~ is general ~~in nature.~~ Building locations are to respond to the specific setting, use and dimensions of the particular Lot size.*
5-29	5.4.1 TYPE E - Meadow	Update Building Placement for the Meadow buildings to the following setbacks: *Setbacks:* *>>Front Yard Setback Zone* *20 feet* *>>Rear Yard Setback* *25 feet* *>>Combined Side Setback* *15 feet*
5-36	5.4.1 TYPE G	Update language for as follows for this Building Type: *Type G – ~~Secondary~~ Accessory Dwelling unit or ~~Ancillary~~ Accessory Structures* *Definition: This Building Type is a small detached single story structure*

		or a living space located above or next to a garage on the same Lot or premises as the main living structure. ~~Ancillary~~ Accessory Structures are allowed with each Building Type, while the ~~Secondary~~ Accessory Dwelling Unit is only permitted with the Compound, Meadow and Farmstead Building Types. This also includes temporary structures that are needed for agricultural, construction, research, servicing and agricultural tourism (such as temporary event tents). See also Type A, Agricultural/Community Buildings. *Concept: These structures and living spaces are typically located towards the rear of the Lot, and offer opportunities to provide multi-generational, workforce and/or office and servicing space.* *Allowed Transect Zones for Accessory Dwelling Units: T3, T4, T5, T6* *Allowed Transect Zones for Accessory and Temporary Structures: All Zones* *Refer to Section 5.4.3 for additional architectural massing and character Guidelines.*
5-106	5.7.5	Language shall be added to the second paragraph consistent with Settlement Agreement and MMRP: *There are several street tree alternatives that have been designated for each street type. In this way, other tree species may be substituted as long as the form, habit and cultural characteristics are clearly similar to the tree alternatives included in this Specific Plan. In addition, a plant list of compatible ground covers, shrubs and accent trees are provided to complete the understory and ground plane treatments of the streetscape environment.* *In the Three Creeks neighborhood, a preference for non-deciduous native trees along the north side of the Three Creeks Neighborhood shall be utilized in order to reduce glare from buildings within the Three Creeks Neighborhood.*
5-117	5.8.2	The Board previously approved additional wording that references consistency with the Model Lighting Ordinance (MLO) within "Attachment G" of the Specific Plan's original approval in July 2010. This wording shall be updated to specify the June 15, 2011 version of the Joint IDA – IES Model Lighting Ordinance (MLO).

Appendix

Page #	*Section #*	*Description of text, figure or table revision*
	Appendix A	Add definition for Temporary Structure as follows: *Temporary Structure – A structure not permanently affixed to the ground and is readily removable in its entirety, which is used solely for a temporary use.*
	Appendix	Add Appendix F – *Green Valley Creek Restoration Project (Settlement Agreement, Attachment A.*

Table 3-4: Allowed Uses

A land use that is not listed in Table 3-4 is not allowed within the Specific Plan area. A land use that is listed I nthe Table, but not within a particular zone, is not allowed within that zone. Similar or compatible uses may be allowed subject to review and approval of applicable CRC and County review processes. Refer to Chapter 4.0 for information regarding administrative modifications and procedures as a applicable. Refer to Appendix A and/or he County Zoning Ordinance for definitions of land uses.

a. Residential

Land Use Designation	Open Lands		Agriculture			Residential				Community		Overlays	
	OL-N	OL-R	AG-WS	AG-P	AG-R	RF	RM	RN	RC	CS	PS	ATO	NCO
Single Family Dwelling	-	-	-	-	p	p	p	p	p	-	-	-	-
Accessory Dwelling (1)	-	-	-	-	p	p	p	(1)	(1)	-	-	-	-
Accessory Structure	-	-	-	p	p	p	p	p	p	p	p	-	-
Farmworker Housing	-	-	-	-	p	-	-	-	-	-	-	-	-
Home Occupation	-	-	-	-	p	p	p	p	p	-	-	-	-
Live-Work Unit	-	-	-	-	p	p	p	p	p	-	-	-	-
Community Care Facility	-	-	-	-	-	c	c				-	-	-

b. Recreation, Education and Public Assembly

Land Use Designation	Open Lands		Agriculture			Residential				Community		Overlays	
	OL-N	OL-R	AG-WS	AG-P	AG-R	RF	RM	RN		CS	PS	ATO	NCO
Health/Fitness facility	-	-	-	-	-	-	-	c	-	p	-	-	-
Community Trails (2)	-	p	p	p	-	-	-	-	-	-	-	-	-
Trailhead/Comfort Stations	-	p	-	-	-	-	-	-	-	p	m	-	-
Interpretive facility (1000 sf max.)	-	p	-	-	-	-	-	-	c	p	m	-	-
Library	-	-	-	-	-	-	-	-	c	p	c	-	c
Community Assembly	-	-	-	-	-	-	-	c	c	p	m	p	c
Nursery School (up to 12 children)	-	-	-	-	-	-	-	m	-	p	-	-	-
School (Private, Max 100 Students)	-	-	-	-	-	-	-	c	-	p	-	-	-
Sports Fields	-	p	-	-	-	-	-	-	-	-	-	-	-
Passive Recreation (3)	-	p	c	-	-	-	-	-	-	p	-	p	-
Teaching Studio - art, dance, fitness, music (1500 sf max.)	-	-	-	-	-	-	-	c	p	p	-	-	p

c. Public Serving

Land Use Designation	Open Lands		Agriculture			Residential				Community		Overlays	
		OL-R	AG-WS	AG-P	AG-R	RF	RM	RN		CS	PS	ATO	NCO
Fire Station	-	-	-	-	-	-	-	-	-	c	p	-	-
Police Station	-	-	-	-	-	-	-	-	-	c	p	-	-

Public Utility	-	-	-	-	-	-	-	-	-	-	p	-	-
Post Office	-	-	-	-	-	-	-	-	p	p	p	-	p
Wireless Communication Facilities													
Co-locations	-	-	-	m	m	m	m	m	m	m	p	-	-
New towers	-	-	-	c	c	c	c	c	c	c	m	-	-

d. Agriculture

d(1) *Agricultural Production, Processing and Accessory Uses*

Land Use Designation	Open Lands		Agriculture			Residential				Community		Overlays	
	OL-N			AG-P	AG-R	RF	RM	RN		CS	PS	ATO	NCO
Agricultural Accessory Structure (barns, farm offices, greenhouses, coolers, storage houses, hullers, silos)	-	p	p	p	p	p	-	-	-	-	-	p	-
Animal Keeping/Grazing	-	-	p	p	p	p	-	-	-	-	-	p	-
Stable, private	-	-	-	p	p	p	-	-	-	-	-	-	-
Crop production, horticulture, orchard, vineyard	-	p	-	p	p	p	-	-	-	-	-	p	-
Community Garden	-	p	-	p	-	-	-	-	-	p	p	p	-
Agricultural Processing Facility	-	-	-	m	m	-	-	-	-	p	-	p	-
Agricultural Processing with complimentary agricultural tourist support facilities (4)	-	-	-	-	-	-	-	-	-	p	-	p	-
Agricultural Processing Facility with special events (6)													
6 per year max, and 150 persons or less	-	-	-	p	p	-	-	-	-	p	-	p	-
12 per year max, and 150 persons or less	-	-	-	m	m	-	-	-	-	m	-	m	-
More than 12 per year, or more than 150 persons	-	-	-	c	c	-	-	-	-	c	-	c	-
Winery, small	-	-	-	c	p	-	-	-	-	p	-	p	-
Winery, large	-	-	-	c	c	-	-	-	-	p	-	p	-
Winery with Special Events (6)													
6 per year max, and 150 persons or less	-	-	-	p	p	-	-	-	-	p	-	p	-
12 per year max, and 150 persons or less	-	-	-	m	m	-	-	-	-	m	-	m	-
More than 12 per year, or more than 150 persons	-	-	-	c	c	-	-	-	-	c	-	c	-

d(2) Agritourism - *Agriculture Tourist Commercial*

Land Use Designation	Open Lands		Agriculture			Residential				Community		Overlays	
	OL-N	OL-R	AG-WS	AG-P	AG-R	RF	RM	RN		CS	PS	ATO	NCO
Seasonal Sales Lot (temporary agritourism)	-	p	-	p	m	m	-	-	m	p	p	p	-
Roadside Stand (max 2,500 sf)	-	p	-	-	m	m	-	-	p	p	p	p	p
Farmers Market/Certified Farmers Market	-	p	-	-	-	-	-	-	p	p	-	p	p

Commercial kitchens, catering facilites and culinary classes	-	-	-	-	m	m	-	-	p	p	-	m(5)	m
Community Garden	-	p	-	p	-	-	-	-	-	p	p	-	-
Lodging - Small Inn (25 room max)	-	-	-	-	-	-	-	-	-	p	-	p	-
Lodging - Bed and Breakfast (up to 6 guest rooms)	-	-	-	-	-	c	-	c	p	p	-	p	p
Commercial Nursery	-	-	-	p	-	-	-	-	-	p	-	p	-
Special Events or Special Event Facilities (6)													
6 per year max, and 150 persons or less	-	p	-	-	p	-	-	-	-	p	p	p	-
12 per year max, and 150 persons or less	-	m	-	-	m	-	-	-	-	m	m	m	-
More than 12 per year, or more than 150 persons	-	c	-	-	c	-	-	-	-	c	c	c	-
Local Products Store	-	-	-	-	-	-	-	m	p	p	-	p (5)	p
Restaurants and bakeries	-	-	-	-	-	-	-	-	p	p	-	m(5)	m

e. Neighborhood Commercial

Land Use Designation	Open Lands		Agriculture			Residential				Community		Overlays	
			AG-P	AG-R	RF	RM	RN		CS	PS	ATO	NCO
Local serving/convenience (1500 sf max)	-	-	-	-	-	-	-	-	p	p	-	-	p
Restaurant (1500 sf max)	-	-	-	-	-	-	-	-	p	p	-	m(5)	p
General Store (2000 sf max)	-	-	-	-	-	-	-	-	p	p	-	-	p
Gallery	-	-	-	-	-	-	-	m	p	-	-	-	p
Bank	-	-	-	-	-	-	-	-	p	-	-	-	p
Tasting Room	-	-	-	-	-	-	-	c	p	p	-	p (5)	p
Local Products Store	-	-	-	-	-	-	-	m	p	p	-	p (5)	p

f. Office/Business Services

Land Use Designation	Open Lands		Agriculture			Residential				Community		Overlays	
	OL-N	OL-R	AG-WS	AG-P	AG-R	RF	RM	RN		CS	PS	ATO	NCO
Office: Business, service (1500 sf max)	-	-	-	-	-	-	-	m	p	-	-	-	p
Office: Professional, administrative (1500 sf max)	-	-	-	-	-	-	-	m	p	-	-	-	p
Office: Real Estate (1500 sf max)	-	-	-	-	-	-	-	c	p	-	-	-	p

(1) Refer to specific Building Type requirements for permitted Secondary Units, Section 5.4.1

(2) Trail improvements are to comply with all applicable state and feral permits.

(3) Passive Recreation uses include walking, sitting, picnicking, organized games or events.

(4) Complimentary tourist facilities include tasting rooms, gift shops, galleries, restaurants, cafes, facilities for the sale of local produce, and ancillary offices for the support of agricultural tourism.

p - Allowed by Right
m - Minor Use Permit Required
c - Use Permit Required
- - Use not allowed

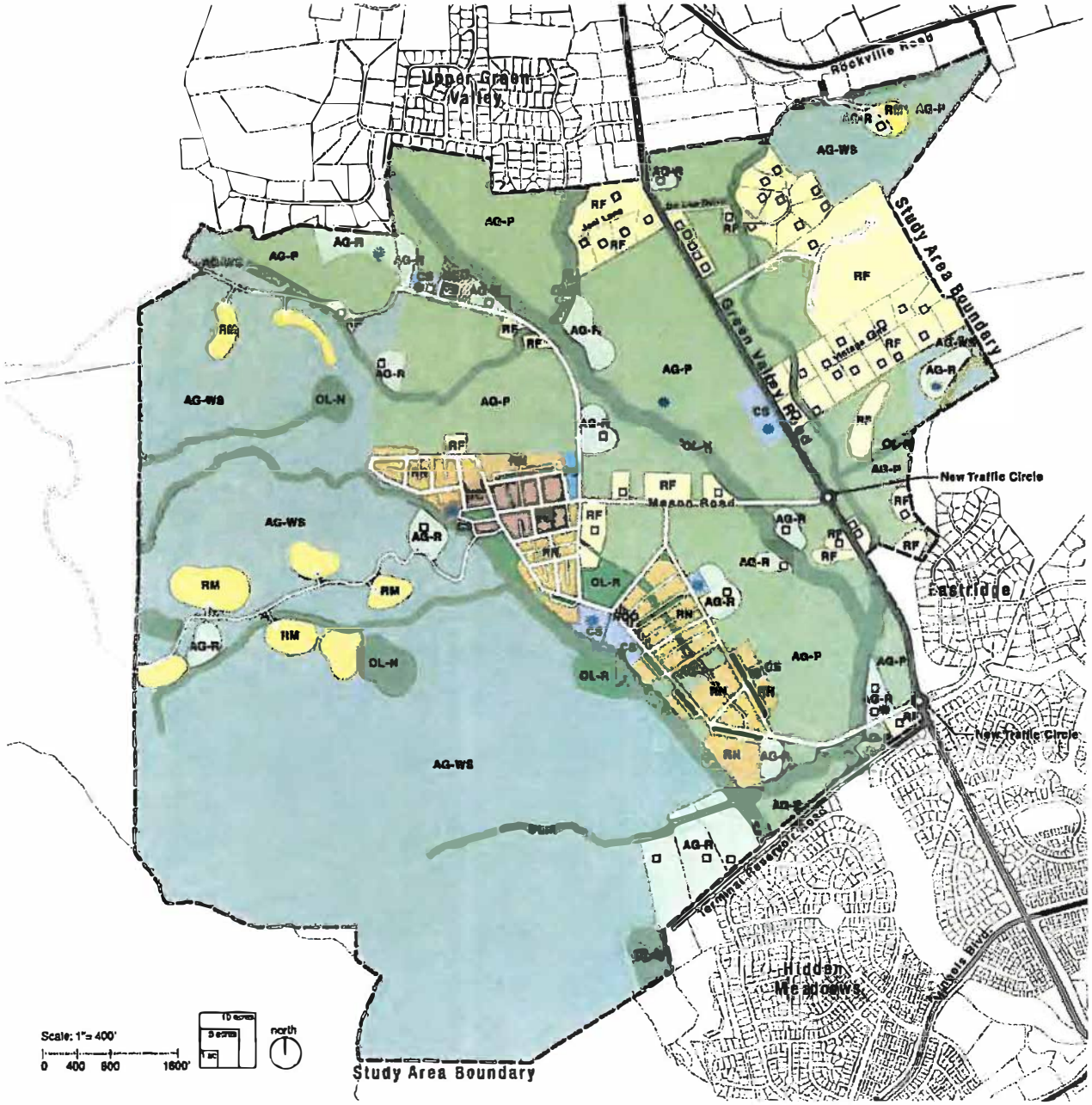
(5) Use must be ancillary to the primary agricultural use
(6) Parking for special events, weddings, marketing promotional events, and similar functions may utilize temporary, overflow parking areas. Limitations on the number of guests may be based on availability of off-street parking. Overflow parking areas may be of dirt, decomposed granite, gravel or other permeable surface, provided that the parking area is

Participating Landowners	Acreage	% of Participating Area	Allowed New Unit Count (TDR Program)	Allowed New Unit Count (No TDR Program)
B+L Properties	253.0	16.5%	64	9
Engen	52.3	3.4%	13	9
Hager	40.2	2.6%	10	2
Mason/Lindemann	296.0	19.3%	75	14
Mason/Lawton Trust	476.1	31.1%	121	21
Maher	146.8	9.6%	37	7
Ragsdale	168.6	11.0%	43	7
Frei	18.2	1.2%	5	0
Sisto (Jean)	23.7	1.5%	6	0
Volkhardt	40.0	2.6%	10	1
Wiley	15.6	1.0%	4	0
SUBTOTAL	1,530	100.0%	388	70

Non-Participating Landowners	Acreage	New Unit Count	New Unit Count (No TDR Program)
Biggs	61.6	6	6
DeDomenico	40.6	1	1
Del Castillo	82.4	3	3
Parent	12.9	0	0
Wirth	40.7	1	1
Vintage Lane	42.1	0	0
De Lau Drive/GVR	23.5	0	0
Jun. Lane	20.8	0	0
Terminal Reservoir Ln	30.2	0	0
Terminal Reservoir	8.7	0	0
SUBTOTAL	363	11	11

Existing Infrastructure	11		
TOTAL STUDY AREA	1,905	399	81

Table 4-1 - Unit Allocation



Open Lands Designations

- OL-N — Open Lands- Natural
- OL-R — Open Lands- Recreation

Agriculture Designations

- AG-WS — Agriculture- Watershed
- AG-P — Agriculture- Preserve
- AG-R — Agriculture- Residential

Residential Designations

- RF — Rural Farm
- RM — Rural Meadow
- RN — Rural Neighborhood
- RC — Rural Mixed-Use Center

Community Services Designations

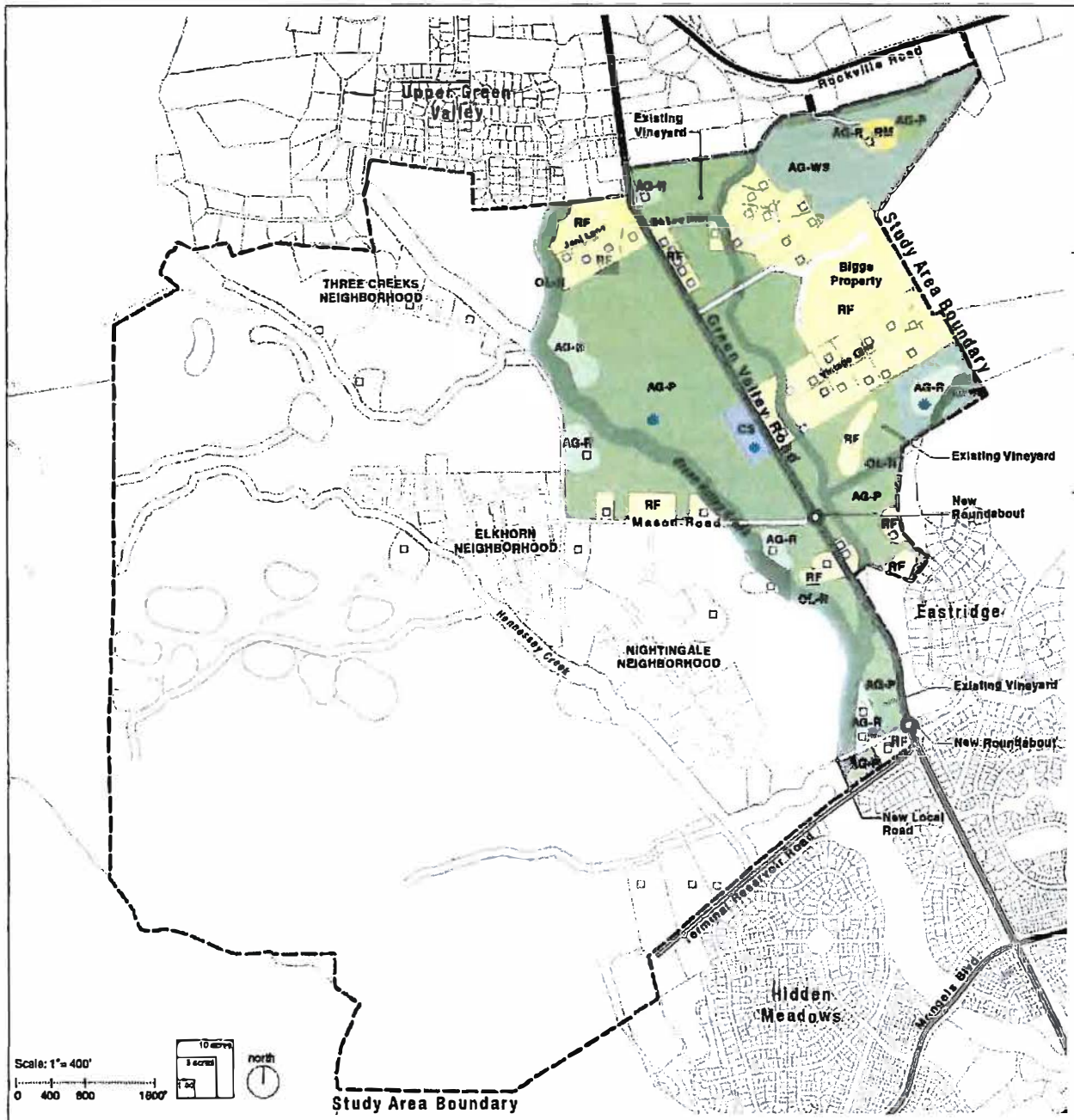
- CS — Community Services
- PS — Public Services

Overlays

- ATO — Agriculture Tourism Overlay
- NCO — Neighborhood Commercial Overlay

Existing Residential

Figure 3-44: The Built Fabric - The Land Use Plan



Land Use Summary- Green Valley Road Corridor

		Max. New Units	20
			Acres
OL-N	Open Lands- Natural		78
OL- R	Open Lands- Recreation		--
AG-WS	Agriculture- Watershed		52
AG-P	Agriculture- Preserve		210
AG-R	Agriculture- Residential		30
RF	Rural Farm		131
RM	Rural Meadow		2
RN	Rural Neighborhood		--
RC	Rural Mixed-Use Center		--
CS	Community Services		5
PS	Public Services		--
ATO	Agricultural Tourism Overlay		
NCO	Neighborhood Commercial Overlay		
	Existing Residential		

Figure 3-45: Green Valley Road Corridor

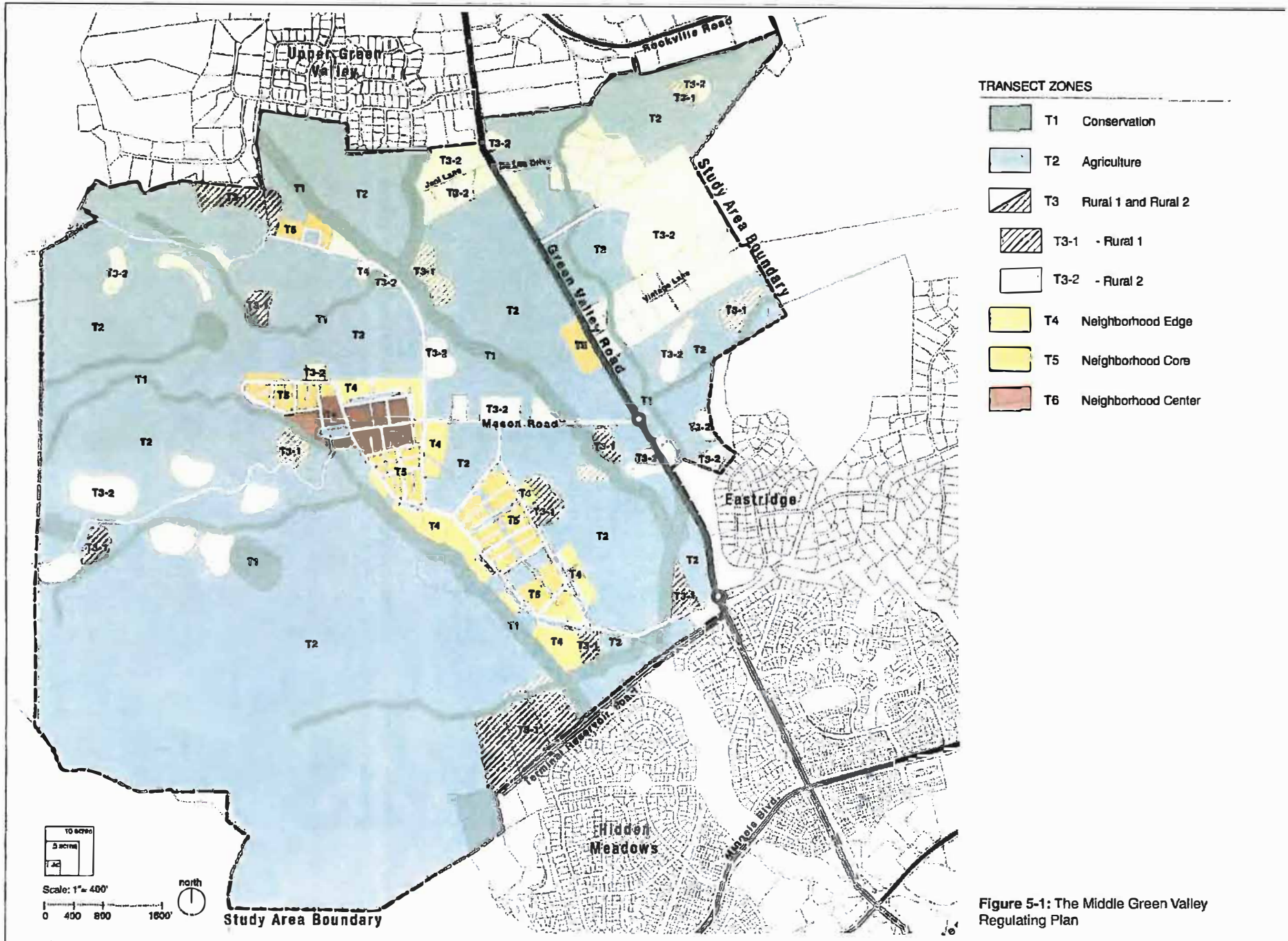


Figure 5-1: The Middle Green Valley Regulating Plan

Additional Updates to Middle Green Valley Specific Plan (July 6, 2017)

Staff recommends the following revisions:

1. Land Use Table (Table 3-4): Section d(2) Agritourism
   a. "Restaurants and bakeries" should be replaced with "Restaurants and bakeries (greater than 1500sf)" and should only be allowed with a minor use permit (m) in the ATO overlay. It shall be prohibited in all other districts.

2. Footnote #6, following Table 3-4, was cut off during printing. The final words should read, "…..provided that the parking area is onsite."

Note: Three maps, Fig. 3-44, Fig. 3-45, and Fig. 5-1, are attached and include one minor difference to the maps previously provided to the Commission. The Nancy Sweeney property, located on the west side of Green Valley Road at the northern boundary of the Plan area, now shows as Rural Farm (RF) with a transect of T3-2. This re-designation was previously approved by the Board of Supervisors in 2010 and is provided to the Commission now for accuracy purposes only. The Commission is not asked to approve this change.

Solano Local Agency Formation Commission
675 Texas St. Ste. 6700 • Fairfield, California 94533
(707) 439-3897 • FAX: (707) 438-1788

CHANGE OF ORGANIZATION/REORGANIZATION APPLICATION

TITLE OF PROPOSAL:

FSSD-Solano County Out of Agency Service Extension for wastewater services to MGVSP

AFFECTED AGENCIES AND PROPOSED ACTIONS[1]:

1. *Fairfield Suisun Sewer District*
2. *Solano County – Resource Management*

PROJECT INFORMATION:

1. General location description (i.e. south side of Road A between Road B and Road C):

   That area established in Solano County Ordinance 2017-1785 as the Middle Green Valley Specific Project Area (MGVSPA). The MGVSPA is located north of Interstate 80, Jameson Canyon, and the Hidden Meadows subdivisions (City of Fairfield); south of existing unincorporated subdivisions and the Green Valley Country Club in upper Green Valley; west of Suisun Valley and the Rockville Hills; and northwest of the Eastridge subdivision (City of Fairfield).

2. Total acreage of territory: *1,905 acres*

3. Assessor parcel numbers:

0025-180-030	0025-190-240	0025-200-200	0025-540-050	0148-020-200	0148-050-040	0148-190-020
0025-180-180	0025-190-260	0025-200-210	0025-540-060	0148-030-010	0148-060-140	0148-190-030
0025-180-210	0025-190-290	0025-200-220	0025-540-070	0148-030-020	0148-060-150	0148-190-040
0025-190-020	0025-190-300	0025-200-230	0148-010-170	0148-030-040	0148-060-190	0148-190-320
0025-190-030	0025-190-310	0025-200-240	0148-020-040	0148-030-050	0148-060-210	0148-210-010
0025-190-060	0025-200-030	0025-200-250	0148-020-060	0148-030-060	0148-060-220	
0025-190-120	0025-200-040	0025-200-260	0148-020-090	0148-030-070	0148-060-240	
0025-190-130	0025-200-100	0025-200-270	0148-020-100	0148-030-080	0148-060-250	
0025-190-140	0025-200-110	0025-200-280	0148-020-110	0148-040-030	0148-060-260	
0025-190-150	0025-200-140	0025-200-290	0148-020-120	0148-040-040	0148-060-270	
0025-190-180	0025-200-150	0025-540-010	0148-020-130	0148-040-050	0148-180-010	
0025-190-190	0025-200-160	0025-540-020	0148-020-140	0148-050-010	0148-180-020	
0025-190-200	0025-200-170	0025-540-030	0148-020-150	0148-050-020	0148-180-030	

[1] List all actions, examples of actions include: annexation, detachment, out of agency service extension, consolidation, dissolution, merger, incorporation, district formation*, sphere of influence update and amendment**
*District Formation requests must be accompanied by the District Formation Supplemental Questionnaire.
**Sphere of Influence changes must be accompanied by Attachment A – Sphere of Influence Questionnaire.

0025-190-220	0025-200-180	0025-540-040	0148-020-160	0148-050-030	0148-180-040	

Portion of APN 0148-010-160 (See Exhibit A for Legal Description)

APPLICANT INFORMATION

1. Chief Petitioners (maximum of three) or Legal Owner(s) & Representative/Agent:

Primary Contact: *Talyon Sortor, Interim-General Manager*
Agency: *Fairfield-Suisun Sewer District*
Address: *1010 Chadbourne Rd, Fairfield, CA 94513*
Phone: *(707) 429-8930*
Email: *tsortor@fssd.com*

Representative: *Charity Wagner, Wagner Enterprises*
Agency: *Applicant on behalf of multiple landowners*
Address: *148 Madison Avenue San Rafael, CA 94903*
Phone: *(415) 730-6718*
Email: *charity.wagner@gmail.com*

2. Project Initiation (choose one and attach resolution or petition[2]):

Resolution of Agency Landowners Registered voters

The project is being initiated by a request of the landowners (a copy of the Landowners request is included in Exhibit 1) and by Resolution of Agency (a copy of Resolution 2019-08 is included in Exhibit 2). Resolution 2019-08, establishing the District's support the extension of services to MGV as drafted in AB 530 (Exhibit 3).

3. Property Tax Revenues[3]:

If an annexation proposal is initiated by Resolution, please attach a copy of the exchange of property tax revenues agreement including the Master Tax Transfer Agreement and applicable resolutions between the city and County.

Fairfield Suisun Sewer District is not an ad-valorem property tax recipient. FSSD is fee-based.

[2] LAFCO proposals may be initiated by resolution of an affected agency such as a city council, special district, or by the Board of Supervisors. A proposal may also be initiated by a petition of the affected area's registered voters or landowners. If initiated by landowners or registered voters, applicant must submit a "Notice of Intent to Circulate a Petition" to LAFCO staff **prior** to submittal of this application and a "Fair Political Practices Commission Party Disclosure Form" along with this application. These forms are available upon request from LAFCO staff.

[3] If the proposal involves an annexation to a city and/or changes in district boundaries, negotiations for any exchange of property tax revenues must be completed by the County and any affected city prior to LAFCO action. For those proposals, LAFCO will provide preliminary information to begin the negotiations process.

PURPOSE OF THE PROPOSAL

1. In as much detail as possible, explain why this proposal is necessary and/or beneficial at this time.

In August 2017, the Solano County Board of Supervisors approved revisions to the Middle Green Valley Specific Project Area (MGVSPA) granting certain development entitlements to Middle Green Valley (MGV) property owners. The California Environmental Quality Act review analysis for the MGVSPA identified the need for sewer service to these properties when they develop. As there is no improved sewer system in the area, two basic options were identified and analyzed in the environmental document: constructing an MGV facility (on-site) and utilizing an existing off-site option (FSSD). The preferred option was the existing off-site wastewater facility provided by the Fairfield-Suisun Sewer District. FSSD has the capacity, provides the least environmental impact, and will not require the construction of a new facility. AB 530 was signed by Governor Newsom and became effective in 2019 allowing for FSSD to serve the MGVSPA. This proposal is necessary and beneficial at this time because several landowners within the MGVSPA are requesting entitlements pursuant to the MGVSP.

2. Is this application proposed to carry out a development project? If yes, describe the project:

Yes. The development contemplated is described in the MGVSP that is included in Exhibit 4.

The Specific Plan proposes a mix of land uses, including up to 400 new primary residential units, agricultural tourism, local neighborhood retail and community facility uses and over 1,400 acres of protected agriculture and open space. The end result is a multi-layered Plan based on the concepts of clustered development, conservation and limited and appropriate settlement, that provides a certain future for Middle Green Valley.

The MGVSP was established in a multi-year, public process, culminating in the approval by Ordinance 2017-1785 by the Solano County Board of Supervisors on August 8, 2017.

3. What are the alternate courses of action to the proposed change of organization/reorganization, if any?

There were three alternatives for MGV wastewater treatment identified in the Specific Plan and EIR:

1. *FSSD agrees to serve the requirement of the proposed Middle Green Valley Area.*
2. *An on-site wastewater treatment plant in combination with the Fairfield-Suisun Sewer District.*
3. *An on-site wastewater treatment facility which could cost prohibitive and problematic for the SF Bay Regional Water Quality Control Board approval of a discharge permit.*

EFFECTS OF THE PROPOSED ACTION

1. What will be the effect of the proposed action on adjacent areas?

Effects of developing MGVSPA and the sewer service to the MGVSPA, including surrounding areas were analyzed in the Environmental Impact Report. Ordinance 2017-1785 and the

amendment to the FSSD Act is very specific on the area to be served by FSSD. The action would provide sewer service to MGVSPA, the surrounding area would continue unchanged and each property would continue to rely on on-site treatment (septic system) in accordance with Solano County health department regulations. The proposed action includes service to only the MGVSPA; there is no change or expansion to provide service outside of the MGVSPA.

2. What will be the effect of the proposed action on mutual social and economic interests?

Effects of developing MGVSPA and the sewer service to MGVSPA, including surrounding areas were analyzed in the Environmental Impact Report.

3. What will be the effect of the proposed action on the local government structure of the County of Solano?

As this proposal is to perfect the provisions established under AB530 relative to sewer service to MGVSPA, the governance over sewer service will be provided by the FSSD Board of Directors. This proposal does not modify governance of any other local government.

4. What will be the effect of the alternative action on adjacent areas, on mutual and social economic interests, and on the local government structure of the County of Solano?

As this proposal is to perfect the provisions established under AB530 relative to sewer service to MGVSPA, the governance over sewer service will be provided by the FSSD Board of Directors. This proposal does not modify governance of any other local government. All development within the MGVSPA will continue to be regulated by land use planning, zoning, building and safety, and all other applicable local controls of Solano County (local jurisdiction).

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE:

1. Identify the Lead Agency which adopted a CEQA document for the proposal:

Solano County Board of Supervisors

2. Identify type of environmental document adopted (EIR, MND, MD, Exempt):

Environmental Impact Report

3. Date the Lead Agency adopted the CEQA document for the proposal.

The Board of Supervisors certified the Environmental Impact Report on October 25, 2016 and subsequently approved an addendum to the certified EIR on August 8, 2017 as part of their MGVSPA approval

4. Submit complete copies of the CEQA document; one (1) physical copy and an electronic copy.

Provided in Exhibit 5

5. Submit copies of any Notice of Exemption or Notice of Determination.

An EIR was prepared and certified.

6. Submit a copy of the Fish and Wildlife filing fee receipt.

Provided in Exhibit 6

POPULATION AND HOUSING

1. What is the estimated current population of the subject territory?

Section 2.4.2 of the MGVSP reports 55 residential and using 3 persons per dwelling unit resulting in an estimated population of 165 persons.

2. If the proposal territory includes a proposed development, what is the estimated population of the proposed area at build-out?

The MGVSP allows up to 400 single family residential units and 100 Accessory Dwelling Units, using 3 persons per dwelling unit, the total estimated population of 1,500 persons.

LAND USE INFORMATION

1. Is the proposed area within the existing sphere of influence of the annexing agency?[4]

AB 530 provides a process for the District to extend services to MGVSPA.

2. The County General Plan designation

The Middle Green Valley Area was designated a "special project area" in the 2008 General Plan.

3. Current County Zoning

Zoning is established in the adoption of the MGVSP, specifically section 3.5.3A describes the intent of each land use designation. Figure 3-44 details the distribution of land uses within the Plan Area (Exhibit 7).

4. The City General Plan proposed designation

This proposal is not an annexation to a City

5. Is the proposal area within a Specific Plan? If yes, please attach the Plan and Resolution:

Yes. The Middle Green Valley Specific Plan was approved by Solano County Ordinance 2017-1785 on August 8, 2017. A copy of Ordinance 2017-1785 in provided in Exhibit 8.

[4] If the proposal area is outside the sphere, submit a Sphere of Influence Amendment Questionnaire Attachment A in addition to this application. Contact LAFCO staff, a municipal service review update and/or sphere of influence update may be required to process the application.

6. LAFCO Mandatory Standard Number 5 requires the affected agency(ies) adopt a resolution supporting the proposal. Indicate below all permits or approvals that will be needed or have been granted by the County or any city to complete the project. Attach a copy of each resolution of approval. Samples of resolutions can be obtained from LAFCO.

Type of Approval or Permit	Resolution or File No.	Approval Date
Resolution to Initiate Change of Organization/Reorganization (Agency initiated application)	*Ordinance 2017-1785*	*August 8, 2017*
Fairfield Suisun Sewer District Resolution	*Resolution #2019-08*	*March 25,2019*
Solano County Board of Supervisors Resolution	*Resolution #2019-38*	*February 26, 2019*

7. Please describe the present land uses of the property within the territory and whether further development of any of the parcels would be permitted under the applicable land use regulations after the change of organization. If further development would be permitted please identify by parcel, the potential development that could occur, attach additional sheets if necessary.

   As stated in Section 2.4.2 of the MGV SP, "Primary land use in the area has historically been agriculture, ranching and large lot rural residential. Approximately 55 single family homes and ancillary agricultural structures exist within the Plan Area boundaries. Agricultural and ranching activities have included vineyards, orchards, grazing land and areas devoted to field crops. In some areas the lands have lain fallow for several years. Currently there are over 200 acres in active agriculture, which are primarily vineyard lands."

   The Specific Plan proposes a mix of land uses, including up to 400 new primary residential units, agricultural tourism, local neighborhood retail and community facility uses and over 1,400 acres of protected agriculture and open space. The end result is a multi-layered Plan based on the concepts of clustered development, conservation and limited and appropriate settlement, that provides a certain future for Middle Green Valley.

8. Describe the predominant land uses of adjacent lands (vacant, residential, commercial, etc.):

   As stated in Section 2.4.2 of the MGV SP, "Adjacent uses in the area consist of grazing, large and small lot rural residential and residential estate development. Refer to MGV SP Figure 2-4 for Existing and Proposed Adjacent Residential Development and MGV SP Figure 2-4 Figure 2-5 for Existing Context.

LANDOWNER(S) CONSENT/OPPOSITION:

1. If available, please provide signed letters of consent to the change of organization/reorganization from landowners within the affected territory.

   A letter with signed by landowners requesting service is included in Exhibit 1.

2. Please provide a list with names and addresses of any persons, organizations or agencies known to you who may be opposed to this proposal.

We have no records that indicate opposition to this proposal.

PLAN FOR PROVIDING SERVICES

Any local agency submitting an application for a change in organization must also submit a plan for providing services to the subject territory. Please complete and submit "Attachment B Plan for Providing Service"

A plan for providing services is included in Exhibit 9

ADDITIONAL REQUIREMENTS

1. List any terms or conditions requested for inclusion in LAFCO Resolution of Approval as part of this proposal:

2. Provide detailed written responses to LAFCO Standards 1 through 7.

Written responses are included in Exhibit 10

FAIRFIELD-SUISUN SEWER DISTRICT
RESOLUTION NO. 2018-02

A RESOLUTION SUPPORTING AMENDMENTS TO THE FAIRFIELD-SUISUN SEWER DISTRICT ACT

WHEREAS, the Fairfield-Suisun Sewer District (District) was established pursuant to the Fairfield-Suisun Sewer District Act, Chapter 303, Statutes of 1951 (the Enabling Act) to provide collection, treatment, and disposal for sewage to the cities of Fairfield and Suisun City; and,

WHEREAS, the District has evolved since the adoption of Enabling Act in 1951 and through legislation in 1959, 1963, 1985, 1992, 1997, 2001, and 2002 has modified sections of the Enabling Act to incorporate organizational and other changes; and,

WHEREAS, property owners in Middle Green Valley Specific Plan area of unincorporated area of Solano County have sought legislative changes to the Enabling Act to allow this area to receive sewer services from the District; and,

WHEREAS, Enabling Act references certain roles that were fulfilled by the City of Fairfield in an ex officio capacity that are no longer applicable; and,

WHEREAS, Enabling Act established certain processes that are no longer efficient or effective;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE FAIRFIELD-SUISUN SEWER DISTRICT:

1. Supports the changes to the Enabling Act set forth in attachment hereto and incorporated herein.

2. The General Manager is hereby authorized and directed to do all things necessary and proper to implement this resolution.

PASSED AND ADOPTED THIS 19th day of February 2018, by the following vote:

AYES: Directors Hudson, Sanchez, Timm, Vaccaro, Wilson and Segala

NOES: Directors Bertani, Day, Moy, and Price

ABSENT: Directors None

Michael C. Segala
President

ATTEST:

District Clerk

CHAPTER 303
State of California
Statutes of 1951
The Fairfield-Suisun Sewer District Act, as last amended September 2002

An act relating to the financing, construction, maintenance and operation of sanitary sewerage and storm drainage systems for the Cities of Fairfield and Suisun City, creating the Fairfield-Suisun Sewer District and prescribing its boundaries, change of boundaries, organization, operation, management, financing and powers, declaring the urgency thereof, to take effect immediately.

[Approved by Governor May 5, 1951 Filed with
Secretary of State May 5.1951.]

The people of the State of California do enact as follows:

Article 1. General Provisions

SECTION 1. The Fairfield-Suisun Sewer District is hereby created to consist of the territory in Solano County now contained within the Cities of Fairfield and Suisun City. Any territory hereafter annexed to either city shall be a part of the district upon annexation. No property shall become a part of the district unless it is a part of either the City of Fairfield or the City of Suisun City.

Sec. 2. This act shall be known and may be cited as "Fairfield-Suisun Sewer District Act."

Sec. 3. If any provision of this act, or the application thereof to any person or circumstance, is held invalid, the remainder of this act, or the application of such provision to other persons or circumstances, shall not be affected thereby.

Article 2. Definitions

Sec. 10. Unless the context otherwise requires, the provisions of this article shall govern the construction of this act.

Sec. 11. "District" means the Fairfield-Suisun Sewer District.

Sec. 12. "Board" means the board of directors of the district.

Sec. 13. "Cities" refers to the Cities of Fairfield and Suisun City.

Sec. 14. "Charges" includes fees, tolls, rates and rentals.

Sec. 15. "County" means the County of Solano.

Sec. 16. "Board of supervisors" means the Board of Supervisors of the County of Solano.

Sec. 17. "Clerk" means the clerk of the district.

Sec. 18. In the application to the district of laws, the procedure of which is made applicable to proceedings of the district, the terms used in those laws shall have the following meanings:

(a) ~~"City council," "council," and "legislative body" mean the board~~

~~(b) "City," "municipality" and "local agency" mean the district, "~~

~~(ca) "Clerk" and "city clerk" means the clerk of the district.~~

(b) "Middle Green Valley Specific Plan" means all property included within the Middle Green Valley Specific Plan adopted by the Board of Supervisors in August 2017.

(c) ~~"Superintendent of streets," "street superintendent," and "city engineer" mean the engineer of the district or any other person appointed to perform those duties. The person performing those duties shall be called the district engineer.~~

~~(d)~~ "Tax collector" means ~~either the county tax collector or another~~the person designated as the tax collector by the board.

(~~f~~e) "Treasurer" ~~and "city treasurer"~~ means ~~either~~ the ~~County Treasurer of the County of Solano or another~~ person designated as the treasurer by the board.

(~~g~~f) "Auditor" ~~and "city auditor"~~ means ~~either~~ the ~~County Auditor of the County of Solano or another~~ person or entity designated as the auditor by the board.

(~~h~~g) "Organic materials" means material that is organic in nature, such as plant material, food and beverage waste, and paper products, which can be recycled using treatment processes such as composting, digestion or other processes to decompose the organic matter. Gas produced from the process can be captured and used for generating electricity and heat.

Article 3. General Administrative Provisions

Sec. 25. The district shall be governed by a board of directors of 10 members who shall be ex officio, all members of the city councils of the C~~c~~ities.

Sec. 26. A quorum for the transaction of business shall consist of any six members of the board. No action shall be taken without the affirmative vote of at least six members.

Sec. 27. ~~At its first meeting, and thereafter at the first meeting following such election of councilmen for the cities,~~ tThe board shall choose one of its members as president and elect other officers in accordance with Board policy.

Sec. 28. ~~At its first meeting, or as soon thereafter as may be practicable, the board shall appoint a clerk, who may be a city clerk. He shall serve at the pleasure of the board and his compensation shall be fixed by it.~~

Sec. 29. All contracts, deeds, warrants, releases, receipts, and documents shall be signed in the name of the district ~~by the president and countersigned by the clerk~~in accordance with Board policy.

Sec. 30. (a) Subject to subdivision (b), each board member shall receive one hundred dollars ($100) for each day of his or her actual attendance of the meetings of the board and of committees of the board, and for each day's service otherwise rendered as a board member by request of the board, not exceeding a total of six days in any calendar month.

(b) The board may, by ordinance, increase the compensation received by board members above one hundred dollars ($100) a day, provided that the increase shall not exceed an amount equal to 5 percent of the compensation which is received when the ordinance is adopted, for each calendar year following the operative date of the last increase.

Sec. 31. Each board member shall be reimbursed for actual expenses incurred in the conduct of district business.

Sec. 32. The board may, in its discretion, establish a district treasury and appoint a district treasurer to serve at the pleasure of the district board.

Sec. 33. All district elections other than bond elections shall be conducted in accordance with the election laws applicable to general law cities.

Sec. 34. The board may require any employee or officer to be bonded. The district shall pay the cost of the bonds.~~All county officers shall be liable upon their several official bonds for the faithful discharge of the duties imposed upon them by this act.~~

Article 4. Powers

Sec.40. The district may adopt and use a seal which shall be alterable at the pleasure of the board.

Sec. 41. The district may sue and be sued.

Sec. 42. The district may acquire, construct, reconstruct, alter, enlarge, lay, repair, renew, replace, replace, maintain, and operate such sewers, drains, septic tanks, and sewage collection, outfall, treatment works, and other sanitary disposal systems, and storm water, storm water collection, outfall, and disposal systems, and water reclamation and distribution systems, within or without the district, as in the judgment of the board shall be necessary and proper.

Sec. 43. The district may take, acquire, hold, use and dispose of property of every kind within or without the district necessary, expedient, or advantageous to the full exercise and economic enjoyment of its purposes and powers.

Sec. 44. The district may exercise the right of eminent domain to acquire any property necessary to carry out any of the objects or purposes of the district.

Sec. 45. The district may make and accept contracts, deeds, releases and documents that, in the judgment of the board, are necessary or proper in the exercise of any of the powers of the district.

Sec. 46. The district may cooperate and contract with the United States, or any agency thereof, with the State, or any political subdivision thereof, or with either of the cities for the joint acquisition, construction or use or aid in the construction of any facilities which the district may be empowered to construct under this act, including assignment to the district of any subventions of either of the cities.

Sec. 47. All existing contracts of either of the cities relating to the collection and disposal of sewage may be assumed by the district.

Sec 48. (a) Except as otherwise provided in subdivisions (b), ~~and~~ (c). and (d), the district may not accept or contract for the disposal of any sewage emanating from outside the district except sewage from any public buildings~~ or buildings of a public utility subject to regulation by the Public Utilities Commission~~.

(b) Upon request of a landowner, t~~T~~he district ~~may shall, upon request,~~ is hereby authorized to accept and contract for the disposal of sewage emanating from buildings outside the district if those buildings are connected to the district's sewage treatment system on March 1, 2002 or from any building within the ~~County Service Area~~Middle Green Valley Specific Plan.

(c) Except as provided in subdivision (b) above, ~~Pursuant to Section 56133 of the Government Code, T~~the district may, pursuant to Section 56133 of the Government Code, contract with Solano County or another public entity for the disposal of sewage emanating from buildings outside the district if the board of the district determines that the contract furthers the protection of public health and safety and~~/or~~ is in the best interests of the district.

(d) Every user that is connected to the district's sewage treatment system is subject to the district's ordinances, resolutions, and other laws.

(e) The district may accept organic materials originating from within or outside the district, as in the judgment of the board is in the best interests of the district.

Sec. 49. The district may borrow money and provide for its repayment without regard to any limitation by reason of any budget law or otherwise.

Sec. 50. The district may guarantee the performance of any of its transactions, including the payment of local improvement bonds issued pursuant to any general law, without regard to any limitation by reason of any budget law or otherwise.

Sec. 51. The district may refund or retire any public indebtedness or lien that may exist or be created against the district or any property therein which shall have arisen out of the transaction of the affairs of the district.

Sec. 52. The district may incur indebtedness and issue bonds in the manner herein provided.

Sec. 53. The district may issue warrants in payment of district obligations. When not paid for want of funds, the warrants shall be registerable as provided in the Government Code for registration of city warrants when not paid for want of funds. Claims for money or damages against the district are governed by Part 3 (commencing with Section 900) and Part 4 (commencing with Section 940) of Division 3.6 of Title 1 of the Government Code, except as provided therein. Claims not governed by those statutes, other statutes, ordinances, or regulations, and expressly applicable to those claims, shall be prepared and presented to the governing body, and all claims shall be audited and paid, in the same manner and with the same effect as are similar claims against a general law city. All claims shall be free of the limitation of any budget law.

Sec. 54. The district may cause special assessments to be levied and collected on the basis of benefit to the properties assessed for the purpose of financing the acquisition and construction of local improvements. If all or any portion of such assessment remains unpaid, the district may issue bonds, not in excess of the amount of the assessment remaining unpaid, secured by the assessment.

Sec. 55. The district may appoint, employ, and fix the compensation of such engineers, attorneys, assistants and other employees as it deems proper.

Sec. 56. The district may ~~sell~~ contract for the purchase and/or sale of any effluent resulting from the operation of any sewage treatment plant as in the judgment of the board shall be necessary and proper and is in the best interests of the district~~constructed by or for the district~~. Sections 6520.7 and 6520.9 of the Health and Safety code are applicable to the district.

Sec. 57. The district may obtain insurance in such form and in such amounts as the board may deem necessary for the adequate protection of the district's property, officers, employees and interests.

Sec. 59. The district may adopt all necessary and proper regulations for all sanitary purposes not in conflict with the laws of this State. Any person who violates any regulation of the district is guilty of a misdemeanor. A regulation of the board shall be adopted by ordinance and shall be ~~posted for one week in three public places in each of the cities~~published pursuant to Section 6061 of the Government Code ~~in a newspaper of general circulation~~ and shall take effect upon expiration of the week of such ~~posting~~publication. A subsequent finding of the board, entered in its minutes, that ~~posting~~ publication has been made is conclusive evidence that the ~~posting~~ publication has been properly made.

Sec. 60. The district may compel all residents and property owners in the district to connect their houses and habitations and structures requiring sewage or drainage disposal service with the sewer and storm drains in streets.

Sec. 61. The district may prescribe, revise and collect charges for services and facilities furnished by it.

Sec. 62. The district may contract for the collection of charges for any sewer enterprise or service together with and not separately from the charges for any other utility service rendered by the cities, and that all charges shall be billed upon the same bill and collected as one item. If all or any part of the bill is not paid, the district or either of the cities may discontinue its utility service until the said bill is paid. Such contract shall provide for the payment of a reasonable collection charge to the city involved.

Sec. 63. The district may require that its charges be payable in advance. In case any charges remain unpaid at the time specified for fixing the tax rate of the district, if the property is owned, controlled, or in the possession of the same person who owned, controlled, or was in possession of it during the time the charges were incurred, or if the only transfers were made of the property since the date the charges were incurred, have been transfers by gift, descent, bequest, or devise, the amount due to the charges may be collected at the same time and in the same manner as annual taxes levied against the land served by the district facilities. The charges shall constitute a lien on the land. If the taxes are divided and made payable in two installments, the unpaid charges may be added to, arid become a part of, the first installment. The board shall include in the statement of tax rate transmitted to the county auditor the amount of the charges to be levied against the land served, and the county auditor shall include the charges in the tax bills, Alternatively, charges, tor any services and facilities which the district is authorized to provide and for which it is authorized to collect charges, may be collected in the manner provided by Section 5473 of the Health and Safety Code in accordance with the procedures set forth in other applicable provisions of Article 4 (commencing with Section 5470) of Chapter 6 of Division 5 of the Health and Safety Code.

Sec. 64. The district, directly or through a representative, may attend the Legislature and any committees thereof and present information to aid the passage of legislation which the board deems beneficial or to prevent the passage of legislation which the board deems detrimental to the district. Expenses incident thereto are proper charges against the district.

Sec. 65. The district may enter in associations. Through a representative of the associations, it may also attend the Legislature to accomplish the purposes outlined in the next preceding section.

Sec. 66. All contracts for the construction of any unit of work shall be governed by Sections 22032 to 22039, inclusive, contained in Article 3 (commencing with Section 21200) of Chapter 2 of Part 3 of Division 2 of the Public Contract Code.

Article 5. General Obligation Bonds

Sec. 80. The district may issue bonds as provided in this article.

Sec. 81. The district may issue bonds for any of the purposes stated in Sections 42 and 51 of this act.

Sec. 82. When in its judgment it is advisable, the board may, and, upon a petition of 10 percent of the registered voters residing in the district shall, adopt a resolution calling an election to submit to the voters of the district the question whether bonds shall be issued.

Sec. 83. The resolution calling the election may submit as one proposal the question of issuing bonds to make all of the outlays or so many of them as may be selected, or the resolution may submit at the election as separate questions the issuance of bonds for any of the outlays singly or in combination.

Sec. 84. Notice of bond elections shall be given by posting notices, signed by the clerk of the board, in three public places in the district, not less than 20 days before the election, and by publishing the notice not less than once a week for three successive weeks before the election in a newspaper printed and published in the district, if there is one, and if not, in a newspaper printed and published in the county.

Sec. 85. The notice shall contain:

(a) Time and place of holding the election.

(b) The names of the officers of election appointed to conduct it.

(c) The hours during the day in which the polls will be open.

(d) A statement of the purpose for which the election is held.

(e) The amount and denomination of the proposed bonds, the rate of interest and the number of years, the whole or any of the bonds are to run.

Sec. 86. The vote shall be by ballot, without reference to the general law in regard to the form of ballot.

The ballot shall contain the words "Bonds—Yes" and "Bonds—No," and the person voting at the election shall put a cross (-0 upon his ballot after the "Yes" or "No," to indicate whether he has voted for or against the bonds.

Sec. 87. After the votes have been announced the ballots shall be sealed and delivered to the clerk or president of the board, which board shall on the seventh day after the election, at 8 o'clock p.m., meet and canvass them and enter the returns in its minutes.

The entry is conclusive evidence of the fact and regularity all prior proceedings and of the facts stated in the entry. No informality shall affect the validity of said bonds.

Sec.88. Except as herein provided, the election shall be conducted as nearly as practicable in accordance with laws relating to general elections.

Sec. 89. If, at the election, a majority of the votes cast are in favor of the issuance of bonds, the board may issue and dispose of the bonds as proposed in the resolution calling the election.

Sec. 90. Bonds issued by the district under this article shall be in the denominations determined by the board.

Sec. 91. The bonds shall be payable in lawful money of the United States at the office of the treasurer and bear interest at the rate determined by the board but not to exceed the amount specified in Section 53531 of the Government Code.

Sec. 92. No bonds shall be payable in installments, but each shall be payable in full on the date specified therein by the board. The board may provide that all bonds issued by the district may be subject to retirement at any time prior to maturity.

Sec. 93. Each bond shall be signed by the president and countersigned by the clerk.

Sec. 94. The bonds shall be numbered consecutively, beginning with number one, and shall have coupons attached referring to the number of the bond.

Sec. 95. The bonds shall be disposed of by the board in such manner and in such quantities as may be determined by it in its discretion. No bond may be disposed of for less than its face value.

Sec. 96. The term of bonds issued shall not exceed 40 years.

Sec. 97. The board may in its discretion, before issuance commence in the superior court of the county, a special proceeding to determine its right to issue the bonds and their validity, similar to the proceeding in relation to irrigation district bonds, provided for by Division 11 of the Water Code, and its provisions apply to and govern the proceedings to be commenced by the board, so far as applicable. The judgment has the same effect as a judgment in relation to irrigation district bonds under the provisions of Division 11 of the Water Code. The board may use the same procedure to validate the creation of the district and any annexations thereto.

Sec. 98. An issue of bonds is hereby defined to be the aggregate principal amount of all of the bonds authorized to be issued in accordance with a proposal submitted to and approved by the electors of the district, but no indebtedness will be deemed to have been contracted until bonds shall have been sold and delivered and then only to the extent of the principal amount of bonds so sold and delivered.

Sec. 99. The board may, in its discretion, divide the aggregate principal amount of such issue into two or more divisions or series and fix different dates for the bonds of each separate division or series. In the event any authorized issue is divided into two or more divisions or series, the bonds of each division or series may be made payable at such time or times as may be fixed by the board separate and distinct from the time or times of payment of bonds of any other division or series of the same issue.

Article 6. Revenue Bonds

Sec. 105. Proceedings for the authorization, issuance, sale, security, and payment of revenue bonds of the district shall be conducted in substantial accordance with and with like legal effect as is now or hereafter provided in the Sanitation, Sewer and Water Revenue Bond Law of 1941.

Sec. 106. The board shall have and exercise for the district the powers and duties of local agencies under the said law, and the bondholders shall have the rights and remedies therein provided.

Sec. 107. The board may guarantee the payment of any part of the principal and interest of said bonds which are not paid for want of sufficient revenues of the enterprise. For that purpose it may pledge all revenues of the district, including tax revenues.

Article 7. Assessment Bonds

Sec. 110. The Municipal Improvement Act of 1913, the Improvement Act of 1911, the Street Opening Act of 1903 and the Improvement Bond Act of 1915 are applicable to the district.

Sec. 111. In its resolution of intention adopted pursuant to any of the acts mentioned in Section 110, the board may determine and declare that bonds will be issued and paid, and the assessments therefor levied, collected and augmented in accordance with the applicable provisions of Sections 14, 15, 16. 17, 20, 21, 22, 24, 25, 26, 27, and 28 of the Refunding Assessment Bond Act of 1935, as now or hereafter provided, in which case the applicable provisions of said act are incorporated herein and made a part hereof by reference. Appropriate changes shall be made in the form of the bond to show that it is for a public improvement or acquisition under this act.

The list of unpaid assessments shall be filed, noticed, heard, and the bonds ordered issued, interest shall accrue from the date, the assessments thereafter paid before maturity, bonds called, premium paid, and illegal assessments and bonds reassessed, all as provided in the Improvement Bond Act of 1915. The bond shall be entitled "Improvement Bond." The provisions for payment of the bond before maturity, as contained in the bond form in the Improvement Bond Act of 1915, shall be inserted in the place of the similar provision in said refunding bond form. There shall also be inserted in the bond form after the title of the refunding act the words "as modified in the Fairfield-Suisun Sewer District Act."

Sec. 112. The improvements authorized to be constructed or acquired by this article are restricted to those permitted to be constructed or acquired by the district under Article 4 of this act.

Sec. 113. Notwithstanding the provisions of any act to the contrary, it shall not be necessary to obtain the consent of either of the cities to conduct assessment proceedings. It shall only be necessary to record the assessment in the office of the district engineer and in the office of the county' surveyor or county engineer of the county. No assessment or bond hereafter levied or issued shall become a lien and no person shall be deemed to have notice thereof until a certified copy of said assessment and the diagram thereto attached shall be recorded in the office of the district engineer and in the office of the county' surveyor or county engineer of the county'.

Sec. 114. Division 4 of the Streets and Highways Code shall not apply to proceedings under this act.

Article 8. Finances and Taxation

Sec. 120. The lien for taxes for the first fiscal year after the district is formed shall attach on the first Monday in March or on the date the district is created, whichever is later.

Sec. 121. Annually, at least 15 days before the first day of the month in which the board of supervisors is required by law to levy the amount of taxes required by law for county purposes, the board shall furnish to the board of supervisors a written statement of the following:

1. The amount necessary to pay the interest on bonds for that year, and the portion of the principal that is to become due before the time for making the next general tax levy.

2. The amount necessary to maintain, operate, extend, or repair any work or improvements of the district, and to defray ail other expenses incidental to the exercise of any of the district powers or to pay any existing obligations of the district.

Sec. 122. The board of supervisors shall at the time and in the manner of levying other county taxes, levy and cause to be collected a tax upon the taxable property in the district, based upon the last equalized assessment roll of the county, sufficient to pay the amounts set forth in the statement of the board.

Sec. 123. If the board fails to furnish the written statement, the board of supervisors shall ascertain the amount necessary to pay the interest on the bonds for that year and the portion of the principal mat is to become due before the proceeds of the next general tax levy shall become available, and shall levy and cause to be collected the amount.

Sec. 124. The tax shall be collected at the same time and in the same manner as the general tax levy for county purposes, and when collected shall be paid into the county treasury of Solano County to the credit of the proper district fund, as provided in Article 9 hereof. The board shall control and order its expenditure.

Sec. 125. The tax is a lien on all property within the district and of the same force and effect as other liens for taxes, and its collection may be enforced by the same means as provided for the enforcement of liens for state and county taxes.

Sec. 126. The principal and interest on district bonds shall be paid by the treasurer in the manner now or hereafter provided by law for the payment of principal and interest on the bonds of the county.

Sec. 127. Compensation to the county for the performance of services described in this article is hereby fixed at one-half of 1 percent of all money collected for the district.

Sec. 128. Sections 54900 to 54903, inclusive, of the Government Code shall not apply to the district.

Article 9. Funds

Sec. 150. There is created in the treasury of ~~either of the cities, or of~~ the district, as determined by the board, a fund entitled the "Fairfield-Suisun Sewer District General Fund."

Sec. 151. The proceeds of the sale of revenue bonds or general obligation bonds or proceeds of special assessments levied by the board shall be deposited with the treasurer and shall be by him placed in the fund to be called the "Fairfield-Suisun Sewer District Construction Fund No._." (inserting number)

Sec. 152. The money in any construction fund shall be used for the purpose indicated in the resolution calling the election upon the question of the issuance of bonds, or for the purpose described in the resolution of intention in the assessment proceedings, or for repayment of money borrowed for the purpose of financing the improvement for which bonds were subsequently issued, or the assessment levied, and for no other purpose, except that any money in the construction fund determined by resolution of the board to be in excess of the amounts required for completion of the improvement authorized may, by the resolution so determining, be transferred to any other fund of the district and be used for any lawful purpose.

Sec. 153. There is created, at the discretion of the board, in the district treasury ~~or in the treasury of either city~~a fund called the "Fairfield-Suisun Sewer District Bond Fund, Series _____," (inserting series number) in which the treasurer shall keep money levied by the board for that fund.

Sec. 154. No part of the money in the bond fund may be transferred to any other fund or be used for any purpose other than the payment of principal and interest of the bonds of the district, or for repayment of money borrowed for the purpose of paying the principal and interest of the bonds of the district, until said bonds are fully paid, at which time it may be transferred to any other fund.

Sec. 155. The budget laws do not apply to the district.

Sec. 156. The district treasurer or any other person authorized by the district board to fulfill the treasurer's duties shall give bonds to the district conditioned for performance of their duties, fixed and approved by the governing body and that premium paid by the district.

Sec. 157. Any investments made by the Fairfield-Suisun Sewer District shall be performed pursuant to Article 1 (commencing with Section 53600) of Chapter 4 of Part 1 of Division 2 of Title 5 of the Government Code.

Article 10. Urgency

Sec. 160. The purpose of this act is to form the Fairfield-Suisun Sewer District in order that the area benefited may be served with sewer and storm drain facilities; special facts and circumstances, applicable to the area in which the district lies and not generally, makes the accomplishment of this purpose impossible under existing general laws, and therefore special legislation is necessary. The special facts are as follows:

(a) The area has no facilities for the treatment and disposal of sewage and is consequently contaminating and polluting the waters of Suisun Bay.

(b) Recent increases have resulted in a population disproportionate to the assessed valuation of taxable property in the area, and construction of adequate facilities cannot therefore be financed within the framework of existing general laws.

(c) The area is of strategic importance during times of war or threatened war because of the proximity of the Travis Air Force Base, formerly known as the Fairfield-Suisun Army Air Base, center of military air operations on the Pacific Coast. Influx of military men and their families has greatly aggravated the problem of sewage disposal in the area.

Sec. 161. This act is an urgency measure necessary for the immediate preservation of the public peace, health or safety within the meaning of Article IV of the Constitution and shall take effect immediately. The facts constituting such necessity are:

Water pollution and contamination are critical problems in the proposed district. State and local health authorities are agreed on the urgent need for immediate sewage treatment facilities in the area if a serious health condition is to be avoided. Inadequacy of existing law makes it necessary that this legislation take immediate effect so that necessary facilities may be provided.

FAIRFIELD-SUISUN SEWER DISTRICT
RESOLUTION NO. 2019-08

A RESOLUTION APPROVING THE FAIRIFELD-SUISUN SEWER DISTRICT AS SPONSOR OF AB 530 AND SUPPORT OF AB 530

WHEREAS, the Fairfield-Suisun Sewer District (District) was established pursuant to the Fairfield-Suisun Sewer District Act, Chapter 303, Statutes of 1951 (the Enabling Act) to provide collection, treatment, and disposal for sewage to the cities of Fairfield and Suisun City; and,

WHEREAS, the District has evolved since the adoption of Enabling Act in 1951 and through legislation in 1959, 1963, 1985, 1992, 1997, 2001, and 2002 has modified sections of the Enabling Act to incorporate organizational and other changes; and,

WHEREAS, property owners in Middle Green Valley Specific Plan area in the unincorporated area of Solano County have sought legislative changes to the Enabling Act to allow these areas to receive sewer services from the District; and,

WHEREAS, in February 2018 the District approved Resolution 2018-02 supporting the proposed changes; and,

WHEREAS, California Assemblywoman Aguiar-Curry introduced AB 530 to amend the Enabling Act; and,

WHEREAS, in February 2019, the Fairfield City Council, the Suisun City Council, and the Solano County Board of Supervisors approved resolutions supporting the District's changes to the Enabling Act.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE FAIRFIELD-SUISUN SEWER DISTRICT:

1. Agrees to be the Sponsor of AB 530
2. Supports AB 530 as written
3. The General Manager is hereby authorized and directed to do all things necessary and proper to implement this resolution.

PASSED AND ADOPTED THIS 25th day of March 2019, by the following vote:

AYES: Directors Adams-Bertani-Day-Moy-Price Segala-Timm-Vaccaro-Williams-Wilson

NOES: Directors Day

ABSENT: Directors

President

ATTEST:

District Clerk

Plan for Providing Services

Plan of Services:

The purpose of the plan of services is to describe the service demand to be generated within the affected area once it is fully developed based on zoning/pre-zoning and indicate how that demand will be met. Generally this plan of services matrix is applicable to city proposals. For special districts, only those services provided by the agency apply. Please keep in mind each proposal is unique. In some cases, staff might request additional information. Conversely, in some cases, some information might not be available or required. Please consult with LAFCO staff prior to submittal.

Provided is a checklist of information to be included in the narrative for plans of services.

Wastewater Services

This information must be provided unless (a) the subject agency territory is substantially built out and there is no change in service provider; or (b) there is no change in service provider and there is no change in land use designations.

☐ Indicate the treatment demand to be generated by the proposal area.

Table 4-3 below from the MGVSP identifies the wastewater generated in the MGVSPA that will flow into the FSSD system

	Water			Wastewater	
	Units	Unit Demand (AFY)	Total Demand (AFY)	Unit Demand (AFY)	Total Demand (AFY)
Residential (units)	400	0.34	136.0	0.25	100.00
Secondary Res. (units)	100	0.17	17.0	0.13	13.00
Chapel (seats)	200	0.09	17.2	0.05	1.00
Meeting Hall/Farm Stand (acres)	0.069	1.73	0.12	1.52	0.10
Community Rec Center (acres)	0.184	1.50	0.28	1.32	0.24
Conservancy/Post Office (acres)	0.057	1.50	0.09	1.32	0.08
School (students)	300	0.02	4.95	0.01	4.36
Commodity Processing, Commercial Nurseries (acres)	1.148	1.00	1.15	0.88	1.01
Ag. Tourism Retail (acres)	0.230	1.73	0.40	1.52	0.35
Inn (rooms)	25	0.15	3.75	0.13	3.25
Winery Production (cases of wine)	100,000	0.00004	4.42	0.00002	2.21
Neighborhood Commercial (acres)	0.230	1.73	0.40	0.88	0.20
Total Annual Water Requirements		185.7		134.8	

Table 4-3: Total Water Demand Forecast for Middle Green Valley

☐ Describe how wastewater services are currently provided to the proposal area.

Each property has on-site treatment (septic) and there are no services currently provided by a wastewater service provider

☐ If existing development is on septic systems, under what circumstances will sewer connection be required?

Existing development on septic systems will not be required to connect to services; however, it would be an option that may be elected by the landowner. All new development proposed in the MGVSPA will be required to connect to sewer services pursuant to applicable Solano County permitting requirements.

☐ Provide a thorough description of the level and range of the service to be provided to the proposal area.

An onsite collection system will be constructed and connected to the existing FSSD sewer system. The wastewater that is generated from each property that develops in accordance with the MGVSP will be conveyed from the structure through the MGV sewer system to the FSSD sewer system. Wastewater will be conveyed by FSSD to the FSSD treatment plant for treatment in accordance with all local, state, and federal requirements.

☐ Describe wastewater treatment capacity versus existing treatment volumes.

The capacity of the wastewater treatment plant has been established by the California Regional Water Quality Control Board at 23.7 million gallons per day(mgd)[1]. The average dry weather influent flow for 2019 was approximately 11.0 mgd.

☐ Describe existing facilities in relation to the proposal area.

FSSD operates a wastewater treatment plan approximately four miles southeast of the Specific Plan Area.

☐ Will new facilities or expansion be required to service the proposal area?

In 2020, FSSD completed a Wastewater Collection System Master Plan and included analysis of the impacts based on MGVSP Table 4-3 projections. The master plan reports no expansion of the FSSD sewers will be required to service MGVSPA.

The wastewater flow projection of 134.8 acre-feet per year of wastewater flow converts to 0.12 mgd and no expansion of the treatment plant will be required for that flow.

☐ When can the service be feasibly extended to the affected territory?

[1] Published capacity is declared under the Average Dry Weather Flow condition

The District is prepared to serve once the MGV sewer is complete and connected to the FSSD sewer. There already exists a FSSD 12-inch main in Green Valley Road approximately one quarter mile south of the Specific Plan Area boundary.

☐ Provide illustrative maps showing the District facilities (i.e. existing/proposed sewer lines) in relation to the proposal area.

Exhibit 9 provide a map of the closest FSSD Sewer to MGVSPA in the vicinity of Westlake Rd and Green Valley Road.

Financial Information

☐ Cost for connection (i.e. sewer line extensions). Provide the estimated cost of extending the service including a description of how the service will be financed.

The cost of building the lateral sewer and MGV sewers will be the responsibility of the onsite infrastructure improvements born by the landowners in the MGVSPA. FSSD collects a capacity charge for each connection the FSSD of $6,281 per equivalent dwelling unit.

☐ Please identify each tax, assessment, and or fees that will be applicable to the specific plan area.

FSSD has a rate schedule for each customer type that uses the system. The FSSD charge is a reoccurring charge for the cost of operating and maintaining the FSSD system. The current charge is $41.85 per month per residential unit. Commercial customers pay a charge based on water consumption.

☐ What is the anticipated cost annually to each of the homeowners?

Based on the rate for fiscal year 2020/21, the annual charge for a residential customer is $502.20.

☐ How will the homeowners be charged? (i.e. charge on tax bill, monthly billing, special assessment?)

It is expected FSSD charges for residential will be placed on the Solano County Tax Role, Commercial accounts will be billed directly by FSSD to the customer.

SOLANO LAFCO STANDARDS

STANDARD NO. 1: CONSISTENCY WITH SPHERE OF INFLUENCE (SOI) BOUNDARIES

An area proposed for change of organization or reorganization shall be within the affected agency's Sphere of Influence. An application for change of organization or reorganization for lands outside an adopted Sphere of Influence may be considered concurrently with a request for amendment to the Sphere of Influence, at LAFCO's discretion.

This application is being submitted in accordance with AB 530 (Aguiar-Curry), that was chaptered July 10, 2019, allowing Fairfield Suisun Sewer District to apply for an "Out of Agency Service Contract" (Govt Code § 56133) to accept disposal of sewage that emanates or will emanate from buildings within the Middle Green Valley Specific Plan area. AB 530 waives GC § 56133 (b)'s Sphere of Influence condition, thereby addressing Standard #1.

STANDARD NO. 2: CHANGE OF ORGANIZATION AND REORGANIZATION TO THE LIMITS OF THE SPHERE OF INFLUENCE (SOI) BOUNDARIES

Annexation to the limits of the SOI boundary shall not be allowed if the proposal includes land designated for open space use by the affected city's general plan for city change of organization or reorganization or County General Plan for district change or organizations or reorganization unless such open space logically relates to existing or future needs of the agency. Open space uses which may be located within agency limits include but are not limited to community and city-wide parks, recreational facilities, permanently protected open space lands, reservoirs, and storm water detention basins.

Not applicable as there is no established Sphere of Influence for FSSD and AB 530 establishes a specific process for FSSD to provide wastewater service to MGVSPA and waives GC § 53166(b)'s Sphere of Influence consideration.

STANDARD NO. 3: CONSISTENCY WITH APPROPRIATE CITY GENERAL PLAN, SPECIFIC PLAN, AREA-WIDE PLAN AND ZONING ORDINANCE

An application for a city change of organization or reorganization which involves the conversion of open space lands to urban use shall be denied by LAFCO if the proposed conversion is not consistent with appropriate city plans (general plans, specific plans, area-wide plans and associated zoning ordinance). The determination of consistency shall be the responsibility of the affected agency, and shall be met by a resolution approved by the agency council certifying that the proposed change of organization or reorganization meets all applicable consistency requirements of State Law, including internal consistency between the agency's adopted plans and the zoning ordinance. In the event that plan consistency is contested, LAFCO shall retain the discretion to determine the consistency question and may require additional environmental information.

As this proposal is to affect changes approved in the MGVSP. And as Section 1.11 of Ordinance 2107-1985, the formal action to approve MGVSP, Solano County Board of Supervisors found the revisions to the MGVSP are consistent with the goals, policies, implementation programs, and other provisions of the Solano County General Plan. Therefore, this proposal is consistent with the Solano County General Plan.

STANDARD NO. 4: CONSISTENCY WITH THE COUNTY GENERAL PLAN OF PROPOSED CHANGE OF ORGANIZATION OR REORGANIZATION OUTSIDE OF A CITY'S SPHERE OF INFLUENCE BOUNDARY

An application for a change of organization or reorganization for lands outside an adopted city Sphere of Influence boundary in unincorporated territory shall be denied by LAFCO if the land use proposed within the affected territory is not consistent with the Solano County General Plan and Zoning Ordinance. A determination of consistency shall be the responsibility of the County, and shall be met by a resolution of the Board of Supervisors certifying that the proposed change or organization or reorganization meets all applicable consistency requirements of State Law, including internal consistency between the County's General Plan and Zoning Ordinance. This Standard shall also be made to apply to proposals for the formation or the incorporation of new agencies within unincorporated territory which lies outside adopted city Sphere of Influence boundaries.

Explanation and Discussion

This Standard is necessary to eliminate potential conflict posed by an agency change of organization or reorganization which is inconsistent with the County General Plan and to provide assurance of General Plan and zoning consistency of proposals for expanding or creating new development areas outside adopted Sphere of Influences.

There no longer is a requirement in State Planning Law that agency and county general plan policies for areas within a city's Sphere of Influence be consistent. Where conflicts exist between an agency and the County, sound planning practices suggest that the agency and County resolve their differences so that the general public is not confused.

Required Documentation

This standard requires that for district changes of organization or reorganizations in unincorporated territory outside cities' Sphere of Influence, the applicant submit copies of the resolution approved by the Board of Supervisors which certifies that the proposed change of organization or reorganization is consistent with the Solano County General Plan and Zoning Regulations.

Specifically, Fairfield Suisun Sewer District application addresses and is consistent with Solano County General Plan's Public Facilities and Services policies that are included in the Middle Green Valley Specific Plan, including:

- *PF. P3 - "Increase efficiency of water, wastewater, stormwater, and energy use through integrated and cost-effective design and technology standards for new development and redevelopment."*

- *Pf. P-21 – "Sewer services for development within the unincorporated area may be provided through private individual on-site sewage disposal systems, or centralized community treatment systems managed by a public agency utilizing the best systems available that meet tertiary treatment or higher standards. Use of such centralized sewage treatment systems shall be limited to: (1) existing developed areas, (2) areas designated for commercial or industrial uses, or (3) areas designated for rural residential development when part of a specific plan or policy plan overlay.*

- *"PF. P-22 - Ensure that new and existing septic systems and sewage treatment systems do not negatively affect groundwater quality."*

In conclusion, as this application is to affect changes approved in the MGVSP and as Section 1.11 of Ordinance 2017-1985 (the formal action to approve MGVSP), Solano County Board of Supervisors found the MGVSP is consistent with the goals, policies, implementation programs, and other provisions of the Solano County General Plan. Therefore, this application is consistent with the final revised Solano County General Plan.

STANDARD NO. 5: REQUIREMENT FOR PRE-APPROVAL

Prior to approval by LAFCO of a city change or organization or reorganization, the affected agency shall have approved, a specific plan, pre-zoning or an equivalent providing similar detail of information on the proposed land use for the affected territory and where the change of organization or reorganization process is clearly described. Prior to approval by LAFCO of a district change of organization or reorganization, the affected agency shall pass a resolution supporting the proposal.

.Explanation and Discussion

Government Code Section 56375(a)(6) prohibits LAFCO from imposing "any conditions that would directly regulate land use density or intensity, property development, or subdivision requirements." Section 56375(a) (7), however, does require prezoning as a method to determine future land use, and consequently, to gauge the change of organization or reorganization's impact on service delivery and conversion of open space lands and agency support for the proposal. LAFCO, however, may not specify how or in what manner territory shall be prezoned.

A District change of organization or reorganization does not require pre-zoning. Pre-approval of the proposal shall be demonstrated in a resolution supporting the change of organization or reorganization from the affected agency governing board or a letter of support from the chief administrative officer of the affected agency.

Required Documentation

This standard requires that an application for a city change of organization or reorganization shall be accompanied by copies of the agency's ordinance prezoning the affected territory or a copy of a specific

plan or equivalent and resolution of adoption. Applications for district change of organization or reorganization shall be accompanied by a copy of agency's resolution supporting the proposal.

The proposed land use for the affected territory and the change of organization or reorganization process is clearly described in MGVSP that was approved by Solano County Board of Supervisors on August 8, 2017 by Ordinance 2107-1985.

Specifically, Fairfield Suisun Sewer District application addresses and is consistent with Solano County General Plan's Public Facilities and Services policies that are included in the Middle Green Valley Specific Plan, including:

- *PF. P3 - "Increase efficiency of water, wastewater, stormwater, and energy use through integrated and cost-effective design and technology standards for new development and redevelopment."*

- *Pf. P-21 – "Sewer services for development within the unincorporated area may be provided through private individual on-site sewage disposal systems, or centralized community treatment systems managed by a public agency utilizing the best systems available that meet tertiary treatment or higher standards. Use of such centralized sewage treatment systems shall be limited to: (1) existing developed areas, (2) areas designated for commercial or industrial uses, or (3) areas designated for rural residential development when part of a specific plan or policy plan overlay.*

- *"PF. P-22 - Ensure that new and existing septic systems and sewage treatment systems do not negatively affect groundwater quality."*

In conclusion, as this application is to affect changes approved in the MGVSP and as Section 1.11 of Ordinance 2017-1985 (the formal action to approve MGVSP), Solano County Board of Supervisors found the MGVSP is consistent with the goals, policies, implementation programs, and other provisions of the Solano County General Plan. Therefore, this application is consistent with the final revised Solano County General Plan.

STANDARD NO. 6: EFFECT ON NATURAL RESOURCES

An application for annexation shall describe the amount of land involved, and the land, water, air, and biological resources affected, including topography, slope, geology, soils, natural drainages, vegetative cover, and plant and animal populations. Effects to be covered include those which will be both positive and negative and the means proposed to offset potential negative impact. LAFCO shall certify that provisions of the Solano LAFCO Environmental Guidelines for the Implementation of the California Environmental Quality Act have been complied with.

Explanation and Discussion

This Standard may already be reflected in studies provided as part of a city's adoption of a General Plan and is akin to the analysis of impacts and mitigation measures which ordinarily are revealed in an

environmental assessment or environmental impact report.

The State of California Local Guidelines for Implementing the California Environmental Quality Act as currently amended has been adopted by Solano LAFCO Resolution and incorporated by reference as the Solano LAFCO Environmental Guidelines.

Required Documentation

This Standard requires that the applicant submit copies of the environmental documentation adopted or certified by the lead agency and copies of the resolution making the required environmental findings, adopting the Negative Declaration or Certifying the EIR, and making any Statement of Overriding Considerations.

MGVSPA consists of approximately 1,910 acres: 78% (1,490 acres) is designated as permanent open land (of which approximately 440 acres would be preserved as working agriculture), and; 22% (420 acres) is designated for development, in a "neighborhood framework," (each neighborhood having a designated informal pattern of rural roads, residential building types, and community buildings).

On July 27, 2010, the Board of Supervisors certified an Environmental Impact Report and enacted Ordinance No. 2010-1708, adopting the Middle Green Valley Specific Plan. Pursuant to a Writ of Mandate issued by the Superior Court in Upper Green Valley Homeowners v. County of Solano, et al. (Solano County Superior Court Case No. FCS036446), the Board of Supervisors enacted Ordinance No. 2012-1729 on June 5, 2012, vacating its 2010 adoption of the Middle Green Valley Specific Plan. In response to the Superior Court's ruling, the County conducted further environmental review and revised the Environmental Impact Report for the Middle Green Valley Specific Plan Project.

On October 25, 2016, the Board of Supervisors certified the revised Environmental Impact Report and enacted Ordinance No. 2016-1778, readopting the Middle Green Valley Specific Plan as originally adopted in 2010 together with minor revisions to the Plan considered and approved by the Board in 2014. Included in Exhibit 1 to Resolution No. 2016-1778's "CEQA of FNDINGS OF FACT and STATEMENT OF OVERRIDING CONSIDERATIONS for the MIDDLE GREEN VALLEY SPECIFIC PLAN PROJECT" are EIR mitigation measures.

EIR Mitigation Measure 16-4 considered three options for wastewater service: 1. Connection of the Specific Plan development area to the FSSD via an existing City of Fairfield conveyance system; Option 2) establish an onsite wastewater collection and treatment system to service the area, and; Option 3) establish an onsite wastewater treatment plant in combination with connection to the FSSD wastewater treatment/conveyance services.

This application is in response to availability of option 1 or option 3 services which identify FSSD. Importantly, utilizing FSSD reduces the impact to less than significant.

DISCRETIONARY STANDARDS

STANDARD NO. 7: ESTABLISHING PROPOSAL BOUNDARIES, MAP AND GEOGRAPHIC DESCRIPTION REQUIREMENTS, OTHER REQUIRED MAP EXHIBITS

Explanation and Discussion

This Standard sets forth guidelines for establishing the boundaries of proposals. The Legislature has delegated the authority to determine the boundary of any proposal to local LAFCOs. The purpose of this Standard is to assure planned, orderly, and efficient patterns of urban growth by when possible, avoid: annexing or detaching portions of parcels, avoid conditions that would make the annexation of adjacent parcels difficult at a later date, and avoid excluding parcels that are necessary to promote efficient patterns of urban growth. Inconsistencies with any of these requirements need to be thoroughly explained and justified.

ESTABLISHING PROPOSAL BOUNDARIES

District Proposals:

Solano LAFCO shall consider the following as factors favorable to approval of a district change of organization or reorganization:

A. The proposal would not create irregular or illogical configuration of existing district(s) boundaries.

B. The proposal considers the effect on adjacent incorporated and/or unincorporated communities of interest.

C. The proposal considers and identifies the financial effects to the subject agency(ies).[1]

MAP AND GEOGRAPHIC DESCRIPTION REQUIREMENTS:

LAFCO requires a sound boundary description that is acceptable to the Solano County Surveyor.

OTHER REQUIRED MAP EXHIBITS:

1. A map exhibit showing the relationship of the proposal area to an adjacent city and its sphere of influence.

2. A map exhibit showing the relationship of the proposal area to an adjacent affected special district(s) and their sphere of influence(s).

[1] **An example is a proposed detachment from the Solano Irrigation District where the property involved is a party to the indebtedness of Monticello Dam and its irrigation facilities. In such an event, LAFCO shall impose detachment fees in accordance with a formula agreed upon with SID (or other district in a similar situation) to assure equity in meeting financial obligations of the district.**

STANDARD 7 ATTACHMENT A

SOLANO LAFCO MAP REQUIREMENTS

GENERAL: LAFCO requires a map and geographic description that is acceptable to the Solano County Surveyor.

REVIEW REQUIREMENT: The Map must be reviewed for form, content, and accuracy. Prior to preparation, please contact LAFCO if the engineer or surveyor has not previously prepared a map for LAFCO. All maps will have to be by the County of Solano Surveyor.

COVER SHEET REQUIREMENTS:

- ☐ **Title**
  - ☐ **"Exhibit A"**
  - ☐ **Project No. (as designated by LAFCO)**
  - ☐ **Project Name (as named by LAFCO)**
  - ☐ **Number of pages by exhibit identified.**
- ☐ **Area for LAFCO Executive Officer signature and date approved.**
- ☐ **Include the following statement: "This description and exhibit of the (insert name of project) boundary, it is not a legal property description as defined in the Subdivision Map Act and may not be used as a basis for an offer for sale of the land described. It is for assessment purposes only."**

MAP REQUIREMENTS:

- ☐ **Heading with "Exhibit A," project number, project name, number of pages.**
- ☐ **Property description (A portion of the __¼ of Section___, T. ___N., R. __E., M.D.M., and/or rancho, and optional: Lot, Tract, Map Name and Recorded Book, and Page)**
- ☐ **City, County, and State**
- ☐ **Month and Year**
- ☐ **No un-necessary data shown on map.**
- ☐ **All data on 8½"x11" Exhibit readable (½" border all around)**
- ☐ **Include a vicinity map and show the location of the project area in relationship to a larger geographic area that includes major streets and highways and other physical features.**
- ☐ **Include a scale and north arrow.**
- ☐ **Show and identify any portion of an existing district boundary in close proximity to the project area.**
- ☐ **Clearly show the point of beginning.**
- ☐ **Line Type (New-solid and most predominant line, road/easements-dashed, others-broken) (all lines in black ink and cannot exceed 1.5 millimeter in width)**
- ☐ **Clearly show all existing streets, roads, and highways with their current names that are within and adjacent to the project area.**
- ☐ **Indicate each township and range, section lines and numbers, or ranchos that are in proximity of the project area.**
- ☐ **All dimensions needed to plot the boundaries must be given on the map of the project area.**
- ☐ **All parcels within the project area shall be clearly labeled with the assessor's parcel number.**
- ☐ **If more than one map sheet is needed, provide a key map giving the relationship of**

all sheets. Match lines between adjoining sheets must be used. The geography on adjoining sheets may overlap, the project boundaries must stop at the match lines.