

WILDLIFE AND LAND DEVELOPMENT

A UNIQUE AND POSITIVE APPROACH TO MULTIPLE USE LAND DEVELOPMENT*

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Abstract.

There is an ever increasing threat to our valuable foothill community because of land development. With good planning and design, wildlife and land developments can coexist. An example is a development in Tehachapi, California. Resource Managers were consulted during the first stages of the development. As the project progressed, the specialist designed, constructed, maintained, and operated many of the recreational facilities.

In summary, the input of a resource manager can't be overstressed in the planning and design stages of a land development. We must learn to work hand in hand with the land developers, if we, as biologists, want to preserve wildlife in the foothill community.

BEAR VALLEY SPRINGS

It is my pleasure to be here with you today to discuss a unique and positive approach to multiple use land development as it is currently being practiced by Dart Industries at Bear Valley Springs, a 25,000-acre recreation development, located west of Tehachapi in the Tehachapi Mountains east of Bakersfield. To many people in the California foothills development isn't a popular topic. Stricter county ordinances and building codes, however, are only a minor step toward ensuring the continued existence of wildlife habitat, as the demand for this land dramatically increases. Our experience with Resource Ecology Associates has shown that establishing an attitude of conservation in the individual property owner, as well as the recreation/land developer, is a key ingredient to wise land development.

Bear Valley Springs, (BVS) with the management counsel and assistance of Resource Ecology Associates, has been developed with a guiding philosophy of assuring the preservation, enhancement and multiple use of the valuable existing resource base.

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Bear Valley was a working ranch during the last hundred years. Originally made up of several smaller ranches, the valley and surrounding foothills were eventually absorbed into one ranch. The property's elevation extends from the foothills of the San Joaquin Valley at 1200 feet to the Bear Mountain slopes at 6500 feet. The Project exhibits diverse vegetative cover - grassland, oak woodland, and the yellow pine forest - corresponding to the changes in elevation.

In the late 1960's Dart Industries bought the property. The original master plan called for approximately 4,500 lots, but as the project progressed the actual number of lots dropped below 4,000. The plan included parcels ranging in size from one to fifty acres, or more, with 5,000 plus acres of common and wilderness area. This development concept attracted buyers with varied backgrounds and interests. The project offered golf and tennis just minutes from their property, and yet still provided the opportunity for wilderness hikes, or the adventures of camping within the Project Area. A strict code of covenants and regulations were adopted to protect the aesthetic qualities of the land and guide all building and construction. Many prospective buyers were attracted to BVS because of this attitude.

ANALYSIS OF DEVELOPMENTAL PRACTICES ON WILDLIFE

Road Construction

The construction of roads on the property resulted in a direct loss of wildlife habitat. Noise during construction also had a short term impact on wildlife, particularly those species capable of travel such as deer and avian species. Although roads were a direct loss of habitat, they did provide for some new growth of vegetation and removed decadent brush along road sides. Many new fire break trails were constructed through heavily brushed hillsides of old ceanothus, which provided access and areas for the growth of brush species and grasses.

A major problem with roads in the area resulted from poor planning, due in part to the large scale use of aerial photography, instead of on-site investigations. Several of the roads are exceedingly steep and road cuts are improperly designed. Erosion has become a major problem, destroying landscape and valued habitat. These problems emphasize the need for biological and environmental input in the planning, design, and construction phases, as well as during the Project's eventual operation and management.

Parcel Map Zoning

Parcel zoning played one of the most significant roles in retaining wildlife habitat. Keeping lot sizes relatively large, as mentioned earlier, has left much of the established habitat available to wildlife. The 5,000 acre common and wilderness areas also provide needed habitat for wildlife, particularly the more elusive and shy species, such as the ring tailed cat and cougar.

Many species have become bold because of the no hunting ordinance, and the interest of property owners in maintaining populations of rabbits, quail, deer and other aesthetically pleasing wildlife species around homes. Deer now stand along roadways allowing motorists to photograph them in park-like settings.

Resource Ecology Associates' Involvement

Resource Ecology Associates (REA) played a major role in convincing Dart Industries in the early 1970's to initiate a program to preserve the natural habitat, enhance and manage wildlife as an asset, and provide a multiple use concept. Like so many developments, Dart's original concept was limited to a tennis/golf oriented recreation. They desperately needed the input from a resource manager. Dart was enthusiastic about our resource management plan, and to this day still utilizes our consulting services. We like to think, that because of our wildlife, recreation and environmental input, Bear Valley Springs (BVS) has become a model of sound resource management in land development in California today. REA has developed facilities and programs including:

- three campgrounds having a total of 105 campsites;
- an archery course;
- a self-guided nature trail and hiking trail system;
- a rifle range and trap range;
- 35 miles of equestrian trails, and equestrian trail stops;
- 2 lakes and fish stocking program;
- 2 day-use areas; and
- a 14 station jogging and exercise course.

The facilities blend into the landscape and are not aesthetically obtrusive. The naturalist program includes:

- Nature hikes (wildflower, wildlife, camera safaris, ornithology hikes);
- Seminars (topics include natural vegetation of the Tehachapi's, landscaping with natural vegetation, poisonous plants of BVS, wildlife and their habits, property management, rodent control, and Water-Saving Irrigation Systems);
- Backpacking trips;
- Special Youth Activities;
- Fishing clinics, annual fishing derby, fish sampling of lakes;
- Natural foods tasting banquets;
- Motorcross races;
- National Field Archery Tournament;
- Evening canoeing and bon fire activities; and
- Geology field trips, among others.

As mentioned above, one of the most important elements in any effective program is to create a resource awareness, and I am proud the REA contributed significantly to this at BVS. Dart Industries was not only receptive to REA's Suggestions, but was supportive in their implementation. Problems cited in road construction, and the original design and location of facilities could have been mitigated, and in some cases prevented, had a consulting resource manager been involved in the original master plan.

Property Owner Involvement

Education was another primary function of REA and BVS. The program presented was similar to that utilized in park systems, but more diverse. Our programs start with naturalist-oriented activities and branch out using this as a focal point. Seminars stressing vegetation for wildlife use, property management, rodent control, and erosion

control were just a few of the topics. When a land owner had problems, we visited the property, designed individualized management plans, and if necessary, worked with the owner until his individual project was completed.

Property owner involvement was exhilarating. Their land brought them back to a "grassroots" level, many realizing their day to day lives were spent, to a great extent, in an artificial world. This grassroots attitude was evident as owners developed their land. The Conservation Committee, composed of landowners, worked on projects, such as developing the many springs into productive wildlife watering holes. They also developed artificial watering holes in areas where there was no previous water. This proved extremely successful for small mammals and avian species. The Committee has also worked with lake management, establishing artificial reefs and spawning beds and the rehabilitation of a small fresh water pond to be set up as a bass brood pond.

No Hunting at BVS

The no hunting ordinance at BVS is a very controversial subject. Many property owners feel it is best to allow the animals to die naturally, without man's interference. The educational program has been our best tool in combating this attitude, and we use that tool to our best advantage. A majority of the property owners live in Los Angeles, and native wildlife, for the most part, vanished years ago in those areas. Property owners over-react in calling for complete preservation through legislative ordinances. Years of educational programs are finally turning the tide of attitudes toward conservation, as opposed to preservation.

We presently have a Draft Management Plan under review by the CSD Board. The Plan includes estimates of the size of the deer herd, and productivity ratios. In cooperation with the State Department of Fish and Game, the Board granted permission for the collection of six deer from January to March, 1978. Evaluation will be made by Department Pathologists, and REA will submit further deer management recommendations to BVS that will possibly include a doe, as well as a buck hunt.

Wildlife and Related Problems

The wildlife problems at BVS are relatively few. We did not have the problem of bears in camper's ice chests, or killer bees attacking property owners, but have had an over abundance of rodents; principally gophers and ground squirrels. Ground squirrels presented the greatest problem - largely because they are carriers of disease (bubonic plague). Gophers were the second major pest in the area because of their destruction of plants and shrubs around the home. Rodent Control Programs were planned in cooperation over a three year period with the Kern County Agriculture Department; however, in my judgment, they were inadequate due to several factors. The method of application (aerial broadcasting), was effective, but the season and type of poison grain used (zinc phosphate) was not. In the final year the County recommended the use of 10-80, and applied it throughout the County. After its aerial application, property owners found many dead rabbits, rodents and song birds. The desired results were not attained.

REA's recommendation, at that time, was to use zinc phosphate on localized areas around homes. The program which was designed to be very selective, proved effective in removing only problem animals.

Deer also became a problem this year. With the poor feed conditions at BVS, the deer were browsing trees and shrubs around homes. Many owners set up watering stations for wildlife, but this will not offset the effect of poor feed conditions on the range. Having the deer feeding in the yards around their homes has also made property owners more aware of the declining condition of the herd.

Insects

The slopes of Bear Mountain have also had a non-people related problem - forest insects. The western pine beetle is the primary problem, and our forest management practices are aimed at controlling this particular pest. Several management control methods have been applied including the cutting and removal of pines, to spraying, depending on the individual site. Our two-fold objective has been successfully attained - the immediate suppression of a forest pest, and the education of individual property owners to simple forest practices.

SUMMARY

If we are to conserve the foothill community which is so valued by land developers and essential for our wildlife, we can't afford to shun the developer any longer. We must commit ourselves to working hand in hand to establish feasible multi-use resource management practices. As has been our guiding philosophy with REA, and as proven successful at BVS, it is achieved not only through cooperation but through the involvement and education of both the property owner, and the developers.