

Jalalabad Urban Planning Needs Assessment

*A Review of Issues Facing the City of Jalalabad,
Nangarhar Province, Afghanistan*



*Dedication of a new residential neighborhood
by former Governor Haji Din Mohammad,
Mayor Arsalai, and Deputy Mayor Hakim.*

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Introduction

In June, 2005, I traveled to Jalalabad, Afghanistan to make an assessment of urban planning needs for the City. I was asked to make this visit by Steve Brown, Chairman of the San Diego-Jalalabad Sister Cities Committee, because of my practical experience in the field of urban planning and my previous travel to Jalalabad. Steve had learned through James Ritchie (a fellow member of the Sister City Committee) of the desire of Jalalabad community leaders to have some assistance with urban planning.

Under the leadership of Steve Brown, Rotary International District 5340 (San Diego and Imperial Counties in southern California, U.S.A.) has had a number of humanitarian service projects in Jalalabad. In the last three years, Rotarians have built a school with a current enrollment of 1450 students, supplied equipment for a women's development center and the hardware for a computer lab, provided books, dictionaries and other educational support, established a satellite based high speed internet lab at Nangarhar University, formed a Sister City relationship between San Diego and Jalalabad, and supported a Group Study Exchange whereby six professors from the University of Nangarhar came to San Diego in May, 2005.

James Ritchie is a long time friend of the residents of Nangarhar Province and leaders in the Jalalabad community. He is the founder of the International Foundation of Hope. IFHope has been working in Afghanistan for more than five years. It has built and is operating a school in Kabul, is operating a large nursery in Jalalabad that supplies genetically improved fruit and other trees to the area and has been involved in rebuilding the irrigation infrastructure of the Nangarhar Valley Development Authority.

My visit to the City from June 10-18, 2005 was purposefully short. It followed a previous visit in May, 2004 that I had made for a Rotary project. This time I was able to interview a number of people and observe different neighborhoods, to get an idea of the way in which things were being done, and to get an overall feel for the state of the City.

This is a report on problems that were obvious to me, based on my experience. I am sure that further analysis by specialists with more technical expertise than I have, will expose many more issues. I have written this report in the hope that it will encourage those who care about Jalalabad and its people to start comprehensively planning the City's future.

Background Information

Jalalabad is a City with a population of about 400,000 people. It is in Nangarhar Province, in eastern Afghanistan. The City is situated on the south bank of the Kabul River, in a broad and fertile agricultural valley at about 1800 ft. above sea level.



Map used courtesy of www.worldatlas.com

For centuries, thousands of hectares of land have been irrigated in the valley using simple, locally designed systems. In the 1960's, the U.S.S.R. planned and built a new and more complex dam, canal and tunnel system that brought water to an additional 25,000 hectares.

The climate, although very hot in the summertime, is ideal for a wide variety of vegetables, fruits and grain. Jalalabad has been the principal market town in an area that exports its considerable surplus.

Nangarhar Province has also been the historical point of entry to Afghanistan through the Khyber Pass. The pass has seen caravans of traders, invading armies and fleeing refugees. Now hundreds of trucks come and go through the pass every day, mostly bringing goods from Pakistan. The pass can be reached by car by driving about two or three hours east from Jalalabad. Much of the road is paved and runs through barren desert as well as lush, irrigated fields.



Nangarhar Valley, east of Jalalabad.

The irrigation planning by the U.S.S.R. significantly changed land use patterns in the valley, by adding canals and drains and a dam and reservoir, which resulted in creating new settlement patterns and stimulating the growth of Jalalabad itself. The Soviets also produced an urban plan for the City in the 1960's. It envisioned a city of 30,000, adding new neighborhoods and roads on a grid to an existing pattern of historical streets and development.

Years of Soviet occupation, followed by a long period of war and political unrest, forced four to five million Afghans from their homes. Many of these refugees temporarily settled in vast camps east of Jalalabad, along the road to the Khyber Pass, or further east, in Pakistan.

Today many of those camps are empty, but the refugees have not returned to the countryside throughout Afghanistan. Instead they are returning to urban areas where they believe that they have a better chance of earning a livelihood, although in many cases, there is little work available there. Because of this trend, Jalalabad has now grown to over 400,000 people. While population growth predictions are difficult to make because of the previous years of instability, City officials believe that the City will grow to 1,500,000 people in fifteen or twenty years. It is estimated that there are one to one and a half million Afghans still in Pakistan.

For City officials, there is already a crisis. The pressure to provide immediate services, infrastructure and economic development for a population of 400,000 is overwhelming. The traditional ways of operating and managing the City no longer work but officials do not have the training or expertise to move beyond them.

Even if City officials could envision modern and practical solutions to their rapid growth, there are still many obstacles to their implementation. Those obstacles include lack of money for operations, poor government salary levels, inadequate training and education levels of workers, lack of money for capital projects, and most importantly, a crippling decision making process which scatters authority and takes planning for the future away from those affected by it.

American communities have learned from experience that there is a need for a focused vision, or roadmap, for planning their future. They know that it is necessary to include diverse viewpoints and expertise to achieve that vision, and that they must try their hardest to bring people together to collaboratively build support. The better prepared their plan is, the more progress they will make toward achieving their goals. Also, the better their plan is, the more prepared the community leaders are to respond if there is a shock or other setback to the community.

Responsibility to create that urban plan and vision rests squarely in the hands of local elected officials, business leaders, and citizens' groups. The value and effectiveness of that plan, and ultimately, the prosperity and strength of a particular city, is the result of local leadership.

The existing process in Jalalabad heads in the opposite direction. Local authority and responsibility is lost to a multitude of ministries from the central government. Rather than combining planning authority and coordinating their efforts, these ministries are separately in charge of all aspects of planning for the City, its water supply, its roads, its electricity, its economic development, its sewage system. Even the direction and scope of urban growth and new neighborhoods is not under the authority of City officials. The officials from the ministries may or may not have cordial relationships with the City or each other, but there is little coordination going on. There is no incentive for anyone to take the lead and try to focus on comprehensive urban planning. The lack of overall authority and responsibility and the lack of coordination is crippling to the recovery of the region.

International aid agencies and non-government organizations have not helped with this crisis. Although there are meetings to focus on coordination of aid projects, these projects are envisioned and brought forward by the aid agencies based on their perception of need. When the aid agencies do support a project that is requested by City officials, it is important to remember that City officials are responding to the crisis of immediate needs, not to any overall planning concept.

No one has comprehensively planned for the long-term urban needs of the region. No one has listed the infrastructure requirements for a long-term plan and no one has prioritized that list of infrastructure needs. No effort is being made to solicit broad based public and government representation to create an urban vision. This lack of planning will inevitably cause wasted capital, labor, and time. Money spent on improving roads to relieve congestion could potentially cause more congestion. Planning new neighborhoods to relieve a housing shortage but siting those neighborhoods without first analyzing their access issues and infrastructure needs, may make it impossible to ever provide adequate access or reasonably priced infrastructure.

The threat of severe health problems in the City is real. Open channels carrying dirty water and sewage increases the endemic threat from malaria, and could transmit severe contagious diseases such as cholera or typhoid. Poor air quality caused by dust, open fires and internal combustion engines will lead to increasingly severe respiratory problems. The chances of injury and death for pedestrians will also rise if traffic problems continue to worsen .

However, despite the severity of Jalalabad's problems, I am optimistic for its future. It is never too late to start planning, set goals and create a vision for a community.

The City is blessed with many resources. There will be ample water for irrigation, drinking and for producing hydro-electricity. There is an abundance of fertile, irrigated agricultural land suitable for a variety of crops, vegetables and fruits. There is suitable, government-owned land for urban expansion. The City is situated along, and will continue to benefit from, a major shipping corridor through the Khyber Pass. Pledges have been made to provide significant amounts of money for rebuilding the country. And most importantly, the people are resilient and persevering.



The Winter Palace, Jalalabad.

Urban Planning Issues Reviewed:

1. TRAFFIC CIRCULATION

The underlying historical road system in Jalalabad was mildly updated in the Soviet's city planning map used in the 1960's - a period when the population was one-tenth of what it is today and had significantly fewer motorized vehicles. Although existing major through streets are wide and could potentially have free-flowing traffic, their capacity is now severely restricted by damaged roadbeds and open trenches, which force vehicles to swerve around them, and by the unorganized mixtures of pedestrians, bicycles, slow moving tractors, donkey and horse-pulled carts. This mixture of vehicles and modes of transportation often slows traffic to extremely low speeds and also encourages dangerously aggressive passing.



A main through street in Jalalabad.

Vendors along the roadside also restrict road width, as does the common practice of stopping and parking in travel lanes. Some traffic police are present, but they lack the skills or authority needed to enforce any traffic control or laws. Drivers and pedestrians do as they please unless restricted by traffic or severe congestion. The congestion decreases the chances of serious vehicle crashes, but pedestrian safety is being completely ignored with no positive effect on traffic flow.

Currently, all forms of circulation use are mixed together. More movement around the City is made by foot or on bicycles than by motorized vehicles. It is important to provide safe and convenient routing to encourage these modes of transportation. Constructing sidewalks and restricted access paths is cheaper than building roads, and may free up roadways for motorized vehicle use.

Simple structural additions of medians or barricades have the potential to keep a four lane street functioning smoothly rather than switching back and forth from 3, 4, or 5 lanes going one direction to the exact opposite in a matter of minutes. Restricting streets to one-way traffic or limiting turning movement at intersections could also be helpful. Traffic flow expertise is available, and simple solutions gleaned from other parts of the world are often much cheaper and faster to implement than building new roads. Traffic police should also be given better training and have the authority to enforce logical, easily understood traffic laws.



Trucks on the road from the Khyber Pass.

The City also faces an ever increasing flow of heavy trucks coming from Pakistan through the Khyber Pass and Jalalabad. As this route is improved into central Afghanistan and Kabul, the congestion in the City will continue to worsen. Four or five by-pass roads are being proposed, but the City staff does not have any accurate projections on the construction or timing of these roads, nor do they have any maps that describe their location. They are certainly not being planned to support any long-term land use plan, or even a long-term road plan.

Where roads are built, urban growth follows. Because of this fact, it would be irresponsible to build any by-pass roads without completing a long-term land use plan first.

The use of the airport is discussed in the Economic Development section, but it is important to recognize that it is a part of the traffic circulation system. Passenger and freight volume at the airport will increase. Access to the airport and the related congestion caused to nearby roads needs to be included in any circulation planning effort.

Recommendations: Traffic Circulation

Now:

1. Provide an engineer with traffic flow experience to the City to advise on physical changes to roads and intersections, restrictions of use, and basic traffic laws and enforcement.
2. Provide training so that traffic police can perform their jobs.

Soon:

3. Map existing roads in the province.
4. Collect and analyze data on existing traffic flow and make projections for the future.
5. Develop a Master Circulation Plan based on a Long-term Land Use Plan. This plan should include standardized new road sections based on projected traffic volumes and engineering standards for construction.
6. Adopt and enforce traffic control and parking laws.

2. SEWAGE



Drainage in an older part of the city. This area is in the flood plain and has a naturally high water table but has not been irrigated.

There are no sewage treatment facilities in Jalalabad. For private systems, sewage currently is piped to septic or holding tanks which are supposed to leach or percolate into the ground. Alternatively these tanks are supposed to be pumped out for disposal. Leach fields in porous soils and at high densities have the potential to pollute the groundwater and make it unsuitable for domestic use when wells are used. In many areas of Jalalabad, unlined irrigation and drainage ditches saturate the soil, causing the water table to rise permanently. These water channels were part of the system formerly used to irrigate cropland in areas that have now been converted to urban use. The resulting high water table forces the sewage tanks to overflow.

There are few, if any, pumping trucks available and raw sewage runs out of the holding tanks into the streets and then mixes with irrigation drainage water in some areas or into open ditches in non-irrigated areas. The mixture of sewage and drainage water in these open ditches passes through many neighborhoods and commercial areas before it flows into the sluggish Nahre Shahi Canal on the northern edge of the City. From the canal it flows to the east of Jalalabad, where it is reused to irrigate farmland.

Contact with this diluted raw sewage is easy and frequent for people in the City and in the rural irrigated agricultural land downstream of the City. Because the water is in the historical irrigation ditches and because the sewage concentration is not necessarily visible, people use it in many ways with little caution, unless it is obviously filthy.

It is only matter of time before a severe, communicable disease is spread through the region by this unsanitary system.

Recommendations: Sewage

Now:

1. Dry out the urbanized areas by cutting the flow of water into the old irrigation system. Where there are areas that still require irrigation, line and cover ditches, or preferably, pipe needed water directly to those areas.
2. Clean and improve the flow on any remaining drainage ditches including the Nahre Shahi Canal.
3. Provide a sewage pumping truck to empty holding tanks.
4. Provide training for maintenance of the pumping truck.
5. Develop sewage treatment ponds for disposal.

Soon:

6. As part of a Long-term Land Use Plan, develop sewage treatment ponds that will have enough capacity for future growth and are located favorably to accommodate a closed pipe sewer system.
7. Explore alternative sewage treatment systems using evaporation and composting if they are more cost effective.

Long Term:

8. Design and build a complete sanitary sewer system and treatment facilities.
9. Provide treatment facility operation and system maintenance training.

3. WATER – IRRIGATION

The Nangarhar Valley Development Authority (NVDA) manages the irrigation and canal system developed by the Soviets in the 1960's. Extensive canals, tunnels, and reverse-siphons carry water from a reservoir on the Kabul River to the west of the City. Jalalabad is bordered by this extensive system on the west and south, and the irrigated fields and orchards extend far to the east down the valley. Parts of the urbanized area was formerly irrigated farmland. The entire system has been severely neglected for years but is now being cleaned.

Originally planned for 31,000 hectares, enough construction was completed to irrigate 25,000 hectares of which 11,000 hectares are in private ownership and 14,000 hectares are retained by the district. The original planning included 6,000 hectares of additional land that could be irrigated if an investment was made in more canals and development.

There is ample water even though none of the canals or drains are lined with concrete, and therefore lose water into the ground, and flood irrigation is practiced. Canals and ditches are being cleaned and restored to optimal operating condition, but there is a significant amount of land that is not being used at all, or producing poorly. The Nangarhar Valley used to be and is returning to, an intensively productive



Drainage channel that remains after irrigated land has been converted to urbanized uses. The problems described previously, of a high water table, sewage overflows and the mixing of irrigation water and sewage exist because former irrigated agricultural areas are now part of the City.

agricultural region. There are large areas with very fertile soils and the climate is suitable for crops such as almonds, pistachios, apricots, peaches, citrus, vegetables, and melons. Poppy production for opium and heroine was reduced by 80-90% in 2005 but other sources of income are needed to displace this high-value crop.

The plentiful irrigation water supply is a benefit to the City economically for agricultural income, and with treatment, will be a source of drinking water in the future.

Recommendations: Water - Irrigation

Now:

1. Trace where irrigation water is flowing through the City to help identify where flow can be cut off or significantly reduced.
2. Clean and improve the drainage ditches and canals.
3. Recognize the difference between domestic water and irrigation water and separate their uses.

Soon:

4. As the City creates a Long-term Land Use Plan, encourage the preservation of agricultural uses and income on the irrigated agricultural land.
5. Encourage higher productivity on NVDA owned land to make possible increased revenue to better maintain the system.
6. Investigate water conservation methods to encourage sustainable expansion of the system.

WATER – DRINKING

The City of Jalalabad gets its drinking water from two sources. The oldest system has two ancient karriz. These are tunnels that follow the water table as it rises along alluvial fans coming out of mountain valleys from the south. These tunnels act as man-made springs to bring clean water directly from the mountains underground. Flow has been reduced in recent years because of long-term drought.

The second system uses wells as a source of water. The main irrigation supply canal for the NVDA runs on higher ground just south of the Soviet mapped city. Because this canal is unlined and water can seep into the ground, an area north of the canal has had a raised water table for many years. Originally this area was used for agriculture but now it is part of the City. Four wells, ranging from 63 to 110 meters deep, and pumps were installed to lower the water table and excess water flowed into the drainage canals. Now these wells are used as a supplement to the karrizs to supply the drinking water system for the City. As long as the irrigation canals lose water into the ground and recharge the wells, wells could provide ample water, but the well water is threatened by sewage that also seeps into the water table.

The combined water from the karrizs and wells is stored in two system tanks of 1000 cubic meters each. Current water demand is 4500 cubic meters per day but the distribution pipes are undersized, therefore water is actually supplied for only two hours per day on a rotation system around the City. The two system tanks only fill up during the night, when demand is lowest, and would only provide storage capacity for a few hours if the wells were shut down. Individual water users have their own storage tanks which are often located on the rooftops. Water is pumped, or flows if there is adequate water pressure, into these tanks. It then flows by gravity into the user's plumbing and the volume of each tank represents the maximum water available for that day. There are no fire hydrants. Low pressure and small pipes in the distribution system now makes the use of fire hydrants impractical.

Chlorination at the system tanks is currently a manual operation. A worker goes into the tanks at 5:00 am and tosses bucketfuls of dry chlorine into the water. There is no mixing system or way to monitor input or output flows into the tanks.

In 1978, Japan funded 28 km of pipes for the distribution system. A Danish NGO has since provided funds for the two storage tanks and for two additional distribution piping projects of 4 km and 7 km. In 2004, the World Bank funded an additional 27 km of pipes, some of which are being installed now.

Precinct Six has a separate water system based on 13 wells, four of which have pumps and are operating. Three new water storage reservoirs have been built to provide gravity flow for 19 km of distribution pipes which are under construction now.

Recommendations: Water - Drinking

Now:

1. Recognize the difference between domestic water and irrigation water and separate their uses. Educate the public as to this difference to encourage use of the clean drinking water supplies.
2. Build additional water system storage tanks.

3. Install a chlorination injection and mixing system.

Soon:

4. As part of a Long-term Land Use Plan, design a Water Master Plan that can use and compliment the existing facilities.
5. Consider fire hydrants and necessary fire flows as part of the Water Master Plan.
6. Ensure that all water storage tanks using the drinking water system are screened or closed to prevent mosquito breeding.

Long Term:

7. Develop the Water Master Plan infrastructure and treatment plants.

ELECTRICITY & POWER

A dam on the Kabul River to the northwest of Jalalabad was originally designed to supply 40 to 45 megawatts of electrical power. Silting and damage to the system has reduced its actual output to 9 to 10 megawatts. It is unclear what amount of power would be required to supply the City's demand for power but it is clear that the existing supply is extremely inadequate. Electrical power supply is provided only on an erratic schedule and is constantly interrupted.



Locally manufactured generator.

Many users have their own generating capacity, using either newer, foreign supplied generators or locally built units. While these generators may provide steady supply to those connected to them, they create a significant amount of noise and air pollution. They also let their users, who tend to be the most affluent and influential, ignore the problems that the rest of the community experiences.

Recommendations: Electricity & Power

Now:

1. Investigate ways to repair the system so that it is supplying power at maximum capacity.

Soon:

2. Add capacity to the electrical grid with new diesel generators, solar collectors or wind turbines.

Long Term:

3. Reinvestigate additional hydro-electrical capacity on the Konar or other rivers.

MAPPING

During the seven days that I had prior to leaving for Afghanistan, I was able to find some 25 year-old Russian topographic maps, some U.S. published Operational Navigation Charts, and some maps from AIMS, the Afghan Information Mapping Service, that I downloaded from the Internet. I did not feel that I had much in the way of map resources to start urban planning work. But every time I unrolled maps during my discussions with City officials, they were impressed. No one at the City has any useable maps and I left every map that I brought with those who I felt could use them.

The Russian topographic maps were accurate but severely outdated and the Operational Navigation Charts have a scale too large to use for urban planning work.

AIMS has an office in Jalalabad, but their maps are not yet useable for planning purposes because they lack detail, are inaccurate, and don't cover all the City precincts or surrounding areas. Field checking and use of the maps will improve their usability. Unfortunately, AIMS staff has had little or no interaction with the City or the Ministry of Urban Planning.

Using maps is essential for planning, as reference for maintenance, and for public safety tools. Although the City has adapted to mapless ways of doing things, it is severely restricting their efficiency. All maintenance and repairs schedules or routes are carried out using employees' memory. There are no house numbers and streets are not named. Lot maps for the new neighborhoods subdivided by the City are available, but they lack contour and physical information about the underlying land, and are not referenced to any other known part of the existing City.

Recommendations: Mapping

Now:

1. Search for mapping resources for the City, especially from U.S. government sources.
2. Establish a Planning Group (described in Land Use Recommendations) that includes participation of the City, AIMS, and all other parties who need maps for their jobs, to compile information, add features and check accuracy of available maps.
3. Use AIMS as the main mapping agency but make them respond to the need for useful maps.
4. Name streets and establish house numbers.

SOLID WASTE - TRASH

City officials identified solid waste and trash removal as one of their most frustrating and time consuming tasks. Solid waste includes a range of material, from paper and plastic packaging to discarded vegetables, feathers or offal from slaughtered animals. Livestock slaughter is supposed to be regulated and confined to certain areas, but in practice it occurs in many parts of the City.

It is customary to randomly discard trash. Market areas, because of the greater amount of activity, have the most discarded trash. In many neighborhoods, the trash is swept or thrown into the roadside drainage ditches. These ditches carry a mixture of excess irrigation water, raw sewage or a mixture of the two. Areas that were irrigated cropland but are now urbanized have heavy flows. Urban areas that were never irrigated cropland, usually have very low flow volumes. If the liquid flow in the ditches is strong enough, the trash is moved downstream until it plugs up the ditch which then overflows. Most of the ditches simply fill with trash and must be emptied once or twice per week. Water and sewage-logged materials must be hand-shoveled out of the deep ditches into piles or windrows to dry for a few days. Then the waste is hand-shoveled onto small dump trucks. If the dump trucks are out of service or the workload is too heavy, the piles remain on the edge of the street. City staff showed me many piles that they had been unable to remove that seemed like permanent features.

In other parts of the City, sanitation crews rarely can get around to clean the ditches or can't get access to them at all. They remain for weeks as stagnant, garbage filled pools, full of breeding insects. Once the solid waste is on the trucks, it is transported to the future Abdul Haq Park. The park is a wetland in the floodplain, alongside the Kabul River, which is being filled. This is where it is dumped.



City dump in wetlands next to the Kabul River.

The City does not have the manpower to keep up with the trash accumulation using the current methods. It also lacks a systematic approach to scheduling cleanup at regular intervals. But most importantly, this method isn't working and will only get worse.

On one hand, the system, with its increasing demand for labor and vehicles, its lack of revenue sources and unsafe location for waste deposits, is taking too much effort but still not getting the job done.

On the other hand, the people of Jalalabad need to start being responsible for helping to solve the problem. In some areas of the City, people diligently sweep trash into the ditches. When people place trash in the ditches, they feel that they are cleaning the area. They are making a well-intentioned, but misguided effort to clean up, and must be given an alternative system that will really help the City. If the City can persuade the people who are motivated to clean their surroundings to use a different system to dispose of trash, it will go a long way toward changing the overall custom of discarding trash randomly.

If the City does not designate a proper and legal place to dispose of trash, then the trash problem will stay the way it is and get worse as time goes on.

Recommendations: Solid Waste - Trash

Now:

1. Provide a sanitation engineer to help plan a Solid Waste Management System.
2. Provide trash receptacles or dumpsters.
3. Provide trucks and equipment to move the trash.
4. Provide training for operation and maintenance of equipment.
5. Provide a public education campaign to encourage the placing of trash in receptacles.
6. Authorize penalties for not using trash receptacles and eventual enforcement.
7. Stop dumping trash in the wetlands and floodplain.
8. Under the guidance of a sanitation engineer, locate a drier and more suitable area for disposal.

Soon:

9. Under the guidance of a sanitation engineer, identify sites for a permanent landfill.

Long Term:

10. Built a sanitary landfill.

LAND USE

Jalalabad's last city-wide planning map was drawn in the 1960's with help from the U.S.S.R., for an anticipated population of 30,000. The City staff does not have any maps or planning documents from that period. The current population of the City is estimated to be 400,000 and projected to be 1,500,000 in 15 to 20 years.

The rapid and unplanned growth has led to a shortage of areas for markets and for commercial enterprise. There is also insufficient land and buildings for housing. Returning refugees have set up encampments on vacant land that is either private or government owned, and have few alternative places to go. Areas planned years ago for specific uses have shifted to other uses without control. Wide streets in commercial areas have been narrowed as rows of new market stands have layered themselves over the established and planned commercial buildings.

If there was any sort of land use control, it is not effective or being enforced today. The lack of jobs combined with the enterprising spirit of returning Afghans has led many to become merchants. The shortage of space to start a shop is a hindrance, but using a push-cart is an alternative. Unfortunately, the push cart then becomes a slow moving or stopped vehicle that adds further congestion to the roads.

The City had five precincts for many years. About twelve years ago, a sixth precinct, Najim-Ul-Jihad, was planned with land use and lot maps that includes public facilities, flood drainage-ways, parks, commercial market areas and residential areas. The precinct was mapped with 5200 lots for an anticipated population of 25-30,000. Residential lots are 20 by 30 meters and originally sold for US \$10. All the land was sold by the City and empty lots now resell for US \$4,000. About one third of the community is built, with the rest still vacant. Houses are built within traditional mud-walled compounds, and many family compounds cover two or three lots. The remoteness and expense of purchasing a building lot here has resulted in very slow growth.



Precinct Six, water storage tank is on the left.

In Precinct Six, control of land uses is exercised. Streets are laid out in an orderly fashion, commercial shops are centralized near the municipal offices, an electricity grid is in place and potable water reservoirs

and piping are being laid out to every lot. There are 13 wells, three of which have pumps and currently supply the system. Septic holding tanks are used for sewage and are supposed to be pumped, but no pumping trucks service the precinct and on some streets, raw sewage flows uncontrolled.

Precinct Six is not in a former irrigated agricultural area and although much drier and appearing stark, without any appreciably lush vegetation, it does not suffer from the high water table and flowing sewage that the rest of the City experiences. My opinion is that Precinct Six is the best planned area of the City, with some of the best infrastructure. But it is possible that other parts of the City would appear the same if they had not experienced the rapid growth and overcrowding of recent years.

Three years ago, Deputy Mayor Abdul Hakim planned three new neighborhoods to provide residential lots for refugees returning from east of the City and Pakistan - at his own expense with the assistance of the Urban Planning Ministry. Unregulated, these refugees were moving onto any empty land and building structures to live in. The City opened two of these new neighborhoods in June. (*See picture on the report cover also.*) Lots will be for sale and the income will go to the City. Certain people such as the elderly, extremely poor, or handicapped, will pay reduced sales prices or simply be granted their lots. For those who own land, increasing land values and rents has provided significant stability and wealth generation. Families must build their own structures at their own expense but will now be better off by holding legal title to land that they can call their own.



At a dedication of a new neighborhood, Mayor Arsalai and Chuck DuVivier, in front of celebrating new owners.

All of these new neighborhoods rely on the existing congested roads to and from the severely congested, central city of Jalalabad for markets and jobs. There are no plans for the logical and cost effective long-term expansion of sewer, drainage, water, electricity or roads to these neighborhoods. The City is creating problems for itself faster than it can solve them. The pressure to respond to refugees settling at

will on government land has driven this solution. Unfortunately, the immediacy of the problem and the lack of a Long-term Land Use Plan for an expanded City will encourage creation of more of these new neighborhoods.

New urban areas need to be developed, but they need to be comprehensively planned as part of a city-wide plan, before they are developed. Otherwise they will be as difficult to provide services to as the refugee camps to the east, where it may be years before they ever get any supporting infrastructure such as sewer or water service, roads or electricity. If that infrastructure is ever installed, it will likely cost more than if it had been planned from the start. In the meantime, these neighborhoods will rely on the overburdened City of Jalalabad for all their needs.

The City, central government ministries, and the aid agencies need to initiate a planning process which involves merchants, import and export shippers, safety personnel and the public, to develop a Long-term Land Use Plan to guide the growth of the City.

Recommendations: Land Use

Now:

1. Provide a facilitator to initiate a process for land use planning.
2. Identify City staff members, ministry representatives, public safety officials, aid agency staff and others who should participate and give input into a Long-Term Land Use Plan.
3. Establish a Planning Group to encourage communication and support for enforcement of existing land use rules or restrictions, enhance security, and improve City maintenance and operations. The group should meet on a regular basis to identify problems and mutually work to solve them.

Soon:

4. Provide a land use planner and other technical support to the Planning Group to help with the creation of a Long-term Land Use Plan.
5. Provide training seminars for those involved in land use planning, preferably in a City that has examples of solutions that are transferable to Jalalabad.
6. Analyze future growth projections for the region.
7. Gather input from all sources available, create goals and adopt a Long Term Land Use plan for Jalalabad.
8. Evaluate potential land use regulations that will be needed to maintain the Long-Term Land Use Plan.

Long Term:

9. Provide periodic evaluations of the Long-Term Land Use Plan and update as necessary.

PUBLIC HEALTH & SAFETY/SECURITY

There are many public health issues that are affected by City planning decisions. In Jalalabad, critical problems include the possible spread of communicable disease, poor air quality, physical hazards and inadequate response from public safety personnel.

The threat of a communicable disease spreading through-out the City is severe. By allowing the public to have contact with raw sewage as it flows through open ditches, once a disease enters the City, its spread will be rapid. During my stay in Jalalabad, an outbreak of cholera in Kabul spread in a matter of days. Ten people died and 2800 people caught the disease in three or four days.

Because of the old irrigation system there is an excess of water in the City. That water encourages the growth of many insects that spread disease. In addition, the drinking water system relies on tanks that often provide breeding habitat for mosquitoes. Malaria is an on-going problem for the City.

A city should be designed to minimize physical hazards. Open ditches, physical obstructions, and lack of building codes all endanger the people living in the city. The electrical wiring in the city, at 220 volts, is particularly dangerous. With an intermittent supply and no regulation of wiring, there is always the risk of electrical shock or fire. The lack of safety for pedestrians was mentioned previously as part of traffic circulation.



A market scene showing some hazards caused by having open trenches in congested areas.

The City has poor air quality caused by dust from the unpaved roads and pollutants from the poorly-tuned generators, cars, trucks, and the motorized rickshaws being brought in increasing numbers from Pakistan. These problems need to be dealt with to reduce respiratory diseases.

Public safety also includes providing adequate levels of policing, fire protection, and health worker and emergency access. Congested streets, obstructions, lack of maps, street names and house numbers, and lack of equipment and personnel, all hurt efforts to provide adequate public safety in the City. Many of these public safety issues are listed under other subjects where they can be reviewed.

Recommendations: Public Health & Safety/Security

Now:

1. Involve doctors, police, other public safety representatives, and sanitation supervisors, with the Planning Group described under Land Use.
2. Provide security advisors to review issues in the City and to make suggestions that would enhance security and public safety.

Soon:

3. Provide fire suppression equipment and training.
4. Provide resources to maintain fire suppression equipment.
5. Create regulations to control use and storage of hazardous materials, parking and fire lane control, and emergency response access routes.
6. Create security and public safety guidelines to include with the Long-Term Land Use Plan.
7. Create regulations that support security and police protection in the City.

Long Term:

8. Provide additional police and fire stations and equipment as the City grows.

DECISION MAKING PROCESS

One would expect that a city's mayor, deputy mayor and their staff would be entrusted or responsible for taking the lead in planning the city's future. Unfortunately, that is not the case. A multitude of ministries of the central government are theoretically in charge of planning and execution of issues that fall under the authority of their ministry, which makes coordination extremely difficult. It takes away the incentive for local officials to plan improvements themselves and puts it in the hands of central government employees who may or may not have any interest in local issues.

In addition, problems of pressing immediate needs occupy most efforts of local officials. The frustration of not having the resources to deal with these same problems day after day, not being aware of alternative solutions, and the unresponsiveness of aid agencies to grant the requests of City officials, has led to a sense that aid agencies are not truly interested in helping the City solve its problems. There is no chance for City officials to step back and imagine or invent new solutions on their own. There has never been any attempt made to expose these officials to alternative ways of doing things.

Many Ministries appointed by the Central Government have offices in Jalalabad and are responsible for various functions such as urban planning housing development planning, road and water services planning and public works and long-term planning, but the only plans produced recently were at the initiative of the City as a response to the critical lack of area for new housing. While all these ministries may be cooperative and have good relations with the City, no planning group or individual has stepped into the void of overall planning coordination. This void needs to be filled.

Aid agencies and non-governmental organizations add more problems by recommending or initiating projects that they or their donors deem to be important. These projects might be beneficial and well-intended, but the "take it or leave" process presented to the Afghans is not training them to manage the City. They are not going through a step by step process that will lead them to long-term plans and goals. These projects aren't "their" projects and they are also being done without overall coordination.

An example of this involves solid waste issues in Jalalabad. On a day to day level, City staff sees the streets filling with garbage and responded by asking, as their first priority, for more money to hire more street cleaners and to get bigger dump trucks. That request was denied because they have no sanitary landfill built to American standards to receive the waste. In the end, the City staff feels that after they identified their number one priority, they were ignored. Meanwhile, the trash continues to accumulate and get dumped into the wetlands alongside the river.

Another example involves City by-pass roads. Heavy through-traffic from Pakistan to the interior of Afghanistan is impacting the already congested City streets. An obvious response is to build a by-pass. At this point in time, four or five by-pass roads are being planned, but at the City municipal building, there are no maps of where the roads are being proposed and little or no knowledge of the timeline or process to create the roads. Has the aid agency involved with the project analyzed traffic trends into the future? Have they reviewed in what direction the City might be growing, or other future roads and circulation patterns that could affect the speed and type of urban growth? Or is the by-pass just a reaction to existing congestion? Where that road is built, the City will grow. Have they inadvertently created the long-term plan for the City?

Even in the most sophisticated cities in Europe and the United States, City councils and City staff go through regular training exercises, seminars and planning workshops to learn about the complexity of their cities, their infrastructure, and their capital projects and to help them make better decisions. Capital

improvement planning, prioritizing projects and recognizing necessary rules or laws that need to be adopted in order to make a city better place live in, are all skills that need to be learned and reviewed over and over.

Public input and review is also essential to build support and confidence for a city plan, city officials and the role of government. Many Afghans believe that their people have lost their self-reliance and that they no longer can affect change. These beliefs must be reversed. The mayor and deputy mayor must not be left in a position where they are powerless to lead the community, establish a land use plan, or competently provide city services. Aid agencies should be assisting them and the community in everyway possible to learn how to plan for their own future, and how to provide for themselves.

Recommendations: Decision Making Process

Now:

1. Identify City staff members, ministry representatives, public safety officials, aid agency staff and others who should participate and give input into a Long-Term Land Use Plan.
2. Establish a Planning Working Group made up of the identified people.
3. The main effort of the working group should be to improve communication. The group should meet on a regular basis to identify problems and mutually work to solve them.
4. The secondary function of the Planning Group should be to mutually support efforts to enhance the community such as working together to solve health problems, identifying existing land use rules or restrictions and how to enforce them, enhancing security, and improving City maintenance and operations.

Soon:

5. A facilitator with experience in governance should participate in the Planning Group to identify barriers to communication, productivity and efficient government operations, and make suggestions about how to fix them.
6. Empower the City officials to plan the long-term growth of the City. This could be accomplished by legislation that would give them direct authority for decisions relating to the City. Or, using the current system and a strong, active and cooperative Planning Group, The City officials could exercise their leadership, while the central government ministries could retain authority for making decisions.
7. Combine City offices with central government offices to make communication and access easier for everyone involved Jalalabad and Nangarhar.

ECONOMIC DEVELOPMENT PLANNING

Jalalabad and Nangarhar should be strong economically in the future as long as coordinated planning is started today. I believe that the role of a city is to encourage economic development that benefits the people of the City. Economic development from private investment in a community is encouraged when government invests in strong infrastructure. The people of the community also realize a higher quality of life when their water supply is ample and clean, their roads are paved and not congested, their city is free of trash, they are healthy, better educated and they have higher incomes due to the economic development.

Infrastructure consists of strong and reliable security, health, transportation, sewer, water, and drainage systems. Economic development also requires a labor force that is educated and skilled. All of these factors support each other and must be developed concurrently.

Recently, the City and Province dedicated land for an industrial park to the east of Jalalabad. As an economic development tool, adequate land for building is essential. But if land is made available without any infrastructure or any plans to provide it, how could a company invest its capital in plant or equipment? With no housing nearby, no water system, no electricity, and no plan or schedule of when that infrastructure would be available, recruiting investment will be very difficult.



New Industrial Park east of Jalalabad.

Cities or regions with healthy economies have found ways to generate revenues that do not cripple their economic success. They reinvest those revenues in local infrastructure that ensures a healthy economy far into the future. If an economic downturn hurts a nation, those cities and regions that have developed strong and diverse economies, invested in their infrastructure and education, and have a good quality of life for their residents, are less affected and recover the soonest.

Jalalabad and the Nangarhar Valley are on a major trade route from Pakistan, through the Khyber Pass into central Afghanistan. The location of the City on this trade route gives it a clear economic development possibility which today which is only partially being taken advantage of. As a first-stop

market center, the prices of imported goods should be cheaper in Jalalabad. For goods exported from Jalalabad, shipping costs should also be less. Lower costs encourage more trade, a benefit for residents and merchants. For goods being shipped through the City, growth in tariffs and support services could be significant.

The City should be working to provide services that are quick and convenient for shippers to encourage access into the country on this route. If the City continues to be an uninviting hindrance to shipping because of traffic congestion, lack of secure overnight facilities, or shipping support, shippers will do their best to get through without stopping for services or bypass the City completely. Either of these possibilities won't provide much economic benefit locally. The trucks will continue to use this route in one way or another and the City needs to be immediately planning for the best way to have them do it, with the best economic benefit to the City.

The Nangarhar Valley has the potential for much greater agricultural production and income. Every effort should be made to improve the irrigation system, experiment with higher value crops and educate people involved with agricultural production.

The Jalalabad airport is currently being used as a fortified military airfield and is encroaching and causing congestion on the Jalalabad-Khyber Pass highway. A new military airfield should be built farther from the City in a more easily protected area and the existing airport should be cleaned up and returned to public use. The airport could be a major economic development resource for the City and would improve access for people and goods into the region. Based on the success of South Africa and other countries, it seems like the potential for air freight export of fresh fruit, vegetables and flowers to Europe, East Asia or the United States should be explored.

Recommendations: Economic Development Planning

Now:

1. Follow the recommendations in this report that will improve the infrastructure of the community.

Soon:

2. Publish all City revenue and expenses to let the public and potential investors for economic development see how the City and province are conducting their finances. Their should be an insistence on openness for all government activities.

3. The Working Group should also be a forum for discussion of economic development of the region.

4. Identify needed job skills training and education and start those training programs.

Long Term:

5. Build all physical infrastructure to support the Long-term Urban Plan of the City.

6. Continue to educate and train a skilled workforce.

7. Recruit employers that complement the City's long-term goals and available workforce.

8. Build a new military airfield. Clean up and rebuild the Jalalabad airport to use for shipping and passengers.

Conclusions - What Next?

When I was asked to come to Jalalabad to assess the City's needs for urban planning, I realized that there would be problems. My experience had been with over-regulated cities that have extensive planning documents, a bureaucratic structure and have easy access to other cities as resources when they have problems to solve.

Jalalabad on the other hand, has no planning documents, no set of municipal laws, and has a new, evolving government structure and decision making process. It had been just subsisting, or holding on or hunkering down, for the last 20-25 years and has not had access to outside help when trying to solve problems. The City has been inundated by thousands of returning refugees. I understand the frustration of those who are responsible for the welfare of the region. The immensity of the pressing problems and the need for immediate problem solving made it difficult for me to focus on the reason that I was asked to come: to assess the long-term planning needs of the City.

I want to first list items requested as priorities by the City staff, because these represent their perception of urgent issues. They requested help with further drainage ditch building, and with obtaining suction pumping trucks to clean ditches and sewage tanks, and a hearse. They would like to receive some equipment for mechanized trash pickup, five dump trucks, a road grader, a bull-dozer and an asphalt-mixing plant. They also mentioned the need for salary supplements to recruit and keep better workers.

What do the people in Jalalabad who are responsible for the City think? I experienced an increasing sense of frustration from Afghans who do not perceive that pledged support to their country is materializing. They hear the news that US \$13 billion has been pledged to rebuild their county, but they do not see the effects. They naturally believe that the money is being stolen through corruption and are very suspicious of aid agencies and foreign governments. The aid projects presented to them appear to be in the form of a "take it or leave it" proposition and are not based on their requests. They feel they are not learning to analyze their own priorities or manage their city. They believe that they are being turned into a welfare society and they don't like it. I heard many times that they believe that aid agencies are corrupt because so little aid actually seems to benefit the people. I know that there is another side to argue, I am only reporting on their perceptions. I think they need to see some progress and openness in budgets and agreements.

And it would be unfair to say that nothing is being done. Much effort is being made. There are coordination efforts being made through the Provincial Development Council. The Chinese are building the road to Kabul and the Pakistanis are building a road to the Khyber Pass. Water projects are being worked on by the Japanese, the Danes and the UN. Canals are being cleaned. The City is building some roads and a guest house (there are no hotels). AIMS is working on mapping, the EU is working on road planning, and various NGOs (non-governmental agencies) are working on rural and urban development projects.

This report is not meant to analyze all the issues facing the City in detail. Instead it is being written in an effort to bring people together as soon as possible to start communicating with each other and to take the time that is necessary to work on long-term urban planning for the City. I want to emphasize that the lack of solutions to many of the problems of the City are caused by the lack of communication and the lack of long-term planning. This has left the City without a long-term vision and goals, and makes prioritization of projects impossible. Without a rational demonstration of planned priorities, everything becomes equally needed, and immediacy supercedes a logical step-by-step approach. Different people have different ideas of immediate priorities. Based on this, I have some recommendations for what must be done first to get the process started.

Recommendations: What Next?

1. Work to develop communication:

1. Provide a facilitator with land planning expertise to help identify potential members for, form, and work with a City Planning Group.
2. Provide technical expertise to the Planning Group.
3. Use the Planning Group to coordinate communication and problem solving.
4. Provide training for Planning Group members to expose them to expertise and solutions unavailable to them now.
5. Have the Planning Group discuss changes to improve the decision making procedures of the City and region.
6. Have the Planning Group discuss and make a recommended needs priority list of projects after a Long-term Land Use Plan has been agreed on

2. Develop a Long-term Land Use Plan that includes:

1. Land use element to include: schools, mosques, commercial areas, housing areas, parks, floodways, open space
2. Circulation element
3. Public safety/security element
4. Infrastructure Planning Element for electricity, water, sewer, drainage
5. Supporting regulations

3. Develop an urban pilot project as the next new neighborhood.

Use this project as the core for future urban expansion and infrastructure to take the pressure off old Jalalabad instead of adding to it.

The City needs to develop a Long-term Land Use Plan. In that process, many questions will be discussed and conclusions made. The next round of urban expansion should start from a core pilot project where systems and infrastructure are planned, expandable and can provide training for the City staff and the public as to how they are to be maintained. By providing a fresh start at a suitable distance from the existing City and with a design to complement it, the existing City can have the pressure of extreme growth and unmanageable systems reduced. By building expandable core infrastructure, the pilot project can be used to absorb growth in ways where the next steps needed are logical and complementary, infrastructure is up-to-date and maintenance issues are eased.

In concept, the City's industrial park shows a willingness by local leadership to explore new urban area expansion. If it does grow, the lack of planning for residential and commercial areas and for infrastructure will make it an unpleasant place. What is needed is that same willingness to try something new, but with the addition of communication, planning and technical expertise to create a better option.

It is important to remember that a long-term land use plan is not something that can be imposed by another government or aid agency if it is to be successful. It is not just drawing roads or neighborhoods

on a map. A successful long-term land use plan needs to be derived from a broad group of people, it must be a reflection of what they want their city to be. The best assistance that can be given to the City is to expand their knowledge of urban systems and help them explore the planning process.

A long-term land use plan is also not just about the physical infrastructure of the City. It needs to include a feeling of “ownership”, a sense of respect and pride for the City, and a willingness to follow social customs and laws that reflect that sense of respect and pride. An urban planning process must bring people together to support common goals for their city and empower them to achieve those goals.



New road paving funded by the City.

Appendix – Budget Information

I attempted to find out about City revenue sources and expenditures but could not find a published budget. The information provided here is incomplete but does give an idea of the City’s finances. One U.S. dollar is equal to fifty Afghanis.

Land Parcel Sales, a one time income source, is a large part of the revenue projected for this year. Some land will be given to needy people without charge, so income is not exact. If the income does not materialize, the expenditure project list will be cut back.

A local bank holds collected revenue in a City account. The City sends requisitions for salaries, payments to contractors and other items, once a month to get cash.

2005 Budget – A Rough & Partial Estimate:

Revenues

110,000,000	Tariffs, at standardized rates set by Central Government
2,000,000	General Revenue
	Shopkeeper Tax (License?)
	Fines for overcharging for meat & bread
	NGO rental Tax (equals one month rental per year)
	Property transfer taxes
	Leases of City owned property (70,000-80,000 AF)
405,000,000	Land Parcel Sales (Estimate of Maximum Possible?)
	20,000 Parcels to Sell:
	5,500 Parcels @ 35,000 AF = 192,000.000 AF
	2,000 Parcels @ 29,000 AF = 58,000,000
AF	
	<u>13,500 Parcels @ 30,000? AF = 767,000,000</u>
<u>AF</u>	
767,000,000	Total Revenues (\$US 15.34 Million)

Expenditures

11,000,000	New Neighborhood Development
8,000,000	Machinery and maintenance and fuel
15,000,000	Maintenance of City
380,000,000	Roads, Bridges and Guest House Construction
85,000,000	New Machinery
140,000,000	Road pavement, Parks
50,000,000	Purchase of Land to sell in future
<u>689,000,000</u>	<u>Total Expenditures (\$US 13.78 Million)</u>

A word of caution: the above figures cannot be relied on. I put them together from informal information I received during my visit. Some numbers may be too low, some may be too high, and many items are missing.

The mayor, deputy mayor and other City workers are actually employees of the central government, as are staff from the ministries and provincial staff. Government salaries are US \$50/month. The mayor, deputy mayor, governor and ministers are appointees of the central government.

US \$50 per month is not a living wage in Jalalabad and requires another source of income such as a family business or real estate rental income or supplements provided by other family members. Many government employees work a few hours at their job and then work independently for the rest of the day. This is true for City engineers, doctors at the hospitals and many other professions. Only those workers who are both truly dedicated to their jobs and who can afford to do it, will work full time for the government at that low level of pay.

A civil engineer working for the City makes US \$50/month. If he is hired by a foreign non government organization, he could earn US\$1500/month. NGO's, in their competitive search for qualified workers, have stripped the labor pool and make government hiring very difficult.

Raising the salaries of government workers and increasing their skill level is critical to making the government productive.



Chuck DuVivier and Deputy Mayor Hakim at the municipal offices.

List of Persons Consulted

- Mayor Janagha Arsalai, Jalalabad City
- Deputy Mayor Engineer Abdul Hakim, Jalalabad City
- Engineer Abdullah Head of Construction, Jalalabad City
- Naweed Ahmed, Contacts, Procurement, Jalalabad City
- Ghulam Hazart, Sanitation Dept., Jalalabad City
- Sayed Rehman, Office for the Provincial Minister of Water
- Sayed Ghalib, AIMS, Jalalabad
- James Ritchie, IFHope Foundation, Jalalabad
- Jim DuBruille, IFHope Foundation Jalalabad
- Flouran Wali Relief International Kabul
- John Maris, Relief International, Los Angeles
- Roger Caves Ph.D, San Diego State University
- Eric Frost, San Diego State University
- Robert Ladwig, Ladwig Design Group, Carlsbad, CA
- Steven Brown, Rotary International Past District 5340 Governor, San Diego, CA
- Barialai Arsalai, Abdul Haq Foundation, Jalalabad
- Mohammad Ishaq, Abdul Haq Foundation, Jalalabad
- Abdul Khaliq, Precinct 6 Mayor, Jalalabad
- Mohammad Alam, Precinct 6 Engineer, Jalalabad
- Dr. Nasir Khan, U. of Nangarhar, Jalalabad
- Dr. Khahil Ahmad Behsoodwal, U. of Nangarhar, Jalalabad
- Susan Anderson, Development Assistance International, Jalalabad
- Christopher Seeley, Development Assistance International, Jalalabad
- Michelle Parker USAID, Jalalabad
- Mike Hofberger, U.S. Dept. of Agriculture
- Major Lynda Granfield, Commander Nangarhar Provincial Recovery Team, U.S. Army, Jalalabad
- Susan Anderson, DAI, Jalalabad
- Christopher Seeley, DAI, Jalalabad

Resume

Charles G. DuVivier
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President, DuVivier Company, Inc. Encinitas, CA 1983-current

Residential real estate development, licensed General Building Contractor. Responsible for project processing, product design, market feasibility analysis, scheduling and production. Extensive work with environmental impact reports, geotechnical reports, biological and geotechnical hazards mitigation, and excavation processing. Have processed numerous subdivision maps with over 550 residential units, and have extensive knowledge of municipal organizations and California Coastal Commission process.

Operator/Owner, Whistling Winds Farms Readstown, WI 1974-1982

Started from scratch, this diversified 348 acre livestock and crop farm grew into the largest hog and also the largest sheep operation in southwestern Wisconsin.

Mayor, Deputy Mayor, Council Member, City of Encinitas, CA 1992-2000

Served as council member and mayor of this diverse and active coastal city with a population of 65,000. Elected 1992 and 1996. Special emphasis on diplomacy, consensus building, respect for diverse viewpoints and team building between council members, staff and the public.

Other Related Government Experience 1975-2000

Board member and/or Chairman:

- Encinitas Housing Authority
- Encinitas Fire Protection District
- Encinitas Sanitary District
- Cardiff Sanitation District
- San Elijo Waste and Reclaimed Water Joint Power Authority
- Encina Wastewater Authority
- San Dieguito Water District
- Solid Waste Authority
- Regional Solid Waste Association
- North County Transit District
- San Diego Association of Governments (SANDAG), regional planning board
- Multiple Habitat Policy Committee
- North Coast Transportation Study Policy Advisory Committee
- County of San Diego Building Construction Appeals Advisory Board
- City of Encinitas, Planning Commission
- Olivenhain Community Land Use Planning Advisory Board
- Township Tax Assessor, elected, Readstown, WI

Community Activities (past)

- San Diego Building Industry Association, Board of Directors
- North County Building Industry Association, Board of Directors
- Construction Industry Federation, Legislative and Policy Committee
- Encinitas Chamber of Commerce, Executive Board Member, Treasurer

Encinitas Friends of the Library, board member
Encinitas Sister City Committee
Nurse exchange organizer
Host for 7 Japanese students

Community Activities (present)

Encinitas-La Costa Rotary Club, charter member
Club President, 2003-2004
Paul Harris Society District 5340
Major Donor, The Rotary Foundation
ELC International Committee
Polio Immunization trips to Eritrea, 1999, India, 2004, Niger, 2004
Wheelchair Deliveries to Malawi, 2003
Afghan Women's Development Center Equipment Dedication, 2004
Nangarhar, Afghanistan, Micro credit Matching Grant Coordinator, 2004-5
Group Study Exchange Host for University of Nangarhar professors, 2005
Dedication of 2 micro-banks, Honduras, 1995
San Dieguito Heritage Museum, site plan committee
Jalalabad-San Diego Sister City Committee

BA, Environmental Studies 1973

Antioch College, Yellow Springs, Ohio. Interdisciplinary major combining regional land use with earth and biological sciences. Worked on a co-operative education project as park planner for the City of Cleveland, Ohio

Other Education

University of Wisconsin, La Crosse: Construction, Real Estate, and Business Management.
University of California, San Diego: Real Estate and Construction Management.
San Diego State University: Construction Management
National Association of Home Builders: Leadership Training.