University of Minnesota

UMORE PARK
Cultivating a Landscape for Knowledge
Management Plan for the University of Minnesota Outreach, Research, and Education Park

submitted to:
Rosemount Task Force
Dean Tom Fisher, Chair

prepared by:
Urban Strategies Inc.
Colliers Towle Real Estate
The Rise Group

December 2000
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1 INTRODUCTION

This document describes a bold vision for the University of Minnesota’s Rosemount/Empire Property (“Rosemount”) and proposes a set of guidelines and strategies to begin implementing the vision. It is a Management Plan intended for review by the Rosemount Task Force and other select individuals at the University. The Plan follows broad consultations, begun in March 2000, with those who have a stake in the site’s future, including representatives of departments within the University, the surrounding communities and private industry. These consultations informed an analysis of the property, which was presented in a Working Paper submitted to the Task Force in April 2000. The Working Paper concluded that by diversifying the property’s research base, adopting a community approach to planning and maintaining a comprehensive stewardship program, Rosemount could become a much greater asset to the University and the larger community.

1.1 Rosemount Today

The University of Minnesota’s 7500-acre Rosemount/Empire Property is a divided place, although not as its name implies. Over 2,000 acres in the west half of the site comprise the Rosemount Agricultural Experiment Station, which has a long history of supporting the University’s core agricultural programs. The remainder of the property forms the Rosemount Research Center. Besides isolated research facilities and projects to support programs in animal science, precision agriculture, natural resources and architecture, the Research Center accommodates a wide variety of other non-University uses (see Figure 1). The lease revenue from these uses supports Rosemount’s administrative operations and maintenance.
With respect to natural and cultural heritage, Rosemount has significant remnants of both, including Lone Rock Forest, tributaries of the Vermillion River, and the stacks and T-walls of the Gopher Ordnance Works, but these appear as fragments and anomalies in the landscape, not part of a coherent landscape.

Befitting its land banking mission, the University is committed to retaining ownership of Rosemount and until recently has been content to wait for the right conditions and opportunities to seek improvements to the property. There is now general consensus that a combination of external forces provides the rationale for significant changes at Rosemount. Hence, the formation of the Task Force and its initiation of a comprehensive planning process.

1.2 Pressures for Change

The impetus for reviewing and planning the future of Rosemount comes from several sources:

- **The Regional Urban Growth Pattern.** Urbanization of the Twin Cities Region now extends to the boundary of Rosemount (see Figure 2). The current land use plans of Metropolitan Council and Dakota County envision the 2020 Metropolitan Urban Services Area boundary extending into the property and have identified the northern half of Rosemount as an urban reserve. The University can expect, therefore, increasing pressures to sell or lease parts of the property for urban development. How should the University respond to such proposals? Is partial urban development of the property appropriate, or should the University endorse principles of “smart growth” and resist urbanization of Rosemount in favor of reurbanizing built-up areas?

- **The Surrounding Neighborhood.** Regardless of its response to urbanization pressures, the University must anticipate increasing pressure for Rosemount, as a
regionally significant “open space”, to become more usable by the nearby communities, particularly for sports and recreational activities. What kinds of community uses are appropriate for the property? Should they have a link to the academic mission? Where should they be located?

- **County Road 46.** Rosemount will effectively be severed into two halves by the introduction of County Road 46. How should uses on the property relate to the road? How should it be integrated into the landscape? How should the University respond if additional county roads are proposed through the property?

- **A Plethora of New Ideas.** Recently, a wide range of both new and enhanced uses has been proposed for Rosemount, including improved animal research facilities, an interpretive center, habitat restoration projects, a Turf and Grounds Research and Education Center, and gravel extraction, to name just a few. Many of these are highly appropriate as they strengthen Rosemount’s academic and research support role. Others have a tenuous link to the University’s mission. What are the appropriate land uses for Rosemount? Where should they be located?

- **New Directions in Research.** Rapid advances in technology and pressing environmental issues are opening new avenues for research in the agricultural, health, and environmental sciences. Rosemount’s size, location, and physical characteristics make it an ideal place for the facilities that may be needed to support such research, including isolated crop land and large natural areas. What steps need to be taken to ensure Rosemount can accommodate and capitalize on the emerging research opportunities?

### 1.3 What’s Needed

The Rosemount Master Plan Working Paper concluded that “Rosemount is well-positioned to continue and enhance its role as primarily a field support facility for more intensive laboratory-based research [on the Twin Cities Campus and in the SEMI Bridal Veil area].”
To respond to the main pressures for change at Rosemount, the University has been advised to initially take the following actions:

- **Develop and adopt an academic vision statement for Rosemount.** The University should review the need and opportunities for Rosemount to support its programs on the Twin Cities Campus, and based on that develop an academic vision to inform all decisions on future plans for the property.

- **Establish a single management structure for Rosemount with strong ties to the main campus.** It has been recommended that an Executive Director for all of Rosemount be hired and empowered to promote and coordinate research activities and oversee property management and planning. The Executive Director should be supported by an advisory board made up of the deans of the relevant colleges and private sector advisors.

- **Develop and maintain a physical vision of what Rosemount should become.** Such a vision will let the world know the University’s intentions and general plan for Rosemount. It should suggest appropriate land uses and provide the basis for ongoing landscape and environmental enhancements.

- **Develop and implement new management guidelines for Rosemount.** Given its size and complexity, most significant changes at Rosemount will occur incrementally. To get desired changes underway and ensure they continue, management guidelines should be put in place. These should flow from the vision and focus on measures to attract and protect appropriate uses and improve Rosemount’s physical environment.

- **Develop an implementation strategy that identifies priority initiatives and potential sources of funds.** How
to begin implementing the vision and how to pay for it are two fundamental issues to be addressed.

- **Give the property a new name befitting the vision of its future.** To communicate to potential research partners, residents of the Twin Cities and the world at large that Rosemount is a multi-faceted place distinct from surrounding communities, it should assume a new name, one that conveys a positive sense of place. This may not overnight change the image of Rosemount but it will reflect the University’s new attitude toward the property and aid in promoting it to potential research, education, and outreach partners.

Two of the above needs have been addressed by the Rosemount Task Force. It has initiated a search for a Director, and it has proposed a new name for the property: the University of Minnesota Outreach, Research, and Education Park, or UMORE Park. Adopting the proposed name, this document addresses the other needs.
ROSEMOUNT: A STUDENT’S PERSPECTIVE

Comprising both the Rosemount Agricultural Experiment Station and Rosemount Research Center, the area is beautiful, productive and scarred by historical uses and abuses….What the property needs now is a firm foundation, based on the physical realities and opportunities of the site as a whole. Two hundred years ago, the area was largely prairie, with a few edges in oak barrens and oak openings, bisected by a trail. Starting about 100 years ago, it was farmed, until 1942, when the federal government appropriated 11,000 acres in Coates, Rosemount and Empire townships for a munitions plant. The plant, Gopher Ordnance Works, ran briefly in 1943. But it was never completed and the Army dismantled it in 1945. In its short life, however, the plant left indelible marks on the landscape. Soil profiles were destroyed and unusually sturdy building foundations remain, along with dramatic smokestacks from two power plants. In 1947, the government turned over 7,500 acres to the University of Minnesota. Agricultural research has occurred there ever since. The site’s nonproductive land has served two functions for the university and surrounding communities: (1) as home for various industrial leaseholders and (2) as a garbage repository…Natural succession has covered, if not eliminated, much of Rosemount’s past. Despite erosion, fragmentation and other degradation, the site offers valuable wildlife habitat with links to the Vermillion River. Remnant architecture and a scruffy sense of mystery enhance its appeal to humans. However, the lack of an overarching framework guiding Rosemount’s varied uses threatens to diminish its ecological function and beauty.

From Rosemount: An Open Space Resource for Ecology, Agriculture and Community
- Diane Hellekson
June 1999
2 ACADEMIC VISION

The proposed academic vision below suggests the enormous potential of U M O R E Park to enhance its role as a support facility for research and teaching. As this is intended to remain the park’s primary role, the academic vision should become a tool by which the appropriateness and value of other land uses are measured.

The Academic Vision for the University of Minnesota Outreach, Research, and Education Park

U M O R E Park should continue and expand its function as an agricultural research station to support teaching and research in the College of Agricultural, Food, and Environmental Sciences, specifically in the following program areas:
- Agronomy and Plant Genetics
- Animal Science
- Biosystems and Agricultural Engineering
- Entomology
- Horticultural Science
- Plant Pathology
- Soil, Water and Climate

U M O R E Park should continue to support teaching and research in the College of Veterinary Medicine, and look to the possibilities of providing enhanced facilities for the following program areas:
- Clinical and Population Sciences
- Veterinary Teaching
- Wildlife Rehabilitation

U M O R E Park should play an increasingly larger role as a field research and teaching facility for the College of Natural Resources, supporting in particular the following program areas:
- Fisheries and Wildlife
UMORE Park should define an expanded role in supporting the following program areas in the College of Biological Sciences:

- Ecology, Evolution and Behavior
- Molecular, Cellular, Developmental Biology and Genetics
- Plant Biology

UMORE Park should expand its role as a site for studies and projects in the College of Architecture and Landscape Architecture, specifically in the fields of rural and agricultural architecture and rural landscape preservation and enhancement.

UMORE Park will encourage and create opportunities for interdisciplinary research, collaboration, and teaching among the above Colleges and program areas.

UMORE Park will become a center of excellence for its role in advancing and linking knowledge in the agricultural, health, and environmental sciences.
3 PHYSICAL VISION

The proposed vision for U M O R E Park, like the site itself, is large and complex. Guided by a vision statement and principles advocating innovation, creativity, diversity, balance, and public participation, it combines several layers into a holistic view of the property and its potential. The vision consists of two key structuring elements— an environmental framework and an access and infrastructure plan. Over these is laid a comprehensive pattern of landscape development. At the heart of U M O R E Park is the proposed Research Village, where the most dramatic physical changes are envisioned. The Research Village would provide the ideal setting for the proposed Vermillion Institute— an initiative intended to firmly place the University of Minnesota at the forefront on current issues in agriculture, health, and the environment.

3.1 Guiding Principles

The physical vision for the University of Minnesota Outreach, Research, and Education Park is guided by the six principles outlined in the Integrated Land Planning Framework for the University of Minnesota Rosemount/Empire Property (Center for Rural Design, February 1999) and adopted by the Board of Regents in June 1999:

- To preserve University ownership of the total 7,500 acres for uses that reflect the University’s academic mission while allowing for innovative and creative, as well as necessary, ways to use the land in partnership with the surrounding communities.
- To create opportunities for research and education linked directly to a University of Minnesota collegiate or departmental program that illustrate innovative ways to accommodate institutional, business, and community interests.

VISION STATEMENT

The University of Minnesota Outreach, Research, and Education Park is:

- a living laboratory owned by the University of Minnesota for teaching, research, and community education about contemporary issues that cross the agricultural, environmental, and health disciplines;
- a diverse landscape for the pursuit and demonstration of design excellence and environmental restoration at the urban/rural edge of the Twin Cities;
- a regional treasure for the public interpretation, exploration, and enjoyment of Minnesota’s natural and cultural heritage.
Environmental Framework - An Ecosystems Approach

Forest Candidate Site 1
Forest Candidate Site 2
Forest Candidate Site 3
Forest Candidate Site 4
Forest Candidate Site 5
Forest Candidate Site 6

MORE
Minnesota Outreach, Research, & Education Park
A University of Minnesota Property

Draft

Figure 3

Urban Strategies Inc.
The Rise Group
Colliers Towle
Center for Rural Design

Kilometers Date Oct. 2000
To utilize an integrated management approach to land use that promotes partnerships in research and education and balances financial return on investment with social benefits and environmental health.

To encourage land uses that protect and enhance the area’s natural systems.

To recognize long term land uses while phasing in new uses and ensuring capacity to respond to changing critical research needs.

To provide an opportunity for citizen and public agency participation in ongoing planning for the University’s property at Rosemount/Empire.

Inherent in these principles is the notion of an ecosystem approach to planning and development, that is, an approach that integrates the needs of the University, the larger community and the natural environment, sustaining a healthy balance among them.

### 3.2 Environmental Framework

The vision is based on the premise that optimizing the outreach, research and education opportunities at UMore Park requires significant enhancements to its physical qualities, including its natural environment, its human landscapes and its infrastructure. Recognizing the diverse but fragmented natural environment as one of the property’s greatest assets, the vision begins with a strong Environmental Framework (see Figure 3), which sets the stage for an ecosystem approach to planning and developing the park.

The Environmental Framework builds on core natural features within and on the edges of the park, including Lone Rock and tributaries of the Vermillion River, as well as emerging woodlands scattered throughout the eastern half of the property. The more mature of these emerging woodlands are identified as Forest Candidate Sites, where active stewardship programs involving habitat creation and tree plantings should initially be focused. As these sites continue to mature, in the
process enhancing the ecology and aesthetics of the park, they should be linked by natural corridors, consisting of woodlands, prairie, and meadows. These Forest Linkages are indeed critical to the overall environmental health of the park as they allow for the passage of otherwise isolated flora and fauna thereby helping to maintain genetic viability and diversity. The goal is to eventually create an entirely interconnected natural environment that both balances and enhances the park’s other uses.

3.3 Public Access, Gateways and Infrastructure

An ecosystem approach to planning UMore Park implies that the needs of the University, the surrounding community and the natural environment must be balanced in a mutually sustainable way. As the activities of each of these constituents are not always compatible with one another, it further implies that in certain areas of UMore Park, the needs of one constituent will generally supersede those of the others. The areas of the park dedicated to research or ecological restoration should not be disturbed by recreational activity, for example, and therefore public access must be controlled. Whereas the less sensitive lands, where research facilities, academic buildings, and community uses can be intermingled, are envisioned as a largely public realm, much like the streets and parks of any community.

Recognizing, on the one hand, the desire to open UMore Park to the community and, on the other hand, the need to protect valuable research lands, the park can be divided by the degrees to which public access to the land should be limited (see Figure 4). Three distinct categories flow from this analysis:
- **Restricted**: the core agricultural research areas, identified by fences, gates, and signs, where public access should be restricted to guided tours.

- **Controlled**: those areas of the park, identified by signs and strategic fencing, where environmental research or restoration projects will necessitate routine patrolling to ensure no destructive activities by the public are occurring.

- **Open**: the mixed-use areas of the park and those lands reserved for future use, where access to buildings and other facilities may be restricted but public use of the land is generally encouraged.

To a large extent the Environmental Framework and the varying levels of public access suggest the pattern of road infrastructure needed to support the vision of UMORE Park. In the Open, mixed-use areas, a rational network of primary and secondary roads is envisioned, allowing for both easy access and the incremental division of land into parcels for research and other facilities. This network would provide the framework for a parallel network of snowmobile trails traversing the northeast quadrant of the park.

In the core research areas, only the most basic roads, as exist today but with gated access points, are required. In the southern part of the site, where the focus is on establishing the foundation of a strong environmental framework, road closings would be more appropriate than road building. There, only unimproved roads providing access to research lands and for monitoring, the latter part of a trail network, are needed. Roads that currently attempt to bisect the area, including Blaine and 170th, would eventually be discontinued where they enter the zone, and, as agriculture is discontinued, farm roads would be abandoned.

Where the primary roads, including County Road 46, provide access to the park, signed and landscaped gateways should be established that clearly inform people visiting or passing through that they are entering a special place in the region—
the University of Minnesota’s U M O R E Park. When constructed, County Road 46 should be considered the main entry road to the park, and the east and west gateways it affords should be designed accordingly. Two additional gateways are envisioned along County Road 42, with Audrey Road becoming an east driveway for access to Dakota County Technical College only. Prominent signage identifying the park would be the key element of a fifth gateway at the intersection of County Road 46 and Highway 52.

3.4 Landscape Development

What will visually unite the different parts of U M O R E Park to create a distinct place is its landscape (see Figure 5). An ongoing program of landscape development will be critical to both maintaining a healthy, diverse ecosystem and attracting more researchers and visitors to the park.

Landscape development in the park entails softening and greening the edges of roads with continuous rows of trees to give them definition and create additional environmental linkages. A consistent type of attractive rural fencing should be used to define the boundaries of restricted and controlled areas. Hedgerows can be used to further delineate research parcels. Stormwater management facilities should be integrated as much as possible with natural systems and aligned with trails. Through the Research Village, human landscapes should contrast with forests, prairies, and meadows to create variety in the scenery and establish balance in the ecosystem. Common themes in the architecture of main buildings will go a long way to distinguishing and visually tying together the landscape.

Section 4 proposes and illustrates design principles to support the landscape vision.

3.5 Research Village
In the heart of UMore Park is the opportunity to create a Research Village—a unique rural setting, nestled in the environmental framework, for a range of uses and activities related to research, education, and outreach. The Research Village (see Figure 6) would become the focal area for human activity in UMore Park, where students, faculty, and industry partners come together to conduct research and share knowledge and where the community is encouraged to explore the park’s landscape and heritage, and to also share in the knowledge being generated. The Research Village is where future buildings should be located, clustered at intersections or around open spaces, and where community events should be held.

As the park’s gathering place and a distinct and diverse landscape unto its own, the Research Village would become:

- home to the Vermillion Institute, a new landmark institute and interpretive center that addresses current issues in the agricultural, health, and environmental sciences;
- an outpost and support facility for research activities pursued on the Twin Cities Campus and in the proposed Minneapolis-University Research and Technology Park;
- an education and demonstration center where groups and individuals can come to learn about the latest advances in the agricultural, health, and environmental sciences and their relevance to everyday life;
- a destination for hikers, cyclists, cross-country skiers, snowmobilers, and horseback riders looking to explore the park’s natural and cultural heritage;
- a model of progressive rural planning at the urban fringe—a place where residents of the Twin Cities can appreciate rural environmental issues and the agricultural landscape.

The Village landscape will feature clusters of buildings housing researchers, students, and animals, gradually rising against a backdrop of forests and prairie. A rural grid of roads will
provide some order to the village while criss-crossing trails and wildlife corridors will follow and accentuate natural systems at work. Natural features will have a major role in defining the landscape, but architecture and landscape design will figure just as prominently as the Village community evolves.

The Research Village is where the outside community is always welcome—welcome not only to discover and explore the park but also to be an integral part of its development. Trails provide one opportunity for university/community partnerships. There is also ample room in the village for community gardens and small hobby farms, which would reinforce the park’s outreach mission and complement the rural landscape.

At the heart of the Research Village is the concept of the Village Center (see Figure 7), close to the eastern gateway to the park. This is the ideal location for the proposed Vermillion Institute, a place and an institution intended to put the University at the forefront of research, education, and debates about current issues in the agricultural, health, and environmental sciences. The Vermillion Institute (see Figure 8) would also be the point of arrival for visitors, an ideal place to introduce the park, interpret its past and present uses, and engage the public in the Institute’s mission. Over time, research buildings associated with the University or private industry would join the Vermillion Institute in the Village Center to create a campus-like environment. A stormwater management pond could be used to create a park-within-the-park, and a generous central green “commons”, a reserve for exhibitions and other community events, would provide a framework for future buildings.

Research and academic facilities that require sizeable land parcels or land buffers would become part of Satellite Research Compounds strategically located across the Research Village. For people working in these compounds, the Village Center would provide a place to confer with colleagues or simply take a break. With projects and people coming and going, and its
ecosystem enjoying steady regeneration, the Village promises to be a dynamic place.

### 3.6 The Proposed Vermillion Institute

Advances in biotechnology, coupled with growing concern about the world’s natural resources, has brought issues of agriculture, health, and the environment to the forefront in society. As one of the few Universities in the country with strong programs in these three areas, serving a state rich in natural and agricultural resources, the University of Minnesota is uniquely positioned to provide an academic and public forum for addressing such controversies. The proposed Vermillion Institute would boldly establish the U. of M. as the destination for both researchers and the public looking for answers to the questions surrounding genetic modification, biodiversity, and agricultural land management, among other issues.

The Vermillion Institute, named for the river to the south of UMORE Park, would be a multi-faceted place where:

- academics and policy makers from around the world gather to study and debate contemporary agricultural and environmental issues;
- U. of M. faculty and students collaborating on interdisciplinary projects in UMORE Park would meet;
- the public would learn about past and current agricultural and environmental research at the University;
- farm operators would learn about the application of agricultural research and best practices in land management;
- Minnesotans would learn about and explore their land’s natural and cultural heritage.

Given its location and attributes, UMORE Park provides the ideal setting for the Vermillion Institute. There is no other research land of this size so close to a major metropolitan
region and major centers of medical research, including the Mayo Clinic. And it contains not only important agricultural research facilities but significant environmental features seen as the basis for restoring a regionally significant natural reserve.

The Vermillion Institute is being proposed as the first phase and anchor of development in UMORE Park’s Research Village Center. As illustrated in Figure 8, following page 15, it would be set back from new County Road 46, highly visible on a crest beyond an expansive front yard encompassing a pond. The buildings and spaces of the Institute would exhibit a high-quality, rural-themed architecture and landscape in keeping with the design principles of UMORE Park.

Although closely affiliated with the University, the Vermillion Institute would seek a national and international profile as an arm’s-length institution. Initially, funding for the Institute would be sought from the federal government and international agencies. As its reputation as a global think tank and public destination grows, funds from other sources to support evolving programs and expanded facilities at the Vermillion Institute are sure to flow.
4 MANAGEMENT GUIDELINES

The vision for U M O R E Park can only be achieved with comprehensive, coordinated, and continual management of all 7,500 acres. Given the property’s land use complexity and varying environmental qualities, this is a daunting task, one that can be overcome by dividing the park into management zones and applying to each of them a set of management guidelines.

The delineation of management zones (see Figure 7) is based on the degrees of public accessibility to U M O R E Park. Reflecting the primary land uses and environmental qualities considered appropriate and desirable, the zones are intended to guide the evaluation and siting of future proposals for the park. The management guidelines are derived in part from the list of appropriate land uses for each zone and in part from the overall vision of the park’s natural environment, infrastructure and landscape.

For each management zone, there is a list of primary and secondary uses, the latter considered appropriate where they pose no threat to the viability of the former. As the vision for each zone is implemented, current uses not listed should be discontinued. Leases for unlisted uses should either be allowed to expire or renewed on a short-term basis only, depending on the impact of the use on positive changes occurring in the park.

4.1 Core Research Zones

The Core Research (CR) zones include areas of U M O R E Park that have long been and continue to be used for research projects by University faculty and students in the core program areas of crops, atmospheric sciences and soils. The detailed history of these areas and their varying physical characteristics make them invaluable to future projects in the agricultural, health, and environmental sciences and therefore critical to achieving the park’s academic and research mission.

WEIGHING PUBLIC BENEFITS

UMORE Park is currently home to a number of public services that likely would not be welcome in other communities, including bomb disposal, hazardous waste storage and police and military training sites. Although the University may feel a civic duty to accommodate such facilities permanently, they have contributed to the image of Rosemount as a dumping ground, an image not suitable for an outreach, research, and education park. More important, while they represent a public benefit, such uses inhibit the property from achieving much greater benefits to the public in the way of research, education, recreation and environmental health. The phased discontinuation of these uses is therefore in the long-term best interest of the park.
Where possible, the boundaries of the core research zones have allowed for adequate buffering against adjacent uses that may have an adverse impact on research projects. Allowance has also been made for the expansion or addition of research plots that may be needed to support new and evolving programs based on the Twin Cities Campus and projects based in the proposed Minneapolis University Research and Technology Park.

The CR zones are intended for almost exclusive use by agricultural researchers working in the core areas of crops, soils, and atmospheric sciences. The focus of the management guidelines, therefore, is on preserving the integrity of these lands, identifying their boundaries and restricting public access to research plots.

The animal research facilities currently located in the CR zones may be compatible with ongoing plot research, but it is recommended that proposed animal facilities be located either in or immediately adjacent to the Research Village.

Public Access: Restricted

Primary Uses:

- Agricultural research and education
- Crop production
- Precision agriculture

Secondary Uses:

- Ski trails
  (in designated corridors only)

Management Guidelines:

- Purchase the Notch Parcel as soon as the funds can be made available or a land swap can be arranged.
- Maintain a central registry and GIS database of past and ongoing research projects.
- Encourage interdisciplinary research projects linking agriculture and health and agriculture and environment.
- Demarcate the boundaries of the core research zones with wood fencing in keeping with the landscape’s rural character.
- Gate entrances to the research plots and post signs informing the public of the sensitivity of the land and prohibiting trespassing.
- Remove abandoned structures and keep unused parcels tidy for future research.
- Acquire the Notch Parcel to preserve the integrity of CR Zone Block 2.
- Monitor the environmental impacts on research plots of future urban growth in Dakota County.
- Designate roads and trails away from sensitive research lands where cross-country skiing is permitted.

4.2 Environmental Research and Enhancement Zone

The southern end of UMore Park contains significant natural resources that, through careful management and strategic restoration projects, can form the basis of a regenerated natural reserve. The environmental research and enhancement (ERE) zone is envisioned as primarily a habitat for a diversity of wildlife and a place for studying the natural environment. The Minnesota Department of Natural Resources also recognizes the potential for this area to become a significant wildlife reserve within a region-wide greenway network. The DNR is currently seeking to acquire the Butler Properties, 700 acres immediately west of the ERE zone, to create a Wildlife Management Area and may be willing to partner with the University in managing the ERE zone.

As essentially a long-term project to establish a natural reserve, the ERE zone should gradually be restricted to only those uses that support this goal. Initial regeneration projects should
focus on re-naturalizing the corridors between established wildlife habitats and restoring the riparian zones along the Vermillion River tributaries (the DNR has expressed an interest in the latter project). Gradually, the crop production occurring in the zone should be phased out to make way for prairie, meadows, and woodland. The existing commercial composting facility should be allowed to continue, provided it has a public education component in keeping with the park’s academic mission. As the zone’s natural environment matures, public interest in the land will increase and strategies will be needed to ensure natural regeneration can continue unthreatened.

Public Access: Controlled

Primary Uses:

- Environmental research and education
- Wildlife habitat restoration
- Precision natural resource management
- Tree farming/nurseries (native species only)

Secondary Uses:

- Crop production
- Precision agriculture
- Hiking and ski trails
- Bridle paths
- Heritage interpretation
- Commercial composting

Management Guidelines:

- Encourage interdisciplinary research linking health and environment and agriculture and environment.
- Encourage and participate in habitat restoration projects, particularly within Forest Candidate Sites and Stream and Valley Corridors.
- Explore the opportunity for the DNR and the College of Natural Resources to serve as co-managers of the zone.
- Erect signs informing the public of the zone’s primary uses and patrol public access points routinely.
- Prohibit hunting, target shooting, and off-road vehicles.
- Close unnecessary roads to discourage vehicular access.
- Initiate annual tree planting and clean-up events to engage the community in the park’s regeneration.
- Until phased out, encourage private farms to adopt environmentally sensitive practices.
- Encourage environmental education and interpretative programs.

4.3 Research Village Zones

It is envisioned the Research Village will accommodate a range of land uses and activities that support UMORE Park’s academic vision. The management guidelines for the Research Village (RV) zones focus on creating an environment and landscape conducive to such uses, many of which are public. The implication is that significant up-front improvements to natural qualities, infrastructure, and overall aesthetics in these zones are required to realize the vision for the Research Village. This can begin by simply planting trees but also involves a strategic plan to tidy up the land.

The RV zones are currently home to a number of uses that do not fit within the vision of UMORE Park and appear to have at best a tenuous relationship with University programs. Among these are Jensen Field, small factories, and machine shops, the Minneapolis Bomb Squad explosives facility and a number of storage buildings. As the Research Village is developed and its landscape enhanced, and as current leases expire, these uses should be discontinued. As for the U.S. Naval facility, it is an innocuous use well buffered from adjacent lands, and therefore need not be discontinued.

Public Access: Open
Primary Uses:

- Animal research and education
- Environmental research and education
- Animal housing
- Special University programs in agriculture and environmental restoration
- Research laboratories, greenhouses, and offices
- Partnership headquarters
- Interpretive center
- Hiking, skiing, and snowmobile trails
- Bridle paths
- Public gatherings, cultural events, festivals
- Public exhibitions and demonstrations
- Park management and maintenance facilities

Secondary Uses:

- Precision natural resource management
- Community gardens and hobby farms
- Commercial composting
- Public field schools
- University-partnered institutions
- Residences
- Public art

Management Guidelines:

- Encourage excellence in rural architectural and landscape design.
- Upgrade and landscape primary and secondary road network.
- Phase out disruptive or hazardous uses as current leases expire, and phase out other inappropriate uses incrementally as appropriate uses move into the zone.
- Require future non-University, non-ancillary leases to have a direct link to a university program that fits within the academic vision for UMORE Park.
- Permit short-term leases for ancillary, small-scale commercial uses intended to service Park users and visitors.
- Ensure future rents reflect any capital and maintenance costs associated with servicing and improving the site, including landscaping.
- Demolish unsound and non-reusable buildings and structures.
- Encourage clustering of future buildings at key crossroads and around common open spaces.
- Identify facilities with signs at access points.
- Adopt architectural guidelines to ensure a consistent sense of place in keeping with the rural landscape.
- Encourage and participate in habitat restoration projects, particularly within Forest Candidate Sites.
- Post information signs at edges of environmental restoration areas.
- Integrate stormwater management facilities into habitat restoration projects where appropriate.
- Link remnants of the Ordnance Works with an interpretive trail.
- Facilitate development of an interpretive center.
- Encourage and facilitate the development of trails by Dakota County or other public agencies.

### 4.4 Research Reserve Zones

As UMORE Park evolves, its land-based research and teaching facilities may grow and diversify. The Research Reserve (RR) zones anticipate such change without pre-determining what the nature of those facilities could be. Besides exclusively research and academic-oriented uses, the research reserve should also be made available for community-oriented, land-consumptive uses with an ongoing, direct link to University programs in the agricultural, health, and environmental disciplines. An equestrian center used by the College of Veterinary Medicine and sports facilities anchoring programs in turf and grounds management are two examples of such uses. Temporary
academic/research facilities and projects due to be removed after a few years should also be permitted.

Currently these zones are occupied mostly by privately-leased homes and crop land. Until needed for research or academic purposes, these uses should be allowed to continue within a framework of forest linkages and a recreational trail system. Where feasible, the cultural heritage features within the zones should be preserved and incorporated into any proposals for enhancing or re-using those sites.

Public Access: Open

Primary Uses:

- Future or temporary non-agricultural research and education
- Hiking, skiing, and snowmobile trails
- Bridle paths

Secondary Uses:

- Precision agriculture and natural resource management
- University-partnered educational institutions
- Crop production

Management Guidelines:

- Demarcate the Highway 42 and Highway 46 edges of the zones with wood fencing in keeping with the landscape’s rural character.
- Remove abandoned structures and keep unused parcels tidy for future research.
- Landscape edges of secondary roads that provide access to the Research Village.
- Encourage and participate in habitat restoration projects, particularly within Forest Candidate Sites.
Encourage and facilitate the development of trails by Dakota County or other public agencies, ensuring linkages are created to trail systems on adjacent lands.
5 DESIGN PRINCIPLES

There is a rich history of, and constant striving for, design excellence on the Minneapolis and St. Paul Campuses, the quality of their architecture and landscaping having immeasurable benefits to the University. The Landscape Arboretum has built on this tradition, winning international acclaim. The same high standards of design should be applied to UMORE Park.

On the following pages are illustrated design principles that should guide development of UMORE Park’s landscape and the architecture of future buildings. The objectives of adopting and adhering to these principles are simple:

- to make UMORE Park more attractive;
- to demonstrate to Minnesotans and the world excellence in rural and environmental design.
6 IMPLEMENTATION

Realizing the vision of U M O R E Park will take many years, even decades. But significant change to the property can be effected much sooner. This final section of the Management Plan outlines next steps in the planning process and first steps to improving the property.

6.1 Top Ten Priority Initiatives

Administrative and Planning Actions

1. Hire an Executive Director for U M O R E Park to coordinate the planning and development of the Vermillion Institute; promote the research opportunities in the Core Research zones to agri-businesses; begin developing other outreach initiatives; and oversee ongoing management of the park.

2. Hire a grant writer to seek funding for the Vermillion Institute and other initiatives in the park.

3. Strike a cross-disciplinary task force to define the mission and parameters of the Vermillion Institute and initiate a site master planning process.

4. Pursue and develop partnerships with the following public sector entities:
   - Dakota County, to ensure cooperation and seek funding for the landscaping of new County Road 46;
   - City of Rosemount, to clarify the roles of U M O R E Park, the City, and developers in designing, building, maintaining, and funding stormwater management facilities in the park;
   - Minnesota Department of Natural Resources, to establish a cooperative relationship in planning and managing the Environmental Research and Enhancement Zone.

5. Adopt a policy to ensure revenues from the sale of any land in U M O R E Park are directed to the park’s capital
budget for land acquisition or property improvements. (Preferably this would be done before the DCTC sale is finalized).

Park Improvements

6. Begin to erect fencing and gates around the Core Research zones, starting along the County Road 46 frontage and adhering to the park’s design principles.
7. Erect signs at primary gateways identifying the park and directing visitors.
8. Develop and initiate a tree planting program, beginning with the Forest Candidate Sites and the edges of primary roads.
9. Develop a GIS database of the Core Research zones to aid in monitoring, managing, and promoting research activities.
10. Acquire the Notch Parcel.

6.2 Approach to Funding

The significant enhancements and diversity of uses proposed for UMORE Park will demand a multi-pronged approach to funding both development and maintenance of the park. One of the first tasks of the new Executive Director and grant writer will be to match available funding sources with projects. At the outset they will be faced with five potential main sources for capital funds:

- **Federal Government**: There is a number of significant federal grant programs to support conservation initiatives, environmental restoration, and leading-edge science research and education.
- **International Agencies**: For projects like the Vermillion Institute that address foreign or global issues, funds should be sought from U.S. and overseas-based international organizations.
- **Corporations**: Though the Vermillion Institute may rely only on funds from non-profit entities, the private sector may be a willing partner in other research and education facilities, including an interpretive center.

- **Foundations**: The number and wealth of foundations looking to invest in initiatives with broad public benefits is growing.

- **State of Minnesota**: Through the DNR, the State may support environmental initiatives in the park, and as the park’s academic role broadens, a CIP request for ongoing management and development of the park may be appropriate.

The funds generated from the Rosemount Property today do not adequately support its operations and maintenance, so as the above sources are tapped for new projects in UMORE Park, the new Executive Director will need to consider additional funding mechanisms to support and enhance the property, including the following:

- For partnerships in the park, an annual indirect cost charge to amounting to a minimum of 10% of the project budget, which would be directed to a separate fund for infrastructure maintenance. Partnerships that reduce revenue from current leases or the sale of crops used for operations and maintenance should offset that loss for a period of time to minimize impacts.

- A deferred maintenance fund for building repair or removal, to which a minimum of 10% of the lease revenue from buildings and structures would be directed.

Vision, guidelines, and strategies will plant the seeds of change in UMORE Park, but only care, patience, and the steady flow of money from several sources will see them grow.