6 Implementation Plan

The Implementation Plan presents the recommended courses of action (strategies) that have been developed through collaboration among project partners. Since the March ARB CUS is the result of a collaborative planning process, the strategies truly represent a consensus-based plan and a realistic and coordinated approach to compatibility planning.

The Implementation Plan is the heart of the March ARB CUS and includes a variety of actions that promote education, communication, compatible land use, and resource planning. Upon implementation of the strategies, existing and potential compatibility issues arising from the civilian/military interface can be eliminated. or significantly mitigated.

The CUS is not an enforceable plan, but rather a set of recommendations. The key to successfully implementing the strategies is the establishment of a March ARB CUS Partnership Committee to monitor progress and to address future compatibility issues as they arise.

The March ARB CUS serves as a planning tool to assist in guiding compatible growth and maintaining the balance between the needs and interests of both the community and the military. The goal of compatibility planning is to promote an environment where both community and military entities communicate, coordinate, and implement mutually supportive actions.

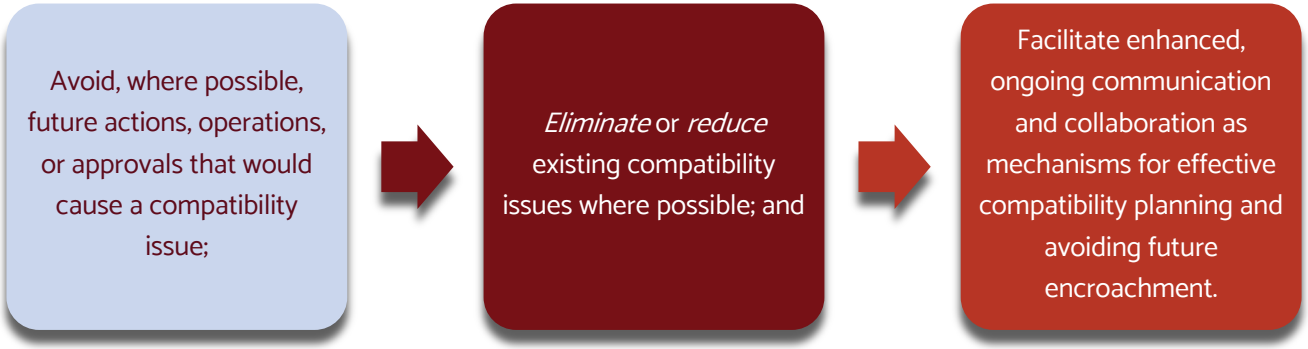
6.1 Implementation Plan Guidelines

The key to a successful implementation plan is balancing the different needs of all the involved stakeholders. To produce an equitable plan, several guidelines were used as the basis for strategy development:

- Recommended strategies must not result in the taking of property value, meaning rendering the property undevelopable or unable to achieve economic gain by the removal of development rights defined by state law. Some of the recommended strategies may involve establishing conservation easements on private property, but only if landowners are willing to take such actions.
- To avoid issues relating to the non-compliance of existing land uses, any zoning amendments or regulatory changes should include "grandfather" clauses to allow existing legal uses to be retained.
- Any proposed changes to regulatory or policy guidance, such as to zoning ordinances or general/comprehensive plans, should not affect properties that have existing entitlements or that have been previously approved for development.
- To minimize regulation, implementation of some strategies is recommended only for the specific geographic areas within which relevant issues occur.
- Some recommended strategies can be implemented only with new legislation.
- Any strategy that involves developing new regulatory measures or updating existing ones, such as amending zoning ordinances or adding new zoning overlay districts to existing zoning ordinances, and any strategy that amends municipal guidance documents, such as community general plans or county comprehensive plans, is subject to all legal processes required by California legislation and local regulations before implementation. Consequently, some recommended strategies may involve the notification of affected and potentially affected property owners and/or land management entities, as well as public hearings.
- As in other planning processes that include numerous stakeholders, the challenge here is to create a solution or strategy for outcomes that meet the needs of all parties. In lieu of eliminating strategies that do not have complete buy-in from all stakeholders, each strategy may be further refined to create multiple approaches that address the same issue in tailored, community-specific ways.
- Since state and federal regulations are subject to change, implementing jurisdictions or parties should ensure that no conflicts have arisen between strategies and local, state, or federal laws prior to implementation.

6.2 How to Read the Implementation Plan

The strategies presented in this chapter address the compatibility issues that were identified while preparing the March ARB CUS and constitute the CUS Implementation Plan. The purpose of each strategy is to:



The strategies include information about when and how they should be implemented and are grouped according to the compatibility issue they address. The following paragraphs provide an overview of how to read the Implementation Plan.

Issue Box. The issue box that identifies the specific compatibility issue being addressed is presented before each recommended strategy or set of strategies.

Strategy Box. The descriptive title of each strategy is presented in bold in the strategy box. Each title starts with a unique alphanumeric identifier that provides an easy reference and further encodes the related, general compatibility factor abbreviation and a unique numeric identifier (e.g., COM-1, COM 1B, etc.). This descriptive title is followed by the complete strategy statement or recommended action.

Strategy Rows. Each strategy is presented in two rows in the table. The first row includes a description of the strategy and the parties who are responsible for its implementation. The second row identifies the type of strategy, the timeframe suggested for implementation, the area where the strategy should be implemented, and the level at which implementation is prioritized.

Party Column. A column along the right side of the strategy boxes identifies the stakeholders who should serve as either a "Responsible Party" or a "Partner." Responsible Parties are responsible for implementing the strategy, while Partners play supporting roles.

Strategy Type. This box identifies the type of tool that a strategy constitutes. Strategy types are indicated by the icons shown below. Some strategies constitute multiple types, such that multiple icons will be listed.

- Acquisition
- Coordination/Communication
- Education/Awareness
- Easement
- Legislative
- General Plan/Comprehensive Plan
- Partnership
- Planning
- Policies
- Process
- Real Estate Disclosure
- Regulations
- Study
- Zoning

Strategies that are marked with an icon may be eligible for follow-on implementation funding from the OLDCC. Parties responsible for implementation will have to apply for and be awarded OLDCC or other grants. Designation via this icon in the CUS Implementation Plan represents a potential funding opportunity, with eligibility determined by the granting agency or agencies. It should be noted that OLDCC provides funding to communities and local government organizations, but not to the U.S. Army or other DoD entities.

Timeframe Box. This box presents the recommended timeframe in which a strategy should be implemented. The timeframes represent multi-year periods during which strategies should be initiated or indicate actions that should be ongoing, whether continuous, intermittent, or as needed.

Short-term (0-2 years). Strategy is to be initiated within 0-2 years following March ARB CUS completion.

Mid-term (2-5 years). Strategy is to be initiated within 2-5 years following March ARB CUS completion.

Long-term (5+ years). Strategy is to be initiated in 5 or more years following March ARB CUS completion.

Ongoing. Strategy is to be implemented on a continuous, intermittent, or as-needed basis.

Priority Box. Similar to level of importance, the priority box indicates the degree to which implementation of a strategy is a priority. Implementation may be a low, medium, or high priority.

6.3 Implementation Plan

Anti-Terrorism/Force Protection (AT/FP) Issues

AT-1: There are concerns about development next to or along the March ARB security perimeter fence line.

Physical development of large warehouses and other tall structures directly along the perimeter of March ARB presents security challenges to Air Force security requirements. Current setbacks and building height restrictions for new construction along the boundary of the air reserve base may not be compatible with air installation security requirements.

Recommended Strategy

AT-1A: Establish setbacks and maximum allowable heights for future development.

Revise setback requirements and/or maximum allowable heights for structures to be consistent with primary structures for zoning districts that abut March ARB installation boundary. Setback requirements and maximum allowable heights for structures should be established in consideration of military force protection and base security.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA
- ALUC

Partner(s)

- March ARB
- March IPA

Strategy Type

Timeframe

Priority

AT-1B: Continue collaboration and coordination with March JPA and adjacent commercial activities regarding base security.

March ARB security forces need to work with March JPA and adjacent commercial businesses and activities to address security issues that are occurring on properties that can be potential risks to the March mission. March ARB should work with March JPA and local law enforcement on security design (CPTED principles) when developing properties adjacent to the base.

Responsible Party(ies)

- March ARB

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

AT-1C: Foster collaborative efforts with local law enforcement agencies.

March ARB security forces should continue to work with local LEAs to address crime prevention and security concerns surrounding the base. The base security forces should also improve communication and coordination with local law enforcement to provide layered security for surrounding areas and businesses while protecting the March mission and force protection.

Responsible Party(ies)

- March ARB

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside

Strategy Type

Timeframe

Priority

AT-1D: Promote commercial security awareness.

Work with the CUS Partners regarding land use control in the immediate area surrounding March ARB to develop security awareness targeted towards commercial activities. Information should address March ARB security considerations and be made available on CUS Partner websites to maximize awareness.

Responsible Party(ies)

- City of Perris
- City of Moreno Valley
- City of Riverside
- March ARB
- March JPA/MIPAA

Partner(s)

- Riverside County Office of Economic Development

Strategy Type

Timeframe

Priority

AT-1E: Initiate "Eyes on March ARB" Program.

Engage local community groups and jurisdictions to work with LEAs to create a March ARB Community Watch Program, whereby citizens and public safety officers that witness trespassing onto the installation inform a designated point of contact at the base.

Responsible Party(ies)

- March ARB

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

AT-2: Transfer of Green Acres from March JPA to private commercial property presents a force protection risk for unvetted individuals to gain access or conduct surveillance/data collection.

The potential future transfer of Green Acres to private commercial interests presents an unusual force protection concern and potential risk for March ARB. Currently, the base perimeter security fence follows a gerrymandered path that divides this contiguous historic district between JPA-managed properties and installation facilities, including headquarters facilities. The effectual subdivision of Green Acres from the March Field Historic District presents a unique security challenge as the recommended minimum standoff distances for an external buffer cannot be achieved without the demolition of existing structures.

Recommended Strategy

AT-2A: Continue ongoing coordination with March ARB regarding final disposition and conditions of acceptance for future property transfer of Green Acres during the sunset of March JPA reuse authority.

Continued ongoing coordination between March ARB and March JPA with regard to the final disposition of projects and properties within the Northeast Corner of March JPA will mitigate any perceived or potential risk. Record any conditions of transfer with deed restrictions to ensure that setback requirements are enforced in perpetuity.

NOTE: During the completion of the MCUS, the MJPA voted to retain ownership of the Green Acres community and work with March ARB on a military housing program. This decision by the MJPA implements this recommended strategy

Responsible Party(ies)

- March JPA/MIPAA

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

AT-2B: Upgrade perimeter security fencing and stand-off distances within the March Field Historic District between Green Acres and March ARB on-base facilities.

March ARB should prioritize installation security upgrades within the March Field Historic District that incorporate DoD force protection standards, while ensuring historic district architectural integrity.

Responsible Party(ies)

- March JPA/MIPAA

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

Climate Change (CE) Issues

CE-1: Rising groundwater impacts existing facilities and the design and construction of new facilities on March ARB.

The rising groundwater table has the potential to impact existing facilities/infrastructure on March ARB. This includes impacts to the airfield runways and related facilities. In addition, new designs and construction projects must account for impacts such as saturated soils that create significant technical, budget, and schedule challenges. (See also WQQ-3)

Recommended Strategy

CE-1A: Collaborate with agencies involved with the North Perris Groundwater Project.

March ARB should collaborate with the Eastern Municipal Water District and the Western Municipal Water District for the implementation/execution of the North Perris Groundwater Project to monitor groundwater levels, which may affect new designs and construction projects on the airfield. When fully operational the project will result in reduced groundwater levels under the installation. This, in turn, may potentially alleviate the rising groundwater directly below March ARB and the surrounding area.

Responsible Party(ies)

- March ARB
- Eastern Municipal Water District
- Western Municipal Water District

Partner(s)

- Riverside County
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

CE-1B: Establish local design standards for rising groundwater.

Until the rising groundwater is reduced, March ARB should continue to ensure all new construction and major repair projects account for high water tables and associated soil issues that can affect the stability of facility foundations and other underground infrastructure. March ARB should ensure that the required engineering and design specifications, such as remedial grading and shallow foundations, are incorporated to overcome high water table issues and mitigate this risk.

Responsible Party(ies)

- March ARB
- Eastern Municipal Water District
- Western Municipal Water District

Partner(s)

- CDWR
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

CE-1C: March ARB should closely monitor groundwater levels.

March ARB should closely monitor groundwater under the installation to assess if levels are rising or falling during the North Perris Groundwater Project execution. Continually rising and /or excessively falling water levels may be a cause for concern.

Responsible Party(ies)

- March ARB
- Eastern Municipal Water District
- Western Municipal Water District

Partner(s)

- City of Perris
- CDWR
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

CE-1D: Update local groundwater management plans for March installation projects and requirements.

Groundwater management plans should be updated to incorporate provisions and coordination with military operations in the area to ensure future actions and improvements do not adversely impact the March ARB facilities and operations.

Responsible Party(ies)

- March ARB
- Eastern Municipal Water District
- Western Municipal Water District

Partner(s)

- CDWR
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

CE-1E: Evaluate buried utilities on the installation for the effects of rising groundwater levels.

March ARB should evaluate buried utilities during preventative and corrective maintenance (PM/CM) actions that require access to underground systems. Any deficiencies noted with regard to groundwater intrusion should be documented for future permanent resolution. In addition, actions that can be implemented during PM/CM to temporarily mitigate the problem should be taken.

Responsible Party(ies)

- March ARB
- Eastern Municipal Water District
- Western Municipal Water District

Partner(s)

- March JPA/MIPAA

Strategy Type

Timeframe

Priority

CE-1F: March ARB should advocate for a study to investigate existing and potential future impacts to submerged underground utilities.

The study should include recommendations to eliminate or mitigate any identified concerns.

Responsible Party(ies)

- March ARB

Partner(s)

- Riverside County
- ALUC
- City of Riverside
- City of Perris
- City of Moreno Valley
- RCFC&WCD
- March JPA/MIPAA
- Eastern Municipal Water District
- Western Municipal Water District

Strategy Type

Timeframe

Priority

Communication/Coordination (COM) Issues

COM-1 Formalized communication is limited between March ARB and regional planning entities.

There is no official standing forum for March ARB and the communities/agencies around the installation to identify, communicate and coordinate on topics of interest to all parties. March ARB currently works individually with local communities/agencies on an as-needed basis. As issues arise, communication and coordination are handled on a case-by-case basis through the exchange of emails, phone calls, or other methods between March ARB and individuals of the jurisdiction/agency. Lack of a formal standing communication/coordination process increases the likelihood of missed opportunities and risks dealing with issues "late to need" or "after the fact." Staffing shortages on base further undermine responsiveness as it concerns formalized communication between March ARB and surrounding planning entities/community partners.

Recommended Strategy

COM-1A: Establish a CUS Implementation Coordination Committee.

Establish a CUS Implementation Coordination Committee to provide oversight and monitoring of the CUS implementation and facilitate efficient and effective coordination among the CUS partners. Consider establishing a subcommittee comprising CUS Technical Advisory Group members to provide technical assistance during the CUS implementation.

Responsible Party(ies)

- Riverside County

Partner(s)

- Air Force
- March ARB
- City of Riverside
- City of Perris
- City of Moreno Valley
- March JPA/MIPAA
- ALUC
- Other stakeholder groups

Strategy Type

Timeframe

Priority

COM-1B: Invite March ARB representative to serve as a non-voting technical advisor.

Invite a March ARB representative to serve as a non-voting technical advisor to nearby jurisdiction planning commission/group to allow for March ARB to provide input on proposed developments that may impact the mission. Formalize the position through a resolution or an MOA. It may not be necessary for the March ARB representative to attend every meeting, and they will attend based on relevance and staff availability. Consideration should be given to the formation of March ARB/Inland Port Military Affairs Sub-Committee.

Responsible Party(ties)

- ALUC

Partner(s)

- March ARB
- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

COM-1C: Incorporate March ARB as one of the agencies that review development applications at the initial stages.

Establish an MOU between March ARB and the jurisdiction, formalizing a process that provides copies of all conditional use, master plan, subdivision, rezoning, annexation, etc. to be reviewed by March ARB Subject Matter Experts (SMEs). Such review periods shall conform with existing community review periods for comment. This supports a proactive approach to identifying potential conflicts early in the proposed development application phase. Thus, coordination needs to be made externally to ensure a "one-stop" source is requesting input from the Base. This strategy could be further aligned to a March ARB/Inland Port Military Affairs Sub-Committee, if formed as recommended in COM-1B. A standardized MOU with the ALUC instead of 5 separate MOUs could provide efficiency and consistency among jurisdictions for March ARB development reviews.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA
- ALUC

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

COM-1D: Provide mutual briefings.

To perpetually enhance support and cooperation and reinforce the partnership between March ARB and local jurisdictions, the installation should annually present a "state of the installation" briefing including strategic goals, operational changes, and proposed construction projects that may impact the greater community to county commissions, city councils, congressional delegations, regional elected and appointed officials, and key partners within the project area. The counties and cities should provide annual briefings to March ARB of changes within the communities that may impact the installation including comprehensive plans, master plans, transportation plans, zoning, development projects, and capital improvement plans.

Responsible Party(ies)

- March ARB

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA
- ALUC

Strategy Type

Timeframe

Priority

COM-1E: March ARB should establish a local Air Force Partnership program.

March ARB should formally establish an Air Force P4 Partnership with local community partners. This partnership should establish a quarterly (or other time interval) P4 forum to share information. The P4 should consist of military installation leadership, local officials, and key staff. March ARB could provide updated information to the partners and/or local communities when changes in operations or mission arise, among other updates. The communities should regularly communicate relevant military-related information to the public through public websites, social media platforms, and other forms of noticing. Potential issues to be addressed:

- Capital infrastructure projects
- Environmental projects
- Resiliency
- Security
- Housing

Responsible Party(ies)

- March ARB

Partner(s)

- Riverside County
- ALUC
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

COM-2: Changes in key organization leadership can create strategic communication gaps.

Leadership changes at the installation level at March ARB, and with the directors of the ALUC, the March JPA, and MIPAA, can impact the relationship between these organizations and affect positive communication, which can, depending on timing, also affect development application reviews

Recommended Strategy

COM-2A: Conduct formal office calls and mission briefings to incoming organization directors and March ARB commanders.

March ARB and CUS partner entities and organizations should conduct office calls when a change in leadership has occurred to discuss the CUS purpose, current issues, and general relationship and expectations between the various groups.

Responsible Party(ies)

- ALUC
- March ARB

Partner(s)

- March JPA/MIPAA

Strategy Type

Timeframe

Priority

COM-2B: Provide ALUC agenda and projects to March ARB SME for project reviews, prior to the ALUC meeting.

ALUC should continue to work with local SME, such as the installation community planner, to formalize a review process that will facilitate receipt of March ARB feedback on projects sufficiently in advance of the ALUC meeting. March ARB is responsible for providing a SME for project reviews.

Responsible Party(ies)

- ALUC

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

COM-2C: Provide March JPA/TAC agenda and projects to March ARB SME for project reviews, prior to the TAC meeting.

March ARB representatives should routinely attend TAC monthly meetings to maintain situational awareness.

Strategy Type

Timeframe

Responsible Party(ies)

- March JPA/MIPAA

Partner(s)

- March ARB

Priority

COM-2D: Foster key staff relationships between key organizations.

Develop relationships at the senior staff level between March ARB and March JPA, and March ARB and ALUC. Fostering key staff relationships, especially with civil service deputies, will mitigate leadership turnover by leveraging the positional longevity of civil service senior staff with external counterparts at ALUC, March JPA, and other external organizations. This strategy can be incorporated into a March ARB Air Force Partnership Program (COM-1E), if established.

Strategy Type

Timeframe

Responsible Party(ies)

- ALUC
- March ARB

Partner(s)

- March JPA/MIPAA

Priority

COM-3: In certain circumstances, March ARB is required to route proposed installation responses for development reviews through its parent headquarters at AFRC at Robins AFB, Georgia.

The requirement to route proposed development application review through its parent headquarters may delay response to the review request, thus not allowing for formal March ARB review and comment to be considered in a timely manner.

Recommended Strategy

COM-3A: Seek authority from AFRC for March ARB to provide local response for routine development review requests.

Capital improvement projects may still require AFRC review. May require MOUs/MOAs to codify the process.

Responsible Party(ies)

- AFRC
- March ARB

Partner(s)

- Riverside County
- ALUC
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

COM-4: Formalized communication is limited between March ARB and the Eastern Municipal Water District.

March ARB has minimal communication/coordination with the Eastern Municipal Water District. While the Eastern Municipal Water District does not provide services directly to the installation, they are very closely involved with projects and actions that directly impact the installation mission essential operations. In some cases, the Eastern Municipal Water District is in close partnership with agencies, such as the Western Municipal Water District, that directly support March ARB. The lack of a formal communication/coordination process with the Eastern Municipal Water District increases the potential for impacts on March ARB activities.

Recommended Strategy

COM-4A: Host bi-annual or quarterly regional water coordination meetings.

March ARB, Eastern Municipal Water District, and Western Municipal Water District should create a bi-annual or quarterly forum to discuss upcoming projects directly affecting the base. Work with installation SME to establish a charter for the regional water coordination meetings. This strategy can be incorporated into a March ARB Air Force Partnership Program (COM-1E), if established.

Responsible Party(ies)

- March ARB
- Eastern Municipal Water District
- Western Municipal Water District

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

COM-4B: Develop MOU between March ARB, Eastern Municipal Water District, and Western Municipal Water District for reviews on upcoming capital improvement projects directly affecting the base.

Ensure proper contact information, project location information, a project description, and a deadline for comments are provided to the base representative as part of the agreement.

Responsible Party(ies)

- March ARB
- Eastern Municipal Water District
- Western Municipal Water District

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

COM-5: Post March JPA sunset communication with March ARB.

The March JPA currently functions as the liaison agency for March ARB on development review requests. With the anticipated sunset of the March JPA and transition of authority back to the conferring local governments, there is concern that future development on former Air Force property currently under the March JPA may not be adequately communicated to the installation.

Recommended Strategy

COM-5A: Riverside County ALUC, MIPAA, and March ARB should continue to communicate and collaborate on future development projects, both for private development and public capital improvement projects.

Riverside County ALUC, MIPAA, and March ARB should consider working with local jurisdictions and relevant agencies for planning review and comment. This would include the review process for certain types of development proposals, development applications, and other land use policy or regulatory changes that may impact military mission at the March ARB. Special consideration/attention should be given to the conveyance of land in CZs and APZs. March JPA should convey any property inside CZs to the Air Force or other controlling interest which can assure no further development on property. This strategy could be further aligned to a March ARB/Inland Port Military Affairs Sub-Committee, if formed as recommended in COM-1B.

Responsible Party(ies)

- March ARB
- ALUC
- March JPA/MIPAA

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside

Strategy Type

Timeframe

Priority

Frequency Spectrum (FS) Issues

FS-1: Implementation of 5G networks in the airfield vicinity may impact flight safety.

There is a concern that the new 5G networks may cause interference with aircraft radar altimeter readings. This poses a flight safety hazard, especially during instrument landings. In addition, there is a possibility that 5G may also impact the ASR systems at March ARB.

Recommended Strategy

FS-1A: Apply 5G "clear corridors", per FAA guidance, for/around March ARB.

Consider revising operating procedures and applying clear corridors, as identified in CFR 87 FR 4787, when the presence of 5G C-Band interference has been identified by Notices to Air Missions or by other means.

Responsible Party(ies)

- March ARB
- March JPA/MIPAA

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside

Strategy Type

Timeframe

Priority

FS-1B: Monitor FAA 5G policy changes and DoD Joint Interagency 5G research.

In addition to staying current with FAA 5G policy guidance and notices, March ARB and MIPAA should monitor results from DoD Joint Interagency 5G Radar Altimeter Interference (JI-FRAI) Team which has been tasked with evaluating the impact of 5G on military avionics. Gather information as applicable from Office of Secretary of Defense (OSD) Joint Test and Evaluation funded quick reaction test (QRT) on 5G interference.

Responsible Party(ies)

- March ARB
- March JPA/MIPAA

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside

Strategy Type

Timeframe

Priority

FS-1C: Establish a 5G buffer zone.

Establish a 5G buffer zone of at least one mile around the runways, to identify and evaluate 5G tower development applications, or consider adoption of a temporary moratorium on 5G tower construction, until such time as national FAA and FCC guidance is mature. The FAA has established a 1-mile 5G-free buffer zone at 50 major airports across the country. With this precedent set and potential new airframes coming online for March ARB, it is important to ensure pilots are able to receive key landing instructions without signal interference on initial approach and departure.

Note: The State of California has imposed fast-track processing requirements as part of a California state policy to quickly complete 5g which may severely limit the ability of local jurisdictions to regulate these projects.

Responsible Party(ies)

- March ARB
- ALUC
- March JPA/MIPAA

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside

Strategy Type

Timeframe

Priority

Land Use (LU) Issues

LU-1: Riverside County ALUCP does not fully identify aircraft safety zones for Runway 12-30.

The 2014 ALUCP for March ARB identifies Runway 12-30 as a 3,000-foot, B-1 small runway rated at 12,500 lbs. and primarily for small single- and twin-engine aircraft. The ALUCP also notes that the runway's 1,000-foot CZs do not extend off Air Force property. No aircraft APZs are identified or mapped for this runway in the ALUCP.

Recommended Strategy

LU-1A: Update the Airport Compatible Use Land Use Compatibility Plan to include recommendations from the 2018 AICUZ with regards to Runway 12-30.

Riverside County and the ALUC should work with March ARB to update the ALUCP to account for current and future operational requirements.

Responsible Party(ies)

- Riverside County
- ALUC

Partner(s)

- March ARB
- March JPA/ MIPAA

Strategy Type

Timeframe

Priority

LU-1B: Involve communities in future ALUCP updates.

ALUC should involve CUS partner community staff in all future ALUCP updates. These updates should include determining incompatibilities related to General Plan designations and/or zoning of vacant or underutilized land and ensuring that CUS partner communities are aware of any changes to noise contours or safety zones that should be updated in their respective general plans and/or zoning maps.

Responsible Party(ies)

- March ARB
- ALUC

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

LU-2: Commercial and industrial land use inside the APZs I and II of Runway 14- 32 and Runway 12-30 south is nearing complete buildout at a maximum lot coverage of 50%.

Heavy commercial and industrial development within the main runway APZs constitutes a potentially significant risk for structural impact from air mishaps occurring within the APZs. The standard probability of a mishap, if one occurs, is 10% within APZ I; the probability of a mishap within APZ II is 5.6%.

Recommended Strategy

LU-2A: Ensure that future development complies with 2018 AICUZ recommendations.

The development reviewing authority for the CUS partner communities should require proof of compliance with human intensity requirements identified in DoD AICUZ Guidance, also described in the 2018 March ARB AICUZ Study.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA
- Riverside County ALUC

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

LU-2B: Foster enhanced public awareness and education through accurate mapping.

Participate in the regional GIS consortium to share and exchange current and accurate GIS data relevant to base planning and military compatibility. Make changes available to the public.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA
- Riverside County ALUC

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

LU-3: There is concern regarding the inconsistent application of community intensity standards for developments within the March ARB runway safety zone.

Floor-to-area ratio (FAR) recommendations for APZs as recommended by DoDI 4165.57 are sometimes interpreted, or applied, differently by different jurisdictions during review of development applications. This can create challenges during ALUC review of project development applications within its purview.

Recommended Strategy

LU-3A: Clarify and standardize the intensity standards in the ALUCP and local zoning ordinances.

The APZ limitations for the people per acre intensity need to be standardized to make the application of AICUZ recommendations more consistent between jurisdictions and planning entities. In some cases, the intensity recommendation of no more than 25 persons per acre for APZ I and 50 persons for APZ II is interpreted as applying to the entire parcel. In other cases, the standard is interpreted as applying only to occupancy rates within a structure's footprint. These regulations need to be standardized among the surrounding communities for consistent application and enforcement. Reduce maximum intensity per any single acre clause in ALUCP to be more consistent with AICUZ intensity recommendations.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

LU-4: Existing infrastructure and development within the CZs for the March ARB runway create a potential safety hazard.

Private and commercial structures inside the southern CZ of Runway 14-32 conflict with DoD AICUZ guidance and Air Force recommendations for graded CZs. The presence of activities within the CZ presents public safety hazards and risks to flight crews.

Recommended Strategy

LU-4A: Secure runway Clear Zones.

Secure runway Clear Zone (CZ) fee simple acquisition through the use of Readiness and Environmental Protection Integration (REPI) authority using Air Force service funding. For properties that are partially within and partially outside the CZ, with structures outside the CZ, pursue the acquisition of avigation easements to ensure that no structures are built or extended into the CZ. Establish safety area setback standards in the local zoning code for any new development. This will facilitate the protection of this area for aviation operations and protect the public from safety hazards associated with aviation operations.

Responsible Party(ies)

- Air Force
- March ARB

Partner(s)

- DoD
- Private property owners

Strategy Type

Timeframe

Priority

LU-4B: Address current public infrastructure inside runway Clear Zones.

Ensure public roadways, utilities, and other public infrastructure within the CZ comply with ALUCP obstruction requirements for Zone A. Consider relocation, rerouting, and/or adoption of frangibility standards for critical components that cannot avoid crossing the clear zone. This will help minimize risks to flight crews. Projects identified by this strategy may qualify for DCIP grant award. Extreme consideration should be given to not widen existing, or extending new, road segments and adding additional above-ground utilities within the CZs.

Responsible Party(ies)

- March ARB
- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Partner(s)

- Caltrans
- Riverside Co. Flood Control
- Local utilities

Strategy Type

Timeframe

Priority

LU-4C: Develop a Clear Zone strategy.

CUS partner communities located within the March ARB CZs should develop a strategy to address existing private and public structures within the CZ. CUS partner communities located within the March ARB CZs should develop a strategy to address existing private and public structures within the CZ. Develop a strategy considering recommended acquisition, planning, and coordination strategies this CUS recommends. Consider developing an incentive program to purchase CZ parcels from willing private landowners.

Responsible Party(ies)

- March ARB
- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Partner(s)

- Riverside County Office of Economic Development
- Private property owners

Strategy Type

Timeframe

Priority

LU-4D: Continue coordination for infrastructure planning with March ARB.

March ARB and the CUS partnership communities should continue to coordinate on any current or future infrastructure projects within the CZ. Coordination should begin early in the process and continue throughout the life of the project to reduce costs and lost time on plan changes.

Responsible Party(ies)

- March ARB
- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA
- Caltrans

Strategy Type

Timeframe

Priority

LU-5: The location of existing residential areas within the March ARB airfield runway APZ creates a potential safety hazard.

The presence of an existing residential neighborhood at Ramona Expressway and Webster Avenue inside the southern APZ I of Runway 14-32 conflicts with DoD AICUZ and Air Force recommendations for APZs. DoD recommends no residential land use in APZ I and no more than two dwelling units per acre within APZ II.

Recommended Strategy

LU-5A: Increase Public Awareness of CZs and APZs.

Increase information sharing between March ARB and the community regarding CZs and APZs, development compatibility, and mitigation options. Develop educational materials or maps displaying March ARB CZs and APZs with the goal of dissuading new residential development within these aircraft accident potential zones.

Responsible Party(ies)

- March ARB
- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA
- ALUC

Partner(s)

- Riverside County Office of Economic Development

Strategy Type

Timeframe

Priority

LU-5B: Incentivize the transfer of residential property to industrial property by means of a buyout or relocation package.

As noted in the 2017 March APS, leverage economic development grants, industry partnership, and government tax incentives or relocation assistance through voluntary programs with willing landowners to transfer existing residential land use to industrial or commercial use. Additionally, FEMA offers Hazard Mitigation Assistance (HMA) grant programs through buyouts of individual properties to relocate homeowners from hazard prone areas. The BRIC grant program is authorized for this purpose.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside

Partner(s)

- March JPA/MIPAA
- Riverside County EDA
- Local real estate organizations
- NAIOP So Cal

Strategy Type

Timeframe

Priority

LU-5C: Consider application of mandatory plat note recording.

Consider requiring recording of plat note for future transfer of property for all residential properties located within any APZ of March ARB that the property is within an aviation APZ.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside

Partner(s)

- Riverside County Office of Economic Development
- Local real estate organizations
- NAIOP So Cal

Strategy Type

Timeframe

Priority

LU-5D: Amend state law to address additional dwelling units inside APZs.

Amend state law to allow jurisdictions to limit additional dwelling units on properties in CZ and APZs. The existence of legal nonconforming residential uses within the APZs south of March ARB creates the need for legislation at the state level to allow jurisdictions to limit the potential expansion of residential use on these properties.

Responsible Party(ies)

- Riverside County
- City of Riverside
- City of Perris
- City of Moreno Valley
- Other appropriate entities

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

LU-6: There is concern with altimeter inaccuracy on approach/departure due to incompatible development.

Air Force pilots report "bouncing readouts" on final approach due to the significant size and placement of industrial buildings beneath the flight path within APZs I and II. This can affect aircraft flight controls and creates additional pilot demand to ensure flight controls are stable during landings.

Recommended Strategy

LU-6A: Advise all pilots flying aircraft equipped with radio altimeters of this issue.

Develop a NOTAM for pilots flying aircraft equipped with radio altimeters that inaccurate readings may occur beneath the flight path within APZs I and II upon approach/departure.

Responsible Party(ies)

- March ARB
- MIPAA

Partner(s)

- FAA

Strategy Type

Timeframe

Priority

Light and Glare (LG) Issues

LG-1: Increased glare from residential and commercial solar array installations may pose a potential hazard to safe flight operations and ATC operations at March ARB.

The installation of multiple rooftop solar energy systems on residential homes and commercial facilities around March ARB may increase light reflection and glare/glint, which may have ocular impacts on flight crews or air traffic control tower personnel operating on or near the airfield.

Recommended Strategy

LG-1A: Update plans and regulations for commercial solar energy development.

Update plans and regulations to include guidance for commercial solar energy development within ALUC-prescribed airport influence areas for March Airfield. CUS partner communities should consider code updates including requirements for commercial solar energy development that align with Military and Aviation and Installation Assurance Siting Clearinghouse processes. Updated regulations should also include coordination with the ALUC, March JPA, and March ARB community planning office.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA
- ALUC

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

LG-1B: Require Solar Glare Hazard Analysis for all solar projects within the airport influence area.

Require any proposed commercial, industrial or subdivision installation of ground-based, parking shade, or rooftop solar energy (PV or SHW) project to provide ocular impact assessment using the SGHAT or other similar glare analysis tool to evaluate potential glare impacts on airfield landing approaches and ATC tower. Require developers to provide an ocular impact statement for any roof structures which install solar roof panels (many current commercial solar systems are compliant). Consider the application of compliance standards for existing solar or high-light reflective roof surfaces.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA
- ALUC

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

LG-2: Address the cumulative impacts of ambient lighting due to increased development outside of ALUC authority.

Operational flying units at March ARB routinely conduct night training operations. March ARB has identified concerns with ambient artificial nighttime outdoor lighting around the base that is affecting the unit's ability to meet military readiness training requirements for aircrew proficiency. Over the last 10 to 15 years, development has increased the cumulative effects of artificial nighttime outdoor lighting.

Recommended Strategy

LG-2A: March ARB should adopt dark skies compliant installation design standards.

Consider adopting DoD guidance on same UFC 3-530-01, Interior and Exterior Lighting Systems and Controls.

Responsible Party(ies)

- March ARB
- March JPA/MIPAA

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside

Strategy Type

Timeframe

Priority

LG-2B: Adopt lighting ordinances for dark skies.

Communities should consider adopting dark sky ordinances or amend current dark sky ordinances to decrease light pollution in the region.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

LG-2C: Enforce all lighting and dark sky ordinances.

Enforcement of current lighting and dark sky ordinances is important for maintaining effective ordinances.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

LG-2D: Create a dark sky educational awareness program.

Demonstrate the importance of dark skies for the region, its cumulative effect, and provide information on light glow effects.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

Roadway Capacity (RC) Issues

RC-1: There is concern that traffic queueing to enter March ARB impedes the flow of traffic along Cactus Avenue.

Specific concerns have been expressed regarding long lines of traffic queueing to enter through the main ACP for March ARB, which is accessed directly from Cactus Avenue. The location of the ACP, and its current design, may impede the free flow of local traffic along Cactus Avenue.

Recommended Strategy

RC-1A: Conduct a Military Needs Study for March ARB.

The Riverside County Transportation Commission, working with March ARB, should conduct a military transportation needs study for March ARB. The study should serve, at a minimum, the following purposes: Determine military transportation needs. Provide a safe and efficient transportation network for the military and civilian community around March ARB. Identify areas of greatest traffic congestion and times it occurs. Establish priority areas for improvement. Develop strategies to address the issues/concerns identified. Increase active transportation options around March ARB.

Responsible Party(ies)

- March ARB
- City of Moreno Valley
- Riverside County Transportation Commission

Partner(s)

- Caltrans
- March JPA/MIPAA
- City of Riverside
- City of Perris
- County of Riverside

Strategy Type

Timeframe

Priority

RC-1B: Request SDDCTEA Traffic Engineering Study.

March ARB should make a request through AFRC for SDDCTEA to conduct a traffic engineering study of the current ACP/ECF and evaluate relocation of the current gate from Cactus Avenue to Riverside Drive.

Responsible Party(ies)

- March ARB
- AFRC

Partner(s)

- March JPA/MIPAA
- County of Riverside
- ALUC

Strategy Type

Timeframe

Priority

RC-1C: Coordinate with City of Moreno Valley for road enhancements to support access/gate improvements.

After Strategy RC-1A is completed, the City of Moreno Valley and March ARB should coordinate to develop a set of priorities and request funding for roadway and gate improvements.

Responsible Party(ies)

- March ARB
- City of Moreno Valley

Partner(s)

- Caltrans

Strategy Type

Timeframe

Priority

RC-1D: Partner with City of Moreno Valley, Caltrans, and Riverside County to build a DCIP grant funding request.

DCIP application should be based on requirements supported by traffic engineering or needs study (Strategy RC-1A or RC-1B).

Responsible Party(ies)

- March ARB
- ALUC
- Riverside County
- City of Moreno Valley

Partner(s)

- Caltrans
- AFRC
- Riverside County Transportation Commission
- SCAG

Strategy Type

Timeframe

Priority

RC-1E: Evaluate staggered work shifts.

March ARB should evaluate, on an ongoing basis, utilizing and optimizing staggered work shift start times to spread out the number of personnel entering and exiting the base and reduce vehicle volumes during peak traffic.

Responsible Party(ies)

- March ARB

Partner(s)

- March JPA/MIPAA

Strategy Type

Timeframe

Priority

Safety (SA) Issues

SA-1: Increased development is encouraging wildlife to utilize March ARB airfield as habitat.

Increased development in the direct vicinity of March ARB, along with ponding stormwater on the airfield, has the potential to encourage bird/wildlife movement to the airfield, causing increased safety concerns for airfield management and pilots. The abundance of ground squirrels and stray animals increases the chances of large predators moving into the airfield environment in search of food and water. This also creates the increased potential for FOD to aircraft, and damage to critical systems on the airfield, due to animals potentially chewing wires. *This finding includes concerns with, but is not exclusive to, the California ground squirrel, horned larks, and coyotes.*

Recommended Strategy

SA-1A: March ARB should continue to take actions to eliminate small low areas on and around the airfield.

Fill dirt should be used to raise low spots to level with surrounding land. Larger areas susceptible to ponding should be regraded to direct water away from the airfield and towards stormwater flow channels. See Strategies SM-1A, SM-1B and SM-1C, CE-1A, CE-1B, CE-1C, and CE-1D, all of which apply to this issue.

Responsible Party(ies)

- March ARB
- March JPA/MIPAA

Partner(s)

- Air Force Civil Engineering Center
- Riverside County Flood Control

Strategy Type

Timeframe

Priority

SA-1B: Research and consider modifying local CEQA implementation guidance to address bird attractant potential as part of project design and conditions of approval.

Increasing bird and wildlife populations on the installation and airfield create multiple hazards and impacts for military operations, presenting an increased threat to airfield operations, including flying aircraft and associated personnel. There is a need to research possible modification of local CEQA regulations for guidance in an effort to reduce the potential bird attractants while maintaining compliance with CEQA.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Partner(s)

- Air Force

Strategy Type

Timeframe

Priority

SA-1C: Coordinate on wildlife policies.

Continue to coordinate and collaborate with the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service on the inclusion of additional or revised wildlife policies that incorporate concerns related to BASH and assist in minimizing the risk of bird/wildlife airstrikes in areas proximate to military training sites. Formalize this coordination through an MOU.

Responsible Party(ies)

- March ARB
- Air Force
- California Department of Fish and Wildlife
- U.S. Fish and Wildlife Service

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

SA-1D: March ARB should continue to survey for California ground squirrels to identify population locations.

Additionally, March ARB should continue to implement depredation actions for California ground squirrels in accordance with the installation 2021 INRMP.

Responsible Party(ies)

- March ARB

Partner(s)

- California Department of Fish and Wildlife
- U.S. Fish and Wildlife Service

Strategy Type

Timeframe

Priority

SA-1E: Increase surrounding landowner awareness.

March ARB and the JPA should develop a detailed outreach and educational program to inform surrounding landowners on the impacts, scope, and effects of BASH and outline compatible solutions and techniques to minimize conflicts. Share ALUC wildlife hazard policies on CUS partnership websites.

Responsible Party(ies)

- March ARB
- March JPA/MIPAA
- ALUC

Partner(s)

- Riverside County
- City of Riverside
- City of Perris
- City of Moreno Valley

Strategy Type

Timeframe

Priority

SA-1F: Amend zoning ordinances.

Amend zoning ordinances to incorporate Air Force AICUZ recommended guidance to ensure future land uses and zoning will be compatible with airfield operations and do not create increased risks for BASH incidents.

Responsible Party(ies)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA

Partner(s)

- Air Force Safety Office/ BASH Program
- ALUC

Strategy Type

Timeframe

Priority

SA-2: There is concern with the location of critical roadways (I-215 and Cactus Avenue) within the March ARB runway CZ and APZ.

The presence of I-215 and its interchange with Cactus Avenue through the northern CZ of Runway 14-32, as well as local street infrastructure within the southern CZ, conflicts with USAF AICUZ recommendations for graded CZs.

Recommended Strategy

SA-2A: Secure runway CZ to gain positive control of non-public properties using REPI authority and Air Force funding to acquire fee simple title from willing landowners.

Partner with Riverside County EDA to pursue alternate acquisition strategies. This will facilitate the protection of this area for aviation operations and protect the general public from safety hazards associated with aviation operations.

Responsible Party(ies)

- March ARB

Partner(s)

- Air Force
- DoD
- Riverside County EDA

Strategy Type

Timeframe

Priority

SA-2B: Continue coordination for infrastructure planning with March ARB.

March ARB and the CUS partnership communities should continue to coordinate on current and future infrastructure extensions or capital improvements within CZs. Coordination should begin early in the process and continue throughout the life of the project to reduce costs and lost time on plan changes.

Responsible Party(ies)

- March ARB

Partner(s)

- Riverside County
- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA
- Caltrans
- Riverside County Flood Control

Strategy Type

Timeframe

Priority

SA-2C: March ARB should routinely conduct aviation mishap response training and exercises.

March ARB should routinely conduct aviation mishap response training and exercises with local emergency preparedness and response agencies for scenarios involving public roadways.

Responsible Party(ies)

- March ARB
- Riverside County Emergency Operations Center

Partner(s)

- City of Perris
- City of Moreno Valley
- City of Riverside
- March JPA/MIPAA
- Caltrans

Strategy Type

Timeframe

Priority

Stormwater Management (SM) Issues

SM-1: Flooding occurs along the perimeter of March ARB during significant rainfall events.

Flooding along Cactus Avenue, on the northern border between March ARB and the City of Moreno Valley, occurs during heavy rainfall. The flooding impacts traffic entering and leaving the base at the ECP. Heavy flooding has historically occurred along the eastern and western installation boundaries, resulting in infrastructure damage and traffic impacts both on and off the installation. The area along the western boundary of the base is impacted by stormwater runoff from I-215 and locations to the west.

Recommended Strategy

SM-1A: Riverside County Flood Control, March ARB, and managers for local USDA facilities should partner to fund and construct the 100% designed Cactus Avenue flood control channel along the northern base boundary and resolve any outstanding easement or rights-of-way acquisitions.

If necessary, seek federal grant funding from DCIP. Other stakeholder(s): Riverside County Flood Control, U.S. Department of Agriculture.

Responsible Party(ies)

- March ARB
- March JPA/MIPAA

Partner(s)

- Riverside County Flood Control
- U.S. Department of Agriculture
- DoD
- Air Force

Strategy Type

Timeframe

Priority

SM-1B: Riverside County Flood Control should continue to work with March ARB and affected stakeholders to complete the Perris flood control channel along the western and southwestern base boundary.

These flood control channels are part of a planned system around the base designed to protect from flood events and safely move stormwater away from the installation and surrounding communities. The completion of these channels, and others, should solve many of the stormwater issues the base has experienced in the past and is currently experiencing. The completion may require reassessment to ensure movement of stormwater is occurring as designed.

Responsible Party(ies)

- Riverside County Flood Control

Partner(s)

- March ARB
- City of Perris
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

SM-1C: Once all flood control channels are constructed around the perimeter of March ARB, the installation should monitor stormwater flows during rain events to identify/document any additional flooding concerns.

In recent years, the RCFC&WCD has made significant investments and developed plans for new flood control channels:

- Completion of the northern Heacock Channel along the eastern boundary of March ARB
- Completion of portions of the Perris Valley Lateral along the northwestern boundary of March ARB
- Ongoing construction of Perris Valley Lateral Stage 5 along the western boundary of March ARB
- Proposed construction of the Perris Valley Lateral Stage 4 along the southwestern boundary of March ARB
- Planned construction of the Perris Valley Lateral Stage 6 to be built by others
- Proposed construction of the Cactus Avenue Channel along the northern boundary of March ARB

These flood control channels, once fully constructed, will generally surround the perimeter of the installation and are designed to protect against 100-year flood events. Installation stormwater infrastructure and/or maintenance procedures may require reassessment to ensure movement of stormwater away from key locations, such as the airfield.

Responsible Party(ies)

- March ARB
- March JPA/MIPAA

Partner(s)

- Riverside County Flood Control

Strategy Type

Timeframe

Priority

SM-2: Rising groundwater in the vicinity of March ARB may potentially exacerbate stormwater sheet flow and flooding.

Rising groundwater levels on and around March ARB may potentially exacerbate stormwater sheet flows and flooding in the area. As the ground becomes more saturated and groundwater levels rise, portions of stormwater flow that might typically permeate the ground will remain on the surface and create additional sheet flow and/or ponding on and around the installation.

Recommended Strategy

SM-2A: See Strategies SM-1A, SM-1B and SM-1C, CE-1A, CE-1B, CE-1C, and CE-1D, all of which apply to this issue.

Responsible Party(ies)

- March ARB
- March JPA/MIPAA

Partner(s)

- Eastern Municipal Water District
- Western Municipal Water District

Strategy Type

Timeframe

Priority

SM-3: Stormwater collects around the south end of Graeber Street and Riverside Drive, causing heavy flooding.

During heavy rain events, stormwater tends to flow towards the southeastern end of Graeber Street and the southern end of Riverside Drive. The intersection of the roadways and the immediate surrounding area flood, as a result. It is reported that Graeber Street lacks adequate stormwater drainage.

Recommended Strategy

SM-3A: March ARB needs to fully assess stormwater flows on the installation to identify the source of flooding near the intersection of Graeber Street and Riverside Drive.

Graeber Street and Riverside Drive intersect in an area that was identified as subject to periodic flooding during and after heavy rains. Storm flooding in the area around the intersection of Riverside Drive and Graeber Street has the potential to impact March ARB operations, by creating a traffic safety hazard and potentially threatening the safety of installation personnel in severe flooding events. March ARB should apply for appropriate funding to have a drainage study conducted to fully understand the stormwater flows and mitigation needs.

Responsible Party(ies)

- March ARB
- March JPA/MIPAA

Partner(s)

- Riverside County Flood Control

Strategy Type

Timeframe

Priority

SM-3B: March ARB needs to evaluate existing stormwater infrastructure along Graeber Street and Riverside Drive to determine if existing infrastructure is adequate for stormwater flows identified in strategy SM-3A.

Stormwater collected along Riverside Drive is directed into the same open stormwater channel that runoff from the airfield is directed into and ultimately dumping into the Heacock flood channel along the installation boundary. This convergence of storm flow at "Outfall 2" may overwhelm the stormwater infrastructure during heavy rain events and result in flooding. It has been noted that Graeber Street may lack adequate stormwater drainage infrastructure.

Responsible Party(ies)

- March ARB
- March JPA/MIPAA

Partner(s)

- Riverside County Flood Control

Strategy Type

Timeframe

Priority

Utility Security (US) Issues

US-1: March ARB lacks a redundant power connection to off-base supplier.

Currently, March ARB is provided electrical power service via a single connection to the off-base electrical utility power grid. Redundant connections to the power grid increase installation resiliency in the event of a failure of a single-point grid connection. Failure to provide an alternate connection to the power grid or provide an alternate redundant electrical power supply increases the likelihood of temporary power interruptions and possible mission failure in the event of longer disruptions to service.

Recommended Strategy

US-1A: March ARB should work with the SCE and the City of Moreno Valley to explore opportunities to add a redundant electrical power service line.

March ARB should partner with local utility provider to pursue infrastructure improvements to ensure redundancy and the availability of power during any possible regional service disruptions.

Responsible Party(ies)

- March ARB

Partner(s)

- City of Moreno Valley
- Air Force
- SCE

Strategy Type

Timeframe

Priority

US-1B: March ARB should prepare and/or update the installation energy plan in accordance with USAF 2017-2036 Energy Flight Plan.

The plan should include goals/objectives to enhance installation energy resilience and decrease reliance on fossil fuels.

Responsible Party(ies)

- March ARB

Partner(s)

- Air Force

Strategy Type

Timeframe

Priority

US-1C: March ARB should explore energy resiliency initiatives such as microgrids to ensure reliable backup power in the event of service disruption.

March ARB should pursue the development and construction of a microgrid in collaboration with SCE, in order to meet critical mission assurance requirements. Consideration should be given to partnerships to pursue DoD funding and incorporation of renewable energy generation technology.

Responsible Party(ies)
- March ARB

Partner(s)
- Air Force
- DoD

Strategy Type

Timeframe

Priority

US-2: March ARB has no redundant water supply service line.

Currently March ARB is provided potable water from the Western Municipal Water District via a single water service line. A project that will allow Western Municipal Water District to provide an additional service line via the Eastern Municipal Water District water distribution system has been funded. Lack of a redundant water service line has the potential to impact military operations in the event of a single point failure.

Recommended Strategy

US-2A: The Western Municipal Water District, Eastern Municipal Water District, and March ARB should continue to implement the funded project to install a second potable water service line from the east side of the installation.

Western Municipal Water District, Eastern Municipal Water District, and March ARB should continue infrastructure improvements to ensure redundancy and the availability of water during any possible service disruptions.

Responsible Party(ies)
- March ARB

Partner(s)
- Air Force
- DoD
- Eastern Municipal Water District
- Western Municipal Water District

Strategy Type

Timeframe

Priority

Water Quality/Quantity (WQQ) Issues

WQQ-1: There is concern with the prioritization of potable water deliveries to March ARB in the event of major shortages.

There is a concern that there is no formal agreement that ensures that the Western Municipal Water District would prioritize delivery of adequate potable water supplies to March ARB in the event of local/regional major water shortages.

Recommended Strategy

WQQ-1A: March ARB should work with the Western Municipal Water District to establish a formal agreement that ensures a continuous water supply in the event of regional shortages.

This agreement would be similar to those used for community critical facilities/operations, such as medical, emergency support, etc.

Strategy Type

Timeframe

Responsible Party(ies)

- March ARB

Partner(s)

- Western Municipal Water District
- Eastern Municipal Water District

Priority

WQQ-1B: March ARB should prepare or update a water conservation plan to guide efforts to reduce installation water demand and use.

Southern California continues to be affected by an ongoing drought that has the potential to impact potable water deliveries throughout the region. A combination of reduced supplies and increased demand for water in the state has created the potential for water shortages. March ARB needs to prepare/update a Conservation Plan that will help reduce the current water demands on base.

Strategy Type

Timeframe

Responsible Party(ies)

- March ARB

Partner(s)

- Western Municipal Water District
- California Department of Water Resources

Priority

WQQ-1C: March ARB should develop/update local guidelines or establish regulations that mandate conservation/demand reduction actions in the event of regional water delivery reductions.

In addition to WQQ-1B, March ARB should provide regulations for water use in the event of delivery reductions or extended disruption of service.

Responsible Party(ies)

- March ARB

Partner(s)

- Western Municipal Water District
- California Department of Water Resources

Strategy Type

Timeframe

Priority

WQQ-2: The wastewater infrastructure serving March ARB is in need of repair/replacement.

The infrastructure that provides sanitary sewer service to March ARB is old and, in some cases, is failing. The Western Municipal Water District is responsible for the capital repairs, maintenance, and operation of the sanitary sewer system, including the infrastructure located on the installation. The March ARB mission is at risk without an adequate sanitary sewer capability.

Recommended Strategy

WQQ-2A: The Western Municipal Water District should complete the current project to replace the failed sewer line between March ARB and the Western Riverside County Regional Wastewater Authority (WRCRWA) facility.

The District noted that the sanitary sewer line connecting the installation to the District wastewater treatment plant has failed. The Western Municipal Water District is responsible for capital improvements, operation and maintenance of the system on the installation. Consideration should be given to a partnership to pursue DCIP or other grant funding.

Responsible Party(ies)

- Western Municipal Water District

Partner(s)

- March ARB

Strategy Type

Timeframe

Priority

WQQ-2B: The Western Municipal Water District should conduct a sanitary sewer survey.

In addition to the failed sewer line referenced in Strategy WQQ-2A above, there are likely additional lines in need of repair and/or replacement, along with other conditions that may impact the usability of the system; therefore, a survey should be conducted to determine the current status of all sewer lines on March ARB.

Strategy Type

Timeframe

Priority

Responsible Party(ies)

- Western Municipal Water District

Partner(s)

- March ARB

WQQ-2C: Identify and address installation wastewater deficiencies.

Consideration should be given to address any major deficiencies identified in public infrastructure supporting March ARB wastewater as part of any survey. WQQ-2B should be identified and appropriate repair/replacement projects programmed in the Western Municipal Water District sanitary sewer capital improvement plan. March ARB should continue to upgrade sewer lines on base as part of ongoing line improvements.

Strategy Type

Timeframe

Priority

Responsible Party(ies)

- Western Municipal Water District

Partner(s)

- March ARB

WQQ-2D: The Western Municipal Water District should continue to repair and upgrade the failing portions of the March ARB sanitary sewer system as part of its ongoing routine O&M operations.

Consideration should be given to replacing aging portions of the system before line failure occurs.

Strategy Type

Timeframe

Priority

Responsible Party(ies)

- Western Municipal Water District

Partner(s)

- March ARB

WQQ-3: Planned pump and treat operations to address rising groundwater may impact March ARB's ongoing contamination cleanup.

The Eastern Municipal Water District is implementing the North Perris Groundwater Project operations to try to reduce the level of groundwater on and around March ARB. The cause of the rising groundwater is not fully understood. While pumping and treatment may help alleviate the concern regarding rising groundwater levels, such activities could potentially affect March ARB's ongoing efforts to mitigate existing groundwater contamination that resulted from past activities on the installation.

Recommended Strategy

WQQ-3A: Ensure March ARB and AFCEC are provided regular updates on current and upcoming actions related to the North Perris Groundwater Pumping Project.

The Air Force has expressed a concern that the groundwater pumping activities associated with the North Perris Groundwater Project could potentially affect the March ARB groundwater cleanup activities. The ongoing communication between the Air Force and the Eastern Municipal Water District should help avoid any unanticipated impacts to either groundwater treatment operation.

Responsible Party(ies)

- Eastern Municipal Water District

Partner(s)

- March ARB
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

WQQ-3B: Closely monitor existing ongoing installation remediation plan projects.

This should be addressed to ensure no negative impacts, such as contamination plume mobility, are occurring as a result of the Eastern Municipal Water District groundwater pumping operations.

Responsible Party(ies)

- Eastern Municipal Water District

Partner(s)

- March ARB
- March JPA/MIPAA

Strategy Type

Timeframe

Priority

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