

Delta Reflections: The Voices of Delta Agriculture

A Report from Interviews with Fourteen Delta Growers

July 26, 2007

Summary

Delta farmers and ranchers (herein referred to as “growers”) arguably have the most at stake from a Delta Vision, especially one that may propose significant changes in land and water use in the Delta. For many, the land they work has been in the family for generations, adding a dimension to their concerns that go beyond a cost-benefit equation. These farmers and ranchers directly affect about 70 percent of the Delta landscape and are in a unique position to contribute to a vision regarding land and water management for a sustainable Delta.

Although several in-Delta growers are on the Stakeholder Coordination Group, the voices of Delta agriculture have much to say. To capture the concerns and hopes of this group, interviews were conducted in spring 2007 with 14 Delta growers representing each of the five Delta counties. Interviewees included landowners, those leasing land, and farm managers for private, governmental, and non-governmental agencies. Each of the five Delta Regions—North, East, South, West, and Central—were represented by at least two interviewees. These farmers and ranchers are involved in producing a variety of commodities: wine grapes, pears, field crops such as corn, turf grass, asparagus, blueberries, rice and pastured livestock. The farm and ranch operations range from several hundred to several thousand acres.

Findings. Most of the growers interviewed are optimistic about the economic future of agriculture in the Delta. Since many of them are from families that have been involved in Delta agriculture for several generations, some back to the 1850’s, they understand the ebbs and flows of Delta agriculture. They see themselves as survivors, adaptors and innovators. They are tuned to the market and have taken advantage of the unique market niche that the Delta provides because of its soils, climate and proximity to surrounding metropolitan areas. They see the opportunities that new markets, such as biofuels, may provide them. Some see economic opportunity in value-added agriculture and conjunctive uses. (Value-added agriculture includes several currently uncompensated public services and benefits, such as compatible recreation and tourism, or farming with wildlife benefits, carbon credits, or floodplain management in mind.)

Although optimistic about their future, these farmers and ranchers are acutely aware of threats to their livelihood. Topping their list of concerns is an isolated conveyance facility (e.g., the 1982 peripheral canal). A few said an isolated conveyance facility could be designed to meet their needs, but all expressed a lack of trust over how it would be operated, suggesting that, “when push comes to shove,” it would be operated for the sole benefit south-of-Delta water users. Growers believe that maintaining water quality, flows, and levees needed for Delta agriculture will be forgotten once the Southern California voters get their water from around the Delta.

Concerns over an isolated facility aside, two other perceived threats were among the top three threats listed. They include a lack of commitment to levee improvements, and the loss of adequate water quality and flows through the Delta. Rounding out the listed

threats are: (1) urbanization; (2) a burdensome regulatory climate; (3) lack of channel dredging; and, (4) loss of a critical mass of agricultural land uses needed to maintain agricultural support services in the Delta, such as processors and suppliers.

“Urbanization” in this context is really a misnomer; most of the growers mean large-lot ranchette development that fragments the landscape, places additional burden on inadequate infrastructure, and is incompatible next to intensive agricultural uses.

There is a correlation between the threats and the needs for a sustainable Delta agriculture. Among the needs listed are: a state commitment to partner with landowners and reclamation districts to improve and maintain reliable levees; reliable and adequate water flow and quality through the Delta, particularly in the South Delta; and relief from regulatory burdens in the form of flexibility and simplification. Several growers complained that some regulations are being misapplied to agricultural settings, such as urban building and zoning regulations. They also expressed concern that their work to improve habitat could result in a jeopardy decision under the federal or state endangered species acts. Several growers mentioned the need for a stronger Delta Protection Commission to protect agriculture from non-agricultural land uses. Finally, many growers pointed to the loss of tomato and sugar beet processors as a sign of an approaching loss of a “critical mass” of agricultural uses in the Delta necessary to support essential agricultural services. They believe there is an urgent need for policy makers to better understand the issue of critical mass.

Nearly everyone said the primary value that agriculture contributes to the Delta, is providing a safe and nutritious supply of high quality food, both as a component of the state’s food security system and as a part of a state, regional and local economy. Sustaining the unique culture and history of the Delta’s so-called “legacy towns” was also frequently cited as a benefit of Delta agriculture. Other values mentioned included: levee maintenance; wildlife habitat; green open space for the surrounding metropolis; recreation; carbon sequestration; and, a lower risk economic land use for a risky environment.

In looking toward a Delta future in the next 50 to 200 years, all of the growers would like to see a Delta that looks much the same as it does today, that is, dominated by agriculture. Almost everyone described the future Delta with the word *mosaic*, meaning that the agricultural base would be integrated with a variety of compatible uses, such as wildlife-compatible agriculture, recreation and flood management. The manager of agricultural leases for a state wildlife management area sees wildlife-compatible agriculture as desirable to help pay for wildlife management and as a tool to help manage water, weeds and habitat.

Decision-making and alleviation of uncertainty is at the crux of these growers’ hopes and fears for the Delta Vision process. At best, they want the Delta Vision to lead to decisions and actions that dispel uncertainty; their worst imagined outcome is that, no critical decisions will be made, which will result in ongoing uncertainty and eventually an abandoned Delta.

Interview Report

Over the course of several months, 14 growers from throughout the Delta were interviewed for their thoughts, concerns and hopes about Delta agriculture and its future. This report summarizes their views about the future of Delta agriculture, threats to and needs of Delta agriculture, and how they see Delta agriculture benefiting the region and State. Next, their thoughts about the Delta Vision are recorded and then their responses are compared to those provided by an earlier and more broad-based stakeholder interview.

The Future of Delta Agriculture

There is a mixture of qualified and unqualified optimism about the economic future of agriculture in the Delta. About 20 percent of those interviewed were less sanguine about the future of agriculture in their parts of the Delta (West and South), but remained largely positive about the agricultural future in the Delta as a whole. North Delta growers felt the most secure about the future of their operations, notwithstanding concerns about water flows and quality.

Many of the reasons given for their optimism apply to California agriculture in general. These Delta growers see themselves as progressive, and describe Delta agriculturalists with such words as “efficient, survivors, adaptors and innovators.” They talk about the competitive advantage they have due to the high quality and safety of California food compared to the rest of the world.

Their optimism also comes from conditions and opportunities that are unique to the Delta. One grower saw the expanding metropolitan area ringing the Delta both as a market opportunity and as a threat. The close proximity of a market, the inherent demand for unique specialty crops, such as turf-grass, and the opportunities for direct marketing were some of the market advantages he named.

Another value that Delta agriculture provides is “a green emerald of open space” in the middle of a large urban setting. They talked about the opportunities for compatible, value-added recreation – e.g. wildlife viewing, hunting, fishing, agro-tourism. Several mentioned that urbanites could effectively advocate to protect the Delta from urbanization and the loss of open space. They also mentioned the potential for income from wildlife habitat enhancement and protection (e.g. mitigation banks, conservation easement purchases, regulatory assurances, and technical and financial assistance), and from selling carbon credits.

In their optimism, many of the growers spoke of the Delta’s fertile and easy-to-work soils, a warm climate that is also moderated by marine influences, and high quality, plentiful and inexpensive water that is secured by unassailable water rights (riparian, contractual, pre-1914, and appropriative water rights). They pointed out how these factors place the Delta in a unique place in the market both in terms of product quality and the timing of harvest; i.e., Delta crops often come to market before or after the same crops in other parts of the West, improving the prices that Delta growers can receive.

These growers also talked about the constantly evolving array of new crops that help keep farming in the Delta profitable. Among the new and unique crops to come along in recent years, or are finding a resurgence, are: blueberries (both northern and southern varieties); wine grapes; turf-grass; rice (though currently limited in extent, there seems to be growing interest from several quarters); cherries; organic crops; and, olive oil. Even cranberries and wild rice were mentioned as potential crops for the future Delta.

One crop that engendered a great deal of hope for Delta agriculture's future was corn. The Delta, one grower emphasized, produces a high value feed corn, which has long been a staple, low risk crop in the Delta. With the recent market emphasis on ethanol as a renewable, domestic source of fuel, Delta growers are seeing even better prices for corn now and project that that will continue. Whether this is realistic or not, the higher prices, and the positive effect of these prices on other Delta commodities, are considered encouraging. As one grower concluded, "As goes corn, so goes the Delta."

According to these growers, a similar phenomenon is occurring with all feed grains, as well as with alfalfa and oat hay. Recent dry conditions affecting California's rangeland forage, and the influx of new and larger dairies to Northern California have increased the prices of Delta field crops used for cattle feed.

Those interviewed who qualified their optimism cautioned that to survive, Delta growers are going to have to become larger, more diversified and more vertically integrated, that is, to internalize outside-of-the-farmgate costs. Both small and large farmers recognized the imperative of consolidation in order to provide a reliable supply of produce to large retailers like Costco and Wal-Mart, who dominate today's market. Larger farming operations reduce risk as well. For example, planting corn in different parts of the Delta results in staggered harvest times, and provides multiple opportunities for entering the marketplace. Larger farms also provide greater opportunity for crop diversification. The larger an operation, the greater the opportunity to plant multiple crops at an economic scale to hedge against uncertain markets or poor growing conditions. Several Delta growers controlled costs through vertical integration. They have found this necessary because of the increasing costs of fuel, labor and nitrogen fertilizer, and the loss of processors and shippers from the Delta. At least three growers have taken great strides towards vertical integration and have strategically mixed their crops and varieties so as to time harvests in order to keep facilities, machinery and labor busy throughout the year.

Several of the growers said their rosy view of the Delta's agricultural future was, in part, dependent on the future of U.S. farm, trade, immigration and labor policies. Their optimism is tempered, however, by the uncertainty regarding several other key issues, such as: inflexible local land use policies; the increasing complexity of local and state regulations; uncertainty about water quality and quantity; unworkable dredging and levee maintenance policies; and, the loss of agricultural service providers, including bankers.

Threats to Delta Agriculture

Interviewees talked about two kinds of threats to Delta agriculture, those that pose challenges to California agriculture in general, and those unique to the Delta. General statewide challenges are the higher cost of doing business, and the related issue of an uneven playing field for growers in California. Besides the high cost of farm inputs and land, the cost of regulatory compliance was most often blamed for the high cost of doing business in this state. For the threats unique to the Delta, the isolated facility, led the list.

Isolated Conveyance Facility. All the interviewees listed an isolated conveyance facility as a top, if not *the* top, threat to Delta agriculture and the Delta as a whole. When it was pointed out that such a facility could be designed to benefit in-Delta users, including fish, the response was a lack of trust. As one grower said, “when the next drought occurs the votes and money of Southern California will prevail.” The fear is that once south-of-Delta interests have a secure supply of water that by-passes the Delta, efforts to maintain levees and needed water flows and quality will be abandoned as too costly.

Levees and Water Flows and Quality. While it seemed that almost every grower claimed that their levees were in good shape, most recognized the need for outside funding beyond what reclamation districts can bring to improve and repair levees. Several growers expressed sensitivity to the perception that their levees are subsidized by public tax dollars. One grower said that landowners on his island contribute about 60 percent of the annual levee maintenance cost and are the primary monitors of threats to levee integrity from wave action, beavers, seeps and levee subsidence.

Water flows through the Delta are particularly important for South, Central and West Delta growers for both water quantity and quality reasons. Increasing salinity in the West and Central Delta from low outward flows of fresh water was cited by growers as responsible for a shift from higher value row and field crops to pasture, hay and grazing. In the South Delta, one grower displayed photos of his dry pumps dangling over a trickle of flow in Old River. He said that when there is water sufficient to pump, the return flows are often of better quality than the water pumped from the river. He has used groundwater, but it is too salty. He now uses drip irrigation to reduce water use, with injections of sulfur to reduce the effects of salinity.

Urbanization and Incompatible Uses. Urbanization is frequently mentioned as one of the top threats to the Delta’s agricultural future. Most of these growers were relieved by the Delta Protection Commission’s decision last winter to deny the Old Sugar Mill project, mainly because of the signal it sent to would-be developers in the Primary Zone. However, concern over loss of agricultural land in the Primary Zone is not over traditional urban sprawl, but large-lot ranchette developments that fragment the landscape, increase traffic on over-burdened roads, place incompatible land uses next to intensive agricultural uses, and increase agricultural land values beyond the reach of growers. Those who raised this issue explained that a growing number of non-agricultural residents scattered around the Delta’s rural landscape not only consumes agricultural land, but creates burdens on agricultural neighbors who have to put up with vandalism, littering, increases in pests and invasive weeds, trespassing, increased liability, and restrictions on spraying and other standard farming operations.

One interviewee saw the conversion of the Delta's agricultural land to urbanization, habitat, flood basins, water storage and abandonment as a cumulative problem for the State. He pointed to the urbanization of coastal and eastside San Joaquin Valley farmland, the retirement of Westside San Joaquin Valley agricultural land, and the retirement of land for water transfers in the Sacramento Valley, Imperial Valley and elsewhere as a significant threat to the State's agricultural sustainability.

Another threatening aspect of urbanization that one grower cited was the loss of the Secondary Zone as an agricultural-urban buffer for the Primary Zone. He farms on the edge of the Primary Zone and complained that urban land uses in the Secondary Zone have undermined that zone's value as a meaningful buffer.

According to several growers, another threat associated with urbanization in and around the Delta is the loss of Delta social infrastructure. One grower said that most new residents of the Delta work, shop and send their children to school outside of the Delta, eroding in-Delta social and cultural institutions, including shopping, churches and schools, for people who live and work in the Delta. Others cited the towns and communities of the Delta as cultural and historical resources of the State, and that the Delta is a unique part of California's diverse cultural and historical landscape. One North Delta grower felt that the loss of this resource was a cultural loss of statewide significance, not to mention a decline in the quality of life for Delta growers and their families.

Not all infringing land uses mentioned were urban. Several growers mentioned the problems for agriculture that having a wildlife or wetland reserve next door poses, including seepage, restrictions on spraying, weeds, depredation and inadequate buffers. One grower pointed to Prospect Island, whose agricultural abandonment created seepage problems for his farm's island.

Regulations. Complaints about regulations were rarely about the need for the regulations themselves, but about their multiplicity, complexity and enforcement. One grower employs one full-time staff person for regulatory compliance. The same grower was frustrated with the fact that there is no ongoing monitoring to gauge the effectiveness of regulations. He said that the regulations might be tolerable if he saw an improvement in the problems they were written to address, but he doesn't. He complained that the field enforcers often know less than he does about the activity being regulated and seem more intent on checking off boxes on forms than enforcing the spirit of the rules.

Another complaint about regulations is that the regulations often appear to work at cross-purposes. Several growers complained that one agency requires that levees be maintained free of vegetation, while another requires permits and mitigation to remove vegetation important to riparian habitat. Another example cited was that wildlife agencies say that shallow water habitat is needed, yet the same agencies insist that in-Delta discharges reduce dissolved organic carbon and mercury and that more cold-water flows be provided, both counter to increased shallow-water habitat. Many of these growers were eager to describe on-farm efforts at wildlife habitat improvement, but expressed fears that endangered species laws would penalize them if their efforts resulted in listed species moving into the created habitat.

Lack of recognition for proactively meeting regulatory standards is another concern. For example, switching to more benign agricultural chemicals as part of integrated pest management has reduced pesticides in farm runoff. One interviewee complained that it doesn't make sense to blame farmers for the decline of pelagic fish in the Delta when during the same period farmers' use of agricultural chemicals also declined.

A specific regulatory concern to the Delta was the issue of vegetation on levees. At least one grower felt that the wildlife habitat value of riparian vegetation on levees was worth the increased risks to Delta levee integrity. However, another claimed that all of the levee failures he is familiar with have been due to beaver tunnels made possible by trees on levees. Another grower cited trees, themselves, as causes for levee failures. He explained that tunnels left by rotting roots provide pathways for seepage. Though there is disagreement about the threats posed by levee vegetation, there is agreement that the conflict between agencies over the management of levee vegetation impairs the ability of landowners and reclamation districts to manage levees adaptively and with certainty that they are in legal compliance.

Dredging. The inability to dredge channels to improve flow capacities and reduce the pressure of higher flow elevations on levees is a concern for growers from all regions of the Delta. One grower listed this as his top threat to Delta agriculture. He said that the inability to dredge and the lack of flows sufficient to move sediment has resulted in reduced channel and slough carrying capacities. He reported that during low flows he is now able to wade across what were formerly deep channels. Several growers said an additional problem from not dredging is the elimination of a cheap source of levee maintenance and repair material. One interviewee said that, depending on the transit distance, importing levee maintenance material from outside of the Delta costs 20 times (\$50 dollars per ton v. \$2.50 per ton) that of levee-side dredge material. He also pointed to the increased traffic and wear and tear on often poorly accessible and dangerous roads, as an additional cost of importing levee construction material. Economics aside, another grower worried about the continuing availability of rock from outside of the Delta.

Transportation: Isolation from Services and Markets. An inherent difficulty of farming in the Delta, according to these growers, is its relative remoteness and the inadequacy of the number and quality of roads to serve growers. Several islands must rely on small ferries to get supplies onto--and products off of--their island farms. Recently, the volume of commuter and tourist traffic has increased significantly almost around the clock. This increase places wear and tear on the roads and levees, results in hundreds of traffic deaths each year, and further exacerbates the difficulty in moving agricultural goods and services in and around the Delta.

Critical Mass. Almost all growers agreed that the loss of agricultural land has led to a loss of necessary agricultural support services. Several growers cited the closure of sugar mills and tomato processing plants in and around the Delta as examples. A related interview with a Delta agricultural supplier confirmed the growers' concerns. This supplier once exclusively served Delta agriculture, but due to the declining agricultural value in the West Delta and the mounting loss of agricultural land to public and related acquisitions, he has turned increasingly to out-of-Delta agriculture to sustain his customer base. These growers worry that the tipping point of a critical mass of agricultural land, at least for certain crops, has been passed.

Uncertainty. Uncertainty and the heightened risk associated with that uncertainty, was listed by many as significant threats to the future of Delta agriculture. The growers, like growers

throughout the country, rely on loans not only for expansion and equipment, but also to carry them over until harvest. The uncertainty of future investments in levees and the talk of abandoning some Delta islands in the event of levee failure were cited as factors that could cause lenders to back away from future investments in Delta agriculture.

Other threats to Delta agriculture that surfaced during the interviews included: upstream reservoir operations during storm flows that are not conducive to flood management and levee integrity; invasive aquatic and terrestrial plants; subsidence and loss of peat soils; variable Delta salinity; the additional costs that fish screens and reclamation district fees impose on Delta agriculture that are not faced by agriculture elsewhere in the State; and, the impacts of sea level rise and earthquakes on Delta levees.

Needs of Delta Agriculture

The needs listed for a sustainable Delta agriculture not surprisingly correspond with the threats. As with the threats, some needs are more closely related to agriculture in general: supportive national trade and farm policies; sufficient agricultural labor; and, regulatory relief. Five Delta-specific needs were consistently raised: (1) sufficient water flows to maintain high water quality; (2) improving and maintaining channel flood capacity through dredging; (3) a significant and enduring commitment to levee improvements and maintenance; (4) restricting incompatible land uses in the Primary Zone of the Delta; and, (5) maintaining a critical mass of agriculture in the Delta to support needed agricultural support services. This section will list the general topics first, and then follow with the Delta-specific needs.

National Trade and Farm Policies. Delta farmers and growers are set in the larger context of national agriculture. The need for good prices through supportive trade and farm policies (e.g., Farm Bill) was mentioned frequently. One grower pointed to the need for Federal conservation programs that better fit California's unique agricultural setting, complaining that the application processes for these programs are too complicated, and that the programs are more geared to the Midwest, anyway.

Agricultural Labor. One grower cited the loss of farm labor to service and construction jobs in nearby urbanizing areas. He pointed to the need for supportive local land use policies to help growers provide affordable housing to their labor force. Another grower expressed the importance of supportive immigration and labor laws for specialty crop growers in California. He explained that labor is an increasingly difficult issue as land prices in the Delta increase, forcing growers to shift to higher value crops, which in turn are more labor intensive.

Regulatory Relief. Consistent with their view of regulations as a top threat, regulatory reform was listed by growers as a top need. The need for relief ranged from the specific -- endangered species regulatory assurances, such as a safe harbor for the Delta under the Federal Endangered Species Act -- to a general call for more logic and flexibility in carrying out existing regulations. The regulatory reform most often called for dealt with consistency and simplification. One grower suggested a one-stop regulatory permitting shop for the Delta. He pointed out that many growers own land in multiple counties. In his case, this means dealing with four different interpretations of state pesticide rules and four different sets of zoning requirements. Another grower suggested a regional government to coordinate regulatory

compliance for farmers and ranchers. He felt that a single office of enforcement with staff specifically knowledgeable about agriculture would go a long way in providing regulatory relief.

Water Quality. The two water quality needs are: to maintain sufficient flows to prevent seawater from intruding into the agricultural areas of the Delta that rely on fresh water for irrigation; and, (2) sufficient flows in the San Joaquin, coupled with reduced pumping at the state and federal water projects, to improve irrigation water quality in the South Delta. In addition to reducing export water pumping, one grower suggested considering management techniques used by the Dutch, including a seawater barrier at Carquinez Straits. With regard to South Delta water quality problems, another interviewee advocated continuing support and incentives for growers to participate in the irrigated lands waste discharge watershed coalitions.

Levees, Channel Capacity, Dredging. Nearly all of these growers thought levees, channel capacity and dredging were top priorities. There was significant concern, and in some cases outright resignation, that Propositions 1E and 84 funding for flood protection would be spent primarily in urban areas, or areas planned for urbanization, rather than in the Delta. One grower stated that such an investment strategy was not wise given the multiple benefits to most Californians of strong Delta levees. He believed that the Delta's levees by and large have integrity and are worth the continuing investment.

Regardless, these growers wanted policymakers to know that the large contributions made by Delta growers, individually and through their reclamation districts, include levee monitoring, improvements and maintenance. Several growers pointed out that this local investment was clearly not enough and that a significant and sustained investment by the State is needed. One grower asserted that the State's levee subvention program was a good model of a state-local partnership and should be funded at a sufficient level to maintain the Delta's water conveyance and flood protection needs.

Two growers recommended that the State develop a strategy for levee protection that includes a priority list of islands -- in order of their importance to statewide interests -- and focus levee improvement work on those islands first. One grower suggested a suitable ranking criterion for levee improvements as the importance of levees for protecting: utilities, roads, habitat investments, water conveyance, water quality and agriculture. He noted that PG&E recognizes the importance of levees to protect their natural gas reserves and storage facilities on his island, and has invested significantly the island's levees. He suggested that DWR work with local agencies to develop an emergency response scenario similar to that under which CALTRANS operates in responding to highway closures from such disasters as landslides. He said that the biggest problem facing disaster response in the Delta is the lack of coordination among the many agencies responsible at federal, state and local levels.

The same grower also pointed to the Paterno Decision and the flood liability that it has created for the State as a situation that needs to be resolved.¹

Another interviewee discounted the value of the levee subventions program, arguing that its bureaucracy was more trouble than it was worth, and suggested that the paramount need was

¹ *Paterno v. State of California* 113 Cal. App. 4th 998, 1005 (3rd App. Dist. 2003). This decision held the State liable for the failure of a State levee.

for clear levee standards, especially with regard to vegetation; i.e., that levees should be kept clear of trees. Still another grower called for greater State investment in research, development and application of technologies to better monitor Delta levee conditions, specifically learning from the Dutch; such monitoring, he stressed, could pick up problems created by burrowing animals or trees.

The ability to conduct channel and slough dredging was raised as a flood prevention and levee maintenance need, both to increase channel high flow capacity (and reduce pressures on levees), and to provide a relatively inexpensive and local source of levee maintenance material.

Incompatible Non-agricultural Uses. Ranchette development in the Primary Zone, urban sprawl filling up the Secondary Zone's land-use buffer capacity, and wetland habitat were the three reoccurring incompatible uses raised in the interviews. Needs expressed for dealing with urban encroachment included a stronger Delta Protection Commission --"one with teeth." Another suggestion was for tougher local zoning, including a larger minimum parcel size; one respondent suggested at least 80 acres (but worried that even that may not be large enough). Several interviewees mentioned solutions involving agricultural conservation easements, such as a transfer of development rights program involving the Secondary Zone as a development credit receiving area, and the Primary Zone as a sending area. A related suggestion raised is using the Primary Zone as an agricultural mitigation bank for the region. It was emphasized several times that agricultural easements need to be flexible, not unduly restricting agricultural uses so growers can continue to respond to market signals.

Regarding wildlife and wetland uses in the Delta, interviewees mentioned the need for adequate buffer lands between agricultural and wildlife areas to dampen the depredation, seepage, and pest and weed problems. Buffers were also mentioned as important for allowing farmers to conduct normal farming operations, such as spraying, without infringement. An additional need was for some form of regulatory assurance for neighboring agricultural landowners in the event that listed species migrate onto their farms and ranches.

Critical Mass. Most of the growers interviewed cited the loss of agricultural services and service providers from the Delta as a threat to agricultural sustainability. Support services most frequently mentioned were transportation and processing. Needs to address this threat included: investment in research to better understand what the critical mass necessary to support Delta farm services is; investment in Delta transportation infrastructure to better link growers to processors and markets; and, local zoning that supports agricultural services. One grower noted that Solano County is involved in a study with the University of California's Agricultural Issues Center to help the County understand what is needed to sustain its agriculture; he thought a similar Delta-wide study might be appropriate. In his opinion an urban-focused general plan has been a barrier to creating enough land at affordable prices for agricultural support services to locate in Solano County. As an example, he cited the loss of a grain drying and shipping company at the edge of the Delta due to unsupportive zoning that resulted in high land prices too high for agricultural support industries. It was pointed out that this loss was a blow against a more competitive Delta agriculture.

Related to the critical mass question is the loss of agricultural land to non-agricultural public acquisitions. One aspect of concern is the loss of experienced and knowledgeable farmers and ranchers in the Delta. At least one grower hoped that the unique knowledge and experience of

Delta farmers and ranchers would not be lost from the Delta. He believes that the land and water use experience, knowledge and skills these growers have will be of value to Delta management regardless of the ultimate land use – whether for a public open space or private agriculture. Two options mentioned for keeping this agricultural experience and knowledge in the Delta were, first, using conservation easements instead of fee title acquisition to reserve land for the public environmental services desired (e.g., wildlife, recreation or flood protection), and then contracting with the landowner to provide the service in partnership with pertinent agencies. The use of easements was deemed effective because the fee title ownership of the land remains with the grower, keeping them on the land. The second option was public acquisition and lease-back to growers with rents that reflect the risks of farming for multiple objectives in addition to food production. Examples of the former and latter options mentioned during these interviews were Staten Island owned by The Nature Conservancy, and the Yolo By-pass, where the State owns the land and leases much of it back to farmers for wildlife friendly farming. One grower hoped that, regardless of landownership, agriculture will continue to be in the Delta's land use mix.

Another aspect keeping a diverse population of farmers and ranchers in the Delta is sustaining the cultural and social integrity of the Delta, and in-Delta communities in particular. The North Delta grower who raised this as a need talked in terms of both agricultural services as well as basic services (e.g., fire protection) needed to maintain a relatively self-contained community in the Delta.

Managing for Conjunctive Uses and Multiple Services. Many of these growers expressed the desire to work with other Delta interests, including wildlife and recreation interests, to maintain the Delta as a mosaic of public and private uses and benefits under the existing landownership patterns. Some pointed to the creative use of conservation easement agreements as a vehicle to provide incentives and compensation to landowners to farm for multiple benefits. Others cited the work of The Nature Conservancy and the Yolo By-pass management as examples where farming can be conducted profitably for multiple public benefits, including wildlife, flood management, and recreation. Those who referred to the use of conservation easements stressed the need for flexibility to manage easement-restricted land. One interviewer expressed the need for an alternative to lump-sum easement payments, and wondered if there were options that involved annual long-term payments for easement purchases.

Most growers stated that they enjoy introducing wildlife into their farming and ranching operations, but several said that if the public wants them to farm for more wildlife, it needs to figure out how to create a market through which landowners can be compensated for farming for this environmental benefit.

A similar sentiment was expressed regarding recreation. A few growers believed that providing recreational opportunities (e.g., hunting, fishing, birding and agro-tourism) could be a value-added agricultural enterprise. Most worried, however, about the hassles of increased tourism and recreational population in the Delta. Some of the hassles listed included increased traffic, liability, litter, vandalism, etc. One grower felt that a regional government could help to provide support for growers interested in managing recreational uses of their land. Another mentioned Yolo County's consideration of an agricultural district to support winery focused agro-tourism. Two interviewees suggested a recreational user fee on pleasure craft using Delta waters to help

pay for road and levee maintenance as a *quid pro quo* for the increased wear and tear that recreational users place on Delta roads and levees.

Several growers felt that studies are needed to document the actual and potential benefits that agriculture provides, or can provide, to help meet the multiple objectives of a Delta vision. One grower spoke about a U.S. Geological Survey study of how different agricultural lands and management strategies help meet the habitat needs of Sandhill Cranes. He thought that more of this kind of study is needed to document the opportunities for value-added agricultural management for environmental services.

One farmer said that rice as a Delta crop has good potential to address a number of threats facing the Delta and its agriculture, including subsidence, the need for wildlife habitat, water quality improvement and profitability. He suggested that more education is needed for growers about the benefits of organic rice in the Delta. He also suggested that financial and technical assistance to help growers navigate the risks and uncertainty of a shift from less sustainable crops to rice would be a good public investment. He felt that a rice transition incentive program that offered \$300 to \$400 per acre would be cost-effective compared to other solutions to subsidence.

Certainty. Most growers said that a fundamental need of Delta agriculture is increased certainty about the Delta's future with respect to conveyance, in-Delta flows, water quality, land ownership, and levees.

The Values of Delta Agriculture to Delta Sustainability

These Delta growers were asked what they thought were the most important values that agriculture brings to the future health of the Delta. The optimism these growers have for Delta agriculture is based in large part on the benefits that they see agriculture does and can provide to the Delta's economic and environmental sustainability. The two services of Delta agriculture most frequently mentioned by interviewees were wildlife habitat and the production of food and fiber.

Habitat. One grower said that on the island he farms, 25 percent of the land is incidental or intentional wildlife habitat. Three growers mentioned the water-side levee stabilization work that they do with a Delta restoration ecologist as an example of incidental on-farm habitat. This work involves planting tules in the shallow water at the base of the levee, and serves not only to provide habitat, but also to protect levees from wave action.

Food and Fiber. In discussing the service of food and fiber production, the growers talked in terms of the unique kinds and quality of crops produced, the special climate and soils that gives their agriculture a competitive edge, and the proximity to a metropolitan market. One grower emphasized the notion of food security; i.e., that Delta agriculture is one significant part of California's food system, a system that contributes to the State's overall food security.

Other values that came up during the interviews included the following.

Economics. The economic value of agriculture was also often raised as an important service of Delta agriculture. This service include jobs, taxes, production income, reclamation district fee revenue and local purchases of farm supplies and services.

Cultural Services. Four interviewees listed the culture and history of the Delta as unique and irreplaceable resources made possible by the legacy and continuing presence of agriculture.

Recreation and Open Space. A large green open space in the middle of growing metropolitan areas was often listed as a service offered by Delta agriculture. Recreation, especially agro-tourism, was consistently mentioned as a value of Delta agriculture.

Levee Maintenance. Also stressed was both the importance of levee maintenance, monitoring and improvement services made possible by reclamation fees to local districts, as well as the direct levee work that most farmers do on their own levees. One grower estimated that landowner's direct contributions were more than 50 percent of the local investments in levees.

A Low Risk Economic Land Use. At least two growers pointed to agriculture as the land-use of choice in the high risk landscape of the Delta. Given the state liability for flood damages coming out of the recent Paterno court case, these growers saw agriculture as the preferable economic land use over urbanization in such a flood-prone landscape.

Floodplain Services. Floodwater retention was articulated by two growers as a service of Delta agriculture. Conversely, the use of set-back levees was only brought up a few times during interviews, and usually without any positive support.

Stewardship. One grower emphasized that Delta agricultural landowners have the most at stake -- their livelihoods -- in maintaining Delta levees. Another grower talked about the environmental stewardship that most Delta growers provide using the knowledge and experience that they have from generations of farming in the Delta. The contributions that farming and ranching families make to their communities was also mentioned as a service provided by those rooted in the Delta.

Agriculture as a Carbon Sink. Three growers mentioned the actual and potential service of Delta agriculture as a carbon sink in the fight against global climate change. Another respondent wondered if a full analysis of the Delta's carbon balance would show a net positive carbon sequestration benefit under current agricultural management systems.

Other Services. At least one interviewee listed one of the following as services of Delta agriculture: conveyance of energy via power lines and pipelines; natural gas storage; disease control through farmer-funded mosquito abatement; water conservation (when compared to the evaporation rates of open water); and, water quality improvement.

Delta Visions

Often the first response to the question, “what would you want to see the Delta look like in 200 years?” was, “much the same as it looks today.” When asked for details, the two most common components of a desired Delta future were: (1) a sustainable agricultural landscape; and, (2) a mosaic of uses whose mix varies across the Delta.

A future of sustainable Delta agriculture includes not only agricultural profitability, but healthy Delta communities with farming families and workers able to live and find the services they need in the Delta. One grower expressed hoped that the Delta’s future would include a recommitment to agriculture in the form of research and extension budgets that support the development of a greater variety of crops that can be grown profitably in the Delta. Several growers understood that parts of the Delta were not sustainable as currently farmed (West and Central Delta), but hoped that some form of agriculture would remain on these islands, a form that could stop or reverse subsidence. One grower said that “sustainable” meant that his grandchildren and great grandchildren would have opportunities to farm, or benefit from farming, in the Delta.

A mosaic of uses in the Delta was often expressed as a desirable future. The desired mosaic was one that varied geographically within the Delta and could be found in various degrees throughout all of the Delta. The mosaic would include agricultural-friendly wildlife and wildlife-friendly agriculture; agriculturally-compatible recreation; water storage and conveyance; crop production for carbon sequestration and biofuels (from both crops and invasive aquatic plant species); and flood management. One respondent emphasized the need to make agriculture the foundation upon which a flexible mosaic is built.

The concept of a Delta mosaic was also expressed as meeting the fundamental needs of all interests, including fish and farmers, and in-Delta and south-of-Delta water users. Another envisioned future was one where water suppliers collaborated closely with in-Delta interests to keep the Delta healthy and “working.”

Visions of a future Delta also included elements that should not be present, specifically, large bodies of open water, more urbanization and an isolated conveyance facility.

Other elements of the Delta that the growers hope to see in 200 years include:

- Reduced water exports;
- Strong levees;
- An agriculture that continues to provide a green open space resource in the middle of a large metropolitan region;
- Ag- and eco-based recreation that is developed intentionally with a comprehensive management strategy to reduce incompatibilities with agricultural uses and infrastructure;
- Delta agriculture that, because of its proximity to a large urban population, provides agricultural and environmental educational opportunities for city children as a form of agriculturally-based tourism.
- Absence of regulatory barriers to on-farm wildlife habitat creation;
- A Delta that is protected by serving as a mitigation bank for the urbanization of agricultural lands in areas surrounding the Delta;

- A Delta that is not serving as a wildlife and floodplain mitigation bank for other urbanizing areas;
- A Delta that is primarily a privately owned working landscape where growers find market value in the public demand for environmental services that farming and ranching can or do provide;
- A stronger Delta Protection Commission along the lines of the Tahoe Regional Planning Agency or the Bay Conservation and Development Commission; and,
- A commitment by the State's leaders to the Delta as a valued state resource.

Hopes for a Delta Vision Strategy

The final question asked of these growers was about their hopes and fears for the Delta Vision process set in motion by the Governor's Executive Order. With ongoing efforts to improve, sustain, enhance and protect the Delta, it is not surprising that many of the interviewees feel frustrated about or resigned to an uncertain future. The Delta Vision process is one more opportunity for hope and fear regarding this future.

Positive Delta Vision Outcomes. In general, the growers interviewed expressed a frustration over seemingly endless studies, instead of decisions and action, that results in continuing uncertainty. These growers hope that the Delta Vision process will end the inaction and uncertainty. A few went so far as to say that they can live with whatever visions are embraced for the Delta, as long as a clear direction is established enabling landowners to invest in the future with confidence.

Another hope expressed for the Delta Vision is that it can create a base of consensus on which opposing sides can begin to work together. One interviewee looks forward to a vision that allows agriculture and environmental interest to recognize each others' common needs and develop strategies that meet them. This grower was intrigued by the Yolo County Agricultural Futures Alliance as a model for normally opposing forces to work better together for the Delta mosaic described above.² Another interviewee felt that a clear Delta Vision would enable Metropolitan Water District of Southern California and in-Delta interests to work together to protect in-Delta needs while providing greater water supply reliability, if not quantity, from the Delta.

Most of these growers hoped that the Delta Vision would include provisions for stronger land use controls to minimize future urbanization within the Primary Zone. The use of easements via a transfer of development rights program to compensate landowners for removing development rights, or the use of clustering to accommodate ranchette development with the least non-agricultural footprint, were mentioned as tools that the Delta Vision strategy should include.

² Local Ag Futures Alliances (AFA) are organized and supported by Ag Innovations Network, a private nonprofit whose mission includes "enhancing the long-term sustainability of communities by assisting agriculture to fulfill its essential role as the keystone in a healthy eco-system, economy, and society." Ag Innovations Network has sought to develop local Agricultural Futures Alliance networks with the goal of linking county leadership roundtables across California. Their vision is based on the belief that "a network of leadership networks will give local communities the ability to more effectively improve local, state and federal policies that impact agriculture, the food system, and the environment." For more information on the Yolo County AFA, go to: <http://agfuturesalliance.net/yolo>.

Another grower hoped that the Delta Vision would recognize an existing regional entity, the relatively new U.S. Department of Agriculture-supported Delta Resource Conservation and Development Council, as a vehicle for promoting natural resource and agricultural-based economic development.³

Two of the growers mentioned a UC Berkeley report's alternative vision that would designate the Delta as a national monument.⁴ They were intrigued by the idea as long as it honored the Delta as a largely privately-owned working landscape that must be kept economically viable. They felt that the designation could bring the national recognition and resources to the Delta, resources needed to protect the Delta's agricultural, environmental and cultural values.

Several others mentioned the hope that a Delta Vision would result in the investment of dollars for research on alternative forms of agriculture and new crops that could enable agriculture to better help Delta growers meet the other goals for the Delta, such as wildlife conservation, water quality improvement, carbon sequestration, and subsidence reversal. In addition to increased agricultural research, interviewees mentioned their hope that the Delta Vision would result in financial and technical assistance to help growers transition to conservation practices or more sustainable crops, such as conservation tillage, rice cultivation and strategies that protect levees while benefiting wildlife.

Several of these growers hoped that a Delta Vision and strategy would address funding mechanisms for levees. Among the mechanisms that they felt should be considered were fees on boaters and other recreational water users, and on export water users. The latter group's water use depends on the operation of Delta pumps that creates channel flows that, in turn, stress and erode levees. Regardless of funding source, a Delta Vision that includes a strong commitment to levee improvement and maintenance is a high priority among nearly all growers interviewed.

Many of the other hopes expressed for Delta Vision were expressed in responses to previous questions: maintaining land in private ownership and management; maintaining water quality and flows; a commitment to already approved South Delta water quality and flow strategies; improving the use of the Yolo By-pass for its original purpose, floodwater conveyance; and, the ability to use dredging as a management tool for flood management and levee improvement.

Several interviewees expressed hopes for the Delta Vision that came out of a resignation that a greater degree of fluctuation in salinity, and an isolated conveyance facility could come to pass. These growers hoped that any increases in variability in salinity in the Delta would be based on solid science, and that, to the extent feasible, management of variable salinity would be accomplished with a goal of minimizing impacts on agricultural water users. They also hoped that if an isolated facility were to be embraced by the Delta Vision, there would be sufficient assurances for the management of water flows that support and improve current Delta uses, including agriculture, into the foreseeable future.

³ The purpose of the USDA Resource Conservation and Development (RC&D) program is "to accelerate the conservation, development and utilization of natural resources, improve the general level of economic activity, and to enhance the environment and standard of living in designated RC&D areas." See the following websites for more information: <http://www.nrcs.usda.gov/programs/rcd/> and <http://www.californiarcandd.org/>.

⁴ University of California- Berkeley. December 31, 2006. [The Great Delta Charrette: A Report to the California Department of Water Resources.](#)

The Worst Delta Vision Outcome. The worst imagined outcome of the Delta Vision process that was expressed almost universally by interviewees is a continuation of the status quo; i.e., no action, no decisions, more studies and continued uncertainty about the future of Delta water and levee management policies. “We can’t keep doing what we are doing for another 35 to 50 years,” warned one North Delta farmer.

Uncertainty was a common theme. One grower expressed it in terms of future investments by banks and the agricultural service industry in Delta agriculture. He said that without certainty on the future of Delta levees, it would grow increasingly difficult to secure capital and find services to support farming. Another aspect of uncertainty raised was the uncertainty of farming under a cloud of continued environmental liability. One respondent shared an anecdote as an example of this kind of uncertainty. He said that he was working with the Department of Fish and Game to test the effectiveness of fish screens by using a screen for a diversion on his island. The trial would have involved a pond on the interior of his island to entrain fish for monitoring. The project was eventually abandoned, according to the grower, because of the Federal Endangered Species Act’s taking prohibitions.

Several interviewees feared abandonment of the Delta if the outcome were a Delta Vision that relied on an isolated water conveyance facility. The consequence of such abandonment was described as a brackish inland sea, the loss of good quality water, the loss of farming, and aquatic and terrestrial ecosystems, and, the degradation of the groundwater resources of adjacent communities. Included in this worst outcome for one respondent was the loss of the Delta-specific “know-how” of Delta growers.

One grower brought the consequences of the “abandonment of levees” outcome down to the level of his own farming operation. Like many growers in the Delta who have had to remain competitive by internalizing costs through vertical integration of farming and processing, the flooding of his island would result in more than the loss of a single year’s crop,—it would also involve the loss of facilities he relies upon to process, package and ship his fruit. He believes that the loss of this infrastructure would shut down his business for several years, perhaps permanently.

A related worst outcome for one grower was the adoption of the variable salinity scenario described in the Public Policy Institute of California’s recent report about the Delta.⁵ He felt that this outcome is based on erroneous historical data, and would be disastrous for agriculture in the Delta.

Two related worst outcomes cited by growers had to do with the loss of land base. In one interview, the fear was of a Delta Vision that relied on public acquisition of agricultural lands (though there was more comfort with the use of voluntary conservation easements to protect agricultural land). Another grower’s worst fear was a vision of continued urbanization in the Primary Zone and the foreclosure of resource-based land-use options.

⁵ Lund, Jay, Hanak, Ellen, Fleenor, William, Howitt, Richard, Mount, Jeffrey, Moyle, Peter. Envisioning Futures for the Sacramento-San Joaquin Delta. Public Policy Institute of California. 2007.

Appendix I: Delta Growers Interview Questions

1. Please tell me about your farming/ranching operation. Where are you located, what do you produce, how long have you farmed in the Delta?
2. How do you feel about the current condition of Delta agriculture, of your operation, and of your operation's future?
3. What are the major threats or barriers to a more profitable agricultural economy in the Delta/on your operation?
4. What do you/the Delta need for a healthy Delta agricultural economy into the future?
5. What do you believe are the values that Delta agriculture brings to the future health of the Delta as a whole?
6. What is your long-term vision of the Delta (50 years, 200 years) and Delta agriculture?
7. In your mind, what would be the best possible result coming out of the Delta Vision process in the form of new state strategies for the Delta's future? What would be the worse result?

Appendix 2: Methodology

The Interviews

This report summarizes the results of interviews conducted between April and June 2007 with 14 farmers and ranchers who make, or have made, their living in the Delta. All but two of the interviews were conducted in person; the remaining interviews were by telephone. Each interview lasted about two hours and was based on seven questions (Appendix I) provided to the interviewees in advance of the interview. All of the interviews involved one or two interviewers and the interviewee.

Approximately 60 pages of typed interview notes were compiled and are available from Delta Vision staff.

The Voices

The 14 interviewees include at least two growers in each of the Delta's five regions – North, East, South, West and Central. The interviewees represent all five Delta counties.

The farm and ranch operations of the interviewees ranged from 650 to 10,000 acres. Five of the growers interviewed own and farm entire islands. Many lease or own farmland on multiple islands, as well as on land outside of the Delta.

Most growers farm a mix of owned and leased land, or own land that they both actively farm and also lease to tenant growers. A few own and farm all of their land, or are strictly involved in farming leased land. Two of the interviewees are farm managers whose only or primary income comes from managing farms for others. At least two growers both farm their own land and serve as managers of others' farms. One interview was with a lease manager who oversees the agricultural leases in the Yolo By-pass for the Department of Fish and Game.

Also interviewed as part of this project were all five county agricultural commissioners, a UC Cooperative Extension Service county director, an agricultural lender, an agricultural service provider, the Agricultural Issues Center Solano County study team, the Department of Fish and Game Yolo Basin Wildlife Management Area manager, and U.S. Geological survey-lead team of scientists conducting subsidence reversal studies in the Delta. The results of these interviews were not included in this report, but helped to inform it.

Those interviewed collectively grow a variety of commodities from wine grapes and pear orchards, to field crops, turf-grass, asparagus, blueberries, rice, sugar beets and pastured livestock. The majority of growers grow a variety of crops, often including field crops, commonly seed corn.

Most of the growers have a family tradition of farming and ranching in the Delta that goes back three to five generations. A number of these families were involved in the early reclamation of the Delta for agriculture, including one whose ancestors got their first glance of their newly acquired, but inundated, farm from a row-boat. Another grower's Delta ancestor was involved in

developing some of the original machinery used to reclaim marshland and level the fields. The interview pool also included one farm manager new to the Delta and three others who are *merely* first or second-generation Delta growers. All of those interviewed have extensive farming and ranching experience.

The growers interviewed are generally active in their communities and professional organizations. The interviewees have served, or now serve, as leaders in their counties' Farm Bureaus, on the boards of reclamation and water districts, and presidents of commodity boards and commissions. Several have served on the Delta Protection Commission or its committees.

A number of the interviewees are active in conservation and ecosystem restoration efforts. Several mentioned that they are participants in water quality coalitions formed to meet the state's irrigated agriculture waste discharge requirements; one of the interviewees is the director of the San Joaquin County and Delta Water Quality Coalition. Half of the growers volunteered information about intentional conservation efforts with which they are engaged. At least three are attempting to, or have, placed all or parts of their farms under agricultural or wildlife conservation easements. In two cases (Staten Island and the Yolo By-pass Wildlife Management Area), farming is conducted specifically to be wildlife friendly, but with profit as a primary or, at least equal, motive. One grower, on his own initiative, has set aside an entire island as wetland habitat. Others have conducted riparian restoration to both attract wildlife and protect levees. Two pointed out marginal areas of soil on their farms that they have set aside for wetland habitat. One grower described steps he takes to suppress peat oxidation and avoid herbicides through the use of a mulch fabric between rows of permanent crops. Another actively uses conservation tillage to reduce soil loss, compaction, oxidation, air pollution and energy use.

Like growers everywhere, many of the farmers and ranchers interviewed work at least two jobs, often related to their agricultural enterprises, including: managers of others' farms; an owner of a grain mill and feed operation; a land broker; an accountant; a reclamation district manager; and, as previously noted, a manager of a regional water quality coalition.

Also, like farmers everywhere, Delta growers are the survivors of an increasingly competitive world market; a growing number of labor, land use and environmental regulations; increasing labor, input and energy costs; and, consolidation. Besides holding multiple jobs, the growers have used a number of other adaptive strategies to survive and thrive. Three of the growers attributed their successes to vertical integration; i.e., internalizing such costs as shipping, processing, marketing and distribution. Other growers pointed to diversification as a way of buffering themselves against dynamic and fluctuating markets. One grower pointed to the urbanization rapidly occurring around the Delta and saw a growing market for turf-grass. For others, the strategy is to use the unique climate of the Delta to take advantage of windows in time where other growers of the same crop have finished, or are not yet putting their crop on the market. At least one grower is capitalizing on the Clarksburg wine appellation designation to receive premium prices on their wine grapes.

Table A-2 lists the interviewees, along with the general location of their operations, operation size and crops produced.

Table A-2. Interview Participants

NAME	ISLAND(S) FARMED¹	ACRES FARMED²	PRIMARY CROPS¹
Vince Chavier	Brannan	650	Wheat, corn, safflower and milo
Dean A. Cortopassi	Canal Ranch & Brack Tract	4,800	Rice
John Currey ³	Yolo By-pass State Wildlife Management Area	10,000	Grazing (cattle), rice and row crops
Brent Gilbert ⁴	Bradford, Quimby, Jersey and Webb Tract	3,000	Small grains
Doug Hemly	Merritt & Randall (also leases out land on Ryer & Pierson District)	1,300	Pears, apples, kiwis
Jim Jerkovich ⁵	Victoria	7,000	Asparagus, blueberries, tomatoes, corn, wheat, alfalfa
John B. Meek ⁶	Venice	1,200	Corn
Steve Mello	Tyler	3,000	Corn, wheat, safflower, alfalfa, pears
Mike Robinson	Roberts	3,000	Small grains, oat and alfalfa hay, corn, asparagus, melons and cucumbers
Bill Salmon ⁷	Union	3,000	Tomatoes, alfalfa, asparagus, blueberries, Walnuts, safflower, small grains
Mike Scriven	Terminus, Empire & Rindge	6,000	Corn, sugar beets ⁸
Brent Tadman ⁹	Staten	8,500	Corn
Russell van Löben Sels	Pierson District	2,600	Wine grapes, pears, tomatoes
Ed Zuckerman	McDonald	6,000	Turf, asparagus, potatoes

¹ Where more than one island, tract or district is listed, the original or more significant is listed first. Similarly, where more than one crop is listed, there was an attempt to list the most commonly planted or economically significant crop first.

² Acreages listed include land farmed in the Delta, whether owned, managed by, leased from, or leased out to others.

³ John Currey is the agricultural lease manager employed by Dixon Resource Conservation District under contract to the California Department of Fish and Game. He manages agricultural leases over 10,000 acres of the 16,000-acre Wildlife Management Area.

⁴ Brent Gilbert has sold his Delta holdings. The islands and crops listed are for those he farmed when he still owned or leased these islands. Gilbert currently leases 800 acres in Dutch Slough for cattle grazing.

⁵ Jim Jerkovich is Farm Manager of Victoria Farms.

⁶ John Meek owns and farms the acreage listed, but also manages another 3,500 acres for others.

⁷ Bill Salmon has retired from farm management. The acreage and crops listed are for Augusta-Bixler Farms, where Salmon was farm manager until his retirement. He currently farms 800 acres of his own land near French Camp, in the Secondary Zone of the Delta, and on Union Island, where he grows tomatoes and alfalfa.

⁸ Mike Scriven said that to his knowledge his are the last sugar beets being grown in the Delta.

⁹ Brent Tadman is farm manager of Conservation Farms and Ranches, owned by The Nature Conservancy.

Attachment 1: Delta Vision Stakeholder Assessment Report: A Comparison

In 2006 the Center for Collaborative Policy at California State University, Sacramento, conducted an assessment of Delta Vision stakeholders for the Resources Agency. The Center conducted interviews of 75 key leaders throughout the State and Delta Region. The assessment also was based on two roundtable discussions held in northern and southern California at Delta Vision conferences. The stakeholders included a wide spectrum of interests, including in-Delta agricultural interests. Following is a brief comparison of the findings of the *Delta Vision Stakeholder Assessment Report* (Assessment Report) with those of the Delta agricultural interviews (Delta Interviews) conducted for this report.

Key Interests by Stakeholder Types/Groups. The findings of the Assessment Report were largely consistent with those of the Delta Interviews. The five key agricultural interests in the Assessment Report coincide closely with the threats and needs mentioned in the Delta Interviews. One exception is that “agricultural lifestyles,” though mentioned frequently in the Delta Interviews as a key interest, was not mentioned as often as the interest of land use/urbanization. Also, although the issue of private property rights was an inherent interest of those participating in the Delta Interviews, it was not explicitly stated as such. Instead, the related key interest of avoiding future public acquisitions of working lands was frequently raised.

Interests by Region. The interests of in-Delta residents described by the Assessment Report track closely with those drawn from the Delta Interviews. The role of the ports in the Delta’s economic vitality did not come up often in the Delta Interviews. An issue that was raised frequently as an economic interest of concern not mentioned in the Assessment Report was agricultural critical mass; i.e., the concern that the continuing loss of agricultural land to public acquisitions, urbanization and salinity will result in the loss of a critical mass of agricultural land in the Delta needed to sustain key agricultural support industries, such as processing and shipping.

Components of a Vision. The Assessment Report documents “two fundamental yet opposing views of the Delta.” The first view is that “[w]ith certain management strategies in place, the Delta can be essentially sustained indefinitely as it is today.” This view closely matches the views expressed in the Delta Interviews. Management strategies listed in the Delta Interviews as necessary to sustain the existing Delta included: reduced pumping to protect the South Delta; significantly increased investment in levees; and, better land use control of urbanization. These management strategies were also strongly supported by the growers participating in the Delta Interviews.

Components of a Vision. The Assessment Report lists 10 general vision component themes. Apart from an isolated water conveyance facility (Theme 9), the listed themes jibe closely with components raised in the Delta Interviews as threats and needs. Based on the Delta Interviews, these components should be qualified as follows:

- Theme 2 (Maintained Agricultural Delta) would also include the ability to dredge to maintain channel capacity and provide material for levee improvements and maintenance;
- Theme 3 (Economic Health) would include the issue of critical mass, mentioned above;
- Theme 6 (Urban Development) would include a focus on ranchette development as a significant urbanization problem in the Primary Zone;
- Theme 7 (Recreation) would be qualified by potential land use conflicts between recreational uses and agricultural uses of the Delta; (Delta growers recognize the value of the Delta for recreation, including the economic opportunity that recreation can provide growers, but worry over the wear and tear that recreational uses put on Delta roads and levees, as well as the land use conflicts, law enforcement, liability and maintenance challenges.)

- Theme 8 (Public Lands) states that the “Delta should be ‘purchased’ and sustained as public lands, an idea that was opposed by the growers interviewed as part of the Delta Interview. Two growers interviewed were open to the idea of the Delta being designated as a national place of significance, but only if private working lands were one of the valued aspects of such a designation.

Four Key Vision Factors. Assessment Report observations that were also made by interviewees of the Delta Interviews, included: (1) the Delta ecosystem is deteriorating; (2) water conveyance needs to be managed differently; (3) development pressure is a threat to the Delta; and, (4) the current levee system cannot be maintained. Delta growers’ particular perspective on these observations, according to the Delta Interview, is that the levee system needs significant investment for continued through-Delta conveyance to pumps that pump less water in order to protect levees, water quality and fish.

Key Issues to be Addressed in Developing a Vision. There was generally concurrence between the Assessment Report and Delta Interview findings regarding these issues. Where there were differences, they were largely in emphasis or omission, as follows:

- Flood Protection and Levees. The Delta growers interviewed would add two questions to those listed under “Key Discussion Questions” raised in the Assessment Report: (1) “What are the costs and benefits of maintaining vegetation for wildlife on Delta levees?”; and, (2) “What are the costs and benefits of channel dredging in terms of levee maintenance, flood management, aquatic ecosystems and water quality?”
- Water Supply, Quality and Conveyance. A stakeholder view not directly expressed in the Assessment Report, but raised in the Delta Interview, was the fundamental imbalance between water supply and demand in California needs to be addressed to address Delta problems. Delta growers generally agree with the “Common Ground” statement of the Assessment Report (i.e., that pumping Delta water at current levels contributes to the decline of some aquatic species), but with the added emphasis that through-Delta conveyance must be continued to protect the State’s commitment to Delta services.
- Peripheral Canal. Not unexpectedly, this is where there is the greatest divergence between the findings of the Delta Interview and the Assessment Report. The Assessment Report identified common ground over the need to discuss the peripheral canal for a legitimate Delta Vision process. While a few of the growers admitted that the peripheral canal might be able to be designed to protect water flows and qualities for in-Delta uses, none wanted to see the peripheral canal considered as an option. The first bullet listed under “stakeholder views” best captures the views of several interviewees; i.e., the Delta Vision initiative is motivated by those who want a peripheral canal.
- Ecosystem and Native Species Health. Attitudes expressed during the Delta Interviews are in general agreement with the “Common Ground” statement of the Assessment Report about Delta ecosystems. A question that the growers interviewed might want to see added to the list of research questions raised in the Assessment Report is, “What are the ecosystem services provided, or potentially provided, by Delta growers, and what incentives are needed to improve the level of these services?”
- Land Use and Urban Development. The views on this issue captured by the Assessment Report included most of those expressed during the Delta Interviews. One difference is the focus on *urbanization* in the Assessment Report, whereas the concern raised by the Delta Interviews centered on landscape fragmentation by large-lot ranchette development, not the usual higher density suburban sprawl. Also, Delta Interview growers discussed the use of mitigation credits, transfer of development rights, conservation easements and clustering as tools to address the issue. These tools were not mentioned in the Assessment Report. An additional question that

could have been added to the Assessment Report by the Delta Interview participants is: “How to protect Delta agriculture from urbanization while protecting property rights under existing subdivision and zoning entitlements?”

- **Financing.** Growers participating in the Delta Interviews believe that not only are the beneficiaries of the Delta statewide, but that non-Delta residents directly contribute to the wear and tear of the Delta’s infrastructure, especially roads and levees. They mentioned recreational users who put wear and tear on the roads and levee banks; boaters whose boat wakes erode levee-sides; and, south-of-Delta water users who benefit from pumps that, when turned on, create strong flows that erode levee banks. They would agree with the last stakeholder view listed in the Assessment Report; i.e., statewide approaches are needed to finance a Delta Vision. Several growers argued for financing that would enable reclamation districts and landowners to conduct levee improvement work at a lower cost than the state or federal government, or their contractors, could. Delta Interview participants might offer an additional question to the two listed in the Assessment Report: “How can recreational users and cross-Delta commuters be equitably assessed fees to pay for the wear and tear they impose on the Delta?”
- **Governance.** There was strong agreement between the Delta Interview and Assessment Report over the stakeholder view that new governance is needed. Most Delta growers expressed a need for at least better governmental coordination, if not a single agency to administer land use, regulations and other services. Delta Interview participants would also support the “Common Ground” statement of the Assessment Report, which calls for better emergency management coordination.
- **Business, Jobs and Economic Vitality.** Delta Interview participants would agree with the Common Ground statement for this issue, as well as with the stakeholder views listed under this heading. Growers of the Delta Interviews would elaborate on question two of the Assessment Report by asking how solutions to Delta problems can engage growers in ways that also create new economic opportunities as part of a Delta working landscape. A question that could be added from the Delta Interviews is, “What is the critical mass of agricultural land necessary to support a sustainable agricultural economy in the Delta?”
- **Infrastructure and Security.** The results of the Delta Interviews jibe with the Assessment Report on this issue, with the added emphasis on roads, traffic impacts on Delta agriculture goods and equipment movement, and safety for those who live in and navigate these roads.
- **Recreation.** While growers participating in the Delta Interview recognize the inherent value of the Delta for recreation, their views, unlike those expressed in the Assessment Report, are mixed on this issue. Some see recreation as an opportunity for value-added economic endeavors as part of their farm operations, while others see it as a necessary evil that creates land use conflicts and nuisances for agriculture. Most see the need for deliberate planning and active management of recreational uses of the Delta to avoid problems with traffic, parking, vandalism, wear and tear on infrastructure and trash. That said, the growers participating in the Delta Interviews would largely agree with the Common Ground statement that recreation represents an important Delta asset and should be given attention in the Delta Vision. An additional question that could come out of the Delta Interviews is, “How can increased recreational use of the Delta be made compatible with the predominant agricultural uses of the Delta; is a single agency needed to manage Delta Recreation; and, how will impacts of recreational uses on Delta infrastructure be mitigated?”

Stakeholder Perspectives on the Delta Vision Process. There was good agreement between perspectives on the Delta Vision process expressed by stakeholders of the Assessment Report and those of the Delta Interviews. In particular, growers participating in the Delta Interviews wondered if Delta Vision was simply part of the Sacramento merry-go-round of committees and studies that would

once again lead to stalemate. There was also sentiment that the Delta Vision outcomes are predetermined.

On the other hand, some Delta Interview participants hoped that with the Governor squarely behind the effort, the Delta Vision process has a better chance than the CALFED process had. Cynicism notwithstanding, the desire of the growers to be engaged in designing and participating in the implementation of on-the-ground solutions was expressed frequently during the Delta Interviews. At least two interviewees expressed the hope that the Delta Vision process would result in a venue where Metropolitan Water District of Southern California, other water exporters and environmental groups could sit down with in-Delta farming interest to work together on mutually beneficial solutions.

Identified Data and Information Needs. In addition to the data or information needs stakeholders identified in the Assessment Report, participants of the Delta Interviews saw a need for more information on the benefits of alternative crops or crop management systems that would at least enhance the compatibility of Delta agriculture with the other goals of Delta Vision, especially ecosystem goals. For example, one grower mentioned the need for more information on the benefits of growing rice for wildlife, subsidence reversal and carbon sequestration.

Creating a Context for Success. Delta Interview participants would agree with the three themes identified in the Assessment Report, particularly that action is needed now, exercised by strong leadership and political will, especially with respect to levees and land use. They agree with the statement that "...delay and deferral are not acceptable alternatives..."

Creating Conditions for Success. In general the growers of the Delta Interviews would agree with the seven conditions listed in the Assessment Report. In particular, they would emphasize condition 3 (the value of improved relationships) and condition 6 (public understanding of Delta values and issues). One grower pointed to the in-Delta stakeholder group, Restore the Delta, as a potential venue for improving relationships among different interest groups. Another interviewee thought that the Agricultural Futures Alliance forum started in Yolo County had possibilities for the Delta. There was strong agreement with the need for quick action to prevent levees from deteriorating further and for developing an emergency response alternative should there be a catastrophic levee failure.

Focusing the Conversation for Success: Establish Priorities. Participants of the Delta Interviews would generally agree with the need to establish public investment priorities with regard to levee improvements and repair. Regardless, the growers emphasized that agriculture is the best use behind Delta levees in terms of risk, and in maintaining the capacity to manage and maintain levees through reclamation district fees and the direct efforts of private landowners. At the same time, it was clear from the Delta Interview that a worst outcome would be to see more open (and likely brackish) water in the Delta.

Not surprisingly, the Delta Interviewees would agree with the Assessment Report statement that "in-Delta stakeholders should not bear the brunt of policy changes designed to mitigate or re-allocate risks associated with the Delta.

Create a New Conversation. Most of the Delta growers participating in the Delta Interviews would agree with the following quote from the Assessment Report: "To succeed, stakeholders must be willing to set aside entrenched positions, explore ways to address risks..."