

POLICY PLANNING
URBAN DESIGN
ENVIRONMENTAL REVIEW
HISTORIC PRESERVATION
COMMUNITY ENGAGEMENT
STAFFING SOLUTIONS
GIS SERVICES



*at the intersection of
geographic information systems
+ urban planning*

GIS SERVICES

a new design on urban planning

m-group.us

// *M-Group has been amazing to work with on our mapping and graphics needs for our Land Use Plan update. The attention to detail, responsiveness to our often last-minute needs, and high quality work has been so appreciated and well-received by our staff, community, and decision-makers.* **//**

— Brittney Cozzolino
City of Half Moon Bay

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Development and conservation work in today's world can leave one inundated with information. To help navigate the deep waters of San Francisco Bay Area planning, M-Group offers geographic analysis using ArcGIS Pro, the world's leading technology in geographic information systems (GIS).

M-Group's mapping services provide integrated data analysis and management with policy insight to better support your ongoing work. With a regional perspective and local focus, we coordinate data across many fields to deliver well-informed analysis to the decisions affecting our cities and neighborhoods.

MAP PRODUCTION

ArcGIS Pro's powerful tools utilize data from an extensive system of drones, satellites, aerial, video, and LiDAR to manage and analyze imagery, identify trends, and produce maps to aid in evaluation, decision making, and communication.

M-Group's GIS Team produces **efficient, well-designed mapping products** for common planning projects including:

- General Plans
- Specific Plans
- Project Plans
- Local Coastal Plans
- Community Engagement
- CEQA
- ... and more

What we do:

- Design a consistent, attractive, reusable template for all your maps
- Utilize the best possible existing data from authoritative data sources
- Create new data sets based upon public feedback and information gaps in planning assessments
- Publish maps in easily accessible web and print formats
- Develop spatial projections of policies that would impact the built environment and other aspects of the planning area



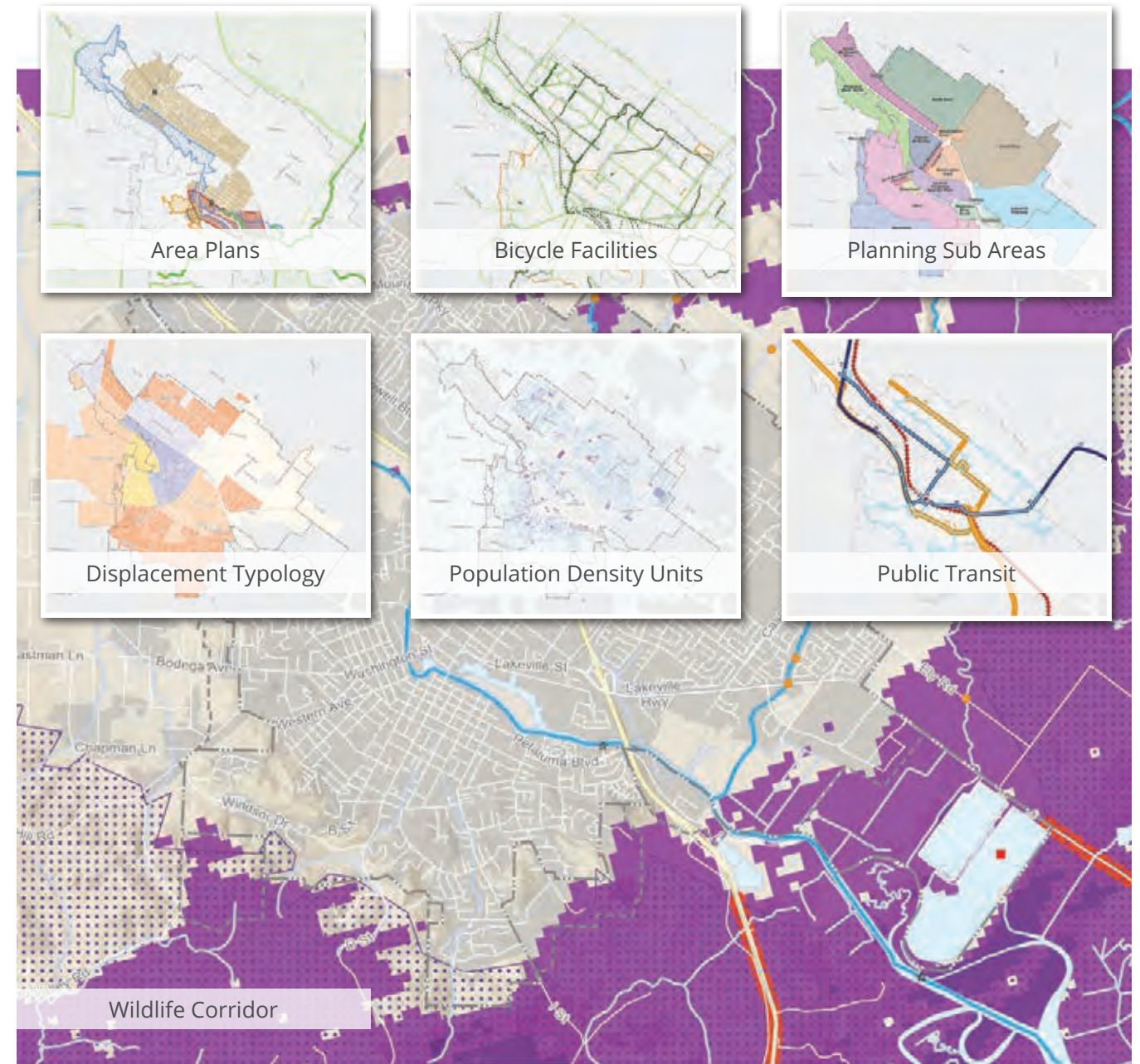
EXISTING CONDITIONS ASSESSMENT

Data visualization can be used to understand variables such as median age and median income, explore consumer and other types of behaviors, and study patterns of diversity.

An **Initial Project Conditions Assessment** provides an early evaluation of local issues to consider within a planning project area.

M-Group will develop a comprehensive set of maps evaluating local demographic characteristics, transportation system, economy, housing stock, natural environment, and other relevant variables.

These maps enable planners, decision makers and the community to understand and better connect with the planning process.



Map Samples: City of Petaluma General Plan Update

PLANNING APPLICATION
**COMMUNITY
ENGAGEMENT**

*Public-facing maps
help the community
understand current
conditions and proposals
for change.*

Community and Decision Maker

Engagement is an essential part of the planning process, and accessible, informative maps can help the public understand trends in their community as well as opportunities for change during initial project phases.

As projects move towards scenario development and completion, maps and spatial diagrams allow for further understanding and community discussion.

M-Group provides beautiful maps tailored to the engagement needs of all stages of the community engagement process.

Community Engagement Workshop



GIS technology can be used to compile and analyze data on the many factors that affect housing placement, design and intensity, including demographics, economic trends, transportation, and ecological considerations to help cities make equitable and sustainable housing decisions.

Housing Element Site Inventory

M-Group’s site inventory provides a meaningful analysis in consultation with City staff to identify properties with feasible development potential.

Accessory Dwelling Unit Capacity

We can provide an assessment of parcels with potential for Accessory Dwelling Units (ADU). We evaluate single-family properties within a jurisdiction for their current land use, building coverage requirements, slope, and parking requirements to estimate an appropriately sized ADU.

Development Opportunity Analysis and Project Tracking

M-Group has the ability to overlay land use, zoning, publicly owned land, assesment data, and other regulations to identify underutilized parcels and growth opportunities, identify restrictions for new housing due to environmental issues, and monitor progress made in development over time.



PLANNING APPLICATION
ENVIRONMENTAL
+ CEQA

GIS technology provides planners with heightened visibility into data. Planners can monitor fluctuations over time, evaluate the feasibility of proposed projects and predict their effects on the environment.

Initial CEQA Project Spatial Review

An early assessment of potential CEQA issues in a project can be invaluable — saving time and dollars. M-Group’s Initial CEQA Project Spatial Review results in a list of potential issues in a city’s area of interest based upon valid online mapping sources.

Greenfield Development Evaluation

- Measure important natural, agricultural, and recreational values for considering urban expansion
- Develop environmentally preferable development practices to preserve open space values

Wildlife Corridor Improvement Assessment

- Evaluate wildlife corridor resources, impediments to movement
- Provide context-specific recommendations for city policies to support local wildlife populations

Priority Urban Greening

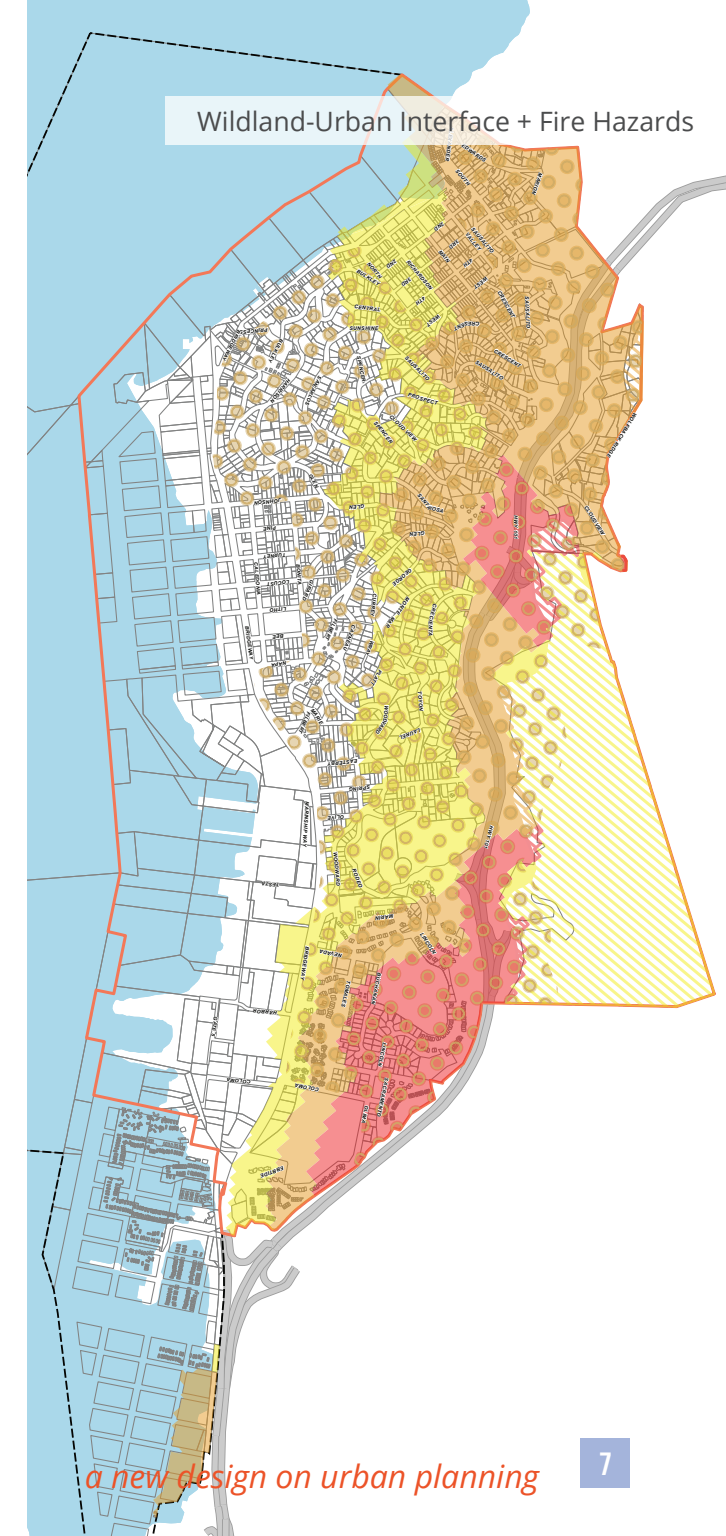
- Measure land use factors that contribute to high land surface temperatures and ground-borne pollution exposure that provide recommendations for urban greening

Policy Gap Analysis for Natural and Agricultural Values

- Evaluate local policies to steward natural and agricultural resources
- Evaluate proposed policies to enhance protection and resilience of natural and agricultural resources

Climate Change Management

- Evaluate urban and natural environments to assess locations for prioritized investment in areas important to mitigating the impacts of climate change



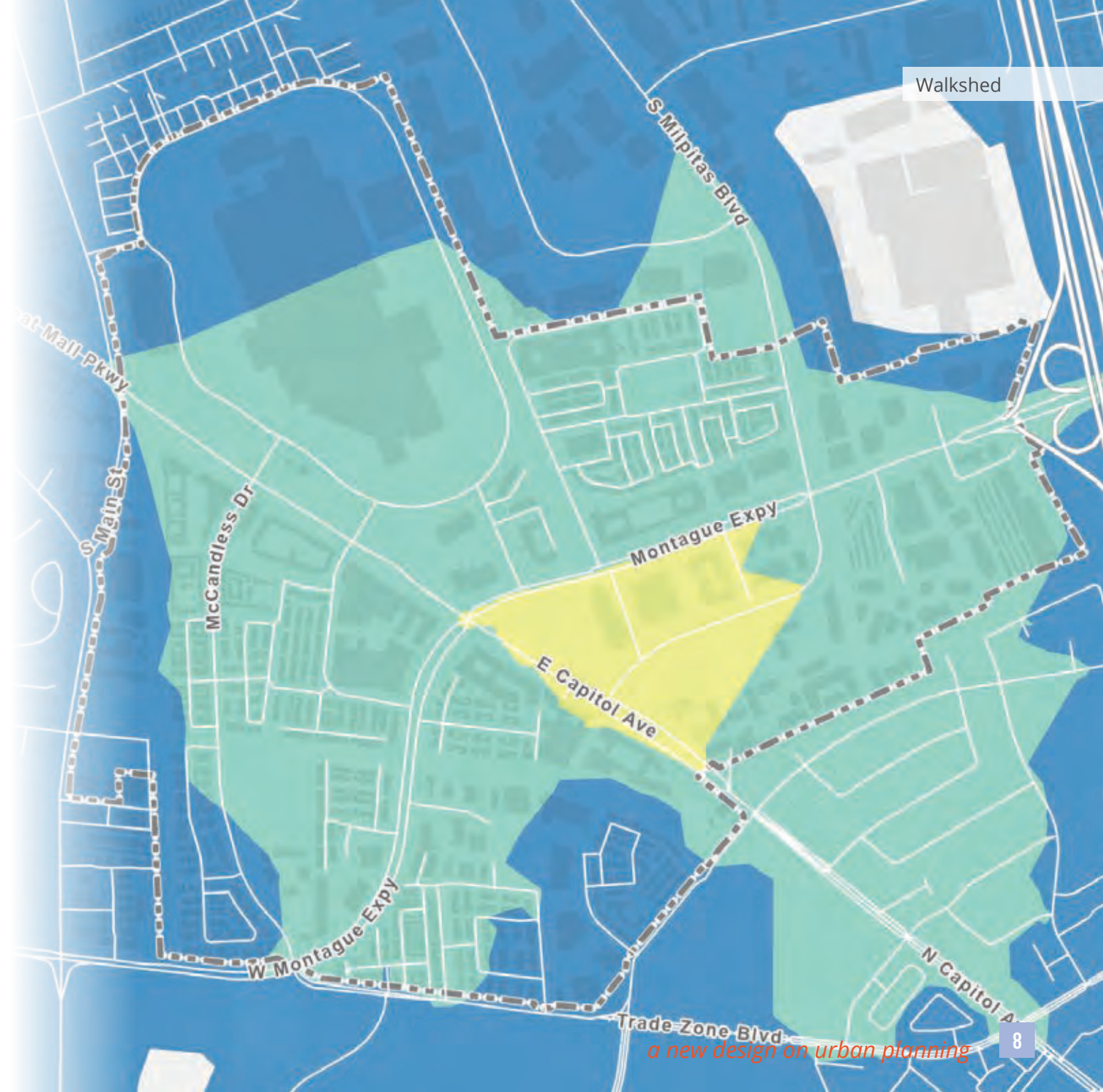
PLANNING APPLICATION
TRANSPORTATION

GIS tools help planners analyze problems more quickly and thoroughly, formulate solutions, and monitor progress toward long-term goals for the community.

With **Travel Distance Modeling** we measure traveling distances by location and mode of travel. M-Group can evaluate walking, biking, and driving accessibility to and from different locations of interest and identify current and future conditions to evaluate improvements to accessibility.

High Injury Corridor Mapping affords us the ability to measure traffic accidents by location and mode of travel; evaluate walking, biking, and driving accidents by frequency; as well as normalize accidents by daytime population and traffic volume.

Utilizing GIS tools M-Group can examine opportunities for jurisdiction-wide multi-modal **Transportation Networks** by evaluating current and planned conditions for roadways, side walks, multi-use pathways, walking and biking facilities, and facility-specific improvement.



PLANNING APPLICATION
ECONOMY

M-Group can conduct **Commercial Corridor Assessments** to evaluate a jurisdiction's potential for office and retail locations for prioritized investment in areas important to economic development.

Scenario Development and Evaluation: Utilizing data from ArcGis Urban or city-owned Urban Footprint, taking in to account community feedback, we analyze and evaluate a city's development potential and present the City with **Development Scenarios** including tracking essential indicators that best help meet the city's planning goals.

The fusion of geographic information and financial data can identify urban areas ready for revitalization.



98th Street Transition Area

Net Acres: 208.13
Existing Zoning: Residential Detached
Suitable primarily for single-family housing with a few community-focused commercial sites.

Projected Development Typology Transition

Distribution Assumptions	
Multi-Family	40%
Townhome	30%
Office	10%
Retail, Freestanding	20%
Retail, Ground Floor ¹	20%
Hotel/Motel	0%

Broadway Corridor

Net Acres: 36.95
Existing Zoning: Community Commercial
Suitable for a wide variety of commercial and institutional operations on major corridors. This zoning focuses on residential and retail uses, with limited hotels, conditional custom manufacturing, and no warehouse use permitted.

Projected Development Typology Corridor Mixed Use: Med-High

Distribution Assumptions	
Multi-Family	70%
Townhome	10%
Office	14%
Retail, Freestanding	5%
Retail, Ground Floor ¹	50%
Hotel/Motel	1%

Existing ²	Land Use	Typology Assumptions			Potential Change Factor	Development		Phasing				
		Density	Acres	Maximum		Potential ³	Net ⁴	2025-2030	2030-2035	2035-2040		
	Residential			du								
253	Multi-Family	80 du/ac	83.13	6,650	0.5	3,325	3,199					
214	Townhome	20 du/ac	62.5	1,250	0.5	625	518					
630	Single-Family	6 du/ac	0	-	-	-	-					
1,097	Total Dwelling Units			7,900		3,950	3,717					
	Commercial			sf								
16,912	Office	2 FAR	21	1,829,520	0.5	914,760	906,304					
57,994	Retail, Freestanding	2 FAR	41.5	3,615,480	0.5	1,807,740	1,778,743					
50,660	Retail, Ground Floor	0.25 FAR	41.5	451,935	0.5	225,968	200,638					
205,560	Industrial	0.5 FAR	0	-	-	-	-					
800,406	Warehouse	0.5 FAR	0	-	-	-	-					
	Hotel/Motel	2 FAR	0	-	0.5	-	-					
32,892	Institutional	1 FAR	0	-	-	-	-					
10,415	Other Non-Residential	1 FAR	0	-	-	-	-					
1,174,839	Total Square Feet			5,896,935		2,948,468	2,885,685					

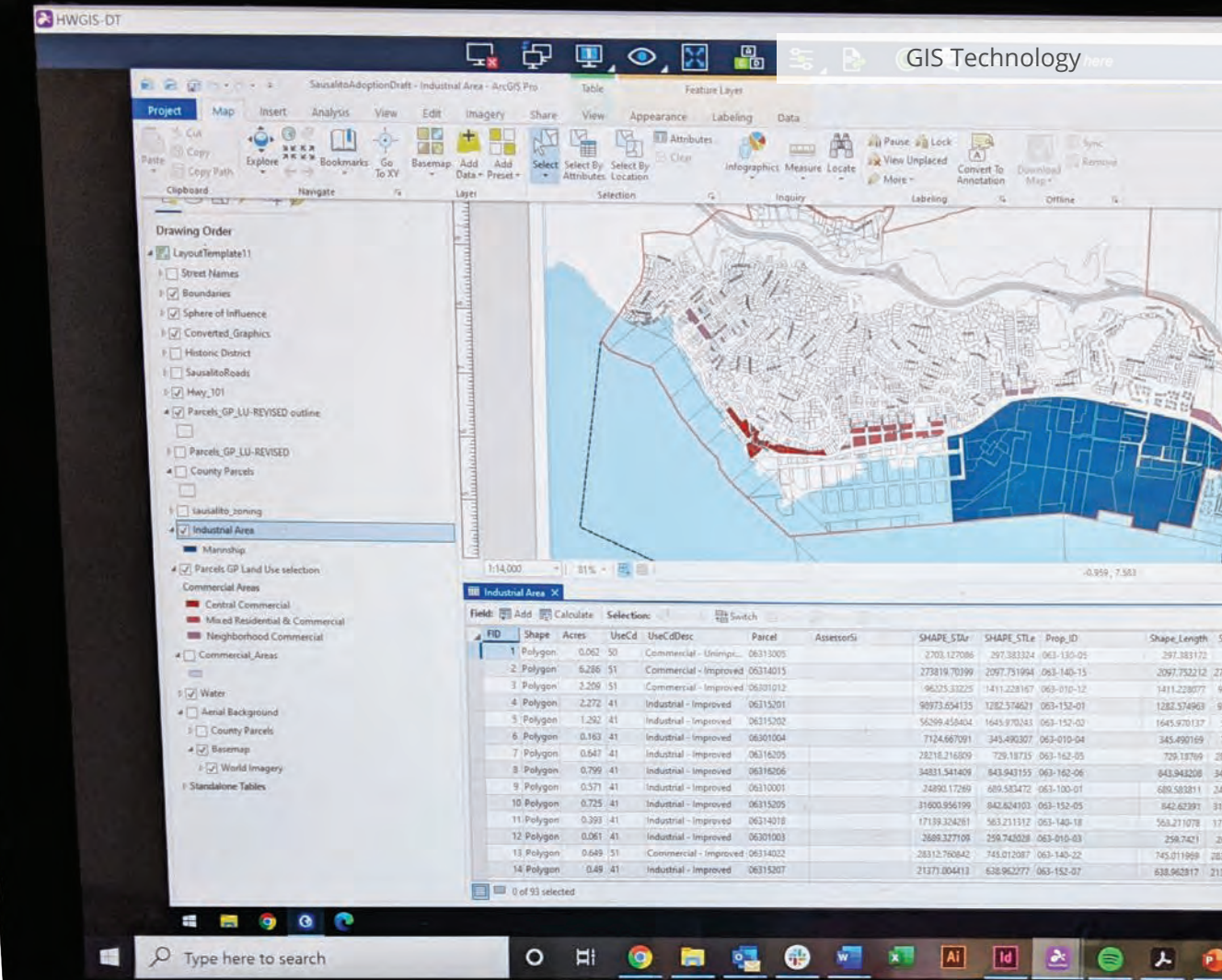
1: Retail Ground Floor Commercial is assumed to be under Multi-Family Residential, and distribution of acreage falls under the distribution of Multi-Family Residential.
2: Source: Alameda County Assessor's Office, updated April 23, 2019.
3: Maximum multiplied by Potential Change Factor.
4: Potential minus (Existing multiplied by Potential Change Factor), except for Single-Family, which remains constant from Existing.

GIS SYSTEM ASSESSMENT

GIS provides planners the ability to better understand current needs for a city, and then develop solutions to fulfill those needs.

When conducting an **Initial Assessment** of a jurisdiction's existing GIS system, M-Group evaluates client needs and develops a proposal of different GIS systems to adopt — systems such as Internal Data Organization, Online Public Sharing Capacity, and Remote On-Call Management for GIS.

The overall evaluation of the current GIS status identifies needs, wants, and wishes so you can prioritize products and services to stay within your budget.



PROJECT EXAMPLES

M-Group's vast experience in providing Bay Area cities and counties with current and long range planning services has provided us the opportunity to demonstrate how GIS can be instrumental in the planning process. The following pages show a sampling of projects in which we have provided GIS services and products.

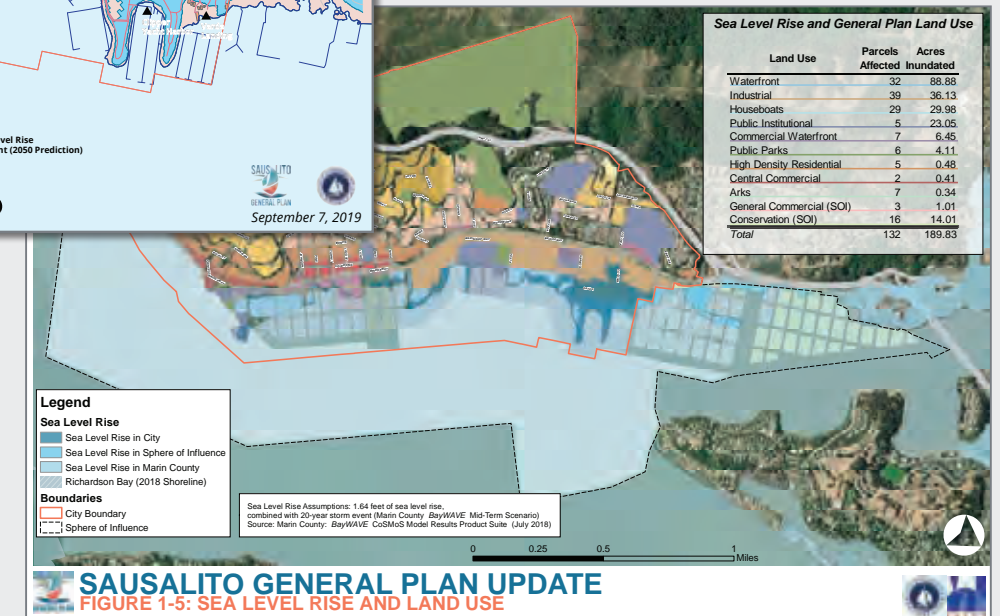
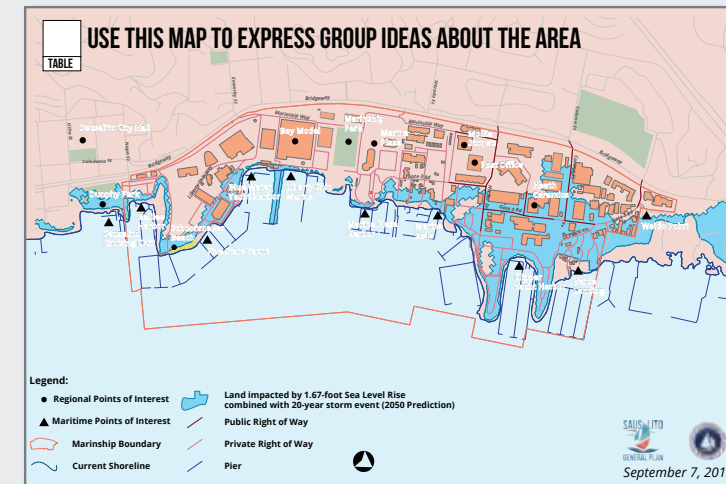
GIS gives us the ability to interweave information from multiple sources, propose options for action, and better visualize probable outcomes, giving planners, community members and decision makers the insight to make strategic decisions for the future of our communities.

GENERAL PLAN UPDATE | CITY OF SAUSALITO

M-Group developed all maps and data visualizations for the General Plan process, using ArcMap and Adobe Illustrator.

Maps were produced to analyze potential growth for general plan buildout and potential effects of sea level rise on the City. Specific maps were established, including one to combine all bicycle routes to visualize future of existing and planned bicycle infrastructure, and large format maps used for public workshops.

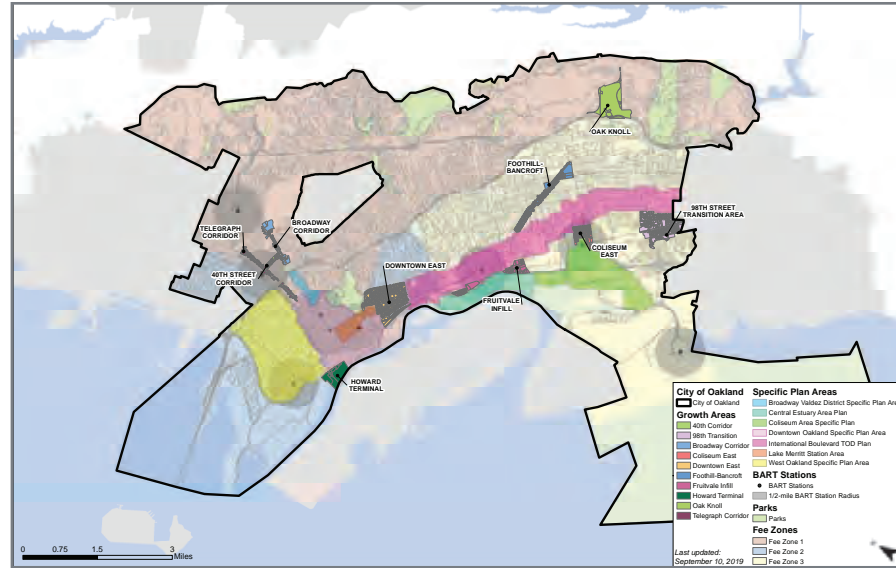
Static Maps, Spatial Data Management, Spatial Data Analysis



REVENUE FORECASTING | CITY OF OAKLAND

M-Group developed a database of Oakland parcels to project future growth by location and typology. Included was a report of approximately 20 growth areas and specific plan areas, as well as static and webmap visuals to identify growth areas and their relationship to each other.

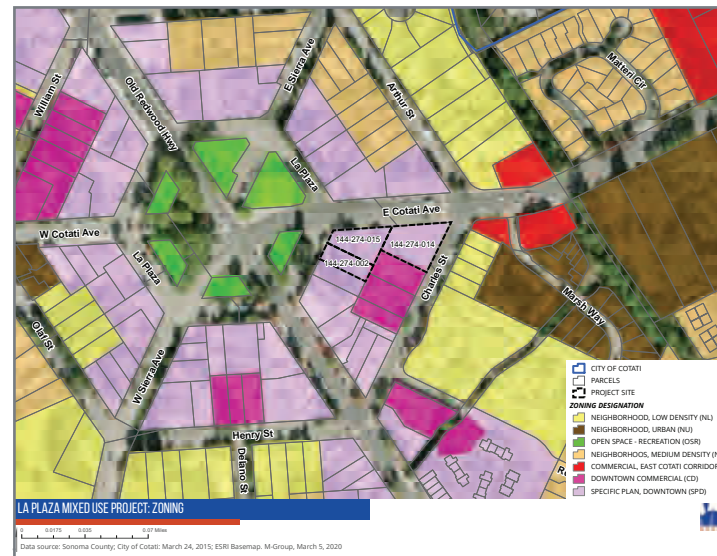
Spatial Data Management, Spatial Data Analysis, Static Maps, Webmap



LA PLAZA VIEW ENVIRONMENTAL REVIEW | CITY OF COTATI

M-Group analyzed impacts for a mixed-use development with approximately 15,160 square feet of ground floor commercial space and 12 residential units above. The 0.85-acre project site would be developed with two mixed-use two-story buildings, onsite and on-street parking, landscaping and ancillary improvements. GIS services included environmental review graphics for site plan, vicinity, regional location, zoning, and general plan land use.

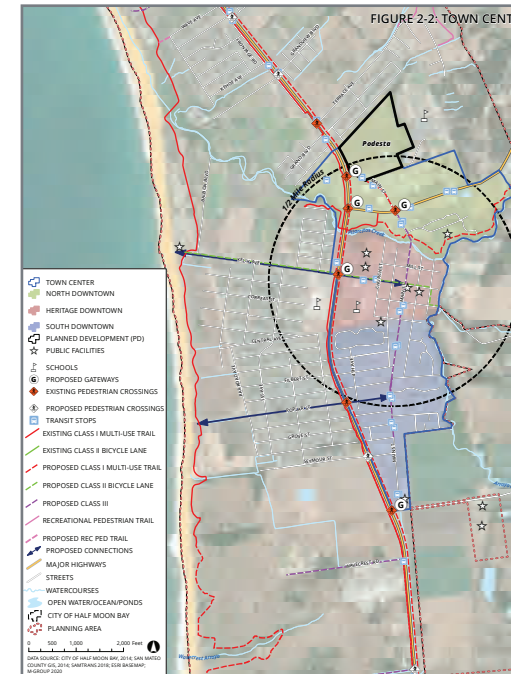
Spatial Data Management, Static Maps



LOCAL COASTAL PLAN UPDATE | CITY OF HALF MOON BAY

The City of Half Moon Bay is in the process of updating their Local Coastal Plan. As part of the effort, the City is updating figures to accompany the Plan. M-Group created static maps using existing available data. In cases where GIS data was unavailable, M-Group digitized data. Multiple environmental data layers were used to find best suited locations for development within the areas identified by Half Moon Bay.

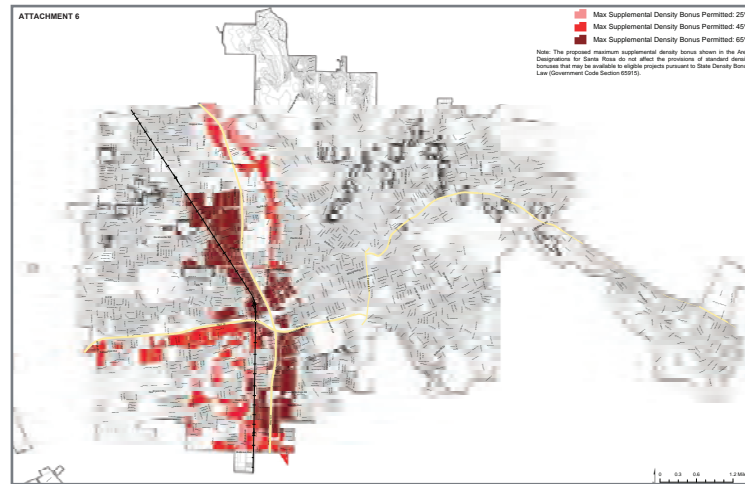
Static Maps, Spatial Data Management, Spatial Data Analysis



DENSITY BONUS ORDINANCE UPDATE | CITY OF SANTA ROSA

M-Group prepared recommendations for implementing a supplemental density bonus program of up to 100% to actualize the City's Housing Action Plan. Recommendations were formed using GIS to identify areas of Santa Rosa eligible for supplemental density bonus. Factors such as proximity to major transit routes and stops, schools, location within a priority development area, and General Plan land use were used to determine eligibility.

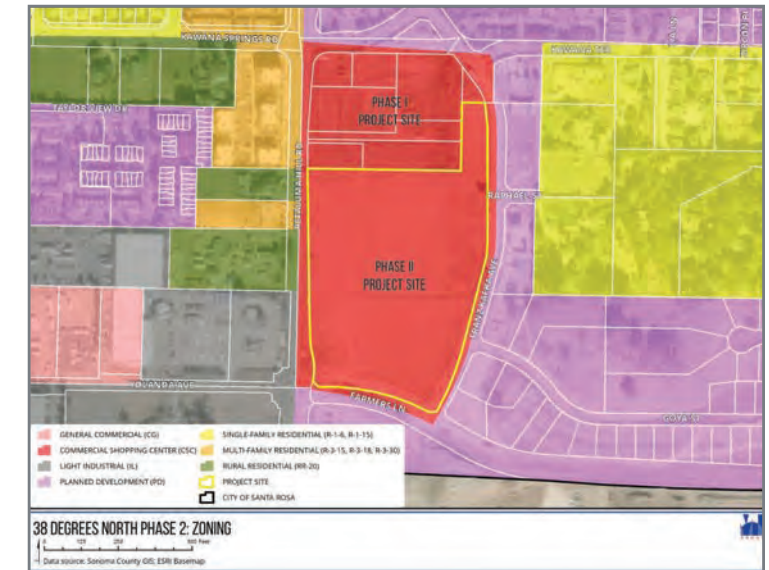
Static Maps, Spatial Data Management, Spatial Data Analysis, Webmap



38 DEGREES NORTH PHASE 2 | CITY OF SANTA ROSA

The project included development of 172 residential apartments, a 2.54 open space preserve, and reservation of 1.04 acres for future development of a 21,000 square foot community shopping center on approximately 10.9 acres in the City of Santa Rosa. Included in our Environmental Review services, M-Group provided vicinity, land use, zoning, site plan, and regional static maps and graphics.

Static Maps, Spatial Data Management



HAYSTACK MIXED USE PROJECT | CITY OF PETALUMA

GIS tools and techniques were utilized to provide static maps and graphics for the Environmental Review of this Petaluma project. The 4.10-acre project site would be developed with 3 and 4-story buildings, plazas, courtyard fronting the transverse street, elevated interior courtyards, a new transverse street, onsite and on-street parking, landscaping and ancillary improvements.

Static Maps, Spatial Data Management



GENERAL PLAN UPDATE + EIR | CITY OF SARATOGA

The City of Saratoga contracted M-Group to conduct the General Plan Update and Environmental Impact Report (EIR). Maps and graphics were designed with consistency across both documents to ensure clarity and purposeful assessment of features. GIS purposes included maps to depict and analyze regional location, land use, potentially underutilized sites, and more.

Static Maps, Spatial Data Management



ADDITIONAL PROJECTS OF INTEREST

CLIENT	PROJECT	TARGET AUDIENCE	PRODUCT	BRIEF DESCRIPTION
Sonoma County	Airport Area Specific Plan	Planners + Public	Static Maps, Spatial Data Analysis	GIS was used to create updated land use and zoning maps for the Plan Area. The new buildout was compared with existing built development. Infrastructure data was also used to estimate road costs based on proposed road configurations.
Town of Windsor	Jaguar Way Extension	Public	Static Maps, Spatial Data Management	M-Group provided maps for environmental review of Jaguar Way, a roadway extension near a high school, Town of Windsor limit, and Starr Creek.
City of Pacifica	1567 Beach Boulevard Condominium Project	Public	Static Maps, Spatial Data Management	M-Group produced graphics for environmental review of a new seven-unit residential development including site plan, zoning, general plan land use, site vicinity, and regional context.
City of Milpitas (led by Urban Field Studio; M-Group subcontracting)	Milpitas Metro (Station Area Plan)	Public	Static Maps, Spatial Data Analysis	M-Group partnered with Urban Field Studio to update the Transit Area Plan surrounding the Milpitas BART Station. M-Group conducted an Initial Conditions Assessment providing data analysis and maps depicting the density of approved and pending development projects, regional context of Milpitas Metro rail system, the walkshed of the Milpitas BART Station, and more.
City of San Rafael	Land Use Map Update	Public	Static Maps	M-Group prepared an update to the General Plan Land Use map for the City of San Rafael. M-Group created a GIS map file for the City and provided a package of new and updated data files. The update also included the preparation of a memorandum summarizing the edits, including illustrations showing changes that were made and how to manage layers in the GIS map file to achieve certain desired displays.
City of San Rafael	Housing Element Update	Public	Static Maps	M-Group prepared the 2015-2023 Housing Element for the City of San Rafael. The project included the preparation of Housing Opportunity Site maps to identify potential sites for future housing development to meet the City's RHNA.
City of Burlingame	Housing Element Update	Public	Static Maps	M-Group prepared the 2015-2023 Housing Element for the City of Burlingame. Housing Opportunity Site maps were prepared as part of the Housing Element. Several maps were created for different areas of the City that show sites with development potential for new housing.
City of Half Moon Bay	GIS Data Update	Internal to planners	GIS data update	M-Group assisted the City of Half Moon Bay with updates to existing GIS data, including boundary line and zoning corrections. The City had used an online service at the time to host zoning and land use maps for public access. M-Group helped the City update the GIS shapefile data used by the online service and coordinated with the representatives of the online service to publish the updated map data.
City of Saratoga	Housing Element Update	Public	Static Maps	M-Group prepared the 2015-2023 Housing Element for the City of Saratoga. A housing opportunity sites map was prepared for the project. Additionally, GIS data was used to identify the total area zoned for residential uses, the location of vacant properties, and lots under certain sizes that may be viable for ADU development.

REFERENCES

Timeliness, efficiency, best practices and excellent customer service are at the core of M-Group's approach to all of our planning services.

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Photo User Days

M-GROUP



POLICY PLANNING

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M-Group exists to bring innovative and effective planning solutions to Bay Area communities and beyond.

We are committed to
a new design on urban planning.

This new design includes:

- Very clear communication
- A commitment to continuous improvement
- An enthusiastic and fun approach to planning
- Creating a long-lasting, employee-centered, client-focused firm

Planning for a sustainable future by balancing the needs of the natural and built environments M-Group planners have extensive experience providing the full range of urban planning services throughout the region. Our planning group brings together a broad range of expertise and substantial real-world experience to help cities and counties plan for the future.

We look forward to working with you and your community.

Contact us at info@m-group.us

