

PIPELINES TO OUR PAST

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In order to reduce impacts to potentially significant or unknown historical resources, construction monitoring for public and private development projects is required. The majority of these monitoring programs involve infrastructure improvements such as pipeline projects, road alignments, and storm drain repairs. Six years ago, the City of San Diego experienced a series of discoveries that yielded new and important information about urban development, consumerism, and prehistoric activities. The pipeline monitoring program developed by the City of San Diego has demonstrated how effective monitoring can be for mitigating impacts to historical resources. For example, one monitoring program resulted in the discovery of materials which yielded previously unknown information about historical uses associated with activities surrounding the San Diego Presidio. Although a data recovery program was proposed which would have allowed expansion of the pipeline Area of Potential Effect (APE), it was not implemented. Instead, 100 percent recovery of artifacts was completed, the trench backfilled, and the pipeline project abandoned at that location.

WHAT IS CEQA?

Enacted in 1970 by the California legislature, the California Environmental Quality Act (CEQA) was modeled after the National Environmental Protection Act (NEPA) and is regarded as the foundation of environmental law and policy in California. CEQA's main objectives are to disclose to decision makers and the public the significant environmental effects of proposed activities; to identify ways to avoid or reduce environmental damage; to prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures; to disclose to the public reasons for agency approval of projects with significant effects; to foster interagency coordination in the review of projects; and to enhance public participation in the planning process. Since its enactment, CEQA has been amended almost every year, while the Guidelines require updating every two years. Although most of the amendments have been minor, fundamental changes have been made every year since 1972. The last substantial revision to CEQA involving historical resources occurred in 1998 with the deletion of Appendix K and the inclusion of specific sections on historical and archaeological resources into the Guidelines. The Guidelines are considered the official administrative interpretation of CEQA for agency implementation.

As part of the CEQA initial study, environmental staff must first determine whether impacts would result from project implementation and if measures are required to reduce impacts to below a level of significance. The initial study is conducted for both public and private projects based on in-house research and/or the results of survey or testing reports received as part of the project submittal.

Mitigation Monitoring and Reporting

In 1989, a major procedural requirement for monitoring or reporting of mitigation measures was added to CEQA. Public Resources Code Section 21081.6, which took effect on January 1, 1989, requires that a public agency adopt a reporting or monitoring program for the changes made to the project or as conditions of project approval adopted in order to mitigate or avoid significant effects on the environment. The section further requires that the reporting or monitoring program be designed to ensure compliance during project implementation, and applies to both public and private projects. As a result, the City of San Diego began development of a Mitigation, Monitoring, and Reporting Program (MMRP) Guideline. This guideline was ultimately adopted by the City Council in 1991 and establishes a program for developing mitigation measures to be included as conditions of project approval and for monitoring the implementation of such conditions. The MMRP is necessary to ensure compliance with mitigation requirements identified in Environmental Impact Reports (EIR) and Mitigated Negative Declarations (MND) as required by state law. The applicant is responsible for implementation of the MMRP.

The requirements for monitoring vary depending upon the type of project, where the impact would occur, and the type of resource to be impacted. For public projects (such as roads, pipelines, pump stations, parks, building improvements, etc.) with the potential to impact historical resources, monitoring is required when development occurs in previously undisturbed areas, with new and/or deeper trenching, and in areas where a high resource sensitivity has been identified. Conditions associated with these types of development are typically tied to construction plans and specifications. For private projects involving demolition and/or new development, monitoring

would be required when buildings over 45 years old would be demolished and a potential exists for subsurface historical resources (such as privies or trash dumps) to be impacted, or when in proximity to areas of high resource sensitivity (such as in the case of known burial sites). Conditions associated with private projects are tied to tentative maps and/or discretionary permits. Monitoring can also be required when obstacles such as dense vegetation, driveways, and structures obscure the ground surface and preclude the ability to identify potential resources. Native American monitors are always required during subsurface investigations when a traditional cultural property or important archaeological site is located on City property, or when the site is within the Area of Potential Effect (APE) of a City project. The request for Native American participation of private projects is always honored by the City of San Diego.

Monitoring is seen as a form of mitigation for impacts to historical resources resulting from development which is often recommended after evaluation, testing, and/or data recovery have been carried out as part of a proposed project under CEQA. As the final phase of mitigation, monitoring has the following goals: identification of historical resources which may be impacted as a result of development or are unknown, suspected, or accidental finds in known or suspected activity areas; identification and careful removal of human remains and other cultural materials associated with the site or discovery; analysis of all significant materials noted or removed during the monitoring process; and publication of a detailed monitoring report including the recordation of significant sites, features, or objects.

Mitigation Monitoring Coordination and Archaeology Discovery

The City's MMRP includes specific language on implementation of the program during grading, and what steps to follow should a discovery occur. In response to concerns regarding compliance with the MMRP, a Mitigation Monitoring Coordination Section (MMC) was created in the Development Services Department (DSD). MMC is responsible for facilitating the preconstruction meeting and coordinating with the applicant, field consultants, and City environmental staff to ensure that the requirements of the MMRP have been satisfied.

In the event of an archaeological discovery, field personnel are required to follow specific steps outlined in the project MMRP which provides guidance for the treatment of the newly discovered resource(s). The MMRP requires that the archaeological monitor or Principal Investigator (PI) notify the City's Resident Engineer (RE) upon the initial discovery so that work can be temporarily diverted from the discovery area. The RE must then contact the MMC liaison, who in turn contacts the Staff Archaeologist or Senior Environmental Planner for the project to assist with

the consultation process which requires that the resource be evaluated for significance by the PI in order to develop the appropriate methods for mitigating impacts to below a level of significance.

While monitoring is considered a standard on all projects that have the potential to impact unknown resources, the program usually has negative results. However, during the past seven years, the City of San Diego has experienced a surprising number of archaeological discoveries during underground utility projects within the public rights-of-way. These projects generally involved new and/or deeper trenching in the older, more established communities settled during the early part of the twentieth century. Although a majority of the discoveries were either small, isolated deposits or included potentially significant features consisting mainly of historic materials such as ceramics, bottles, tile, burnt animal bone, military paraphernalia, and household items which were found within the first 2-3 ft of the surface and well above the existing or proposed pipeline, several involved the recovery of human remains. Since all the discoveries were encountered within the pipeline trench, walls, and/or backfill material, evaluating the significance of the discoveries – with the exception of human remains – and preparing a treatment plan proved difficult.

Prior to December 1999, the usual method for mitigating impacts to historical resources within pipeline alignments primarily involved the development of a data recovery program in conformance with the City's Historical Resources Guidelines (April 2001). Specifically, the recovery program involved the scientific excavation of a representative sample of the features and artifacts contained within that part of the site which would be destroyed by project development and should be based on a written research design subject to the provisions of CEQA Section 21083.2. Typically, the sample size would vary with the nature and size of the site. While this typical form of data recovery is effective for larger archeological sites, it seemed inappropriate for dealing with discoveries on linear projects – the majority of which are contained in an area of no more than 3 ft in width. Data recovery of this nature often yielded no more than a few additional artifacts of the same type with no new information to be added to the regional history of the City or community, and was very costly. This is where the dilemma began and the question rose, whether or not the City is responsible for mitigation activities beyond the limits of the trench for the proposed pipeline. Although the Historical Resources Guidelines include a section of field methodology, it does not include specific methodology for pipeline data recovery, and therefore provided staff with an opportunity to be creative in response to the discoveries. Based on the realization that most of the discoveries consisted of small deposits with limited potential to yield new and important information, environmental staff developed a new procedure to provide clear, consistent direction on the evaluation of these deposits.

Environmental staff determined that 100 percent recovery of the resource within the trench alignment would be adequate mitigation to reduce impacts resulting from excavation activities to below a level of significance. As such, the following specific criteria were developed to determine if an historic discovery qualifies for this new procedure:

- a deposit limited in size, both in length and depth;
- limited information value that is not associated with any other resources; and
- a lack of unique features/artifacts associated with the deposit.

If all of the above criteria are met, the following procedure would be implemented by the archaeological consultant:

- 100 percent of the artifacts within the trench would be recovered, analyzed, and curated, and the remainder of the deposit within the trench walls would be left intact;
- The site would be recorded and identified as either significant or potentially significant;
- A monitoring results report would be prepared in accordance with the City's Historical Resources Guidelines. If significance of the deposit cannot be determined from the materials recovered, the consultant would record the newly discovered resource on DPR Forms 523 A/B as "potentially significant"; and
- The report would include a requirement for monitoring should future work involving subsurface excavation occur in the vicinity of the newly recorded resource.

Questions and Answers

While the City had addressed the small, non-significant or potentially significant deposits, we still needed to deal with pipeline discoveries which were significant. Identification of a significant resource during monitoring would normally require a research design and data recovery program (RDDR). In most instances, this would be accomplished with relative ease. However, traditional data recovery methods based on site size proved impractical for linear projects because of the significant cost involved and delay of construction in order to complete the program. In addition to the questions raised earlier regarding mitigation outside the trench, several other issues have been raised by City staff and the archaeological consulting community, such as: Is

the RDDR really the appropriate method for small linear projects, or would the not-significant, potentially significant method be more appropriate? What value would be gained from the information recovered within the confines of a 3-4-ft-wide trench? For significant discovery sites such as the one along Taylor Street which is located down slope from the San Diego Royal Presidio, the first Spanish military outpost on the west coast of California, can documentation, recovery of a small sample, historical research, and public education and outreach satisfy the requirements for mitigation and replace a full-blown data recovery program? Finally, should a public agency be doing less than what is required of a private applicant? While it is unclear at this time what the relationship is between this discovery (consisting of adobe floor tiles, ceramics, burnt animal bone, and a hearth feature) and the Presidio site, significance of the new site was evident from the beginning – determining the appropriate level of mitigation was the challenge and the motivation for this paper when originally presented in 2001.

What has resulted since these initial discoveries was the formation of a forum to answer the questions of data recovery versus controlled excavation. Initially, a group of archaeological and historical consultants were invited to meet with City staff to discuss the issue of data recovery on linear projects. Issues related to working outside the trench were discussed during the meeting, and all agreed that the City, along with the archaeological consultants, needs to establish parameters for how to treat significant discoveries on linear projects. The group also agreed it was necessary to further define the term "site" as it relates to discoveries on linear projects. If the typical RDDR is used for linear pipeline discoveries, the public cost could be excessive because of the number of units required to complete the program. The meeting ended with still more questions. How many excavation units are really necessary on these types of projects? Two, three, 10? And is it prudent to excavate beyond the trench when further evaluating significant resources? What about additional trenching? Would this additional excavation be considered an "adverse effect" when avoidance and preservation are the preferred treatments under both CEQA and NEPA? What is reasonable?

SPINDRIFT ARCHAEOLOGY SITE

It was in early 2005, after the discovery of human remains within new underground utility trenches, that these questions again were raised. Known locally as the Spindrift Archaeology Site, CA-SDI-39 has been studied extensively since the 1920s when the 20-acre subdivision was first graded. The site was originally recorded by Malcolm Rogers while working for the San Diego Museum of Man and was known to contain human remains, rich midden soils, tools, and ceramic materials. Today, the subdivision is completely built out with single-family homes, a restaurant, a private beach

and tennis club, public roadways, and underground utilities. For this reason, a pre-trenching test excavation program was carried out based on review of early geotechnical and archaeological data. Test units were carefully excavated in advance of the oncoming utility project, yet burials were encountered continuously throughout the project. Because of limited space along the public right-of-way, City staff required that all soils be exported offsite to a secure City-owned facility for intensive wet screening and recovery of additional cultural materials. Out of respect for the local Kumeyaay community, I cannot provide specific details regarding the disposition of these remains or disclose the wet screening location. However, I can say that the remains of almost 50 individuals have been recovered to date, in-situ or as a result of the wet screening process that continues today. The cost to the public for this program is currently in the hundreds of thousands of dollars and growing.

Adverse Effect

According to an article by Dr. Thomas King (2001) on the Advisory Council on Historic Preservation's *Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites*, data recovery is reasonable because the foundational finding of the Approach is that "the pursuit of knowledge about the past is in the public interest." The article goes on to say that "a site may have important values for living communities and cultural descendents, so its appropriate treatment depends on its research significance, weighted against these other public values."

Additionally, the 1999 revisions to Section 106 of the National Historic Preservation Act (NHPA) clearly state that "it is an adverse effect to destroy an archaeological site, however much data recovery you do on it first." Dr. King states in his article that this doesn't mean that you can't do data recovery. It does mean, however, that an agency can do so only after acknowledging adverse effect and going through some consultation to resolve it. He further states that this would involve exploring alternatives to data recovery, as the City has done, and when data recovery is agreed to, the hope is that it would result in better RDDRPs. The issue for the City of San Diego at this point is not whether alternatives to data recovery can be accomplished, but whether the traditional archaeological community can accept new methodology: research outside the trench in the form of community or cultural history rather than excavation outside the trench. Dr. King notes in Part Two of his article on Adverse Effects, "that the management of archaeological sites should be conducted in the spirit of stewardship. Thus it follows that if an archaeological site can be practically preserved in place for future study or other use, it usually should be (although there are exceptions)." He further notes that the Principles emphasize that data recovery, including analysis, should be thorough, efficient, and cost effective,

provide for reporting and dissemination of results, including dissemination that is understandable and accessible to the public, and it needs to provide for curation of materials and records.

CONCLUSIONS

Because of the costs required to complete the data recovery program at the Taylor Street site, the pipeline was capped and the archaeological discovery preserved in place. For the Spindrift Archaeological Site, the underground utility project was completed and a final report is forthcoming. In addition, City staff is currently in the processing of establishing the Spindrift Archaeological District and plans to formally expand the boundaries of the site in order to provide additional protection.

Acting in the spirit of stewardship, the City accomplished two goals: preserving the Taylor Street discovery for future study, and providing for the dissemination of results in the form of community history through public education and outreach.

So, what have we learned from this experience? That preservation through avoidance is and should always be the first and foremost form of mitigation; that as archaeologists, resource managers, and planners, we can think outside the box to come up with alternative methods for mitigating impacts; and that in the spirit of stewardship, less is more in the long run.

So, how does all this answer the questions about monitoring raised in this session? Through preservation of the resource in the form of avoidance, we have used "constructive" methods rather than "destructive" methods to mitigate impacts, and therefore have provided future generations with an opportunity to learn from what remains in the ground; through the community/cultural history component of an alternative mitigation program, we have an opportunity to relate the past for living communities and cultural descendants by interpreting the recovered artifacts, features, or objects to our changing landscape without further excavation; and finally, that the value of the information recovered during the monitoring program provides a window into the diversity of our communities and the human relationship to our environment.

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