

**“Placing Future Land Use Planning
in a Regional Context:
The Case of the Savannah River Site”**

by

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Article Summary:

Since the ending of the Cold War, facilities that were part of our nation’s nuclear weapons complex are shifting from production of bombs to clean-up of wastes and reuse of lands and facilities no longer needed for bomb-making activities. This shift will necessitate a new style of planning that must include the understanding that on-site land uses can have a great impact on off-site land uses and planning in the larger regions where these facilities are located. This article explains the need to place land use planning at Department of Energy (DOE) sites into a larger regional planning context by drawing on the example of recent research conducted by the authors at the Savannah River Site. A study of written plans that have been developed and interviews with planners and local officials in the area showed that future uses will have a great impact on communities and that constructive planning initiatives are needed to build the trust necessary for the DOE to enter a public dialogue about the risks and benefits of alternative land use scenarios.

The large facilities that were once part of our country's nuclear weapons complex were operated by the Atomic Energy Commission and later the Department of Energy (DOE) in extreme secrecy for almost fifty years. Residents living near the sites, or "bomb plants" as they were called locally, could not enter the facilities and knew little about the land, buildings or activities inside the fences, even though some of the sites cover hundreds of square miles. Few employees knew much beyond their own specific isolated tasks. Decisions were made about the use of lands and facilities behind closed doors and with virtually no public input. In other words, a decision process antithetical to modern public land use and regional economic planning was established.

In the late 1980's, however, reports of health and safety violations at some nuclear weapons production sites became public, and the ending of the cold war brought most production activities to a halt. The veil of secrecy began to lift. In a matter of a few years, we have seen the establishment of public advisory boards at eleven of the largest sites, guards leaving their posts at some site boundaries, and an outpouring of information, maps and plans provided for public review.

With an annual budget of \$6 billion for the foreseeable future to clean up these facilities, DOE managers must quickly learn how to effectively plan for future uses that will in turn influence remediation levels and total environmental management costs. As operations continue to shift from production of bombs to clean-up of wastes and reuse of land and buildings, decision-making must also shift to a more open process that

involves on- and off-site stakeholders. In the early 1990's, DOE officials called on 25 of the largest sites to initiate a "preferred options process" that would create a partnership with a diverse group of stakeholders, demonstrate a strong commitment to public involvement, and address impacts to local communities.

There are questions about whether DOE means to merely inform local interest groups of its intentions or really involve them in on-site deliberations about future activities. If citizen involvement is to reach a level beyond tokenism to real partnership, the public must trust that the facility will align its activities closely with their expressed goals, or at least honestly explain why it cannot. Yet a Task Force for the Secretary of Energy concluded in 1993 that "there is widespread lack of trust in DOE's radioactive waste management activities," (Boiko, et al.,1996). Trust is determined by perceived honesty and competence (Jungermann, 1996; Slovic, 1993). In other words, even if the public generally feels that the facility does a good job managing its operations, it will not find the agency credible if it perceives that information is being withheld or that consideration of public concerns is not sincere.

In this paper, we assert and demonstrate through a case study that a clear sign of good intention by the DOE is to do on-site planning with full cognizance of the regional economic climate and of local land use plans, and to communicate with the surrounding residents without mixed and unclear messages. Such an effort will create a process that is more likely to be accepted by local populations and a plan that meshes with local economic plans.

SAVANNAH RIVER SITE STUDY

We illustrate by reporting on recent research conducted at South Carolina's Savannah River Site (SRS), a 310-square mile facility located along the Savannah River bordering the state of Georgia. SRS presents an excellent case for a study of land use impacts and public trust because, since its construction in the early 1950's, SRS has dramatically influenced the growth and development of the surrounding region. Employing up to 25,000 people at its post-construction peak, it became the dominant employer for some of the rural communities located mostly north and east of the site and a major employer for the metropolitan Augusta (GA) area to the northwest. Since 1993, however, production has virtually ceased, decommissioning and clean-up activities have accelerated, and the workforce has been cut by about one third to approximately 16,000 employees.

SRS caused a restructuring of the area economy away from the traditional agricultural and timber-based economy and toward the defense industry and its support services. The construction of SRS also resulted in a complete change of on-site land use. Several small towns and farmed fields were removed and replaced with pine seedlings that would eventually cover 90 percent of the site's land area in forest. Thousands of structures were built on the remaining 10 percent, mostly in the industrial core of the property.

As with most large facilities, people most concerned with the effects of future use of the site are those who either depend on it for its local economic benefit or fear

that it negatively impacts public health, the environment, or the diversification of the economy. In the case of SRS, the largest employment impact is in the counties of Aiken and Barnwell in SC and Richmond and Columbia in GA. (See Figure 1 - SRS Area Map). In each of these counties, SRS workers constituted almost five percent of the population in 1990. Using a multiplier of 0.6 additional workers for each SRS worker and a family size of 2.7 (Halliburton NUS Corp., 1992), this means that 20 percent or more of the population residing in these counties were directly job-dependent on SRS.

In addition to direct jobs at the sites and indirect jobs and revenues from retail, whole sale and service business off-site, weapons sites cause infrastructure impacts, like traffic changes due to increased travel on some routes affecting the necessity for upgrades or new construction. Employment changes affect the demand for housing and in turn, revenues that support municipal services and influence tax rates. Finally, on-site changes considered undesirable by residents can create “stigma” effects that can reduce community trust in the facility, hurt the image of the community as perceived by tourists or incoming businesses, or reduce property values (Greenberg and Schneider, 1996; Clay and Hollister, 1983; Cutter, 1985).

[Insert Figure 1 about here].

Assuming that a spill into the Savannah River is the most imminent and potentially dangerous contamination incident that could occur, the primary health-related and environmental concerns are found in the counties that border the River heading downstream (south-southeast) from the site (Allendale, Hampton, Jasper and Beaufort

in SC and Burke, Screven, Effingham and Chatham in GA). It is worth noting that some of these counties, notably Allendale, Burke and Screven are relatively deprived in regard to income, education, water, sewer and other services compared to the more affluent and educated populations to the north of the site (Greenberg and Mayer, 1996)

These areas, primarily to the north, where most employees live and those to the south and farther away with non-employment related concerns, will be affected differently by future activities at SRS. Because of these differences, our hypothesis was that the DOE's planning efforts would be trusted more by populations north than those to the south of the site.

To find out what the important regional concerns are, we interviewed 45 local officials, planners, business people and environmentalists from the surrounding and downstream areas. Also, to understand the context of planning in the region, we reviewed local and county planning documents and some of the major site documents prepared to guide decisions about future uses of SRS. These analyses brought attention to important planning issues, differentiated regional impacts of possible future uses, and emphasized the importance and fragility of public trust.

Lack of a Clear Comprehensive Planning Process

A first and most obvious observation from our study is that SRS does not have a single comprehensive plan to guide future land use decisions. This is interpreted by some people as a mixed message and by others as obfuscation of the real intent. A recent report from Westinghouse (WSRC), SRS's main contractor, identified over 130

plans related in some way to SRS, developed by 33 different “internal stakeholders,” or agencies and companies that inhabit the site (WSRC, 1995). The multiplicity of plans and the fact that few trained planners are employed at SRS are signs that comprehensive planning is still in its infancy. Historically, land use planning has not existed per se at DOE sites, but as a subset of other programs, like facility or infrastructure planning. There has never been a mechanism for planning in a regional context.

The need for better planning is acknowledged within five of the nine “major” site planning documents. That is, existing plans admit that improved planning is needed to determine future clean-up levels, to assure that the “highest and best use” is achieved for the site, or to simply provide a more rational and consistent guide for siting decisions. This is currently a national issue for DOE and various initiatives have arisen in recent years to try to encourage better planning at all DOE facilities. The latest directive calls for sites to prepare “10-year plans,” but it is uncertain if and how this requirement will in fact serve to better integrate, coordinate and direct effective planning at the site level. This directive, or other recent proposed headquarters initiatives like “comprehensive planning” or “integrated planning,” may indeed help to move sites in the direction of risk-based and stakeholder-based planning, but no clear picture has emerged about the substance of these planning processes and what they will mean for SRS and other DOE sites.

Land use planning has, until recently, also been rare in the greater SRS region. Except for the metropolitan Augusta area in Richmond County (GA), most of the 11 counties close to SRS are primarily rural. Laws requiring local planning were passed in both Georgia and South Carolina in recent years, though many areas have yet to come into compliance. For instance, only four (Aiken, Richmond, Columbia and Burke) of the eleven counties that are either adjacent to the site or at least moderately impacted by SRS employment (more than 2 percent of workforce employed at SRS) had comprehensive land use plans in effect as of spring 1996. The rural counties, with limited or nonexistent professional planning staffs, will be the last to join this effort and will need to be assisted by regional planning agencies. These areas will be even more vulnerable to a lack of clarity from the DOE because of their lack of expertise.

Planning and “Mission”

Most site planning documents and many local area officials place great importance on the SRS “mission” as the driving force behind any future uses. Even natural resources at SRS are to be managed in a “mission flexible” manner, according to DOE’s guidance (U.S. DOE-SR, 1991). The definition of the mission, though, is uncertain. Administratively, SRS now falls under the Office of Environmental Management, not under Defense Programs. It would appear that remediation, stabilization, clean-up and reuse would then become major “missions.” However, this site is not officially “closed” to production activities like some other large sites including

Hanford, WA. Thus, the term “mission” at SRS might still refer to weapons production-oriented activities, to be determined by future national security needs.

A report on expanded environmental uses at SRS notes that “planning for sites with continuing missions differs (from other sites) in one major respect - with the status of DOE weapons programs in flux, they have no determined end-state.” (Noah, 1996, p.27). It goes on to say that it is simply hard to plan without a “defined mission.” As long as there is the potential for some new “mission,” whatever that might mean, it is implied that other uses that may conflict with this “mission” will continue to be secondary. Our interviews and other recent reports have documented that area chambers of commerce and business groups also typically want to keep the site open for future potential nuclear development and oppose “lock up” that could result from allowing expansion of other designated uses (Lowrie and Greenberg, 1996).

Preference for Multiple Use

Recognizing that SRS is a “site of choice” for new nuclear missions, internal written plans and conversations with planners both on- and off-site reveal a clear preference that multiple uses for the site should continue, particularly activities associated with stabilization and clean-up of wastes, development and transfer of technologies and ecological research. However, at the same time, these plans and planners provide little specificity as to how much of the site should be used for various purposes, where uses should occur and how decisions will be made. For instance, the plan produced by the U.S. Forest Service, which manages natural resources on SRS

land, talks of “increased” industrial use, but provides no guidance about siting these facilities, amounts of land or infrastructure that would be required, or the potential impacts that should be considered.

So far, site plans have not classified “zones” of land usage. The DOE-SR Operations Office has stated its intent to limit industrial development to those areas currently being used for industrial purposes. But another DOE document states that 20 additional industrial sites have been identified by DOE at SRS, ranging up to 2,200 acres each and requiring significant expansion of the 17,000 acres currently in industrial use (U.S. DOE, 1996). The Forest Service plan divides the site into Management Areas 1 and 2, which fit generally with an “inner ring” and “outer ring” concept, suggesting centralization of all activities and facilities involving hazardous materials and minimum disturbance of the largely undeveloped periphery of the site. Land use rings, however, are a very vague classification and inadequate to guide the planning of specific future uses. It is unclear, also, whether these rings are based on the health and environmental risks associated with using this land, the suitability of particular parcels for different uses, or both.

The only place specific amounts of land for industrial use is given is in two of the more “unofficial” documents produced by groups of internal and external stakeholders, which say that 25 percent or 33 percent of the site could be developed for industrial use, respectively. Again, though, these figures do not appear to be based on

any study of the regional supply versus the demand for industrial land, nor do the plans discuss the rationale for placing industrial uses in specific zones.

Industrial Reuse of SRS

Whether the site itself will be viable for various private industrial or commercial ventures is an unanswered question according to both written plans and local opinion. Issues regarding the economic attractiveness of the site and the suitability of the existing facilities and infrastructure need to be addressed. Because attracting new companies to the area is a major regional economic development goal, it will be important to surrounding counties to know the likelihood of private development on the site. Even though all the major site planning documents discuss the desirability of re-using site buildings for private ventures, questions are raised about whether it is indeed ripe for non-nuclear development, or whether the site is “just a lot of old buildings,” as one regional economic development director told us.

Transportation access is a problem. The closest interstate to the center of the site (I-20) is 30 miles away, and the closest commercial airports are more than 30 miles away at Augusta (GA) and Columbia (SC). Others have raised concerns about the inadequacy of site infrastructure to support non-nuclear industries (Lowrie and Greenberg, 1996). Security and liability issues will also impact a private company’s decision to locate directly on the site. Further private industrial use at SRS may also be inhibited by a 1992 announcement by the Water Branch of Georgia’s Environmental

Protection Division that there is little assimilative capacity for pollution remaining in the Savannah River (Noah, 1996).

Recreational Use As a Regional Economic Stimulus

Expanded recreation on SRS land also finds various interests lined up on both sides of the issue. Currently, officials from Westinghouse conduct 14 days of limited and controlled hunts per year, open to outside sportsmen by lottery, to control the deer population. There is also a 10,000 acre area managed by the State of South Carolina that allows public hunting on 28 additional days per year. The DOE-SR's official position on recreation is to take a "conservative approach" rather than to actively promote increased recreational activities (Fiori, 1995). Some area business leaders also support this position. However, the future use recommendations of internal and external stakeholder groups and the opinions of many local government officials and tourism promoters from nearby towns and areas downstream advocate more recreation.

Since production-related jobs are being cut and it is unlikely that clean-up activities will take up the slack, expanding some of the recreational opportunities on the site would be one way for communities to recapture some economic benefits from the site. For example, planning objectives for Allendale County, part of which is located within the southernmost portion of the site, stress the marketing of hunting and fishing and promoting the county as "White-Tail Capital of the World." If Allendale could integrate this marketing scheme with increased hunting on SRS lands adjacent to their County, they might be more successful in attracting sportsmen to the area.

Several tourism or development directors in downstream areas, like Beaufort and Hampton counties, also favored expanded recreational uses for their economic potential. One official said that “outdoor recreation will be a big demand in the next 20 years and DOE needs to start thinking about that.” He went on to say that SRS could be a “tremendous drawing card” for the whole region. Tourism is the top industry in the Lowcountry region that includes these counties, so they see SRS as an added destination or “side tour” for people who come to relax at seaside resorts or to enjoy the many outdoor recreation opportunities, like hunting, hiking, and fishing, available in the Lowcountry region. Leaders from communities as distant as Hilton Head, SC, more than 100 miles from SRS, said that running bus tours to see the nuclear facilities or sending cruises up the Savannah River for the scenic beauty of the undeveloped section of river passing through SRS would help their economies.

We know that current hunting support functions at SRS cost about \$800,000/year, but studies have not assembled like figures to quantify the potential economic benefits to the local area and to the site itself (through charging fees, for instance), of alternative expansion scenarios. There may be low-impact, low-risk and cost-effective ways to utilize more of the ecological and aesthetic values of the site while still leaving ample room for future nuclear development.

Regional Economic Development

There is no dispute that SRS has been a major economic influence and job provider in its immediate area. We found that even environmentalists who might prefer

the plant to be closed completely are very sensitive to the potential severity of the employment cutbacks to local economies. Almost all respondents in this study, too, felt that the site had generally been a positive economic influence on the region, although some commented that its dominance has created an “artificial environment” and has been a “vacuum cleaner” of local jobs that may have “discouraged other industries from locating in the area” and “hindered (the rest of the economy).”

Attracting new industry into the area is a top goal for all of the local jurisdictions as a way to retain displaced workers, diversify their economies and reduce reliance on SRS. Only a few of the areas we looked at, though, appear to be attracting many new industries. Aiken, Allendale and Burke Counties, in particular, have not been too successful in economic development activities. Local plans and interviewees cited various disadvantages that hamper their appeal, including high wage scales (due largely to SRS), poor access to major transportation routes, absence of a large local market and an unskilled labor force.

At the same time these areas are searching for ways to become more economically independent, they are also reluctant to “cut the cord” from the nuclear giant that has fed them for so long. Thus, nearby towns still include SRS as a part of their economic development plans and have located new housing and infrastructure close to the site. They are hoping for expansion or new production missions that will bring more jobs, attract high income families, or stimulate local businesses through transfer of SRS technologies.

Local plans and planners cite the need for better cooperation between jurisdictions in the region and the need to plan together in order to “be prepared” for changes at SRS. According to the Aiken County plan, coordination with other agencies in the county and region, including the federal government, “can spell the difference between success and failure” of the planning and development process. There are few signs, though, that the area is truly cooperating on a unified “regional strategy,” or that any of the assistance from DOE thus far has served to alleviate economic stresses or redress regional inequities.

Attention to Off-site Concerns

So far, off-site land use concerns have not been a significant part of site decisions. Yet, unforeseen impacts of future uses could occur. For instance, there is a need for continuing communication with downstream counties and towns about water quality impacts and methods to reduce risks from accidental spills or contaminated ground water plumes. None of the internal site planning documents we reviewed discussed impacts for areas located further down along the Savannah River. Site decision-makers need to realize that “perception equals reality” for some downstreamers who perceive tritium in the river as increasing their cancer rate (Lowrie and Greenberg, 1996; Noah, 1996).

We found differing perceptions about the adequacy of the assistance DOE/Westinghouse is providing to nearby communities. Assistance in past years usually took the form of contributions to local organizations, like United Way, or

assistance with police or fire protection for some of the adjacent communities. More recently, DOE headquarters directed each major site to form a “Community Reuse Organization” to assist regions impacted by DOE downsizing with the economic transition.

At SRS, the Savannah River Regional Diversification Initiative (SRRDI) was formed to serve this purpose and to target its efforts on the five-county region of Richmond and Columbia in Georgia and Aiken, Barnwell and Allendale in South Carolina. DOE has provided funds for SRRDI to take the lead in developing a strategy to assist local communities. However, SRRDI has not yet become actively involved in assisting communities with planning efforts and has just begun to address “DOE-related impacts” in the region. None of its chosen projects really help communities to build and improve infrastructure or improve public education and services, assistance which many communities say they desperately need. Instead, activities have focused mostly on funding for small ventures and start-up businesses. Also, some area officials feel that the benefit of this initiative has not been spread equally across the region, but has instead concentrated heavily on the Aiken-Augusta area.

Within South Carolina, there is some question as to whether Allendale County has benefited fairly from the site. Our interviews revealed a growing sentiment there among community leaders to get more attention from SRS (e.g. funding community projects or infrastructure improvements, more job recruitment, utilizing local businesses for services and supplies, etc). Even though most of our interviews confirmed that the

“halo effect” of positive attitudes that appears to surround nuclear weapons complex facilities is still present here (Lowrie and Greenberg, 1996; Metz, 1996), a perception of unequal treatment and neglect of negative impacts in areas like Allendale could turn that halo into horns.

Is Public Input Meaningful?

The reality is that the SRS management has sent mixed messages about the role of public input. For example, there was no public participation in the development of any of the “internal” plans. Even the 1996 report of the “Future Use Project” assembled by DOE site officials says that the public input collected for that project is intended not to guide planning but only to “be considered” in DOE management decisions.

According to DOE headquarter’s guidance document for the future use project, *Forging the Missing Link* (1994), sites were supposed to “explain specific site-related assumptions... to establish common understanding with stakeholders to help define the most likely option outcomes” and to resolve any conflicting assumptions with stakeholders. Then, stakeholder groups would create “a matrix of desired future uses” for key geographic areas based on DOE-provided assumptions. During SRS’s “Future Use Project,” it is not clear that assumptions were made explicit, nor was a “matrix” of uses created to apply to specific geographic parcels.

Since SRS maintains a production function that requires a degree of secrecy, some decisions are clearly not appropriate for public participation. However, assumptions about specific site activities or areas that are either “open” or “closed” to

outside stakeholder involvement, if set forth explicitly, would help to set the parameters within which the process can occur and to guide expectations. Any operational or budgetary considerations that could influence future directions should also be made explicit so that the public is aware of conditions or foregone conclusions that limit outcomes for the site. Meaningful public input is only possible when participants feel that their concerns will make a difference. In other words, they must feel that decisions about which they are being asked to contribute have not already been made and that the public process is not just an exercise to fill a legal requirement.

The Importance and Fragility of Public Trust

We have observed that SRS currently does not have two ingredients that typically lead to active citizen involvement, that is, a particularly vocal and skeptical public, or immediate health-related impacts on stakeholders. A common phrase to explain the widespread acceptance of the site and lack of public protest is that people are “used to it,” or that “there’s never been a reason to be upset” about it. In past decades, there have been occasional “anti-nuke” demonstrations held at the site gates, but the participants were mostly “outsiders,” as several of our respondents put it. A regional planner in South Carolina said that people feel SRS has “done a good job, right up front, of being a good neighbor.”

In other words, most of the people living in surrounding counties do not think that SRS makes the area a less desirable place to live and in fact, many are proud of the role SRS played in fighting the Cold War and the nuclear expertise it has acquired.

Most of the locals trust that the waste is being handled safely. Because of the physical isolation of the site facilities from populated areas, many of the factors that can negatively affect quality of life for residents around large industrial facilities, such as visual impacts, noises and smells, simply do not come into play here.

Moving away from the counties that are highly dependent on SRS for jobs and regional income, though, the health and environmental risks become increasingly more important and trust becomes more fragile. For instance, an official in Allendale county, which is not as economically dependent as areas to the north and east, said that continued nuclear activities are a “double-edged sword.” They may bring some benefit in jobs, but also pose an environmental risk. Therefore, in his mind, clean-up and containment of wastes are more important than new nuclear missions.

Further south, some residents of coastal resort towns are concerned that a “stigma” may impact property values due to worries about the quality of drinking water drawn from the Savannah River. The Beaufort-Jasper Water Authority currently draws water from the Savannah River to serve about 70,000 residential customers. The River is the only assured long-term water supply for the region. An additional 50,000 hook-ups from the wealthy Hilton Head Island area are expected in the near future. Salt water intrusion in the overdrawn aquifers of some coastal areas will require a switch to surface water from the Savannah River within the next few years. Therefore, the official position of the Authority is that SRS should work toward totally eliminating any discharge into the river. Any levels of contamination, even if they are below EPA

thresholds, are enough to concern customers from a “perception” standpoint, according to a representative there.

As an example of how public support either downstream or even in the immediate vicinity of the site could wane, we observed that two of the site plans for SRS mention using the site for storage of low-level radioactive wastes and accepting more waste from off-site sources in the future. It is far from certain whether nearby towns or areas located along transportation routes are indeed aware of these plans or the potential impacts to their communities. This could be a particularly tenuous situation because the communities through which the wastes will be transported by rail, such as Allendale, are the same communities which have not benefited much economically from jobs at the site. Adding more risks without any apparent benefit to these areas can only cause more distrust and provoke potential unrest.

So far, civic leaders close to the site have not actively opposed receiving waste from off-site. However, our study found that support will decrease if the area becomes perceived as a “waste dump.” Most of the business, government and environmental representatives we spoke with agreed that SRS should not, however, be a permanent repository for nuclear wastes. It was an Allendale County official’s opinion that long-term storage is not a good idea because “eventually it will cause an accident and then everyone’s opinion will change.” This suggests that community members may start to feel more anxious about living near the site and more fearful of negative stigmas if radioactive wastes are kept there for the long-term. The DOE needs to be aware that

long-term storage of nuclear wastes at SRS may start to erode public confidence and stigmatize local economies already hampered by disadvantages like sub-par public schools, low-skilled workers, and lack of access.

As more jobs are cut, new uses are proposed that raise public concern, or off-site inequities and impacts are ignored or not taken seriously, the strong community trust and support that SRS has historically enjoyed, will certainly decrease. As we know from other locations around the U.S., if trust erodes, any future activities at the site will be more intensely scrutinized and possibly roadblocked.

CONCLUSION

This look at land use planning at the Savannah River Site and its surrounding region exemplifies some of the unique circumstances at this site and also some of the broader issues that are facing the future use planning process at this and other DOE sites. The Secretary of Energy issued a Land and Facility Use Policy in December 1994 that requires all sites to undertake comprehensive planning within the context of the larger region and reflecting broad public values. A recent DOE report on future use, called *Charting the Course* (1996) stresses that “unless sites have a clear understanding of their future activities, planning future uses and initiating beneficial reuse can be problematic endeavors (p.21).”

DOE documents from headquarters and from SRS acknowledge that assumptions regarding future land use have the greatest impact on remediation decisions and the estimated cost of cleanup and so, in a sense, will drive and direct most of the

future activities at the site. (U.S. DOE, 1996; U.S. DOE-SR, 1995). As this research has shown, the future use of SRS will also have a great impact on communities located around the site that have depended on jobs at the site to support their economies and to other areas farther from the site that may be affected adversely by real or perceived environmental and health threats.

This report emphasizes the importance of working together with affected communities and governments to help determine priorities and develop uses that satisfy both national and local community needs. At SRS, and at other sites within the complex, it is clearly important that future use planning be a coordinated effort to help determine future risks and benefits of various land use alternatives. Some constructive planning initiatives could be undertaken to coordinate planning and help to build and maintain public confidence at SRS and other DOE sites within the overall framework suggested above.

We suggest that the Department consider going on record as requiring its site managers to develop a land use planning process that will explicitly examine the health, environmental, social and economic impacts of plausible land use alternatives. In no way does this mean that the DOE gives up any control of the site. It does mean that the Department picks areas to be set aside for any conceivable nuclear and waste management missions. One way of doing this is to formalize the “inner-ring” concept (locating all radioactive activities at the center of the site and decommissioning facilities in the outside perimeter) that has been the informal

planning basis for SRS planners (Noah, 1996). DOE contractors and outside stakeholders are free then to suggest activities for the remaining areas. Evaluation of these activities is done in a manner consistent with land use planning practice in the United States.

We suspect that such an exercise would not only improve the DOE's credibility, but also demonstrate that some of the ideas that we have heard are not feasible economically and environmentally. Other ideas may pass initial levels of scrutiny and eventually produce a set of activities that can be implemented. Even if the result is only a handful of additional land uses, the Department can no longer be characterized as keeping the surrounding region at arms length or being insensitive to local land use and economic concerns. Without an open dialogue, outside stakeholders may find it difficult to understand the relationship between the many site-related plans and their own plans, goals and objectives.

With regard to process, we suggest that the Department consider the use of a neutral organization to serve as a "facilitator" in public meetings and a neutral organization may also be employed to oversee the planning analyses at some sites. Some DOE facilities are already using facilitators to help to clarify roles and responsibilities and engender mutual trust in the process.

As part of the analyses, it would be prudent to examine the rationale for the current boundary line at SRS and other DOE sites. Are they based on a real need for a buffer zone, or on the real "risks" associated with use of that land? This may

become a more salient issue, as some people who owned land on SRS prior to 1951 have expressed sentiments to regain their property, especially around the edges of the site, and some adjacent counties have expressed wishes to “privatize” certain parcels to put back onto county tax rolls.

In lieu of returning land, the Department should consider devising a method of providing funds that the region as a whole can use to upgrade the quality of schools, transportation and other infrastructure. Should recreation pass health, environmental, economic and social tests, the DOE should consider reaching out to interested parties to encourage creative thinking about site usage and site tours. These would clearly be offered with the caveat that conditions can change requiring modification of the terms of agreement.

DOE sites could adopt or adapt the successful cooperative community planning models used by the U.S. military in their base closure program. Some of the DOE sites that are officially closed to future nuclear production have begun to produce comprehensive land use plans that incorporate public needs and values. The Hanford Site in Washington State, for example, recently developed a plan to guide future land use decisions through an analysis of potential land use opportunities and constraints and with extensive participation of federal, state and local governments and business, labor, environmental and other groups concerned with or affected by the Hanford Site.

As always, final decisions about future uses for DOE sites will be influenced by the values, ethics and politics of the site management and government policy-makers.

This should not serve to downplay the many tangible and intangible benefits of good planning though. It can avoid the “piecemeal” approach to siting and development that can eventually ruin site attributes. More importantly, though, effective land use planning should foster public goodwill and trust, arising out of the greater assurance that decisions will be made rationally and with ample consideration of a full range of off-site outcomes, risks and benefits.

This research has shown that many planners and community leaders in the SRS vicinity are eager for more certainty about the future of SRS. One local planner said it is “time to make a decision which route to go, either we get that thing going, or we go another way.” Another said that if something is not done soon, “we could let this place
o prepare, he said, for the time when “we don’t need bombs

This research was funded by the Consortium for Risk Evaluation and Stakeholder Participation (CRESP) through a research grant from the U.S. Department of Energy (DE-FC01-95EW 55084). We acknowledge comments received from Chris Noah, Don Krueckeberg, Joanna Burger, Jessica Sanchez, Gil Omenn and Darien Simon on previous drafts of the article.

The viewpoints expressed are solely the responsibility of the authors and do not necessarily reflect the views of the U.S. Department of Energy, its contractors, or any of the people mentioned in the acknowledgments.

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