Midpeninsula Regional
Open Space District

R-21-50
Meeting 21-12
April 28, 2021

STUDY SESSION AGENDA ITEM 1

AGENDA ITEM

Draft Mitigation Policy

GENERAL MANAGER'S RECOMMENDATION

Review, discuss, and provide feedback on the draft Mitigation Policy and associated terms, which will be refined and brought back for approval at a later date as a new chapter addition to the Resource Management Policies. No Board action required.

SUMMARY

The Midpeninsula Regional Open Space District (District) is regularly approached by outside agencies seeking to provide funds for and/or request the ability to implement mitigation work on District lands to offset impacts caused by their offsite projects. The District also occasionally has the need to purchase external compensatory mitigation credits for work occurring on District lands (e.g. for the Ravenswood Bay Trail Project). To date, mitigation requests and mitigation purchase options have been considered on a case-by-case basis. The goal of the draft Mitigation Policy (Attachments 1 through 3) is to provide a framework and adaptive criteria to guide future District decisions.

DISCUSSION

At past Board of Directors (Board) and Committee meetings, Board members have asked for a District policy to guide the evaluation of outside agency mitigation requests and inform mitigation efforts for District-led projects. Mitigation requests may come from a variety of sources, including partner agencies, neighbors, individuals, or other entities with a limited connection to the District. *Mitigation* is defined as a single or a suite of measures that minimizes or effectively eliminates the impact(s) of a given activity on the environment. *Compensatory mitigation* is when the project proponent compensates or offsets for an impact of their project by replacing or providing substitute resources or enhancing the natural environments through restoration, preservation, funding or other means.

The District has historically been hesitant to accept mitigation funds or allow mitigation work for outside projects on District lands. Through its own project experience, the District understands that even well-designed projects that provide one or more societal and environmental benefit(s) can result in unavoidable environmental impacts, triggering the need for mitigation. For example, projects focused on restoration or outdoor recreation that align with the District's mission may have unavoidable impacts even when the overall benefit is clear. In some instances, due to the lack of local mitigation partners, beneficial actions to mitigate local project impacts

have occurred in areas far from the area of impact (such as impacts from a Peninsula project being mitigated for in the East or North Bay), at a much reduced benefit to the local habitat and/or species.

Compensatory mitigations are most often necessitated by State and Federal environmental permits. All projects triggering the need for regulatory permits are reviewed by applicable agencies. Agencies analyze, modify and include mitigation as permit conditions to ensure that project impacts are offset through measurable and environmentally-beneficial actions for the affected species and/or habitat within the region. Regulatory agencies generally prefer nearby mitigation options first before approving farther afield options. Some agency policies dictate onsite mitigation as the preferred option and penalize offsite mitigation with higher mitigation requirements (e.g. increasing the acreage of habitat or number of trees to be planted). For the District, onsite mitigation is the preferred approach. Entities without a sufficient area to perform onsite mitigation or a land base to perform offsite mitigation on their own lands often meet their mitigation needs by funding or constructing mitigation on other lands.

While regulatory agencies penalize offsite mitigation by increasing the permit condition requirements, they cannot reject mitigation because it is performed off site. Regulatory agencies must accept proposed mitigation if it meets the regulatory requirements. That is, for most projects, no matter the nature or extent of the impacts, as long as the project proponent can create mitigation that meets the requirements, the project will be approved. In practice, the question is not whether a project will be approved, but the degree to which the mitigation is truly effective in offsetting the impact. In the appropriate cases, by facilitating mitigation, the District can direct funding to local, high quality habitats that need restoration and/or where natural resource enhancements can provide a regional environmental benefit. Denying reasonable requests to accept mitigation funding may otherwise shift compensatory mitigation projects to areas more distant from the impact and/or result in reduced benefits to the local impacted region.

As the District has grown in total acreage, it touches many more neighbors, municipalities, and outside agencies, which adds complexity, but also more options for how to best work together to implement projects that may have a nexus with the District.

The proposed policy (Attachments 1 through 3) seeks to provide the District with a framework for accepting or rejecting outside entity mitigation funding or work. The policy will establish a set of evaluation criteria that can be applied to external projects to help determine whether the District should consider engaging with an external entity to potentially accept mitigation funds or to allow them to facilitate mitigation work on District lands. Mitigation funds are best used to help the District achieve high priority restoration work that is otherwise not currently funded.

The proposed evaluation criteria include:

1) **Alignment with District Mission, Policies, and Goals**
   How does the project and the mitigation align with the District's Mission and Goals?
2) **Proximity to District Lands and Regional Context**
   What is the geographic proximity to the external project?
3) **Public, Partner, and Social Implications**
   What are the potential public, societal and partner implications?

4) **Low-impact Project Design and Appropriate Mitigation**
   How has the external entity first reduced environmental impacts through project design before approaching the District with a mitigation request?

5) **Ecological Impact versus Value**
   What is the ecological impact of the project versus the ecological value of the proposed mitigation?

District staff would use the evaluation criteria to review outside agencies mitigation requests. Requests would be ranked against the criteria and may or may not meet all criteria. Proposed mitigation should provide a clear benefit to the District to be considered for potential acceptance. Any project that does not provide a clear benefit, or meet some of the criteria, or is controversial, would likely be denied. Controversial projects could include those with large environmental impacts, entity association with a poor environmental track record, or a negative social impact or poor public support.

Staff would provide a recommendation to the Board for funding proposals greater than $50,000 and to the General Manager for those under $50,000. Actions taken under the General Manager's delegated authority would be announced to the full Board either at or by the following regular Board meeting. Recommendations for approval would be based on an evaluation of the criteria and the particulars of the proposed project and associated compensatory mitigation. If approved, staff would ensure that a Mitigation Monitoring and Reporting Plan/Program is in place before final acceptance of funds or work.

Many District projects, including habitat restoration projects, may result in regulatory required compensatory mitigation due to the abundance of natural and cultural resources that are located within District lands. This draft policy also establishes internal Mitigation Best Practices, which include (in order): 1) Avoidance first, 2) followed by Minimization of impacts, 3) Mitigation for impacts when necessary (on site or offsite within the preserve, watershed, or District), and finally 4) Purchase of external mitigation credits when no other option is feasible. These practices are the same as provided for in the California Environmental Quality Act and as adopted by the State and Federal permitting agencies. Formally adding the Mitigation Best Practices to the draft policy will provide the District straightforward guidance when considering mitigation within the overall project delivery process. During project planning and delivery, staff will continue to identify the least impactful version of the project that meets the project goals and objectives. If the preferred project retains more impacts than typical, staff will revisit and revise the project goals and objectives as necessary, and if needed, recommend deferring or withdrawing the project.

Proposed projects are first evaluated for potential effects. Through environmentally sensitive design, impacts can often be avoided. Any unavoidable impacts to natural and cultural resources will be minimized. Any remaining impact will be mitigated when feasible and cost effective. When mitigation cannot be avoided, staff will consider District restoration priorities to offset project impacts. When there is no suitable mitigation within the District to offset impacts, then purchasing external mitigation may be considered. This occurs infrequently. Even well-designed District projects cannot always meet their intended goals and completely avoid, minimize, or mitigate for impacts within District boundaries. In these cases, the District may resort to purchasing external compensatory mitigation. For example, for the Ravenswood Bay Trail Project, staff carefully designed the project to first avoid disturbance and impacts outside the narrow project footprint. In addition, construction materials and techniques were carefully

prescribed to minimize construction-related impacts. Nonetheless, the project had the potential to impact sensitive habitat. Opportunities to enhance the surrounding bayland habitat were limited; the project did include construction of new high tide refuge islands for wildlife and installation of transitional upland native vegetation. Even with these enhancements, the purchase of mitigation credits was necessary to fulfill all the mitigation requirements.

The draft Mitigation Policy is consistent with the District's focus in establishing regional and landscape-level net benefits across District lands. This focus prioritizes high resource value sites to ensure that staff capacity and funding resources are allocated to sites where the greatest natural resource benefits can be achieved. Consideration of outside mitigation funding will provide an additional funding source to further regionally important restoration work and promote partnerships that support the regional health and resiliency of the natural resources.

FISCAL IMPACT

Review of the draft Mitigation Policy and associated terms has no immediate fiscal impact but may provide additional funding opportunities for internal restoration projects in the future.

BOARD AND COMMITTEE REVIEW

This item is being presented to the full Board, given full Board interest. A previous meeting was held with the Board on February 24, 2021 (meeting minutes) to review the District's Natural Resources Restoration Priorities (R-21-26).

PUBLIC NOTICE

Public notice was provided as required by the Brown Act.

CEQA COMPLIANCE

This item is not a project subject to the California Environmental Quality Act (CEQA). Each project resulting in mitigation must be evaluated either individually or programmatically under CEQA by an applicable lead agency. For internal projects, the District is the lead agency; for external projects, the lead agency is typically another local public agency.

NEXT STEPS

After initial Board review, staff will incorporate Board feedback and present the draft Policy to partner and stakeholder entities, including Resources Conservation Districts, Green Foothills, Sierra Club, and others for their review and feedback. Staff will then bring the draft Resource Management Policy chapter, with stakeholder input, to a future Board meeting for review. If adopted at that time, the proposed policy will formalize the District's Best Management Practices for project planning to reduce the potential for environmental effects and guide the acceptance of external mitigation/restoration funding.

Attachments:

1. Draft Mitigation Policy Chapter (new addition to District Resource Management Policies).

2. New terms and definitions from Draft Mitigation Policy Chapter proposed to be added to the Resource Management Policies Glossary
3. Draft Appendix B to Resource Management Policies detailing the Project Management Approach

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I. MITIGATION

Mitigation refers to a suite of measures that avoids, minimizes, or effectively eliminates the impact(s) for a given activity on the environment. Mitigation involves using avoidance and minimization measures to reduce impacts to a less than significant amount, rectifying environmental damages or harm caused by a project or action, and compensating for temporary or permanent irreversible impacts. Project mitigations may come from a California Environmental Quality Act (CEQA) document, state and federal permits required by the Clean Water Act/Porter-Cologne Act and Endangered Species Acts, or from county or local ordinances. This policy applies to mitigations that pertain to natural and cultural resources (e.g. biological resources, paleontological, hydrology and water quality, cultural resources, and tribal cultural resources), which may be incorporated into local, state and federal permit approvals. These permits are administered by various municipalities, counties, California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), Regional Water Quality Control Board (RWQCB), United States Army Corps of Engineers (ACOE), and the State Historic Preservation Office (SHPO). CEQA-related mitigation involving natural and cultural resources are considered elsewhere in District policy - specifically other chapters of the Resources Management Policies (VM, WM, IPM, WR, GS, SA, CR, RC, PI, GM, FM, ES, HC, WF, CC), the Basic Policy, and other Board Policies such as 4.09-Factors to Consider for Structures Disposition.

This mitigation policy creates the process by which District staff define and consider the **least environmentally damaging practicable alternative** of a project. Mitigation may result from either an **internal** or District-led project occurring on District-owned lands or an **external** project, which is a project led by another agency involving District-owned lands either for implementation and/or mitigation.

BACKGROUND

DEFINITIONS

Mitigation in this section guides project planning and design to minimize environmental impacts and to anticipate permit-related mitigations from local, state, and federal agencies.

Impacts to the environment come in many forms but can be broadly characterized as **temporary** and/or **permanent**. Temporary impacts are those which do not result in a durable change or are short-term in nature. Permanent impacts are those that convert habitat or affect resources in a durable fashion.

Impacts can be described as **potential** or **actual**. Potential impacts cannot be ruled out or confirmed definitively until a future assessment is completed or the work is implemented. Some permits require defining the **Area of Potential Effect**, which encompasses a larger area around the actual impact location. Actual impacts arise from known and definite impacts to a resource, whether temporary or permanent. Impacts may be described as point-source (i.e. highly localized) or non-point (i.e. widespread or diffuse). CEQA analyzes three types of effects: direct, indirect, and cumulative. **Direct effects** occur at the place and at the same time as the project implementation (e.g., ground disturbance, tree removal, etc.). **Indirect effects** are reasonably foreseeable effects that occur at different times or places (e.g. impacts that occur due to the proposed action but beyond the footprint of a project or activity). **Cumulative effects** are two or more effects that compound together or increase other environmental impacts.

The existing condition or **environment baseline** describes the environmental setting, ecology, and resources prior to a proposed activity. Capturing a broad, expansive **Area of Potential Effect** for analysis allows a more stable baseline to be compared against evolving concepts of what is or is not included in a proposed project. **Temporal loss** is an impact arising from a delay between an impact and **compensatory mitigation.**

CEQA analyzes potential impacts based on whether the impact is **significant** or **substantial** and mitigation is developed to reduce those

An example of a project having a direct effect may include the removal of select trees or other vegetation to construct new bridge footings within a riparian area resulting in the need for replacement plantings.

An example of a project having an indirect effect may include installation of a new trail that may cause an increase or decrease in preserve visitation.

An example of cumulative impacts using the above examples would be removal of the riparian vegetation compounded with an increase in visitor usage that may together cumulatively affect water quality and/or future wildlife usage at the project site.

impacts to less than significant. During the CEQA process, a project is evaluated using an environmental checklist form to determine if (potential or actual) significant environmental effects require more robust environmental analysis (such as an Initial Study or Environmental Impact Report) that considers one or more reasonable alternatives. Project activities assessed under CEQA adhere to mitigation requirements through the implementation of a **Mitigation Monitoring and Reporting Plan or Program**.

The Coastal Commission uses a mitigation framework similar to CEQA, and also incorporates special conditions such as requiring that proposed development (within the coastal zone) use the least environmentally damaging feasible alternative. This practice goes above and beyond practices by other entities that may select any project alternative as long as impacts are mitigated.

CEQA defines mitigation as:

A. Avoiding the impact altogether by not taking a certain action or parts of an action.
B. Minimizing the impact by limiting the degree or magnitude of the action and its implementation.
C. Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
D. Reducing or eliminating the impact over time through preservation and maintenance activities.
E. Compensating for the impact by replacing or providing substitute resources or environments.

Activities that require permits from local, state and federal agencies incorporate CEQA mitigations as permit-related mitigations. The permitting agencies, however, have different mitigation frameworks consistent with their missions and enabling statutes and may use the CEQA mitigations where they deem them satisfactory as part of issuing permitting terms, conditions, and requirements.

Through the California Endangered Species Act and Section 1602 of the Fish and Game Code, CDFW analyzes whether a potential impact is substantial and **adverse** and includes measures in permit agreements to protect fish and wildlife resources. These may include administrative, construction, biological, compensatory, and reporting measures.

USFWS evaluates project impacts to species on the **likelihood** the project adversely affects a species, and the likelihood the project jeopardizes the continued existence of a species. USFWS considers direct, indirect, interrelated, and interdependent effects. USFWS then issues conservation measures to avoid and minimize effects and

authorizes an amount and extent of **take** of a species. Take, as defined by the Endangered Species Act, is 'to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.'

Incidental take is an authorization and permit from USFWS that allows take of listed species where the activity's take is incidental to, and not the purpose of, carrying out of an otherwise lawful activity. An HCP must accompany an application for an incidental take permit.

Habitat Conservation Plans (HCP) are a form of permit from USFWS that authorize **incidental take** of federally listed species and establishes a formal mitigation approach, usually at a large, regional scale. HCPs are intended to fulfill the Endangered Species Act and include a conservation strategy to compensate for impacts on covered species.

Mitigation measures under an HCP include preservation via acquisition or **conservation easement** of existing habitat, enhancement or restoration of a degraded or former habitat, creation of new habitat, establishment of buffer areas around existing habitat, modifications of land use practices, and restrictions on access.

Through the Porter-Cologne Act and Clean Water Act, the SF RWQCB analyzes projects through the potentially affected beneficial uses, the significance of impacts to Waters of the State, whether the project violates state water quality standards, and determines whether the project conforms to the state's **no-net-loss policy** for wetlands. The water quality certification then includes a wide range of conditions.

The ACOE analyzes the dredge and fill of the Waters of the US and issues terms and conditions to authorize projects. Waters of the US vary widely from the innermost portion of a small stream to most of the San Francisco Bay. ACOE shares a joint responsibility with SF RWQCB to administer the Clean Water Act in California in wetlands and stream systems. Most District projects qualify for a Nationwide Permit (a standardized permit) and must adhere to the relevant conditions. All projects must demonstrate they have first avoided, then minimized, and finally compensated for impacts to waters. ACOE also must consult with USFWS and SHPO. SHPO reviews the ACOE consultation and evaluates whether projects will adversely affect a historic resource.

While CEQA and permitting agencies have different definitions and frameworks, including the precise use of the term 'mitigation', the principles of mitigation are shared. The main difference is that CEQA mitigations are approved, monitored, and reported by the **lead agency**,

which is usually the District in the case of District-led projects. Mitigations required through permitting are ultimately approved by the permitting agencies yet monitored and reported by the lead agency.

Although not expressly mitigation measures, implementation measures from other chapters of these RM policies and other BMPs can act as mitigations outside of the CEQA/permitting framework. That is, work done in conformance with the RM policies achieves the objectives of the mitigation policy, even where no mitigation is required by law, CEQA, or permit.

MITIGATION GOALS, POLICIES, AND IMPLEMENTATION MEASURES

Goal M-	**Avoid and minimize adverse impacts to natural and cultural resources to the maximum feasible extent and use mitigation for all other unavoidable impacts. Couple mitigation with high priority restoration when feasible.**

Policy M-1 Review and consider all applicable District Policies, programmatic permits, and CEQA documents to develop the project scope, incorporating the following practices (listed in in order of priority): avoidance, minimization and/or mitigation of potential impacts.

- Refer to Board Policies, including but not limited to Basic Policy, and other applicable Resource Management Policy Chapters.
- Review applicable resource agency programmatic permits and/or programmatic CEQA documents to determine if the project can be covered using existing avoidance, minimization or mitigation measures to reduce the need for compensatory mitigation.

Policy M-2 Identify and evaluate sensitive resources to determine the least impactful project design that meets the project goals and objectives.

- Develop a brief and inclusive project description.
- Define the maximum Area of Potential Effect.
- Survey, identify, and map sensitive ecological and cultural resources within the project area.
- Analyze how different project alternatives may avoid or impact existing resources.
- Analyze other activities within the watershed and/or Preserve to understand the net effect of the proposed project.
- Compare potential impacts against the feasibility, cost, and project goals and objectives (including long term maintenance and monitoring).
- Document the **basis of design** and why the project is the least environmentally impactful alternative.
- The basis of design can be informed by the CEQA review process and/or an alternatives analysis conducted during permitting review.

The basis of design integrates engineering, constructability, costs, and environmental considerations to explain the rationale behind the selected project and why other alternatives do not sufficiently meet the project goals.

Policy M-3 Evaluate and incorporate measures that minimize the effects of the project on the sensitive resources.

- Refine the project description into a sequential narrative and refine the resulting Area of Potential Effect.
- Conduct further detailed and site-specific surveys of natural and cultural resources as needed to adjust and refine the project design to avoid and minimize project impacts.
- Define and quantify the temporary, permanent, potential, and actual impacts of the project to the extent feasible.
- Adjust the project scope, extent, seasonality, duration, or other measures to minimize actual or potential impacts to the resources.

Policy M-4 Develop a compensatory mitigation strategy as a measure of last resort.

- Review the temporary and permanent impacts.
- Evaluate onsite mitigation for short-term and long-term cost efficiencies, habitat benefit, physical capacity, and staff resources.
- Evaluate existing voluntary restoration projects for potential use as mitigation, including vegetation management for resiliency work (e.g., wildland fire, climate change, and/or invasive species removal).
- If the overall impacts and associated mitigations are substantial, review other voluntary restoration work that the District may plan or conduct in the watershed or Preserve that can mitigate the impacts and/or result in a 'net environmental benefit'.
- When applying restoration and/or recovery work to compensate for project impacts, select high priority species, habitats, populations, and ecological processes first, preferably in high conservation value areas, including Conservation Management Units, to maximize the regional net environmental benefit.
- When onsite mitigation is not feasible, evaluate the appropriateness of implementing mitigation work in off-site locations (refer to 'like for like' as described above)
- Prioritize facilitating or supporting regionally significant restoration projects, as defined by a recovery plan, watershed plan, or other collaborative planning document, when using compensatory mitigation funds.
- Ensure that baseline mitigation ratios are correctly proportioned by accounting for both the uncertainty inherent in mitigation work and the anticipated probability of success.
- If no other options are cost effective and feasible, search for partner agencies or conservation organizations that may facilitate third-party mitigation. Consider those that support

a Natural Community Conservation Plan, Habitat Conservation Plan, Regional Conservation Investment Strategy or other regional conservation planning.

Policy M-5 Weigh the mitigation, maintenance, monitoring, and reporting costs and impacts alongside the project benefits.

- After defining a third-party compensatory mitigation strategy, evaluate the sum of all mitigation costs (construction expenses, biological or cultural monitoring, revegetation, compensatory mitigation, and post-construction monitoring).
- If the overall impacts and associated mitigation costs are substantial, determine whether revisiting the project goal(s) and scope is warranted.
- Consider a recommendation to alter or withdraw the project.

Policy M-6 When needed, evaluate compensatory mitigation proposed by the District for purchase or implementation on other properties.

- Confirm if the project is using the least environmentally damaging and feasible alternative.
- If no feasible option or habitat within District lands is available for which to mitigate for an impact, consider a recommendation to alter or withdraw the project.
- If after evaluation no feasible alternative or option exists, funding of or implementing off-site mitigation may be considered.

Policy M-7 When third-party compensatory mitigation is proposed by outside parties to the District, evaluate proposals using criteria that aligns with the District's Mission, Goals, and Policies.

- District analysis of third-party proposals will include a summary of the request, a description of the third-party project ("proposed project"), and the required mitigation.
- Evaluation criteria of third-party proposals shall include:
    - ***Alignment with District Mission, Policies, and Goals***
        - Does the proposed project support the District's mission?
        - Does the proposed project provide a public benefit?
        - Does the proposed project align with the Basic Policy and Good Neighbor policy?
        - Is the project proponent's mission aligned with the District and do they have a track record of environmentally sensitive projects?
    - ***Proximity to District Lands and Regional Context***
        - Is the proposed project located within the District's boundaries or sphere of influence, or within the larger nine-county Bay Area region?
        - Is the proposed project at an appropriate scope and scale for the site and/or region?
        - Will the proposed project directly affect District lands or surrounding ecosystems?
    - ***Public, Partner, and Social Implications***
        - What are the potential impacts and/or benefits to the public and our partners? What are the potential impacts and/or benefits to under-resourced and/or vulnerable communities and to Native American tribes?
        - Is there public support for or opposition to the project and/or to the proposed mitigation?
        - Does the project offer opportunities to strengthen relationships or partner with

outside agencies, non-profit organizations, and other groups?

- Does the project improve or reduce public access opportunities?

- ***Low-impact Project Design and Appropriate Mitigation***
  - Does the proposed project use the least impactful, practicable alternative and if not, did the proponent first consider how to avoid and minimize impacts to the greatest feasible extent? Are impacts temporary or permanent? Are the impacts too large to offset?
  - What are the sources of funding, conditions imposed, monitoring and oversight requirements, and timeline?
  - Are the mitigation funds too small to be useful?
  - Is the mitigation project consistent with an existing Preserve Plan, Use and Management Plan and/or an existing CEQA document?
  - Will the mitigation project require the District to allocate resources to design, peer review, or monitor the mitigation work?
  - Does the District already have a voluntary restoration project in mind or one that requires additional funding that would be a good match?
- ***Ecological Impact vs Value***
  - Is the affected species for which mitigation is proposed present at the area of impact or do they only have the potential to occur in the area?
  - Does the Area of Potential Effect and the proposed off-site mitigation fall within critical

habitat, or is part of a habitat linkage, climate refugia, or another sensitive habitat?

- Does the proposed mitigation:
  - benefit a sensitive species population, habitat assemblage, and/or multiple species?
  - facilitate regional restoration priorities and/or recovery of species?
  - restore or provide ecological system function(s)?
  - promote long-term health of the ecosystem or provide resource benefits?
  - help meet priority land conservation and management goals?
  - support the goals of a Natural Community Conservation Plan, Habitat Conservation Plan, Regional Conservation Investment Strategy or other regional conservation plan?

Policy M-8 Recommend third-party compensatory mitigation that fulfill District goals and meet District criteria.

- Evaluation criteria will be used to determine whether to further consider outside proposals for acceptance of mitigation funds and/or mitigation work on District lands.
- Projects are ranked against the evaluation criteria. Although not all projects will meet every criterion, projects must be able to provide a clear benefit to the District to be considered for acceptance.
- The value of the outside mitigation funds or proposed work determines the level of approval authority. External mitigation valued at greater than the General Manager's signing authority requires Board approval.

- Staff findings and recommendations are forwarded to the approving authority. Recommendations will be based on the (ranked) criteria and the particulars of the proposed project and associated compensatory mitigation. Projects that do not meet minimum criteria, do not provide a clear public benefit, and/or are controversial may be denied.
- Staff will review and ensure a Mitigation Monitoring and Reporting Plan, or Program is in place before accepting funds or work.

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Draft Mitigation Chapter

New terms and definitions proposed to be added to the Resource Management Policies Glossary.

Actual impacts - arise from known and definite impacts to a resource, whether temporary or permanent.

Advance mitigation - 1) a form of mitigation (compensation) implemented before an impact occurs. 2) a science-based approach to identify mitigation opportunities early in the planning process prior to the design and permitting phases to identify higher-quality mitigation opportunities and/or those that support regional conservation priorities.

Advance mitigation site - a location that generates value — or mitigation credits — over time until the site reaches its maximum potential by meeting all the required performance standards.

Alternatives analysis - 1) the evaluation of the different project choices or actions available to achieve a desired objective. It is an analytical comparison of different factors, including environmental impacts, operational cost, risks, effectiveness etc. 2) A process of completing an alternatives analysis under the Clean Water Act that requires demonstration and determination that the proposed project is the least environmentally damaging practicable alternative. 3) Under the California Environmental Quality Act, when completing an Environmental Impact Report, an alternatives analysis is required and describes a reasonable range of alternatives that could feasibly avoid or lessen any significant environmental impacts while substantially attaining the basic objectives of the Project or Program.

Area of Potential Effect (APE) - the larger area surrounding the project activity location that encompasses ancillary features such as staging, access routes, refueling stations and other features that may be affected incidentally.

Avoidance - to cause no potential impact while undertaking a proposed action. Avoidance involves deliberate and thoughtful planning to evaluate and document the strategies that will be used to prevent impacts to the resources as a result of a proposed activity.

Basis of design - documents the principles, assumptions, rationale, criteria, and considerations used for the calculations and decisions required during design of a project, system, or other activity.

Compensatory mitigation - measures taken to offset the unavoidable impact remaining after avoidance and minimization actions are taken. Compensatory mitigation involves either the restoration, establishment, enhancement and/or preservation of impacted habitats or waters on or off site.

Conservation (or Mitigation) banks - a system where landowners can permanently create certain habitats targeting specific listed species or other regulated features such as wetlands in order to use these features for actions anticipated to occur in the future for which mitigation will be required. Landowners can create banks to offset their own impacts or may sell the mitigation credits to other parties causing impacts in similar ecosystems elsewhere.

Conservation easement – a voluntary, legal agreement that permanently limits uses of the land in order to protect its conservation values. A conservation easement is one option to protect a property for future generations absent of having fee title to that land.

Cumulative effects - changes to the environment caused by the combined impact of past, present and future human activities and natural processes. Cumulative effects to the environment are the result of multiple activities whose individual direct (or indirect) impacts may be relatively minor but in combination with others result in significant environmental effects.

Direct effects - effects that occur at the place and at the same time as project implementation (e.g., ground disturbance, tree removal etc.)

Direct take - immediate injury or death to one or more individuals of one or more species as a result of project activities.

Ecological Restoration - the process of returning land that has been degraded or disturbed into functional habitat and processes to accelerate the recovery of an ecosystem.

Ecosystem Function – The interaction(s) or ecological processes that exists between organisms with one another and the physical environment, such as nutrient cycling, disturbance, soil development, water budgeting, and flammability.

Enhancement - the process of altering a habitat to improve one or more specific ecosystem condition(s) and/or function(s).

Environment baseline - the existing condition that describes the environmental setting, ecology, and resources prior to a proposed activity.

External mitigation - mitigation that results from a project led by another agency involving District-owned lands either for project implementation (such as the flood detention basin at Rancho San Antonio) and/or as a site to implement mitigation required from one of their offsite projects (such as Valley Water mitigation implementation at Hendrys Creek).

Formal mitigation banks - areas of potential restoration that consolidate compensatory mitigation of many upcoming projects, thus avoiding temporal loss, and are regulated by the agencies that oversee them.

Habitat Conservation Plans (HCP)- a form of permit from USFWS that authorize **incidental take** of federally listed species and establishes a formal mitigation approach, usually at a regional, large scale.

Incidental take - unintentional taking of one or more individuals of one or more species that result from, but are not the purpose of, carrying out an activity. Incidental take is not directly or immediately observable making it difficult or impractical to detect such as a decrease in biological fitness due to reduced ability to breed or a shortened lifespan.

Indirect effects - are reasonably foreseeable effects that occur at different times or places (e.g. impacts that occur due to the proposed action but beyond the footprint of a project or activity).

Informal mitigation banks - areas of potential restoration that consolidate compensatory mitigation of many upcoming projects, thus avoiding temporal loss, without being regulated as a formal mitigation bank.

Internal mitigation- results from either a District-led project occurring on District-owned lands or from a District-led project not on District lands (such as the Highway 17 Wildlife and Regional Trails Project).

Least environmentally damaging and feasible alternative - a term that comes from the Clean Water Act for a practicable alternative that would have less adverse impact on the aquatic ecosystem than other proposed project alternatives.

Lead Agency - the public agency that has the principal responsibility for carrying out or approving a project. The lead agency will decide whether a project is subject to the California Environmental Quality Act (CEQA) or is categorically exempt, and if subject to CEQA, what level of environmental analysis/document will be required for the project. The lead agency is responsible for preparing the appropriate CEQA document.

Like for like mitigation - meaning impacts to one habitat, species, or function are compensated for with a similar (if not identical) replacement (e.g. if one large oak tree is removed it is replaced with one large oak tree at a suitable site - most likely onsite, but in some instances may be located offsite).

Likelihood - a determination made by the US Fish and Wildlife Service that determines whether a proposed action adversely effects a species, and the possibility (or likelihood) that the proposed action will jeopardize the continued existence of a federally listed species or result in the destruction or adverse modification of critical habitat.

Minimization - modifying the way an activity is to be undertaken in order to reduce the potential or actual impact to a resource. Minimization is the next preferred method to reduce project impacts when a potential impact cannot be completely avoided.

Mitigation - a single or a suite of measures that minimizes, or effectively eliminates the impact(s) of a given activity on the environment. Project mitigations may come from California Environmental Quality Act (CEQA), state and federal permits, or county or local ordinances.

Mitigation (or Conservation) banks - a system where landowners can permanently create certain habitats targeting specific listed species or other regulated features such as wetlands in order to use these features for actions anticipated to occur in the future for which mitigation will be required. Landowners can create banks to offset their own impacts or may sell the mitigation credits to other parties causing impacts in similar ecosystems elsewhere.

Mitigation credits - units of habitat that are preserved or protected (typically measured in area) that may be used, purchased or sold to offset impacts from an action for which mitigation is required.

Mitigation Credit Agreement (MCA) - formal agreement that creates mitigation credits by implementing conservation or habitat enhancement actions identified in a California Department of Fish and Wildlife (CDFW) approved Regional Conservation Investment Strategy. Credits developed under an MCA may be used as compensatory mitigation for impacts under CEQA, the California Endangered Species Act, and the CDFW Lake and Streambed Alteration Program.

Mitigation Monitoring and Reporting Plan or Program (MMRP) - specifies what the mitigation is, the entity responsible for monitoring the program, and when in the process it should be accomplished. The MMRP is designed to ensure compliance with Public Resources Code Section 21081.6 during implementation of mitigation measures which requires the Lead Agency, for each project that is subject to the California Environmental Quality Act (CEQA), to monitor performance of the mitigation measures included in any environmental document to ensure that mitigation does, in fact, take place.

Mitigation ratio - defined as the number or extent of compensatory restoration efforts, relating the scale of impact to a greater scale of restoration.

No-net-loss policy - a principle by which counties, agencies, and governments strive to balance unavoidable habitat, environmental and resource losses with replacement of those items on a project-by-project basis so that further reductions to resources may be prevented.

No project alternative - refers to 1) a project alternative whereby the impacts, costs, and staff resources necessary to implement the project consistent with the project goals outweigh the benefit to the District, resulting in a recommendation to not implement the project. 2) the potential impacts that may result from not undertaking the project (e.g. a culvert continuing to cause erosion without replacement).

On-site mitigation - refers to working within or immediately adjacent to the Area of Potential Effect to implement the compensatory restoration and is the generally preferred standard for both the District and most permitting agencies.

Off-site mitigation - refers to compensatory mitigation distant from the area of impact.

Permanent impacts - those impacts that convert habitat or affect resources in a durable fashion.

Potential impacts - impacts that cannot be ruled out or confirmed definitively until some future assessment is completed or the work is implemented.

Potentially significant impact(s) - based on substantial evidence, a project (or portion of project) is determined to have a significant effect on the environment under CEQA and therefore the environmental impact requires mitigation to reduce the impact to less than significant.

Recovery - is the process that *stops the decline* of an endangered or threatened species by removing or reducing threats and ensures the long-term survival of the species. Recovered habitat (natural or restored) has documented use by target and non-target native organisms within a suite of healthy ecosystem functions. Once a target species is recovered, protection under the Endangered Species Act is no longer necessary.

Regional Conservation Investment Strategy - a voluntary, non-regulatory, non-binding conservation assessment that includes information and analyses of important species, ecosystems, protected areas, and habitat linkages at the USDA ecoregion scale and may include more than one ecoregion regional and must be approved by the California Department of Fish and Wildlife.

(Regional) net environmental benefit (net benefit) - the gains in value of environmental services (such as species and/or habitat enhancements) or other ecological properties (ecologic functions such as improved hydrologic connectivity) that are attained by an action minus the value of adverse environmental effects caused by the action that result in an overall improvement or net benefit to the environment at a regional scale.

Restoration action, activity, or project - An action, activity, or project whose primary purpose is to improve habitats and/or waters and has measurable environmental benefits.

Take - defined by the Federal Endangered Species Act, as 'to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.' Take can be direct or incidental.

Temporary impacts - those which do not result in a durable change or are short-term in nature.

Temporal loss - is an impact arising from a delay between impact and compensatory mitigation.

Substantial and adverse impacts - if the California Department of Fish and Wildlife determines that a proposed activity may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake then the activity may substantially adversely affect fish and wildlife resources. Per the State Fish and Game Code, a Lake and Streambed Alteration Agreement includes permit-agreement avoidance and minimization mitigation measures to protect fish and wildlife resources.

Third-party mitigation - refers to another entity either causing an impact requiring compensatory mitigation that is facilitated on District lands or facilitating compensatory mitigation outside of District lands on the District's behalf.

Voluntary restoration - restoration undertaken for the sake of the underlying species, habitat, or process that is not a result of a CEQA and/or regulatory required mitigation.

APPENDIX B. PROJECT MANAGEMENT APPROACH

This appendix outlines the Project Management Approach to prevent and/or reduce environmental impacts that may occur with District Projects:

District projects should be managed to prevent and/or reduce environmental impacts through 1) **avoidance**, 2) **minimization**, 3) **internal mitigation and 4) purchase of external mitigation credits** (in that order). Under the Clean Water Act, the Environmental Protection Agency and ACOE apply these mitigation types sequentially. This sound management practice is also undertaken by the District to proactively reduce the need for mitigation by using best management practices and designing projects to first avoid impacts, and if impacts cannot be avoided, minimize those impacts through the use of mitigation.

AVOIDANCE

The first principle of the policy is **avoidance,** which directs District staff to document potential impacts to the resources and then to consider how to avoid those resources during the planning process. Avoidance is achieved through an analysis of appropriate and practicable alternatives and evaluating the impact footprint. This can mean physically working around a given resource or shifting the timing of the project. At times, a potential impact cannot fully be avoided regardless of how the project is designed or implemented. The same biological and cultural richness that motivated the District to protect and restore the land also creates a sensitive ecological and complex regulatory environment within which to operate. Full avoidance is often more achievable in degraded areas.

Common avoidance measures include conducting activities away from avian nesting locations or deferring implementation until nesting season is over or until young have fledged.

A common example of an unavoidable potential impact is encountering a dispersing adult California red-legged frog in upland habitat. Although the federally threatened frogs are rarely encountered in that ecosystem, the potential for an encounter cannot be eliminated.

MINIMIZATION

If a potential impact cannot be totally avoided, then **minimization** is a way of modifying an activity to reduce the potential or actual impact to a resource. Minimization directs District staff to consider how to alter the project's scope, scale, or duration to lessen a potential or actual impact.

Measures include shifting where or when the activities occur, changing the type of equipment to be used, or modifying the project scope or scale. The extent to which an activity or project can be modified to minimize impacts while meeting the project goals varies considerably. Some permits call for an **alternatives analysis** requiring demonstration and determination that the proposed project is the **least environmentally damaging practicable alternative**.

COMPENSATORY MITIGATION

The extent of avoidance and minimization directly affects the scale and cost of **compensatory mitigation**, i.e. measures taken to offset the unavoidable impact(s) remaining after avoidance and minimization actions are taken. Multiple types of mitigation are available to minimize, compensate, and/or restore the environment.

There is inherent uncertainty in whether mitigation will fully replace the functions that are lost from an impact. As a result, mitigation ratios must be increased commensurately with the risk that a one-to-one mitigation ratio will not achieve the designated compensatory goal (e.g. planting two trees to replace the loss of one mature tree hedges against the loss of a replacement tree over time due to drought, competition, etc.). Baseline mitigation ratios account for the uncertainty inherent in all mitigation work to achieve “no net loss” of sensitive community functions even if some (relatively small) portions of the mitigation fail to achieve the desired conditions.

An environmentally beneficial pond restoration can minimize potential impacts through careful planning within an inherently sensitive and highly regulated area; complex mitigation measures may include biological monitoring and species relocations. Other times, a one-hour training from a biologist to construction staff can fulfill a minimization measure.

TYPES OF COMPENSATORY MITIGATION

When a potential or actual impact is deemed necessary, unavoidable, and has been minimized to the greatest practical extent by the District, compensatory restoration measures are taken.

Compensatory mitigation can be the most expensive form of mitigation, and involves either the restoration, establishment, enhancement and/or preservation of impacted habitats or waters either onsite, offsite, or a combination of the two. It frequently takes the form of revegetation and plantings. Growing pathogen-free nursery plants, collecting native, local seed onsite, weeding, watering, monitoring, ensuring plant survival, and reporting on the effectiveness of the compensatory mitigation all require time and money.

A frequent form of compensatory mitigation comes from vegetation removal and replanting. New trails and bridges often require select vegetation removal. Compensatory plantings offset these impacts.

Compensatory mitigation concepts include:

A. **Like for like**, meaning impacts to one habitat, species, or function must be compensated for with a similar if not identical replacement. For example, if a project removes riparian vegetation, planting riparian vegetation will likely be required as mitigation. This is also known as 'In Kind' mitigation. 'Out of Kind' is the direct opposite, where different habitat types are recreated than those impacted.

Mitigation for impacts to species that do not or are not likely to occur in highly degraded areas result in less efficient use of mitigation funds. In this case, using off-site mitigation can fulfill the permitting and mitigation requirement and result in higher net environmental benefits.

B. A **Mitigation ratio** can be defined as the number or extent of compensatory restoration efforts, relating the scale of impact to a greater scale of restoration. Usually 1:1 for low quality habitats or temporary impacts and as high as 10:1 for difficult to replace habitats. For example, removal of a large, mature tree could require planting three to six times as many seedlings.

C. **On-site mitigation** refers to working within or immediately adjacent to the area of impact to implement the compensatory restoration and is generally preferred by most permitting agencies. This can be the simplest method of compensatory mitigation but may not be feasible if the site is not practical for restoration (e.g. the area is too remote for efficient management, or the site does not have the space for the required restoration).

D. **Off-site mitigation** refers to compensatory mitigation distant from the area of impact. The general permitting agency preference is to mitigate as close as possible to the area of impact, preferably within the same watershed or Preserve if on-site mitigation is not possible.

E. **Third-party mitigation** refers to another entity either causing an impact requiring compensatory mitigation that is facilitated on District lands or facilitating compensatory mitigation outside of District lands on the District's behalf. Third-party mitigation is discussed in greater detail below.

No mitigation banks exist within the District's service boundary except for saltwater wetlands in San Francisco Bay. The Central Valley, by contrast, has many privately held mitigation banks for vernal pools and other species. California has the most mitigation banks in the nation.

The Santa Clara Valley Habitat Plan and Habitat Agency function similarly to a mitigation bank within their defined HCP area.

F. **Conservation or Mitigation banks** are a system where landowners can permanently create certain habitats targeting specific listed species or other regulated features such as wetlands to anticipate mitigations that may be required in the future or to sell as **credits**. This can be achieved through an informal process (e.g. defining a tree restoration area) or to sell the credits (i.e. units of habitat typically measured in area) created by the mitigation (or conservation) bank through a formal process to other parties who are causing impacts elsewhere in the region. **Informal mitigation banks** are areas of potential restoration that consolidate compensatory mitigation of many upcoming projects, thus avoiding temporal loss, without being regulated as a bank. **Formal mitigation banks** are regulated by the agencies that oversee them.

G. **Regional Conservation Investment Strategy and Mitigation Credit Agreements** A mitigation credit agreement (MCA) is developed under a California Department of Fish and Wildlife-approved Regional Conservation Investment Strategy (RCIS). The RCIS Program encourages a voluntary, non-regulatory regional planning process to facilitate higher quality conservation outcomes and includes an **advance mitigation** tool. An MCA is developed in collaboration with CDFW to create mitigation credits by implementing conservation or habitat enhancement actions identified in an RCIS. MCAs create credits that may be used as compensatory mitigation for impacts under CEQA, the California Endangered Species Act and the CDFW Lake and Streambed Alteration Program. Any person or entity (including the District) may enter into an MCA with CDFW to create credits and then use, sell or otherwise transfer these mitigation credits upon CDFW's finding that the credits were created in accordance with the RCIS program requirements. A CDFW-approved Santa Clara County RCIS was developed to help ensure that conservation and habitat enhancement actions are occurring in an informed and strategic manner to achieve the highest degree of conservation benefit at a regional scale.

H. **No project alternative** refers to a staff recommendation whereby the impacts, costs, and staff resources necessary to implement the project consistent with the project goals

outweigh the benefit to the District, resulting in a recommendation to not implement the project or to substantially revise the project goals.

THIRD-PARTY MITIGATION

Third-party mitigation is complex and nuanced because it can involve impacts to habitats outside of District lands (or potentially the District's sphere of influence). Off-site compensatory mitigation for these impacts may be the only possible or most preferable mitigation approach especially for private landowners or other government agencies who do not own multiple areas of similar habitat. District lands could benefit from receiving compensatory mitigation from a third party to facilitate additional restoration beyond the current capacity of the District. Third-party mitigation can also come in the form of grant funding, matching funds, or other measures that support District activities to acquire conservation easements and/or fee-title or pursue **voluntary restoration** projects.

Stanford University has funded trail projects on lands outside of the university, including District lands, through its General Use permit with the County of Santa Clara to mitigate for the loss of public recreation and open space opportunities on Stanford lands resulting from their development.

Historically, the District has, with a few exceptions, completed its compensatory mitigation within District lands. Defining the circumstances in which off-site, third-party mitigation is preferable requires consideration of the nature of the impacts, the cost of restoration, the benefit of restoration, and other factors. While the primary focus of the RM policies is on District activities and practices, it is also the primary lens through which to evaluate outside parties' activities and policies. The same drivers that may cause the District to involve a third-party in compensatory mitigation can be used to evaluate a request from an outside party to support or conduct mitigation on District lands.

RESTORATION

Site specific mitigation may reduce impacts of a specific action or improve a site-specific condition, but rarely provides regional or ecosystem-wide benefit. However, **ecological restoration** is an intentional activity initiated by the District that accelerates the recovery of an ecosystem with respect to its health, integrity, and sustainability and goes above and beyond mitigation or **enhancement** of a localized site. To fulfill the District's mission *to protect and restore the natural environment* and provide regional **net-positive** environmental benefits (producing greater

Restoration *encompasses all activities that restore an ecosystem, including those required by a mitigation and* ***voluntary restoration,*** *which is implemented solely for the purpose of resource enhancement.*

benefits at a landscape scale), the District places strong emphasis on implementing high priority restoration and recovery work focused on specific sensitive habitats, populations, and ecological processes in high conservation value areas.

Opening Mount Umunhum involved both a development project (new site amenities, parking and trails) that required mitigation, as well as a habitat restoration project (recontouring the summit and repopulating with native plants). Installing regulatory-required mitigation plantings within the native plant restoration area reduced the need for additional mitigation planting sites and furthered two parts of the District's mission: natural resource restoration and public enjoyment and education.

Whereas mitigation must offset impacts from a project to ensure no net loss of habitats or waters, **a restoration project** has the primary purpose of improving habitats and waters and has measurable environmental benefits. When coupled with a restoration project or component, a compensatory mitigation action may include additional habitat or watershed improvements beyond what are required by permits or CEQA to seek a 'net positive' benefits to the environment. Some of the factors that affect whether restoration actions are feasible or advisable include available physical space, cost, and ecological benefit. High quality restoration and habitat enhancement sites are carefully evaluated and prioritized before selection. As a result, high priority sites may not always be located near or within the footprint of the project that causes the original ground disturbance, and instead may be located elsewhere in areas of high conservation value where restoration would be the most beneficial at regional, watershed, and ecosystem scales to achieve a high net positive environmental benefits.

Restoration projects are frequently located in or adjacent to rich habitats and often require avoidance and minimization measures for incidental impacts and at times compensatory mitigation to complete, even though the project action itself is overall beneficial for the environment (i.e. even a voluntary restoration project can include a mitigation component if a resource will be affected by the restoration work). An important planning strategy is to combine various public access and/or repair projects with habitat restoration projects to allow the District to focus its mitigation work on high-value restoration sites for the highest net-positive environmental return for the time and funding allocated toward the mitigation work.

The District conducts many voluntary restoration projects each year, from small scale invasive plant removal to large scale restoration with heavy equipment. Some of these projects may require mitigation and some may not. A small-scale volunteer activity removing invasive plant species such as French broom by hand may not have any adverse impacts to the environment and may be able to move ahead without mitigation. Larger restoration projects, such as decommissioning an old road, may involve heavy equipment working near a stream and require mitigation to offset incidental impacts. At times, public access or other development projects require

compensatory mitigation often in the same areas as voluntary restoration projects.

Conservation Management Units (CMUs) are protected areas designated by the District as areas of high restoration and conservation priority. CMUs are defined in Board Policy 4.01 “Acquisition & Maintenance of District Lands”, Section E as: “areas within preserves, or possibly entire preserves, which because of certain criteria limiting their use, are planned and subsequently managed primarily for preservation of natural resources and viewshed.” CMUs are frequently the focus of voluntary restoration projects and off-site compensatory mitigation because of their high-quality habitats.