BEST PRACTICES FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF INFRASTRUCTURE THROUGH AND WITHIN THE RIPARIAN RESERVES

The sections below describe the requirements for minimization and restoration on the RIPARIAN RESERVES, an explanation of the categories of disturbance that may be permitted on the RIPARIAN RESERVES, the parameters of success for restoration activities, and best practices for restoration. These best practices shall be used as part of the evaluation of RIPARIAN RESERVES special use permit requests.

1 GOAL

The goal for activities that may temporarily or permanently disturb the RIPARIAN RESERVES is to minimize impacts to the greatest extent practicable. For those areas that are disturbed, the goal for restoration on the RIPARIAN RESERVES is to restore the maximum amount of the structure and function of areas that have been disturbed.

2 STANDARDS

In general, minimizing the aerial extent (aka footprint) of disturbed areas for all three categories of disturbance is strongly recommended. In those instances where disturbance is not avoided, restoration shall be required. The objective of restoration is the replacement of the maximum amount of cover and structure of living and dead native vegetation. Dead vegetation provides shelter for wildlife and vertical structure (known as "vertical mulch") that traps and shelters seeds of native species, thus allowing for increased germination rates compared to sites with less overall cover. In general, a project will be considered successfully restored when the following conditions are met (in comparison to pre-disturbance conditions or undisturbed reference sites):

- Meet or exceed the specified percent cover of native perennial vegetation
- Meet or exceed the specified percent cover of native annual vegetation
- Meet or exceed the specified species richness of native perennial vegetation
- Meet or exceed the specified species richness of native annual vegetation
- No increase in non-native species richness
- No increase in non-native species cover
- Lack of significant erosion
- Site is visually integrated into the surrounding undisturbed landscape

Remedial actions to meet restoration criteria will be taken when sites are not progressing towards meeting success standards. Monitoring and reporting periods will be extended if restoration criteria are not being met. See Section 5.4 for additional details on how success will be determined.

3 SITE RELEASE

After project completion, if the County has determined that restoration is on a trajectory towards recovery, no additional reclamation will be necessary. If restoration is not on a trajectory towards recovery, an additional review of restoration task success may be conducted by the County to determine if additional remediation is necessary.

4 CATEGORIES OF DISTURBANCE

Three categories of disturbance are described below: D-1, Overland Drive and Crush; D-2, Clear and Cut; and D-3, Clear and Cut with Soil Removal. Category D-2, Clear and Cut is strongly discouraged and existing access roads shall instead be used to access work areas. Each category is described in more detail below.

4.1 D-1. Overland Drive and Crush.

Disturbance caused by accessing a site without significantly modifying the landscape. Vegetation is crushed but not cropped. Soil is compacted, but no surface soil is removed. Examples include utility line tensioning and pulling areas, tower pad sites, overland access to fiber optic meter sites, salvaged soil or rocks stockpiling areas, and spur roads to electrical distribution line structures. Even though vegetation may be damaged or even destroyed, the surface soil and seed bank remains in place. Some crushed vegetation will likely resprout after disturbance ceases. These activities would result in minimal to moderate disturbance. This method has a low risk for invasion of non-native plant species.

D-1 Overland Drive and Crush Restoration Requirements

General restoration actions for Overland Drive and Crush disturbances include:

Pre-construction:

1 Conduct pre-construction monitoring
2 Seed collection
3 Cactus and yucca salvage and temporarily relocate outside of disturbance area and within the right-of-way

Post-construction:

1 Earthworks: selectively decompact terrain, if required by County, or erase tracks
2 Replace salvaged cactus and yucca within areas unlikely to be redisturbed within the right-of-way
3 Reseed
4 Treat for noxious and/or invasive weeds
5 Install restoration signs
6 Monitor and report

4.2 D-2. Clear and Cut.

Disturbance caused by accessing the project site, but having to clear all vegetation in order to improve or provide suitable access for other equipment. All vegetation is removed, soils are compacted, but no surface soil is removed. Examples include temporary access roads where the road is improved for access and could also include some examples from D-1 above. Clear and cut activities would result in moderate disturbance. This method has a moderate risk for invasion of non-native plant species.

D-2 Clear and Cut Restoration Requirements

General restoration actions for Clear and Cut disturbances include:

Pre-construction:

1 Conduct pre-construction monitoring
2 Seed collection
3 Cactus and yucca salvage and temporarily relocate outside of disturbance area and within right-of-way

4 Scrape and separate to the side of disturbance surface vegetation (i.e., vertical mulch), surface rocks, and surface soil. In other words, three passes are required - one to collect the vertical mulch and a second pass to collect surface rocks, and a third to collect the surface layer of soil.

Post-construction:

1 Earthworks: Replace surface soil, decompact terrain, recontour, replace vertical mulch and rocks
2 Process, remove, or color caliche
3 Perennial tree and shrub outplanting
4 Replant cactus and yucca within areas unlikely to be redisturbed within the right-of-way
5 Reseed
6 Treat for noxious and/or invasive weeds
7 Application of County-approved simulated landscape patina colorant to rocks and/or newly exposed caliche to camouflage the restoration area
8 Installation of restoration signs
9 Monitor and report

4.3 D-3. Clear and Cut with Soil Removal.

Disturbance caused by removing all vegetation in the impact zone, the soils are compacted and the surface soil is displaced and (for projects requiring underground installation) the subsurface soils also are displaced. These activities result in heavy disturbance and are most likely to lead to invasions of non-native plant species. Examples include pipelines, buried fiber optic lines, and access roads that require grading and filling.

D-3 Clear and Cut with Soil Removal Restoration Requirements

General restoration actions for Clear and Cut with Soil Removal disturbances include:

Pre-construction:

1 Conduct pre-construction monitoring
2 Seed collection
3 Cactus and yucca salvage and temporarily relocate outside of disturbance area and within right-of-way
4 Scrape and separate to the side of disturbance surface vegetation (i.e., vertical mulch) and surface rocks, surface soil, and subsurface soil. In other words, three to four passes are required - one to collect the vertical mulch, a second to collect surface rocks, and a third and possible fourth pass to collect each layer of soil depending on depth of disturbance.

Post-construction:

1 Earthworks: Replace soils (in proper order), decompact terrain, recontour, bank stabilization, replace vertical mulch and rocks
2 Process, remove, or color caliche
3 Perennial tree and shrub outplanting
4 Replant cactus and yucca within areas unlikely to be redisturbed within the right-of-way
5 Reseed
6 Treat for noxious and/or invasive weeds
7 Application of County-approved simulated landscape patina colorant to rocks and/or newly exposed caliche to camouflage the restoration area
8 Installation of restoration signs
9 Monitor and report

5 DETAILED DESCRIPTIONS OF RESTORATION REQUIREMENTS

The restoration plan shall be divided into five sections: 1) Survey and Planning Activities, 2) Pre-construction Actions, 3) Post-construction Actions, 4) Monitoring, and 5) Reporting. These sections shall describe sequential actions for a project, and each is described in more detail below.

5.1 Survey and Planning Activities

The following is a description of survey and planning activities required of proponents prior to the start of pre-construction actions. This includes: 1) project area survey; 2) identification of disturbance levels; 3) seed collection; 4) establishment of pre-construction site conditions 5) special status plant inventories; 6) determination of restoration actions; and 7) report to County.

1. Project Area Survey. All aspects of the project shall be surveyed, including but not limited to, permanent facility locations, permanent access roads, temporary use areas, stockpiling areas, pulling and tensioning sites, tower locations, spur roads, and temporary access roads. Surveys shall be recorded as GPS point features and delivered to the County as ArcView shapefiles or Arclnfo export files. Baseline pre-construction qualitative and quantitative monitoring of vegetation shall be performed by the project proponent to document the pre-construction conditions.

2. Identification of Disturbance Levels. Disturbance levels will be identified for each portion of the project area, and depicted on a map at a scale of no greater than 1:2,400.

3. Seed Collection. An appropriate seed mix for the project area shall be developed and approved by the County as part of the project application process. If the project area includes more than one habitat type, the restoration plan may be divided into two or more zones with different seed mixes required for each zone. Seed collection activities may occur when seeds are available. Seed collection may be conducted on public lands (not on the RIPARIAN RESERVES) or acquired through an approved seed company and be conducted by an approved/qualified seed company. Only mature seed shall be collected. Pounds of seed will be calculated based upon approved seed mixture and seeding rate.

   If collecting seed, no more than 50 percent of seed shall be collected from any one population. After collection, the seeds shall be cleaned, tested for pounds live seed, certified weed free, and stored. All seeds shall be stored dry in a dry insect/rodent proof container that is labeled with location and date of collection and collector's name. A summary of seed collected or procured shall be provided.

   Cutting Collection. Dormant hardwood cuttings can be collected to plant in a riparian project as "nonrooted cuttings," or to send to a nursery to be rooted, grown for a year, and then outplanted on the project site as a "rooted cutting." Three types of nonrooted cuttings are used: live stakes (12 to 16 inches long), branched cuttings (2 to 6 feet long), and pole cuttings (12 to 16 feet long). The type of cutting will depend on the timeframe of the project. Cuttings will be collected and stored, as described in Luna, et al (2006).

4. Establishment of Pre-construction Site Conditions. The project proponent shall complete qualitative and quantitative monitoring, in coordination with the County Environmental Specialist, to establish pre-construction baseline site conditions. Monitoring protocols are further described below under the Section 5.4 Monitoring. The photos, field data sheets, data tables and summary information shall be reported and provided to County prior to the start of salvage activities, with the exception of cactus and yucca flagging.

5. Special Status Plant Inventories. If requested by County, special status plant inventory surveys consisting of transect lines that cover 100 percent of potential habitat shall be conducted. Transect lines walked and encountered plant individuals shall be recorded as GPS point features and delivered to the County as ArcView shapefiles or ArcInfo export files. A summary of findings shall be included in the Pre-construction Survey Report and Restoration Plan.

6. Determination of Restoration Actions. Determination of proposed restoration activities shall be provided. Restoration actions shall be depicted on maps at the same scale as those provided for disturbance levels.

7. Report to County. A Pre-Construction Survey Report and Restoration Plan shall be provided to and approved by the County prior to the start of pre-construction activities that includes all information identified above.

5.2 Pre-construction Actions

The following is a description of restoration actions that shall be performed prior to the construction of the project. This includes 1) salvage of cactus and yucca; 2) salvage of vertical mulch and surface rocks; and 3) salvage of surface and subsurface soils.

1. Salvage of Cactus and Yucca. The project proponent shall identify on site with flagging tape all cacti and yucca that are present within the construction area and will mark the north orientation for all cacti. During survey all yucca clusters shall be counted as separate plants. This flagging and survey may be conducted during pre-construction monitoring. A list describing quantity and species will be forwarded to the County upon completion of task.

   Project proponent shall obtain any necessary permits to handle cactus and yucca from the Nevada Division of Forestry. All cacti and yucca under 8 feet (2.4384 m) in height will be salvaged, except for cylindropuntia cacti (aka cholla), including *Opuntia echinocarpa*, *O. acanthocarpa*, and *O. ramosissima* over 3 feet (0.9144m) tall. Any individuals over the heights noted above are not required to be salvaged and will instead become a part of the salvaged "vertical mulch". All live cactus to be salvaged will be tagged in such a way to note the north-facing side of each individual prior to removal from the soil.

   The temporary storage area will be prepared before transplanting begins. Salvaged live cactus and yucca shall be removed with no less than 2 inches (5.08 cm) of the root structure intact. Salvaged live material shall be shaded until moved to the temporary storage area, stored on site within the right-of-way, and planted to a depth of no more than original depth of soil cover. All cactus shall be planted with their original north-south orientation. It is recommended to plant similar species together, with individuals of similar size together as to allow for greater control of watering rates. Watering guidelines are as follows:

   - Water thoroughly immediately after transplant
   - Water thoroughly 2 weeks after transplant
   - Water additionally as needed but no more frequently than every two weeks to avoid root rot
   - Watering rates and quantities shall be determined according to the size and species of each plant.

2. Salvage of Vertical Mulch and Surface Rocks. After completion of cactus and yucca salvage and storage, remaining live and dead above ground vegetation materials shall be removed and stored within right-of-way for future restoration use as vertical mulch. Other perennial native vegetation is not salvaged live

due to low rates of success compared with other restoration methods and higher costs associated with live salvage, as described in Abella and Newton (2009).

Rocks no larger than 12 inches (30.48 cm) in diameter, gravel and cobble on the surface shall be removed and stored in small piles or windrows within the right-of-way for later replacement in area of salvage. Larger rocks and boulders that must be removed for construction should also be salvaged. Under no circumstances shall cactus and yucca be buried by the salvaged rock or vertical mulch piles.

3. Salvage of Surface and Subsurface Soils. The top 4 inches (10.16 cm) of soil shall be scraped and stored in uncompacted piles no more than 4 feet (1.2192 m) high within the right-of-way. The salvaged top soil shall not be mixed with deeper soils, as this decreases the viability of seeds found in the topsoil, as described in Scoles-Sciulla and DeFalco (2009).

   To the extent practical, root crowns and roots of perennial vegetation shall be left in place to assist recovery of the area post-construction. Subsurface soils that must be removed for construction purposes shall also be salvaged and stored in piles separate from the salvaged top soil within the right-of-way. Under no circumstances shall cactus or yucca be buried by the salvaged soil piles.

   Salvaged soil should be labeled and protected from erosion and inadvertent use as fill. Overall handling should be kept to a minimum.

5.3 Post-construction Actions

The following is a description of the actions that may take place after the end of construction. This includes 1) earthworks, 2) decompact terrain, recontour drainage, bank stabilization, 3) process, remove, or color caliche, 4) erase equipment tracks, 5) replace vertical mulch and surface rocks, 6) replant cactus and yucca, 7) perennial tree and shrub outplanting, 8) reseed, 9) install restoration signs, and 10) post-construction monitoring.

1. Earthworks. Replace salvaged soils in proper order, with subsurface below surface soils. Once all soils are replaced, rake or harrow to create microtopographic features that will greatly enhance restoration success as described in Abella and Newton (2009).

2. Decompact Terrain, Recontour Drainage, Bank Stabilization. Decompact soils by ripping and/or harrowing soils in areas that were impacted and/or compacted by the project, unless that compaction is part of the approved project design. Depth of compaction relief will depend on site-specific conditions. Care shall be taken to avoid "corn rows" and to prevent inverting the soil layers. Recontour soils to restore natural drainage patterns, or recontour to conform to approved project design. The soil shall be left adequately rough to provide microtopographic features. Strengthen unstable banks to prevent lateral migration of the channel, land loss, excess sediment supply, and to enhance habitat. A variety of stabilization measures can be utilized, ranging from the use of rock, channel shaping to create benches or appropriate plan form, and the use of native vegetation for bioengineering practices. The prescribed practice may include a combination of actions.

3. Process, Remove, or Color Caliche. Any cut rocks or newly exposed caliche shall be recolored with a County-approved permanent, non-toxic, landscape colorant, such as Permeon ©.

4. Erase Equipment Tracks. Remove tracks made by equipment by manual raking or other means that will not compact the soils. Rake or harrow as above to create microtopographic features that greatly enhance restoration success as described in Abella and Newton (2009).

5. Replace Vertical Mulch and Surface Rocks. Replace surface rocks by partially burying any large boulders or rocks and placing salvaged cobble and gravel to mimic surrounding, undisturbed areas. This camouflages sites and reduces likelihood of vandalism or illegal vehicular use that might jeopardize restoration success. Position vertical mulch to mimic the density and vertical structure of vegetation prior to construction, burying each dead shrub or cactus partially to reduce loss to wind.

6. Replant Cactus and Yucca. Salvaged cactus and yucca shall be replanted in restored areas not likely to be redisturbed in the next 10 years. Cactus will be replanted so that marked North indicator again faces north. All salvaged cactus and yucca will be planted to mimic the pre-construction distribution of each species, and in densities similar to pre-construction density. A watering berm will be created for each plant. Watering guidelines are as follows:

    - Water thoroughly immediately after transplant
    - Water thoroughly 2 weeks after transplant
    - Water additionally as needed but no more frequently than every two weeks to minimize risk of root rot
    - Watering rates and quantities shall be determined according to the size and species of each plant
    - Watering shall continue for at least one growing season or until plants are well established

7. Perennial Tree and Shrub Outplanting. Outplanting of dominant perennial trees and shrubs is recommended for sites at which sub-surface soils or root structures have been removed due to the low rate of seeding success for many desert species. Tree and shrubs will be from cuttings or seed collected as described in Section 5.1 and grown out in a nursery or from native plant nurseries which have acquired seed from the appropriate seed zone. All plant pots must be certified weed free. The ratio and quantity of to be outplanted shall be based on baseline and post-construction site conditions. Trees and shrubs will be planted in a random pattern, avoiding rows or grids. Protective sleeves or wire cages shall be installed when herbivory is anticipated. A watering berm will be created for each plant. Watering guidelines are as follows:

    - Water thoroughly immediately after transplant
    - Water thoroughly 2 weeks after transplant
    - Water additionally as needed but no more frequently than every two weeks to minimize risk of rot
    - Ensure that the quantity of water provided to each plant is sufficient to fully saturate and cool the soil surrounding the plant's roots to minimize the risk of root rot
    - Watering shall continue for at least one growing season or until plants are well established

8. Reseed. During the months of September - December, the County-approved, certified weed-free seed mix shall be applied to the entire prescribed disturbed area at a rate of no less than 125 live seeds per square yard (150 live seeds per square meter). If different zones were prescribed by the County, seed mixes shall only be used in the appropriate zones. Seeded areas should be raked or dragged to cover the seeds with approximately 1 inch (2.54 cm) of surface soil material.

9. Treat for Noxious and/or Invasive Weeds. Project proponents will survey for weeds at biologically relevant times of year, document their presence, and control or eradicate localized non-native/noxious species occurrences through the use of manual, mechanical, or chemical methods as determined to be appropriate by a qualified restoration or weed management professional. Weeds shall be treated or

removed before they have gone to seed. Project proponents will take measures to minimize the spread of weeds to surrounding areas and to minimize any damage to native species and habitat.

10. Install Restoration Signs. Where restoration areas abut or intersect permanent utility roads or other roads that are designated "open" by the land manager, or other public roads, signs shall be posted within the project right-of-way, oriented so the sign surface is visible to those roads, and shall identify the area as a restoration area that should not be disturbed. The sign shall also identify the project proponent. If the restoration is adjacent and parallel to such a road described above, signs shall be posted every 500 feet (152.4 m). Signs shall be maintained by project proponent for a period of 5 years after restoration project is declared complete by the County.

11. Post-construction Monitoring. As further described below, the project proponent is responsible for a monitoring event post-construction, and the first year of monitoring after project completion has been accepted by the County. Project proponent is also responsible for funding the 5 years of post-restoration monitoring that will be conducted by County to determine the effectiveness of restoration techniques.

5.4 Monitoring

The following are the types of monitoring required before construction, during the construction and restoration activities, and after restoration activities have been completed.

1. Baseline pre-construction monitoring. Baseline pre-construction qualitative and quantitative monitoring shall be performed by the project proponent to document the pre-construction conditions.

2. Post-construction monitoring. A minimum of 6 years of post-construction qualitative and quantitative monitoring will take place for each project. Project proponent shall conduct year one of six, and shall provide funds to the County for County to conduct monitoring in years two through six.

3. Compliance monitoring. Compliance monitoring by the County may take place throughout the term of the project. The goal of compliance monitoring is to determine if the activity (including minimization and restoration actions) is progressing as approved by the County.

4. Qualitative monitoring. The goal of qualitative monitoring is to document site conditions and evaluate the need for remediation to ensure that sites are progressing toward the success standard. Photo points will be established to document the pre-construction and post-construction restoration state of the vegetation and soil in each year of monitoring (a total of at least 7 years of photos.) Photo monitoring methods are described in a technical report produced for the US Forest Service in Hall (2002).

   In addition to photo points, qualitative monitoring will include observations of:

   - health and vigor of salvaged cacti and yucca, and outplanted trees and shrubs
   - herbivory
   - plant disease or infestation
   - presence of non-native species
   - presence of seedlings from species included in the applied seed mix
   - additional native plant recruitment
   - soil erosion
   - vehicle incursions
   - status of signage and other restoration structures

Note that some of the above observations will not apply to pre-construction qualitative monitoring.

5. Quantitative monitoring. The purpose of quantitative monitoring is to provide the information necessary to assess whether the restoration work is achieving the stated objectives of the approved restoration plan. Pre-construction conditions will be used to determine success criteria whenever possible, but if pre-construction data is unavailable for any reason, measurements will be compared to those made from a nearby undisturbed reference area. Undisturbed reference plots will consist of a 10 x 10 m plot located within 100 m of the disturbance area. Undisturbed reference plots must be of the same ecological community type as was present in the disturbance area before construction.

   The following metrics shall be required, as determined by County, for quantitative monitoring of restoration sites:

   Special Status Plant Species Monitoring, if requested by County, will be conducted using transects that cover 100 percent of potential habitat. Inventory efforts must be recorded as GPS line features and all species status species encountered must be recorded as GPS point features and delivered to the County as ArcView shapefiles or ArcInfo export files. Success standards related to special status plant species will be determined by County on a per-project basis.

   Weed Species Richness is measured by counting the number of weed (non-native) plant species present within the disturbance area. A list of all non-native plant species observed during the project will also be provided.

   Native Plant Species Richness is measured by counting the number of native plant species present within the disturbance area. A list of native plant species encountered within the disturbance area will be provided, and the project proponent will indicate which species is/are dominant on each site.

   Vegetation Cover (aerial) is measured by estimating the percentage of ground covered by living plant species within a sampling unit as seen from the top down.

   The entire disturbance area at each site will be observed to determine estimates of vegetation cover. If a disturbance area is too large to assess as a whole or consists of multiple ecological community types, it may be divided into smaller sections for the purposes of quantitative and qualitative monitoring with prior approval from County.

   Percent cover for native perennials will be documented for each individual species. Percent cover of annual natives will be documented collectively. Percent cover of non-native species will be documented for each individual species.

   Project proponents will utilize the following cover classes: trace (very uncommon with much less than 1%), 0-1%, 1-2%, 2-5%, 5-10%, 10-25%, 25-50%, 50-75%, 75-95%, >95%.

   Recovery Success Standards for Site Release:

   Success standards related to the disturbance on the Riparian Reserve Units will be determined by the County on a per-project basis. Examples of standards may include:

- Native perennial species collectively within two cover classes of baseline measurements and dominant native perennial species present during baseline monitoring make up the majority of the vegetative cover
- Native annual species collectively within one cover class of baseline measurements
- Non-native species each below or matching cover class of baseline measurements and project proponent has made persistent efforts to control or eradicate weeds on site

Remedial Actions

Throughout the monitoring period, the project proponent will facilitate ongoing coordination with the County in the review and feedback on the progress of restoration. If data collected from monitoring indicated that restored areas may not be trending towards meeting recovery criteria, the revegetation effort will be re-evaluated on a site-specific basis. Localized site/environment conditions (e.g., trespass cattle, unauthorized OHV use, etc.) may not support or allow successful revegetation, or supplemental actions may need to be implemented, such as seedling, additional weed control and/or erosion control measures, or waiting to allow more time for more favorable conditions toward success.

5.5 Reporting

The following reports shall be submitted by the project proponent to the County in accordance with the schedule outlined in Table 1.

All reports shall be submitted to the County contact below:

Attn: Environmental Specialist
Desert Conservation Program
Clark County Department of Environment and Sustainability
4701 W. Russell Road, Suite 200
Las Vegas, Nevada 89118

Pre-construction Survey and Restoration Report

This report shall include a discussion of pre-construction survey results and the applicant's proposed restoration plan, prepared in accordance with the guidelines in this document. This shall include:

- A summary of the proposed disturbance activities.
- Project area survey and associated GIS shapefiles depicting the project area.
- A depiction of disturbance levels on a map with a scale no less detailed than 1:2,400. Disturbance levels shall be described using terms and definitions provided in this document (D-1 Overland Drive and Crush, D-2 Clear and Cut, and D-3 Clear and Cut with Soil Removal).
- A description of the applicant's proposed seed mix, to include species composition and application rates (pounds/acre), if applicable.
- Proposed determination of restoration actions (including monitoring protocol) and depiction of those actions on maps of the same scale provided for disturbance levels.
- Results of pre-construction qualitative and quantitative monitoring activities, to include photos, field data sheets, GIS data, and a written summary.

At the County's discretion, the Pre-construction Survey and Restoration Report may need to be revised to include the results of a special status plant survey before final approval. County will make this determination based on project disturbance locations and proximity to known or modeled habitat for rare plant species.

Following submittal and approval of the Pre-construction Survey and Restoration Report, County will determine the amount of the mitigation monitoring fee to be paid to County. The mitigation fee must be paid by the project proponent before any ground-disturbance activities may commence.

Pre-Construction Activities Reporting

Upon completion of cactus and yucca salvage, a list describing the quantity of each species salvaged will be provided to the County Environmental Specialist.

Project Completion Report (as-built)

Within 30 days of the completion of construction and restoration activities, including installation of signage for restoration areas, the project proponent shall submit a Project Completion Report to the County. This report shall include a summary of the project construction activities and restoration activities completed.

One-year Monitoring Report

The project proponent is responsible for completing the first year of post-restoration monitoring activities. The results of monitoring shall be summarized in a report, to include photos, field data sheets, GIS data, and a written summary of monitoring activities, which shall be submitted to the County.

Upon review of the One-year Monitoring Report, County shall make a determination regarding the preliminary success of restoration actions. If restoration is on a trajectory towards meeting recovery success criteria, then County shall County shall assume responsibility for conducting all post-construction monitoring of restoration if the County makes a determination of preliminary success of restoration actions and the One-year Monitoring Report is completed satisfactorily.

If restoration is not on acceptable trajectory, then remedial action is required and the project proponent should consult with the County Environmental Specialist on the remedial action(s) to be taken. One additional year of monitoring (at a minimum) will be required until restoration conditions are satisfactory. The site(s) may only be released once restoration conditions are deemed satisfactory following six years (at a minimum) of monitoring post-construction restoration.

Additional Monitoring Reports (if required by County)

The project proponent shall continue to submit annual monitoring reports until restoration of disturbed areas is on an acceptable trajectory towards meeting the recovery success criteria.

TABLE 1.
SCHEDULE OF APPLICATIONS, APPROVALS, AND REPORTING

ACTION	RESPONSIBLE PARTY	SEQUENCE
Submit Reserve Use Request to County	Project Proponent	
Approve/deny Reserve Use Request	County	
Pre-construction Survey and Restoration Report submitted to County	Project Proponent	Only upon approval of the Reserve Use Request
If required by County, conduct special status plant species surveys and submit a revised Pre-construction Survey and Restoration Report to County	Project Proponent	
Approve any biocides proposed by the project proponent for use	Project Proponent	
Pre-construction work may begin	Project Proponent	Only upon approval of the final Pre-construction Survey and Restoration report
Pay mitigation fee to County for monitoring costs	Project Proponent	
Conduct yucca and cactus salvage, submit Pre-construction Activities report to County	Project Proponent	
Project construction may begin	Project Proponent	Only upon approval of the Pre-construction Activities Report
Project Completion Report to County	Project Proponent	
One-year Monitoring Report submitted to County	Project Proponent	
Evaluation of preliminary restoration success	County	
Additional Annual Monitoring Report(s) submitted to County (only if required by County)	Project Proponent	
Notify Project Proponent of completed restoration	County	Once six years of monitoring are completed and restoration is deemed successful

6 REFERENCES

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