

## ***1. Planning Basics***

The Valles Caldera Trust is intended to protect assets such as wildlife and ecosystems and support multiple goals including operation as a ranch, safeguarding cultural artifacts and locations, and provide equal and fair access to the public. It is also intended that the VCNP become self-sufficient within 15 years. The real and expected applications are both laid out in documents provided on the VCNP's website; [www.vallescaldera.gov](http://www.vallescaldera.gov). Additionally, the 106<sup>th</sup> and 109<sup>th</sup> Congress created the Valles Caldera Preservation Act (Public Law 106-248) and the Valles Caldera Preservation Act of 2005 (Public Law 109-132).

Stewardship of resources and access for the multiple parties provided for in the framework document are all notable and respectable goals, however there are some issues and concerns I would like to bring up in regards to the GIS system:

a) How often has the 'adaptive management' process been undertaken? Is this data being put back INTO the system, and at what levels and in what forms? Also, as the programs are being evaluated, are they being evaluated in context of 'why' they didn't work, or just marked as success and failure? The interactions between various departments of the organization, and their data needs and outputs are all important, but this massive amount of potential data needs to be organized. In addition, any existing data or information needs to be updated.

In regards to data refresh; the data doesn't appear to have been updated – this makes me

wonder how much real assessment and/or evaluation has taken place. Tools for decision-making might still be in hardcopy or in disassociated computer files, which is hard on any geographers, and equally hard on decision makers.

b) Have the staff been realistic in assessing the impacts of these various activities on each other?

It seems to me that even in the introductory articles and information sources that the VCNP staff are in need of geographers and maybe some economic managers to help focus them on less fuzzy concepts and more concrete ones.

In regards to the VCNP the key streams of income would/should be:

- Ranching
- Tourism (general)
- Tourism (hunting/fishing/riding [specialized])
- The current boom in movie-making in New Mexico, utilizing current or future sets

Future growth and development (Potential):

- Overnight stays
- Better advertising/new tourism center
- Increases in visiting
- Future filming opportunities

Key expenditures are going to be:

- Staff – rangers, admin/clerical, gate staff
- Facilities – roads, parking, trails, bathrooms, guest center (planned)
- General Administration and Planning – permits, licenses, map/GIS systems

A fellow classmate stated a concern that there was a lack of cost certainty – the VCNP

seems a bit fuzzy and maybe that's because these documents are general, leaving us the

task of guessing. There are no facts nor figures for us to work with, and I'm not even certain how you could go about acquiring some of the data. Financial information would be based in part on theoretical future income, which would be based on past income averaged out to account for past variation and fluctuation. I'm going to go out on a limb and say the VCNP needs to go the Disneyland route – anything which tourists can experience without impacting sustainability should probably be put on the table. I doubt this is even remotely practicable for a place as bereft of cultural and natural attractions as this is though. Aside from some movie sets, the only other potential commercial attraction would be Native American ceremonies. Natural attractions such as migrations of avians, butterflies, and grazers would need research and good viewing opportunities such as blinds and paths which would allow observation without startling wildlife.

People and groups that the VCNP would need to coordinate with would be: the ranchers, Native Americans, hunters and fishermen, biologists (for determining best locations for 'theme' trails), the EPA and/or environmentalists for assessment of almost everything that goes on in future which might impact the Preserve, such as trail-building, and future building by movie companies. An issue I see with people interacting with the VCNP is that people tend to have an impact on the environment, even with the best of intentions. During filming of *The Beach* in Thailand, Hollywood studios promised to rip up all the decorative palms they planted to make the beach feel 'right' for movie viewers; they didn't follow through on this promise. What are the impacts if someone doesn't hold their end of the bargain versus the fiscal benefits of allowing them in? I see that the VCNP is at least considering some of this, but I'm not really sure to what extent.

What I think the class (or GIS managers) really need is some more information on where they are going for inspiration and guidance – is there a specific prioritization taking place in their planning process, or are they arranging activities chronologically until they have to cancel for the rest of the year? (I'm thinking of things like foot traffic, unexpected fluctuations in populations, things like that.) Are there other preserves they are looking at for modeling, or are they just 'winging it?' There are similar preserves the world over, both in public and private ownership, but I don't really see any evidence of them comparing themselves with these other locales.

The available data provided by the VCNP includes:

- Basic line features for: boundaries, roads, streams, tours etc
- Point features for sets, locations/buildings (entrance, huts), trail markers, ranching activities (livestock tanks, cattleguards)
- Area features for vegetation, grazing, hunting/fishing
- Advanced features of hydrological data
- DEM and aerial photography

Data which I think is obviously absent, and as an anthropologist classmate pointed out, for good reason; are cultural artifact regions and locations. Also missing is any cultural information for ceremonial grounds, pathways, etc for Natives. I also would like to see more information on various flora and fauna and regions for observing these, examples would be the numerous butterflies, or the pika, and seasons and areas which are of interest for both tourism and conservation efforts.

Examples:

- Pika dwelling areas (map)

- Pika numbers (chart/graph)

Ceremonial areas could be mapped if ceremonies are open to tourist observation, or made private through usage of mapping techniques such as generalization. I can see why this information too is not in here for reasons of privacy.

Potential information products that are possible even with this small amount of information is huge – in a previous class, we used the VCNP data to create a map of impact of pastures and grazing on trout restoration sites. Many of the Spatial Information Products (SIPs) are going to be based around informing the public, and conservation issues such as impacts of activities; especially those involving hoofed animals, are going to be essential for conservation.

I think the GIS system is good, especially for what it represents and what it could grow into. That being said, there is always room for improvement especially in regards to both data quality, and data refreshing. From looking at this data, it seems like it was compiled and then forgotten, and most decision-makers will assume data are still valid not realizing that data expire, and that without being refreshed or renewed, can become invalid.

Another room for improvement would be metadata, good metadata. Additionally, some nice PDFs or 'official' documents which detail what information is in the database, what its comprised of, who collected it, methodologies, statistics, everything in short. Basic metadata would be a start, and a nice one, but I think all too often metadata can be hidden, lost or lacking, I think redundant information being available is important.

A good solid package of spatial data is also missing. I think most people in the class

didn't get the DEM data I did, as well as the aerial photography dataset. All information needs to be handy in a ready packet for any potential geographers including the above metadata/documentation. This good solid package needs to be updated, including documentation consistently. Most information is gathered on a yearly basis, but its not compiled into the geographic package – this information is likely languishing as emails, memos, spreadsheets etc in a myriad of locations and formats. The VCNP needs to figure out a quick easy way to provide information updates – even a regularly updated .PDF which details changes and new figures would help in knowing present, past and future collection and implementation.