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## 4.14 VISUAL RESOURCES

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This section discusses the Project impacts on visual resources related to visual contrast, view obstruction, or loss of view. The section also addresses degradation in visual quality resulting from loss or alteration of a specific scenic resource (such as mature stands of native trees) or introduction of a new source of high intensity light or glare. To provide a basis for this evaluation, the setting section describes the regional landscape character and the existing visual conditions of the Project area broken down into landscape units. Potentially sensitive viewpoints are identified, along with scenic routes and other resources designated in local general plans.

### IMPACTS EVALUATED IN OTHER SECTIONS

The following items are related to the Visual Resource Section but are evaluated in other sections of this document:

- **Growth Inducement.** Visual impacts may occur due to development in the Project area. The issue of growth inducement resulting from the Project is addressed in the Section 5.3, NEPA/CEQA Required Sections of this document.
- **Historic Sites and Structures.** Construction of Project facilities including dams and pipelines could impact the visual quality of historic sites and landscapes. Impacts of the proposed Project facilities on historic resources are discussed in Section 4.15, Cultural Resources and Paleontology.
- **Recreational Activities.** Project facilities may impact the visual qualities associated with recreational activities. Impacts on recreational activities from the Project are addressed in Section 4.16, Public Services, Utilities, and Recreation.

### AFFECTED ENVIRONMENT (SETTING)

The following section provides a general discussion of the regional landscape character of the Project area, addresses the applicable plans and policies governing preservation of visual resources, and provides a description of the existing visual conditions of the study area broken down into landscape units. The landscape units represent distinct areas defined by topographic conditions (ridgelines, valleys), landscape conditions, and community boundaries. The baseline conditions were assessed based on review of Project maps and aerial photos, viewshed modeling, and a detailed site reconnaissance. Viewshed modeling was performed through the ArcInfo Geographic Information System computer program. The site reconnaissance included photography of all reservoir sites, pipeline routes, and pump station sites from sensitive viewpoints. Detailed photo logs were prepared to document the locations of the sensitive viewpoints.

## Regional Landscape Character

The Project area is located within Sonoma and Marin counties, which contain a diversity of landscape types. The general topographic trend of the Coastal mountains is north-northwest to south-southeast with broad valley corridors running between the major ranges. The study area extends from the northern shores of San Pablo Bay in the south into the steeply-sloping mountainous terrain of the geysers geothermal area in the north. The western borders of the study area are characterized by lower, more rolling hills and valleys of Marin and Sonoma counties.

The central part of the Project area is composed of the agricultural plains which flank the Petaluma River and Laguna de Santa Rosa drainages. These landscapes also contain the main concentrations of urban and suburban land uses. The area is surrounded by scenic countryside which is viewed extensively by residents and visitors to the Wine Country region. As stated in the Sonoma County General Plan, "Coastal bluffs, vineyards, San Pablo Bay, the Laguna de Santa Rosa and other landscapes are of special importance to the quality of life of County residents and the tourists and agricultural economy." The Project area includes each of these areas, except coastal bluffs.

## Locally Designated Scenic Resources

The following are scenic resources which are specifically designated by local jurisdictions and which may be affected by Project facilities. Local policies which are related to these resources are identified in Table 4.14-1.

### ***Sonoma County***

The Open Space Element of the Sonoma County General Plan designates specific scenic resources divided into three categories:

#### ***Community Separators***

Rural lands designated as Community Separators are intended to provide visual relief between identifiable cities and communities. These lands are not necessarily scenic in their own right, but impose development restrictions to function as buffers to prevent continuous, corridor-style urbanization patterns. Project facilities may affect the following designated Community Separators:

- Petaluma/Rohnert Park (1,200 acres)
- Rohnert Park/Santa Rosa (1,700 acres)
- Santa Rosa/Sebastopol (1,400 acres)
- Windsor/Larkfield/Santa Rosa (2,000 acres)

### *Scenic Landscape Units*

Scenic Landscape Units are intended to preserve land considered as a scenic resource. The scenic qualities of these lands influence the quality of life of residents and are important to tourism and the agricultural economy. These lands are largely open space and provide visual relief from urban densities and have little capacity to absorb very much development without significant visual impact. The list of potentially affected scenic landscape units which occur within the Project area is provided below in the section titled Sensitivity of Potentially Affected Visual Resources.

### *Scenic Corridors*

These are designated roadways which pass through scenic areas, typically orchards, forest-covered hills, rolling dairy lands, and valleys planted in vineyards. These policies are intended to preserve these scenic roadside landscapes through compatible land-uses, setback restrictions, signage restrictions, and vegetation protection.

### ***Marin County***

The Huntley Reservoir site is visible from Marin County, and agricultural irrigation areas and pipelines are proposed within the County. There are no specific scenic resources designated by the Marin Countywide Plan in the vicinity of Project facilities, although ridgelines and grassy and wooded hillsides of upland areas have been identified by the Marin Countywide Plan as resources of concern within the inland rural portions of the County.

### ***Santa Rosa***

None of the reservoir sites are located within the planning jurisdictional boundaries of Santa Rosa, but pipelines, urban irrigation areas, and pump stations are. The City of Santa Rosa General Plan, Policy UD-3, states that views of undeveloped ridges and hillsides are to be maintained; however, any potential views of the reservoirs and ancillary facilities outside Santa Rosa will be minute elements in the distant background viewed at a distance of six miles or greater.

Designated scenic roads in the City potentially affected by the Project are Fountaingrove Parkway, Highway 12 and Bennett Valley Road.

### ***Sebastopol***

There are no specific scenic resources designated in the Sebastopol General Plan although the scenic views of the Laguna de Santa Rosa, Atascadero Creek, and the hills to the west of Sebastopol are identified as general areas of concern.

### *Petaluma*

Most of the visual resources addressed in the Petaluma General Plan involve development within the City that could interfere with view corridors to the Sonoma Mountains, Petaluma River, and western hills. However, the Petaluma General Plan does designate Scenic Routes outside the Petaluma urban limit line, which the city intends to address through the County project referral process. Designated routes potentially affected by the Project are:

- Lakeville Highway
- Adobe Road
- Sonoma Mountain Road
- Stage Gulch Road
- Petaluma Hill Road
- Spring Hill Road
- Stony Point Road
- Bodega Avenue (Petaluma-Valley Ford Road)

### *Windsor*

The Town of Windsor General Plan designates Scenic Corridors, which are rural lanes or scenic roads that enhance the visual experience and lead to recreation areas or that exhibit unusual natural or man-made features of interest. Designated routes potentially affected by Project facilities are:

- Conde Lane
- Pleasant Avenue
- Chalk Hill Road

### ***Sonoma County Coastal Plan***

Recommendations based on the Coastal Act regulate development and protect scenic views along the coastline. Agricultural irrigation areas, pump stations and pipelines west of Valley Ford in the Americano Creek watershed are located within the Sonoma County Coastal Zone. No other Project facilities are located within the coastal zones and the jurisdiction of the Sonoma County Coastal Plan.

## **Visual Resources Goals, Objectives, and Policies**

Table 4.14-1 identifies goals, objectives, and policies which provide guidance for development in relation to visual resources in the Project area. The table also indicates which criteria in the Visual Resources Section are responsive to each set of policies.

**Table 4.14-1**

General Plan Goals, Objectives and Policies - Visual Resources

Adopted Plan Document	Document Section	Document Numeric Reference	Policy	Relevant Evaluation Criteria <sup>1</sup>
Sonoma County General Plan	Open Space Element	Goal OS-1 Objective OS-1.1 Objective OS-1.2 Objective OS-1.4 Policy OS-1b Policy OS-1c Policy OS-1e	Preserve the visual identities of communities by maintaining open space as community separators between cities and communities and within the community separators: retain a rural character; preserve existing specimen trees and tree stands; and preserving natural landforms.	1
Sonoma County General Plan	Open Space Element	Goal OS-2 Objective OS-2.1 Policy OS-2b Policy OS-2e	Retain the largely open, scenic character of important scenic landscape units by retaining a rural character and requiring that new development retain existing vegetation and natural landforms.	2
Sonoma County General Plan	Open Space Element	Goal OS-3 Objective OS-3.1 Policy OS-3c Policy OS-3h	By designating specific scenic corridors, preserve roadside landscapes which have a visual quality; establish rural scenic corridor setbacks; minimize removal of vegetation; and require revegetation for public works projects.	3,4
Marin Countywide Plan	Environmental Quality Element	Policy EQ-3.11	Visual qualities and the view potential of the natural and built environment shall be considered in any project or operation review; tree-cutting and damage shall be avoided wherever possible.	5,6
Santa Rosa General Plan	Urban Design Element	Goal UD-3 Objective UD-3a	Maintain views of undeveloped ridges and hillsides, and protect natural land forms and vegetation of the hills.	5,6



**Table 4.14-1**

General Plan Goals, Objectives and Policies - Visual Resources

Adopted Plan Document	Document Section	Document Numeric Reference	Policy	Relevant Evaluation Criteria <sup>1</sup>
Santa Rosa General Plan	Safety Element	Goal TCS-4 Objective S-6a	Give residents and visitors the opportunity to enjoy the beauty of Santa Rosa's natural setting by identifying and maintaining scenic roads, through appropriate setbacks, protection of view corridors and landscaping.	3
Petaluma General Plan	Community Character Element	Objective (b)	Preserve the rural backdrop and maintain views of important natural features including the Sonoma Mountains, Petaluma River and the western hills.	2,5,6
Petaluma General Plan	Open Space, Conservation and Energy Element	Objective (c) Policy 9	Protect and enhance scenic routes to historic areas and major recreation areas, and apply scenic route policies through the County project referral process.	3
Sebastopol General Plan	Community Identity Element	Goal 13 Policy 40	Preserve and enhance scenic views of the Laguna de Santa Rosa, Atascadero Creek, the hills to the west of Sebastopol and other natural resources within the city's planning and referral area.	2,5,6
Windsor General Plan	Environmental Resources Element	Policy I.1 Policy I.1.1 Policy I.1.3	Recognize and preserve significant views along scenic corridors, with development which is harmonious with the natural viewshed and preserves views of the surrounding foothills along rural lanes.	3
Windsor General Plan	Environmental Resources Element	Policy I.2 Policy I.2.1 Policy I.2.3 Policy I.2.6	Preserve the significant landforms surrounding the community.	1,2,5,6

Source: Harland Bartholomew and Associates, Inc., 1995

<sup>1</sup> The evaluation criteria are in Table 4.14-2.

## Caltrans Scenic Resources and State Scenic Highways

Within the Project area, portions of three highways are formally designated as scenic highways by the state:

- Highway 116 between Highway 1 and the junction of Highway 12;
- Highway 12 east of Santa Rosa and the junction of Highway 121; and
- Highway 1.

Most of the state highways within the Project area are eligible for designation as scenic highways according to Caltrans criteria, indicating that visual quality along these highway corridors is generally high.

## Sensitivity of Potentially Affected Visual Resources

The following situations are considered to provide sensitive viewing opportunities within the Project area:

- Parks and designated passive recreation areas (e.g., hiking trails and nature interpretation facilities);
- Rural residential areas close to proposed Project facilities, particularly where homes are sited and designed to take advantage of scenic views;
- Scenic highways and scenic corridors recognized for their visual character, and major travel routes which carry significant volumes of recreational (sight-seeing) traffic, including:
  - Highway 101
  - Highway 128
  - Highway 1
  - Highway 37
  - Highway 12 east and west of Santa Rosa
  - Eastside Road west of Windsor
  - Highway 116, east and west of Highway 101
  - Bennett Valley Road
  - Other local roads identified as scenic corridors in the Sonoma County General Plan or City General Plans listed in Table 4.14-5
- Communities, higher density residential areas, and other major public use areas, such as:
  - Windsor

- Santa Rosa
  - Sebastopol
  - Petaluma
  - Valley Ford
  - Bloomfield
  - Penngrove
- Scenic Landscape Units which are areas designated or zoned for protection of rural or natural scenic qualities, including community separator areas:
    - Alexander Valley
    - Hills east of Windsor
    - Laguna de Santa Rosa lowlands and hills between Forestville, Sebastopol, and Meacham Hill
    - Bennett Valley
    - Atascadero Creek west of Sebastopol
    - Sonoma Mountain east of Petaluma
    - South Sonoma Mountain

## Existing Visual Conditions

The following subsections provide a more detailed assessment of existing conditions in each of the general landscape units potentially affected by Project components. The scenic landscape units identified by the Sonoma County General Plan represent more specific areas within the general landscape units described below. For each landscape unit, the existing visual character and important scenic features are described. Approximate viewing distances are described as follows:

- Foreground - 0-2,000 feet
- Near Middleground - 2,000 feet - 1 mile
- Middleground - 1-3 miles
- Background - 3+ miles

### ***Santa Rosa Plain***

This area includes the gently sloping plains east of the Laguna de Santa Rosa floodplain. It includes the communities of Santa Rosa, Rohnert Park, and Cotati. Landscape types include both high density and lower density urban and suburban development, agricultural lands (irrigated grazing, pasture land, and row crops) with low-level rural densities, and more natural areas of wetlands and riparian forest along the Laguna de Santa Rosa. In open areas, extensive views can be obtained of Sonoma Mountain to the east and to the less distinct hills and ridges of the coastal ranges to the west. The Highway 101 corridor forms a major linear feature and development corridor through the area.

This landscape unit contains the existing Laguna Plant southwest of Santa Rosa. The facility has a utilitarian appearance which contrasts with the rural landscape surroundings, due to its large scale and industrial building materials. However, the scale of the existing pump station buildings is smaller and generally compatible with that of other structures in the area. Perimeter landscaping around the site and along the road screens much of the treatment plant from off-site areas.

The Windsor area is considered a subset of the northern Santa Rosa Plain. The area is characterized by low hills and views are fairly open. Agriculture, scattered natural vegetation, and small communities are found throughout the area.

Pipeline routes within this unit generally follow the roadways with ample right-of-way through open agricultural land, with some adjoining residential areas and mixed vegetation (including oak trees in some areas) within the right-of-way. Proposed pump station sites are adjacent to public rights-of-way, and are located either in urban settings within the City of Santa Rosa, or at existing reclamation system sites (Delta Pond and the Laguna Plant).

A 115 kV powerline (supported on wooden poles, 60-70 feet high), is proposed to follow an existing easement along the Laguna de Santa Rosa between the Highway 116/Highway 101 interchange and Pump Station "S" at the Laguna Treatment Plant.

A 115 kV overhead powerline is also proposed to run 3600 feet in an easterly direction along Railroad Avenue near Cotati, then 1000 feet in a southerly direction along Petaluma Hill Road to power Pump Station SBPS-10.

### ***Petaluma River Valley***

This area is a diverse landscape of rolling and gently sloping terrain enclosing the Petaluma River, centered on the City of Petaluma. Considerable urban and suburban development has occurred both on the flatter valley floor and the rolling terrain north of Petaluma. Extensive rural residential development is intermixed with agricultural landscapes further from the City boundaries. Long distance views of surrounding hills can be obtained in open areas and from high points within the area. The downtown area of Petaluma is distinctive with its well-preserved Victorian architecture and adjacent homes located on the hill above the town center. The Petaluma River is a strong visual feature seen from its banks or higher elevations, particularly towards the south where it winds through extensive wetlands as it approaches San Pablo Bay.

Pipeline routes in this unit follow road rights-of-way which are narrow in places, pass near homes, and contain many mature trees. Pump station sites are also located along these rights-of-way. Specifically, the long straight stretches of

Lakeville Road, located at the base of Sonoma Mountain is distinctive for the avenues of mature eucalyptus trees.

### ***Sonoma Mountain***

Sonoma Mountain forms a dominant visual feature and enclosing element for the Santa Rosa Plain and Petaluma River valley. Steeply sloping and in places rising to 1,400 feet, it provides a distinctive skyline and backdrop to the urban setting of Santa Rosa, with strong vegetation patterns (oak woodland and grass) in places. Further south, in the Lakeville Area, it become less rugged and rises to lower elevations, characterized by open grassland with occasional distinctive patterns of riparian woodland and planted shelterbelts. The topography is varied, with many hidden valleys contained within the range of hills. From vantage points in the hills, commanding views over the Petaluma River, Santa Rosa Plain, and more distant coastal hills can be obtained. The area is largely undeveloped, with occasional ranches and sparsely distributed local roads; grazing is the predominant visible land use.

Pipeline routes in general follow narrow County roads through steep open grazing land or wider rights-of-way along major travel routes.

Three proposed reservoir sites occur within this landscape unit:

#### ***Adobe Road Reservoir Site***

This reservoir site occupies a relatively narrow valley at the foot of Sonoma Mountain where they meet the Petaluma Valley floor, about 4 miles northeast from the Petaluma City center. The valley contains natural riparian vegetation and steep grassy slopes, with a small number of agricultural buildings within the proposed footprint of the reservoir. The valley pinches off at its outlet to the Petaluma Valley; this, together with screening by existing trees near the valley mouth, prevents views from penetrating up the valley from the Petaluma Valley area.

Potentially sensitive viewpoints include:

- Farmhouse near the valley mouth northeast of Adobe Road (foreground);
- Adobe Road in the vicinity of the valley mouth (near middleground), which is a County designated scenic corridor;
- Sonoma Mountain Road where it approaches higher elevations north of the reservoir site (foreground) and other small local roads in the hills nearby;
- Washington Street in Petaluma, which provides axial middleground and background views northeast towards the site;

- Sky ranch Airport (a public viewpoint) with middleground views towards the valley mouth from the south;
- General views from open areas within Petaluma and north of Petaluma, in middleground and background, (e.g., County Fairgrounds and various parks);
- City Park on the hill, and homes on the hill above downtown and Petaluma; and
- Highway 101 at a distance of 2 miles or more (middleground and background).

A 12 kV overhead electrical service line is proposed to extend from Sonoma Mountain Road to the pump station at the north end of the proposed reservoir. Electrical service to the pump station located on the south end of the reservoir will be provided underground.

#### *Tolay (Extended and Confined) Reservoir Site*

This site occupies a broad, flat valley basin within the surrounding hills of Sonoma Mountain. The valley slopes gently up to the adjoining rolling hills, but narrows toward its outlet on Tolay Creek in the south. The site is characterized by fields and grassland, with a mixture of extensive grassland and evergreen woodland on the surrounding hills. A few small farm buildings occur within the site. The area is seen from the following key viewpoints:

- A small number of private homes/ranches on both valley sides; and
- A stretch of Stage Gulch Road (Highway 116) northwest of the site, with open near-middleground views along the Tolay Creek valley. This is a County designated scenic corridor.

A 12 kV overhead electrical service line is proposed to run along an existing access road extending from Stage Gulch Road to the proposed Tolay A pump station located at the northeast end of the reservoir site. The road crosses a gently sloping valley basin that is visually open. A 12 kV line will also be constructed from the easterly end of Cannon Lane to Pump Station "T" at the southeast end of the reservoir site. Views at this location are limited from any public viewpoint.

#### *Lakeville Hillside Reservoir Site*

This site occupies a narrow, moderately sloping valley on the west facing flank of the southern part of Sonoma Mountain where terrain is gently rolling. The valley is tucked away from most views, screened by topography. The valley bottom contains some native riparian (willows) vegetation and scattered eucalyptus trees

associated with its historic agricultural use. The area is mainly grassland used for grazing. It is seen from the following viewpoints:

- Private homes and farm buildings on the gentle hillsides to the south (in foreground);
- Old Lakeville Highway, No.2 which affords glimpses of the site (in near-middleground) between the eucalyptus trees alongside the road; and
- Lakeville Highway, a County designated scenic corridor, which has very limited views of the site due to rising intervening topography and the eucalyptus rows along Old Lakeville Highway No. 2.

Electrical service to the proposed pump station at the Lakeville Hillside dam will be provided by a short underground line from an existing overhead line on the site.

### ***Sears Point/Bay Flats Area***

The southern tip of Sonoma Mountain forms the edge of the bay flats area, which is itself part of the extensive San Pablo Bay landscape. The expansive flat lands of the bay shore are characterized by wetlands and flat adjoining agricultural lands and pasture. The expanses are dissected and edged by the sinuous waterways of the Napa Sloughs and Sonoma Creek and by linear features such as levees and roadways built on fill through the marshland. The hills to the north provide a backdrop of moderately sloping grassy terrain, with a few trees clustered at lower elevations and in riparian corridors. Extensive panoramic views are obtained westward to the hills of Marin County across the Petaluma River and northward towards the hills above the City of Sonoma.

### ***Sears Point Reservoir Site***

The Sears Point reservoir site at the southern tip of Sonoma Mountain, and occupies the valley of Tolay Creek where it broadens out to meet the edge of the bay flats. The valley is largely open, with some native riparian vegetation along the creek and a few clusters of eucalyptus trees. Low hillocks near the mouth of the valley partly close it off from views to the east. The site is potentially within the influence of the following sensitive viewpoints:

- Sears Point Raceway, a well-known destination for racing enthusiasts and visitors, located on the south facing hillside approximately one mile to the south of the site (middleground views);
- Highway 121, a County designated scenic corridor which carries significant tourist traffic between Sears Point and the City of Sonoma and which provides limited open views toward the site in near middleground;

- The Roche Winery which is located atop a small hill with panoramic views east of Highway 121, about 1 mile from the reservoir site; and
- Highway 37, a County designated scenic corridor which supports high traffic volumes between Vallejo and the Highway 101 corridor. It provides open middleground and background views westward toward the site across the wetlands of Tubbs Island.

The farm/private house located immediately to the east of the site in the Tolay Creek valley is screened from the site itself by an intervening low ridge.

Pipeline routes are located along roadway right-of-way primarily through open agricultural land.

A 115 kV overhead electrical service route is proposed to run 9500 feet along Highway 121 from Highway 37 to the proposed Pump Station “SP” at the Sears Point reservoir site. Currently, an overhead utility line mounted on 40-foot-high wooden poles runs along the west side of the Highway.

### ***Bennett Valley***

This landscape unit is formed by a small valley enclosed by the Sonoma Mountains on three sides and transitions from the urban area of east Santa Rosa to a suburban landscape type in the northern part of the Valley. This gives way to open agricultural and grazing land in the south, with steep valley sides sustaining grassland and native woodland. Bennett Mountain forms a scenic backdrop for views from Bennett Valley Road.

Pipelines in this unit are part of the proposed urban irrigation system. They will follow the network of County roads, with right-of-way varying from narrow to wide. Some of the older local roads are narrow, with many turns, roadside banks, and mature oak trees or shelterbelts along the fenceline.

### ***Sebastopol Area***

West of the Santa Rosa Plain, the low hills around Sebastopol provide a diverse, heavily treed landscape characterized by numerous scattered residences in a rural setting of orchards and small lots. Landscape characteristics are created by a rich mosaic of small-scale landscapes including roadside trees, fruit trees, wooded areas, scattered oaks within fields, and residential landscapes with relatively few long-distance panoramas.

Pipelines in this unit will follow the network of County roads, with right-of-way varying from narrow to wide. Some of the older local roads are narrow, with



many turns, roadside banks, and mature oak trees or shelterbelts along the fenceline.

### ***Western Hills***

To the west of Sebastopol and Forestville and extending to the Marin County coastline, lie open rolling hills which provide diverse scenic landscapes. While generally less rugged than the higher Sonoma Mountain, they provide varied views of east-west valleys, open sweeping ridges, and largely undeveloped pastoral landscapes. The valleys of Estero Americano, Stemple Creek, and Salmon Creek are separated by high rolling terrain with numerous side valleys. The broader valleys contain some agriculture and are distinctive for the prominent long shelterbelts of eucalyptus and cypress trees. The area is seen by significant numbers of recreational visitors and sight-seers traveling to coastal destinations on day trips and vacations. The area contains several very small communities and scattered rural housing at very low densities.

Pipeline routes in this area follow along narrow country roads, some of which contain or are bordered by mature shelterbelts. Other routes follow sloping, narrow roads through valleys and over hills, with narrow rights-of-way and steep adjoining banks. Some pipeline routes follow wide County roads such as Petaluma-Valley Ford Road.

### ***Two Rock Reservoir Site***

This site occupies a steep-sided valley which is largely hidden from public view amid the undeveloped hills approximately five miles west of the Highway 101 corridor. The site consists of open grassy valleysides with some wooded vegetation in the valley bottom and east-facing slopes. The valley opens through a narrow gap between steep spurs onto a broader, flat valley which is tributary to Stemple Creek. The principal viewpoints potentially affected include:

- Walker Road, a country road which passes less than a mile from the site.
- Valley Ford Highway, a County designated scenic corridor. The reservoir site can be seen in middleground views; and
- A small number of private homes/ranches near Walker Road downstream of the site and at the southeast corner of the site.

A 277/480 kV electrical line, supported on wooden poles, 40-45 feet high, is proposed to run adjacent to Hall Road which leads to the Two Rock Reservoir site from Walker Road. An existing overhead powerline extends part way along this road. Some scattered trees and high shrubs are found along the road.

### *Bloomfield Reservoir Site*

This site occupies a side valley off the Americano Creek Valley, immediately to the south of English Hill. The valley itself consists of moderately sloping open grassland, with occasional clumps of eucalyptus trees as visual features. Seen in views up the valley from the south, the steep hillsides of English Hill dominate the landscape, with their distinctive pattern of riparian woodland in the steep gullies on the south facing slopes, and ridgeline trees along the crest of the hill. A few homes are on the south side of the ridgeline trees with commanding views of the scenic low coastal hill country and valleys. Man-made developments that are visible in the area are primarily scattered farm buildings and rural residences, associated with the pastoral land uses of the area.

Potentially sensitive viewpoints in this area include:

- A few homes on English Hill which overlook the reservoir site in near middleground;
- A few scattered farms/rural residences at the mouth of the side valley and in the Americano Creek Valley, in near middleground and middleground;
- Petaluma-Valley Ford Road, which is a County designated scenic corridor, providing near-middleground views at right angles to the direction of travel;
- The Bloomfield cemetery in near-middleground on a low hilltop west of the town; and
- Other local roads in the immediate area, notably Jones Road, which may provide some focal views northward towards the site in middleground.

The community of Bloomfield, less than a mile to the southeast of the site, is not within view due to topographic screening. The site is also not visible from Highway 1, which enters the Americano Creek Valley about 1.5 miles to the west.

A 12 kV electrical service line, mounted on wooden poles, 40-45 foot high, is proposed to run adjacent to the existing road which extends to the Bloomfield Reservoir site. This road passes through open agricultural/pasture land.

### *Carroll Road Reservoir Site*

This site occupies another side valley off the Americano Creek Valley, south of English Hill and immediately to the west of the Bloomfield site. The reservoir site is set back further from the Americano Creek Valley than the Bloomfield site. The side valley itself consists of moderately sloping open grassland, with occasional clumps of eucalyptus trees. The valley splits into two areas at its upper reaches, with the steep open hillsides of English Hill providing strong visual

enclosure to the north. The ridgeline is relatively devoid of trees at this point, with a few trees and homes visible on the crest. These homes provide commanding views of the scenic coastal hill country and valleys within this landscape type. Other man-made developments that are visible in the area are primarily scattered farm buildings and rural residences, associated with the pastoral land uses of the area.

Potentially sensitive viewpoints in this area include:

- A few homes on English Hill which overlook the reservoir site in near middleground. There are no open public views from Burnside Road along the crest of the hill;
- A few scattered farms/rural residences along Carroll Road within the side valley in foreground and in the Americano Creek Valley, in middleground;
- The Petaluma-Valley Ford Road, which is a County designated scenic corridor, provides middleground views at the right angles to the direction of travel; and
- Highway 1, which is a State Scenic Highway and one of the major north-south recreational travel routes in California. The northbound stretch approaching Americano Creek provides open views toward English Hill, although the actual valley bottom at the site in middleground is shielded by low intervening topography.

Electrical service to the proposed pump station at the Carroll Road dam will be provided by a short underground line from an existing overhead line on the site.

#### *Valley Ford Reservoir Site*

This site occupies another side valley off the Americano Creek Valley, southwest of English Hill and immediately to the west of the Carroll Road site. The reservoir site is closer to the Americano Creek Valley than either the Carroll Road or Bloomfield sites. The side valley itself consists of moderately sloping open grassland, with occasional clumps of eucalyptus trees and some riparian growth in the higher drainages. The site lies between two southward projecting spurs that extend from the long low mass of English Hill, which provides visual enclosure to the north. The ridgeline is relatively devoid of trees at this point, with a few trees visible on the crest. Man-made developments that are visible in the area are primarily scattered farm buildings and rural residences, associated with the pastoral land uses of the area. One farmstead occupies the site near the base of English Hill, and a small overhead utility line is prominent in the valley bottom.

Sensitive viewpoints in this area include:

- The farms/private residence within the side valley and a few others in foreground to middleground in the Americano Creek Valley;
- The Petaluma-Valley Ford Road, which is a County designated scenic corridor, providing foreground and near-middleground views up the side valley, particularly in the westbound direction;
- Highway 1 (a State Scenic Highway), where the northbound stretch approaching Americano Creek provides continuous open focal views into the side valley at middleground to foreground viewing distances, making this reservoir site the most visible of all of the West County sites to large numbers of recreational travelers; and
- Homes and viewlots at the west end of English Hill. This site is farthest from these sensitive locations, and only the higher east-facing elevations of the side valley are visible from English Hill.

The site is screened from the Valley Ford community and other stretches of Highway 1 by topography.

Electrical service to the proposed pump station at the Valley Ford dam will be provided by a short underground line from an existing overhead line on the site.

### *Huntley Reservoir Site*

This site occupies a small side valley off the Stemple Creek drainage, close to the Marin County border. The valley is bounded by moderately sloping hillsides with open grassland. The heads of the valley are marked by a dense belt of eucalyptus trees on the skyline. A small local road runs along the valley, and provides access to a few rural residences on the valley sides. The principal viewpoints potentially affected include:

- Private residences within the immediate foreground of the valley;
- Local traffic along Martinoni road;
- Local and recreational traffic along:
  - Fallon-Two Rock Road and Tomales-Petaluma Road along Stemple Creek in Marin County (with brief middleground views at a wide angle to the direction of travel); and
  - Points along the Tomales-Petaluma Road and Twin Bridge Road in focal views up the valley to the north in middleground;
- Scattered rural residences at middleground viewing distances along the Stemple Creek Valley.

Electrical service to the proposed pump station at the Huntley dam will be provided by a short underground line from an existing overhead line on the site.

### ***Russian River Area***

The Russian River Valley in the Project area provides distinctly different visual resources than other landscape types, due to the dominance of the larger river channel with its flat floodplain, steep, wooded enclosing slopes, and sinuous corridor. The valley broadens out and becomes less distinct upstream towards Healdsburg. The communities within the Valley provide distinctive urban features associated with the tourist industry in the region. The Eastside Road along the Russian River passes through oak woodland in which the right-of-way is quite narrow. A variety of views are obtained from travelers moving along the corridor as it twists and turns through coastal range hills. The River is also a popular recreational resource for “floaters” who will have views from the River.

The pipeline routes follow some narrow roads through heavily wooded terrain, with oaks and mixed evergreen trees close to the paved access roadway.

### ***Alexander Valley***

The Alexander Valley is identified as a Scenic Landscape Unit in the County General Plan. It forms a large distinctive landscape type comprised of a broad flattish valley floor with intensive agricultural uses, notably vineyards, surrounded by rugged hills with a rich mosaic of woodland, scrub, and grassland vegetation types. There is considerable agricultural development associated with wineries, farms, and rural residences. Highway 101 and Highway 128 are County designated scenic corridors. The area sustains a high volume of tourist traffic and recreational sight-seeing associated with the wine industry and the area's scenic qualities. The bridge over Sausal Creek provides a distinct feature and focal point, with an open panorama of the Mayacmas Mountains.

The geysers pipeline route follows wide rights-of-way along the valley floor through agricultural land; some mature oak tree clumps occur adjacent to the right-of-way.

### ***Mayacmas Mountains/Geysers Area***

The Mayacmas Mountains are in a landscape unit of high, rugged, and steeply dissected mountain ranges and valleys to the north of the Project area. Rising to above 3,000 feet, they form the high background ridges to much of the lower landscapes already described to the southwest. The steep slopes reveal different vegetation patterns, depending on aspect and elevation, with complex mosaics of darker colored scrub, evergreen forests and open grassland. Much of the area is sparsely populated with little evidence of man-made features.

The geysers area itself forms a unique component where man-made development of the geothermal fields has introduced several large power plants with highly visible steam plumes under some conditions and extensive networks of roads, powerlines, and pipelines on steep terrain. Road scars and vegetation clearings can be very prominent in these landscapes, depending upon the visual absorption capability of the natural vegetation patterns.

The southwest facing slopes of the mountains and higher ridgelines are widely visible from the Alexander Valley and other locations at considerable distances (middleground and background). There are few roads and viewing opportunities within the mountains themselves, other than the occasional narrow winding public roads such as Geysers Road, which is well to the north of the proposed pipeline route. The roads provide diverse short distance views to surrounding mountainsides, and extensive panoramas of the lower landscapes from overlooks.

The geysers pipeline route follows a narrow, winding road (Pine Flat Road) through steeply sloping valleys and across rugged dissected hillsides, with thick vegetation in the valley bottoms and chaparral elsewhere.

A 12 kV overhead electrical line is proposed to run along Pine Flat Road to pump stations G-2, G-3, and G-4. The overhead power line alignment, mounted on 40-45 foot high wooden poles, begins in a flat orchard area and then proceeds along narrow Pine Flat Road as it winds up rugged, dissected hillsides covered with chaparral vegetation.

## EVALUATION CRITERIA WITH POINT OF SIGNIFICANCE

The visual impact evaluation criteria are presented in Table 4.14-2. These criteria are drawn primarily from local, State, and Federal agency policies and procedures, adapted where necessary to reflect CEQA requirements.

**Table 4.14-2**

### Evaluation Criteria with Point of Significance - Visual Resources

Evaluation Criteria	As Measured by	Point of Significance	Justification
1. Will the Project be inconsistent with the Sonoma County General Plan Open Space Element regarding Community Separator Areas seen from public viewpoints?	a. Level of visual contrast (change in form, line, color, texture, scale of landscape)  b. View obstruction (loss of view)  c. Degradation in visual quality	a. Strong visual contrast <sup>1</sup>  b. Obstruction in viewed area <sup>2</sup> from foreground <sup>3</sup> or middleground <sup>3</sup>  c. Loss or alteration of a specific scenic resource <sup>4</sup>	Sonoma County General Plan Caltrans Scenic Resource Inventory
2. Will the Project be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units seen from public viewpoints?	a. Level of visual contrast (change in form, line, color, texture, scale of landscape)  b. Amount of view obstruction (loss of view)  c. Degradation in visual quality	a. Strong visual contrast <sup>1</sup>  b. Obstruction in viewed area <sup>2</sup> from foreground <sup>3</sup> or middleground <sup>3</sup>  c. Loss or alteration of a specific scenic resource <sup>4</sup>	Sonoma County General Plan Caltrans Scenic Resource Inventory
3. Will the Project be inconsistent with the Sonoma County or City General Plan Open Space Elements regarding Scenic Corridors?	a. Level of visual contrast (change in form, line, color, texture, scale of landscape)  b. Amount of view obstruction (loss of view)  c. Degradation in visual quality	a. Strong visual contrast <sup>1</sup>  b. Obstruction in viewed area <sup>2</sup> from foreground <sup>3</sup> or middleground <sup>3</sup>  c. Loss or alteration of a specific scenic resource <sup>4</sup>	Sonoma County General Plan and City General Plan Caltrans Scenic Resource Inventory

**Table 4.14-2**

Evaluation Criteria with Point of Significance - Visual Resources

Evaluation Criteria	As Measured by	Point of Significance	Justification
4. Will the Project be inconsistent with minimum building setbacks for structures along Sonoma County designated scenic corridors?	Proximity of Project facilities to setback line	Less than 200 feet	Sonoma County General Plan
5. Will the Project cause an adverse effect on foreground or middleground views from a high volume travelway (excluding scenic corridors), recreation use area <sup>6</sup> , or other public use area <sup>7</sup> ?	<p>a. Level of visual contrast (change in form, line, color, texture, scale of landscape)</p> <p>b. Amount of view obstruction (loss of view)</p> <p>c. Degradation in visual quality</p>	<p>a. Strong visual contrast<sup>1</sup></p> <p>b. Obstruction in viewed area<sup>2</sup> from foreground<sup>3</sup> or middleground<sup>3</sup></p> <p>c. Loss or alteration of a specific scenic resource<sup>4</sup></p>	Principles of visual management (e.g., Caltrans Environmental Procedures, US Forest Service Visual Management System, Federal Highway Administration Visual Impact Assessment Manual, and Bureau of Land Management Visual Resource Management System)
6. Will the Project may cause an adverse effect on foreground views from one or more private residences (not subject to relocation as a result of the Project)?	<p>a. Level of visual contrast (change in form, line, color, texture, scale of landscape)</p> <p>b. Amount of view obstruction (loss of view)</p> <p>c. Degradation in visual quality</p>	<p>a. Strong visual contrast<sup>1</sup></p> <p>b. Obstruction in viewed area<sup>2</sup> from foreground<sup>3</sup> or middleground<sup>3</sup></p> <p>c. Loss or alteration of a specific scenic resource<sup>4</sup></p>	Principles of visual management (e.g., US Forest Service Visual Management System, Federal Highway Administration Visual Impact Assessment Manual, and Bureau of Land Management Visual Resource Management System)



**Table 4.14-2**

**Evaluation Criteria with Point of Significance - Visual Resources**

<b>Evaluation Criteria</b>	<b>As Measured by</b>	<b>Point of Significance</b>	<b>Justification</b>
7. Will the Project create a new light source?	High intensity light or glare towards private residences	Greater than 0 residences affected	California Environmental Quality Act Case Law

Source: Dames & Moore, 1995

- 1 Strong Visual Contrast - (one or more of the following) regraded land forms are flat with little to no contour: line of major ridgeline is altered and not consistent with surrounding ridgelines or minor ridgelines are eliminated; inconsistent color with adjacent landscape character; elimination of landscape texture created by exposed soil or removal of vegetation; form of project grossly exceeds scale of natural land forms.
- 2 Viewed area defined as area of landscape (i.e., everything except sky) as shown in a photograph from the closest sensitive viewpoint, taken with a normal (50 mm) lens.
- 3 Foreground: 0-1/2 mile; Middleground: 1/2-3 miles
- 4 Specific Scenic Resource - (one or more of the following) landscape component that creates striking feature; Landform - steep (>60%) undulating/dissected slopes, distinctive rock outcrops, or pronounced ridgelines; Water - major bodies of water that provide reflective qualities and irregular shorelines, or major/permanent streams/rivers with diversity of meanders, flows, rapids, rock outcrops, or river-banks; Vegetation - mature stands of native or cultural species (oaks and eucalyptus) in natural groves or distinct planted patterns (i.e. eucalyptus along roads or as planted wind breaks); Man-made development - historic structures.
- 5 High volume travelways: State highways and 2-lane County highways serving direct connections with settlements named on the USGS quad maps;
- 6 Recreation use areas: Designated recreation sites, parks, trails, or other areas managed for public recreation.
- 7 Public use area: Downtown areas, cemeteries, community centers, attracting the public on a daily or regular basis.

For most evaluation criteria (1-3 and 5-6), visual impact significance is measured by three criteria: changes in visual contrast, amount of view obstruction, and degradation in visual quality. Visual contrast is significant if it is strong as a result of regraded landforms, alteration or elimination of ridgelines, and changes introduced by the Project which result in landscape colors, textures, and scale of visual components which are inconsistent with the natural surroundings. View obstruction is considered significant if foreground or middleground views of the viewed area seen from sensitive viewing areas are obstructed by the Project. Degraded visual quality is considered significant if the Project severely alters or displaces specific scenic resources composed of striking landform features, aesthetic water bodies, mature stands of native/cultural trees (historic hedgerows, etc.), or historic structures. More detailed definitions of strong visual contrasts and specific scenic resources are provided in the footnotes to Table 4.14-2. Visual impacts are considered to be significant overall if any one of the three measures of significance is identified.

## METHODOLOGY

Visual impacts are generally assessed by estimating the amount of visual changes introduced by Project components, the degree to which visual changes may be visible to

surrounding viewer groups, and the general sensitivity of viewer groups to landscape alterations. Visual changes are usually measured by three factors: the amount of visual contrast that Project components create (changes to form, line, color, texture, and scale in the landscape), the amount of view obstruction (loss of view) that occurs, and degradation of specific scenic resources (removal of scenic tree groves, etc.).

General visibility of Project components was based on computerized viewshed analysis and field checks to specific areas of potential visual sensitivity (e.g., residential areas, community and county parks, scenic highways). Visibility mapping was conducted by importing USGS 1:250,000 Digital Elevation Model data into a computerized Geographic Information System (GIS). The computer then performed line-of-sight calculations to determine the extent to which intervening topography will block views of the reservoir dam, water surface, or pump station from surrounding areas. Viewshed mapping assumes that potential views are determined by topography only; no localized site conditions such as vegetation or buildings which could block specific views are calculated. In the analysis, visibility was considered for up to a 5-mile radius of the reservoir site ("background" viewing distance).

Based upon visibility mapping and potentially sensitive viewpoints identified in field investigations and discussed in the setting, the analysis was narrowed down to a few key viewpoints where computer modeling and/or visual simulation techniques will be employed. The models and simulations were used to assist in estimating the extent and scale of landscape alterations, including the possible elimination of scenic resources. In general, residents and travelers along scenic highways are considered to be the most sensitive to visual changes since view frequency is high, view durations are long, and viewers have high expectations of scenic quality.

## ENVIRONMENTAL CONSEQUENCES (IMPACTS) AND MITIGATION MEASURES

### No Action (No Project) Alternative

**Impact:** 14.1.1-7. Will the No Action Alternative impact visual resources based on evaluation criteria 1 through 7?

**Analysis:** *No Impact; Alternative 1.*

The No Action Alternative will involve no construction or new facilities and therefore will have no visual impacts.

**Mitigation:** No mitigation is needed.

### Headworks Expansion Component

**Impact:** 14.2.1-7. Will the headworks expansion component impact visual resources based on evaluation criteria 1 through 7?

Analysis: *No Impact; All Alternatives.*

The headworks expansion consists of installation of new pumps within an existing building. There will be no change in the visual environment.

Mitigation: No mitigation is needed.

### Urban Irrigation Component

**Impact: 14.4.1-7. Will the urban irrigation component impact visual resources based on evaluation criteria 1 through 7?**

Analysis: *No Impact. All Alternatives.*

The urban irrigation component consists of using reclaimed water in existing irrigation systems; this change in water source for the irrigation has no visual impact.

Mitigation: No mitigation is needed.

### Pipeline Component

**Table 4.14-3**

#### Visual Resource Impacts by Component - Pipelines

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
14.4.1. Will the pipeline component be inconsistent with the Sonoma County General Plan Open Space Element regarding Community Separator Areas seen from public viewpoints?				
• Pipeline segments listed in Table 4.14-4	Strong visual contrast	Strong	C	⊙
• All other pipelines		None	C, P	==
• All pipelines	Permanent View Obstruction	None	C, P	==
• All pipelines	Loss or alteration of a specific scenic resource	None	C, P	==
14.4.2. Will the pipeline component be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units seen from public viewpoints?				
• Pipeline segments listed in Table 4.14-4	Strong visual contrast	Strong	C, P	⊙

**Table 4.14-3**

Visual Resource Impacts by Component - Pipelines

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
• All other pipelines		None	C, P	==
• All pipelines	Permanent View Obstruction	None	C, P	==
• All pipelines	Loss or alteration of a specific scenic resource	None	C, P	==
14.4.3. Will the pipeline component be inconsistent with the Sonoma County or City General Plan Open Space Elements regarding Scenic Corridors?				
• Pipeline segments listed in Table 4.14-5	Strong visual contrast	Strong	C, P	⊙
• All other pipelines		None	C, P	==
• All pipelines	Permanent View Obstruction	None		
• Lakeville Highway (S. of Browns Lane); Chalk Hill Road (between Pleasant Lane and Hwy 128); Petaluma Valley Ford Road (west of Roblar Road)	Loss or alteration of a specific scenic resource	Loss of Mature Stands of Trees	C, P	⊙
• All other pipeline segments		None	C, P	==
14.4.4. Will the pipeline component be inconsistent with minimum building setbacks for structures along Sonoma County designated scenic corridors?	Less than 20 feet	None	P	==
14.4.5. Will the pipeline component cause an adverse effect on foreground or middleground views from a high volume travelway (excluding scenic corridors), recreation use area, or other public use area?				
• Geysers pipeline along Pine Flat Road	Strong visual contrast	Strong	C, P	●
• Pipeline segments listed in Table 4.14-5		None	C, P	==
• All other pipelines		Strong	C, P	⊙
• All pipelines	Permanent View Obstruction	None	C, P	==

**Table 4.14-3**

Visual Resource Impacts by Component - Pipelines

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
<ul style="list-style-type: none"> <li>Trenton Healdsburg Road; Eastside Rd. (N. of River Road)</li> </ul>	Loss or alteration of a specific scenic resource	Loss of Mature Stands of Trees	C, P	⊙
<ul style="list-style-type: none"> <li>Other pipeline segments listed in Table 4.14-5</li> </ul>		None	C, P	==
14.4.6. Will the pipeline component cause an adverse effect on foreground views from one or more private residences (not subject to relocation as a result of the Project)?				
<ul style="list-style-type: none"> <li>Pipeline segments listed in Table 4.14-5.</li> </ul>	Strong visual contrast	Strong	C, P	⊙
<ul style="list-style-type: none"> <li>All other pipelines</li> </ul>		None	C, P	==
<ul style="list-style-type: none"> <li>All pipelines</li> </ul>	Permanent Visual Obstruction	None	C, P	==
<ul style="list-style-type: none"> <li>All pipelines</li> </ul>	Loss or alteration of a specific scenic resource	None	C, P	==
14.4.7. Will the pipeline component create a new light source?	Greater than 0 residential units affected	None	C, P	==

Source: Harland Bartholomew and Associates, Inc., 1996

Notes: 1. Type of Impact:

C Construction

P Permanent

2. Level of Significance:

● Significant impact before and after mitigation

⊙ Significant impact before mitigation; less than significant impact after mitigation

○ Less than significant impact; no mitigation proposed

== No impact

**Impact: 14.4.1. Will the pipeline component be inconsistent with the Sonoma County General Plan Open Space Element regarding Community Separators?**

**Analysis:** *Significant. Alternatives 2, 3, and 4.*

Portions of pipeline routes, as shown in Table 4.14-4 are located within or adjacent to community separators, as defined in the Sonoma County General Plan. Construction activities along these routes will involve removal of vegetation, grading and trenching of the landscape edge within the public right-of-way. This will result in a bare, scarred appearance in

strong contrast to the existing vegetated edge and pastoral visual character within the community separators.

**Table 4.14-4**

Pipeline Segments Located in Community Separators and Scenic Landscape Units

Pipeline Segment	From	To
<b>Community Separators</b>		
<b>Santa Rosa-Windsor Community Separator</b>		
Pleasant Avenue	Pool Creek	Chalk Hill Road
<b>Petaluma-Rohnert Park Community Separator</b>		
Stony Point Road	West Sierra Avenue	Orchard Lane
West Railroad Avenue	Stony Point Road	Birch Avenue
Adobe Road	Jacobsen Lane	Hardin Lane
<b>Scenic Landscape Units</b>		
<b>Estero Americano</b>		
Highway 1	Freestone-Valley Ford Road	west of Freestone-Valley Ford Road
<b>Alexander Valley</b>		
Highway 128	north of Chalk Hill Road	Pine Flat Road
Pine Flat Road	Highway 128	Sausal Creek
<b>Russian River</b>		
Eastside Road	Trenton-Healdsburg Road	Ballard Road
Trenton Healdsburg Road	River Road	Eastside Road
<b>Mark West Creek</b>		
Slusser Road	River Road	Steele Ranch Road
<b>Graton</b>		
Ross Road	Ross Station Road	south of Ross Station Road
<b>Santa Rosa Plain</b>		
Direct Discharge Pipeline	Delta Pond	River Road (cross country alignment)
Geysers Pipeline	Delta Pond	Guerneville Road (cross country alignment and via Willowside Road)
Olivet Road	Piner Road	River Road
<b>Atascadero Creek</b>		

**Table 4.14-4**

Pipeline Segments Located in Community Separators and Scenic Landscape Units

Pipeline Segment	From	To
Barlow Lane	Mill Station Road	Occidental Road
Mill Station Road	Barlow Lane	Ferguson Road
Watertrough Road	Burnside Road	
Burnside Road	Watertrough Road	Gold Ridge Road
Gold Ridge Road	Ramondo Drive	Koblike Drive
<b>Washoe Creek</b>		
Stony Point Road	Roblar Road	West Sierra Avenue
<b>Copeland Creek</b>		
Roberts Road	east of Petaluma Hill	Pressley Road
Lichau Road	Roberts Road	east of Roberts Road
<b>Adobe Road/Sonoma Mountain</b>		
Adobe Road	Jacobsen Lane	Frates Road
<b>Lakeville Highway</b>		
Ely Road	north of Brown's Lane	Brown's Lane
Lakeville Highway	north of Stage Gulch Road	Highway 37

Source: Harland Bartholomew & Associates, Inc. 1996

Because the pipelines will be located underground, there will be no permanent obstruction of views. Along all pipeline routes as part of the Project, construction scars will be revegetated and landforms along the routes will be restored and blended with the natural landforms. These measures, as described in Section 7.2, will neutralize the visual effects of construction resulting in no permanent impact.

No other specific scenic resources which will be impacted by pipeline construction have been identified within the community separators, scenic landscape units and scenic corridors.

*No Impact; Alternatives 1 and 5.*

Alternative 5A does not have any pipelines located in a community separator.

Alternatives 1 and 5B do not have a pipeline component.

Mitigation: *Alternatives 2, 3, and 4.*

2.3.10 Limit Construction Disturbance.

*Alternatives 1 and 5.* No mitigation is needed.

After

Mitigation: *Less than Significant after Mitigation; Alternative 2, 3, and 4.*

This measure will minimize construction disturbance of the landscape edge and therefore reduce impacts due to visual contrast.

**Impact: 14.4.2, 3 and 6. Will the pipeline component be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units seen from Public Viewpoints; with Sonoma County or City General Plan Open Space Elements regarding Scenic Corridors; and with foreground view from one or more private residences?**

Analysis: *Significant. Alternatives 2,3, 4, and 5A.*

Portions of pipeline routes, as shown in Table 4.14-4 and Table 4.14-5 are located within or adjacent to designated Scenic Landscape Units and along Scenic Corridors. Construction activities along all of these routes will involve removal of vegetation, grading and trenching of the landscape edge within the public right-of-way. This will result in a bare, scarred appearance in strong contrast to the existing vegetated edge and pastoral visual character within the scenic landscape units. Construction activities will also result in a strong visual contrast with both the rural and urban landscape edges within the right-of-way along the Scenic Corridors. Because these landscape edges are immediately adjacent to private residences along the pipeline routes, they will have a significant impact on foreground views from these residences.



**Table 4.14-5**

Pipeline Segments Along Designated Scenic Corridors

Corridor Type/Route Segment	From	To
<b>State Scenic Corridors</b>		
Highway 1	south of Petaluma-Valley Ford Road	west of Freestone-Valley Ford Road
Highway 116	Guerneville Road	Green Valley Road
<b>Sonoma County Scenic Corridors</b>		
Highway 1	Sonoma-Marin County Line	west of Freestone-Valley Ford Road
Highway 128	Chalk Hill Road	Pine Flat Road
Chalk Hill Road	Pleasant Avenue	Highway 128
River Road	west of Slusser Road	Trenton-Healdsburg Road
River Road	Olivet Road	Slusser Road
Green Valley Road	Highway 116	Bowes Road
Highway 116	Guerneville Road	Green Valley Road
Petaluma Hill Road	Tevis Way	Adobe Road
Crane Canyon Road	Petaluma Hill Road	Inverness Avenue
Guerneville Road	Laguna de Santa Rosa	Highway 116
Occidental Road	Barlow Road	Coffee Lane
Bodega Highway	Ragle Road	Ferguson Road
Highway 116	Lone Pine Road	South Stony Point Road
Petaluma-Valley Ford Road	Spring Hill Road	Highway 1
Bodega Avenue	Middle Two Rock Road	Spring Hill Road
Adobe Road	Jacobsen Lane	Frates Road
Lakeville Highway	Browns Lane	Highway 37
Highway 37	Lakeville Highway	Highway 121
Highway 121	Highway 37	Tolay Creek
Stage Gulch Road	Lakeville Highway	Tolay Creek
River Road	Olivet Road	Slusser Road
<b>Santa Rosa Scenic Roads</b>		
Fountaingrove Parkway	Old Redwood Highway	Fountaingrove Golf Course
Bennett Valley Road	Farmers Lane	Bennett Valley Golf Course
<b>Petaluma Scenic Routes</b>		
Lakeville Highway	Browns Lane	Old Lakeville Highway No. 2
Adobe Road	Petaluma Hill Road	Frates Road

**Table 4.14-5**

Pipeline Segments Along Designated Scenic Corridors

Corridor Type/Route Segment	From	To
Petaluma Hill Road	Roberts Road	Adobe Road
Spring Hill Road	Petaluma Valley Ford Road	Purvine Road
Stony Point Road	Meacham Road	Orchard Lane
Bodega Avenue (Petaluma-Valley Ford Road)	Middle Two Rock Road	Pepper Road
<b>Windsor Scenic Corridors</b>		
Conde Lane	Shiloh Road	Highway 101
Pleasant Avenue	east of Pool Creek	Chalk Hill Road
Chalk Hill Road	Pleasant Avenue	Brooks Creek

Source: Harland Bartholomew & Associates, Inc. 1996

Because the pipelines will be located underground, there will be no permanent obstruction of views. Along all pipeline routes as part of the Project, construction scars will be revegetated and landforms along the routes will be restored and blended with the natural landforms. These measures will neutralize the visual effects of construction resulting in no permanent impact.

On three of the pipeline routes--Lakeville Highway south of Browns Lane, Petaluma-Valley Ford Road west of Roblar Road, and Chalk Hill Road between Pleasant Lane and Highway 128--specific scenic resources that could be impacted by pipeline construction have been identified. These consist of mature stands of eucalyptus lining portions of Lakeville Highway and Petaluma-Valley Ford Road, and overstory vegetation creating a visual canopy along Chalk Hill Road. Along these segments, however, the pipeline alignment will be adjusted within the right of way to avoid impacting these resources. No other specific scenic resources which will be impacted by pipeline construction have been identified within the scenic landscape units and scenic corridors.

*No Impact; Alternative 1 and 5B.*

These alternatives do not have a pipeline component.

Mitigation: *Alternatives 2, 3, and 4.*

2.3.9. Adjust Pipeline Alignments.

*Alternatives 2, 3, 4, and 5A.*

### 2.3.10. Limit Construction Disturbance

*Alternatives 1 and 5B.* No mitigation is needed.

After

Mitigation: *Less than Significant after Mitigation; Alternative 2, 3, 4, and 5A.*

These measures will avoid the disturbance of the specific scenic resources and will minimize construction disturbance and therefore avoids impacts on these scenic resources and reduces impacts due to visual contrast.

**Impact: 14.4.4 and 7. Will the pipeline component impact visual resources based on evaluation criteria 4 and 7?**

Analysis: *No Impact; All Alternatives.*

All pipelines will be constructed underground. They will not conflict with the 20-foot setback along Sonoma County scenic corridors, however, since they are underground structures, they are not considered a permanent building or structure. No new light source will be created by the pipelines.

Mitigation: No mitigation is needed.

**Impact: 14.4.5. Will the pipeline component be inconsistent with foreground or middleground views from high volume travelways?**

Analysis: *Significant. Alternatives 2,3, 4, and 5A.*

The pipeline routes which are not located along Scenic Corridors are located along City or County Roads which are considered high volume travelways according to Evaluation Criterion 5. Construction activities along all of these routes will involve removal of vegetation, grading and trenching of the landscape edge within the public right-of-way. This will result in a strong visual contrast with both the rural and urban landscape edges within the right-of-way along these pipeline routes

Because the pipelines will be located underground, there will be no permanent obstruction of views. Along all pipeline routes as part of the Project, construction scars will be revegetated and landforms along the routes will be restored and blended with the natural landforms. These measures will neutralize the visual effects of construction resulting in no permanent impact except on Pine Flat Road. Along Pine Flat Road, from Red Winery Road to the geysers steamfield, construction of the geysers pipeline will require widening and reconstruction of the existing narrow roadway within the existing right-of-way. This will result in extensive grading with cut and fill along major portions of the pipeline route, and will introduce a strong visual contrast with the surrounding natural landscape, due to the widened roadway and side slopes.

On two of the pipeline routes for Alternative 5A--Trenton-Healdsburg Road and Eastside Road north of River Road--specific scenic resources that could be impacted by pipeline construction have been identified. These consist of overstory vegetation creating a visual canopy along both Trenton-Healdsburg Road and Eastside Road. Along these segments, however, the pipeline alignment will be adjusted within the right of way to avoid impacting these resources. No other specific scenic resources which will be impacted by pipeline construction have been identified.

*No Impact; Alternative 1 and 5B.*

These alternatives do not have a pipeline component.

Mitigation: *Alternatives 2, 3, 4, and 5A.*

2.3.9. Adjust Pipeline Alignments.

2.3.10. Limit Construction Disturbance

*Alternatives 1 and 5B.* No mitigation is needed.

After

Mitigation: *Less than Significant after Mitigation; Alternative 2, 3, and 5A.*

*Significant after Mitigation; Alternative 4.*

Measure 2.3.9 will avoid the disturbance of the specific scenic resources and therefore avoids impacts on these scenic resources. Measure 2.3.10 will reduce impacts on the landscape edge due to visual contrast.

No mitigation is available to reduce the impacts along Pine Flat Road to a level less than significant.

## Storage Reservoir Components

**Table 4.14-6**

### Visual Resource Impacts by Component - Storage Reservoirs

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
14.5.1. Will the storage reservoir component be inconsistent with the Sonoma County General Plan Open Space Element regarding Community Separator Areas seen from public viewpoints?	Strong visual contrast	None	C, P	==

**Table 4.14-6**

Visual Resource Impacts by Component - Storage Reservoirs

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
	Permanent Visual Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==
14.5.2. Will the storage reservoir component be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units seen from public viewpoints?				
<ul style="list-style-type: none"> <li>Adobe Road Reservoir</li> </ul>	Strong visual contrast	Strong	C, P	⊙
	Permanent Visual Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	Loss	C, P	⊙
<ul style="list-style-type: none"> <li>All other reservoirs</li> </ul>	Strong visual contrast	None	C, P	==
	Permanent Visual Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==
14.5.3. Will the storage reservoir component be inconsistent with the Sonoma County or City General Plan Open Space Elements regarding Scenic Corridors?				
<ul style="list-style-type: none"> <li>Tolay Extended and Confined</li> </ul>	Strong visual contrast	Slight	C, P	○

**Table 4.14-6**

Visual Resource Impacts by Component - Storage Reservoirs

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
	Loss or alteration of a specific scenic resource	None	C, P	==
<ul style="list-style-type: none"> <li>Adobe Road, Sears Point, Valley Ford Reservoir</li> </ul>	Strong visual contrast	Strong	C, P	○
	Permanent Visual Obstruction	Permanent Obstruction	C, P	●
	Loss or alteration of a specific scenic resource	Loss	C, P	●
<ul style="list-style-type: none"> <li>Bloomfield, Carroll Road</li> </ul>	Strong visual contrast	Strong	C, P	●
<ul style="list-style-type: none"> <li>Lakeville Hillside, Two Rock, Huntley</li> </ul>	Strong visual contrast	None	C, P	==
	Permanent Visual Obstruction	None	C, P	
	Loss or alteration of a specific scenic resource	None	C, P	==
14.5.4. Will the storage reservoir component be inconsistent with minimum building setbacks for structures along Sonoma County designated scenic corridors?	Less than 20 feet	None	C, P	==
14.5.5. Will the storage reservoir component cause an adverse effect on foreground or middleground views from a high volume travelway (excluding scenic corridors), recreation use area, or other public use area?				
<ul style="list-style-type: none"> <li>Adobe Road, Bloomfield, Huntley</li> </ul>	Strong visual contrast	Strong	C, P	⊙

**Table 4.14-6**

Visual Resource Impacts by Component - Storage Reservoirs

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
	Permanent Visual Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==
• Sears Point	Strong visual contrast	Strong	C, P	⊙
	Permanent Visual Obstruction	Permanent Obstruction	C, P	●
	Loss or alteration of a specific scenic resource	Loss	C, P	●
• All other reservoirs	Strong visual contrast	None	C, P	==
	Permanent Visual Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==
14.5.6. Will the storage reservoir component cause an adverse effect on foreground views from one or more private residences (not subject to relocation as a result of the Project)?				
• Tolay Extended, Adobe Road, Tolay Confined, Sears Point, Two Rock and Valley Ford	Strong visual contrast	Strong	C, P	⊙
	Permanent Visual Obstruction	Permanent Obstruction	C, P	●
	Loss or alteration of a specific scenic resource	None	C, P	==

**Table 4.14-6**

Visual Resource Impacts by Component - Storage Reservoirs

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
<ul style="list-style-type: none"> <li>Lakeville Hillside and Huntley</li> </ul>	Strong visual contrast	Strong	C, P	⊙
	Permanent Visual Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==
<ul style="list-style-type: none"> <li>Bloomfield, Carroll Road</li> </ul>	Strong visual contrast	Strong	C, P	●
	Permanent Visual Obstruction	Permanent Obstruction	C, P	●
	Loss or alteration of a specific scenic resource	Loss	C, P	●
14.5.7. Will the storage reservoir component create a new light source?	Greater than 0 residences affected	None	C, P	==

Source: Harland Bartholomew and Associates, Inc., 1996

Notes: 1. Type of Impact:

C Construction

P Permanent

2. Level of Significance:

● Significant impact before and after mitigation

⊙ Significant impact before mitigation; less than significant impact after mitigation

○ Less than significant impact; no mitigation proposed

== No Impact

Construction of the storage reservoirs and associated facilities will visually change the landform, spatial form, and colors of all the sites being considered. During construction, visual contrast will be introduced by several construction activities:

- Clearing of vegetation and removal of tree stumps and roots at dam and reservoir areas
- Stripping of dam foundation and on-site borrow areas
- Dam foundation excavation and on-site borrow area excavation



- Construction of appurtenant structures and ancillary facilities such as spillway, inlet/outlet conduits, diversion channels, pipelines, access roads, fencing.

Incised into one of the two adjoining hillsides, a concrete-lined diversion channel will divert water around the end of the dam to the base of the reservoir at the Tolay Extended and Confined, Adobe Road and Sears Point reservoirs. Broken stone to stabilize the earth surface will be used at the base of spillways. A paved service road will be constructed to lead up to each dam site.

The main visual focus of the reservoir will be the earthen dams which block off rural valleys and anchor into adjoining hillsides. Dam heights range from 80 to over 200 feet. The face of each dam will be a geometric, non-undulating slope, and the dam ridgeline will be flat. During and immediately after construction prior to revegetation, the exposed soil face of the dam will introduce visual contrast compared to the surrounding landscape. Newly graded slopes will be left barren to revegetate naturally, ultimately supporting grass cover to control erosion. During the summer, grassy slopes will have a brown and dry appearance, and during the winter, the slopes will be green. No trees or shrubs are proposed for the dam face due to concerns of invasive roots that will undermine the structural integrity of the dam.

Where sensitive viewpoints provide elevated views of the reservoir surface, for example, at English Hill, there is potential for significant impacts from the visual contrast as water levels fluctuate during different times of the year. From September through October, the reservoirs will be emptying, and during December through January, the reservoirs will be filling. During some periods, the reservoir will look dry.

To determine which visually sensitive areas and sections of roads will have potential views of the reservoirs (embankment or water surface), a computerized viewshed analysis was conducted to map general visibility on a wide-area basis. Visibility mapping, presented in Figures 4.14-1 through 4.14-9, was used in assessing visual impacts and in the selection of key viewpoints for computer models/simulations (Figures 4.14-10 through 4.14-18). All reservoir figures are placed at the end of the storage reservoir component discussion. Additional information regarding how visibility mapping was conducted is found in the Methodology section.

**Impact: 14.5.1, 4 and 7. Will the storage reservoir component impact visual resources based on evaluation criteria 1, 4, and 7?**

**Analysis:** *No Impact; All Alternatives.*

All the reservoir sites are located outside designated Community Separator areas delineated in the Sonoma County General Plan. All the reservoirs, diversion channels, and other appurtenant facilities are well outside the 20-foot setback criterion.

Low intensity lights may be used to illuminate the pump house areas for operation and maintenance, but the lights will be located too far away from highway or residential viewers to pose appreciable visual impacts. Lights will only be turned on by personnel when needed, they will not be on continuously or automatically.

Mitigation: No mitigation is needed.

**Impact: 14.5.2. Will the storage reservoir component be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units seen from public viewpoints?**

Analysis: *Significant; Alternative 2B.*

The Adobe Road reservoir is located within a designated Sonoma County Scenic Landscape Unit. Computerized viewshed mapping indicates potential widespread visibility from Petaluma located 1-3 miles to the south (middleground view range), but view obstruction from public viewpoints will be minimal. Strong visual contrast from the dam face and crest, and scenic resource loss of mature trees will occur.

*No Impact. Alternatives 1, 2A, 2C, 2D, 3, 4, and 5.*

The Tolay Extended and Confined reservoirs are located just outside a Scenic Landscape Unit. However, within a three-mile radius, visibility is confined to Stage Gulch Road and overlooking higher topography which surrounds the reservoir. Strong contrasts or view blockage will not be expected from sensitive viewpoints within the scenic landscape unit.

The Lakeville Hillside site is located within a designated County Scenic Landscape Unit. However, computerized viewshed mapping indicates that visibility within three miles will not result in strong visual contrast or view blockage from the foreground or middleground, and visibility from upland areas to the south will be from a background view range.

The Sears Point site is on the border of a designated Scenic Landscape Unit, but since it is surrounded by designated scenic lands, the site will be considered as within the unit. Visibility is generally limited to a cone extending to the southeast across Tubbs Island, the Naval Reservation, and San Pablo Bay. As a distant background element from most widespread locations, the visual impacts posed by the site will not result in strong visual contrast from foreground or middleground views.

Two Rock, Bloomfield, Carroll Road, Valley Ford, and Huntley reservoirs are located outside designated Scenic Landscape Unit areas delineated in the Sonoma County General Plan.

Alternatives 1, 4, and 5 do not have a reservoir component.

Mitigation: *Alternative 2B.*

2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.

2.4.7. Establish Tree Screening.

2.4.8. Revegetate Face of Reservoir Dam.

*Alternatives 1, 2A, 2C, 2D, 3, 4, and 5.* No mitigation is needed.

After

Mitigation: *Less than Significant after Mitigation; Alternative 2B.*

These measures will reduce the visual contrast of the dam face by introducing vegetation consisting of grasses on the dam face, and thereby maintaining a consistent color and texture with the surrounding hills. Planting of trees and other vegetation to screen other high contrast visual elements such as concrete diversion channels, energy dissipation structures and roadways, as well as the points at which the dam joins the adjacent hillsides, will also blend the dam with the surrounding land forms.

**Impact: 14.5.3. Will the storage reservoir component be inconsistent with the Sonoma County or City General Plan Open Space Elements regarding Scenic Corridors?**

Analysis: *Significant; Alternatives 2, 3B, 3C, 3D.*

Tolay Extended and Confined (Alternatives 2A and 2C). Views of the reservoir along a designated scenic corridor are limited to a 1.5-mile section of Stage Gulch Road. From this location, the dam is viewed at a range of .75 miles (middleground). Some visual contrast will be evident, although the dam appears as an extension of an existing ridgeline. Specific resource loss is not considered significant since the mosaic of trees is located in highland areas behind the middleground ridge/dam. From a few view locations views up the valley will be obstructed, although most views will be at right angles to the direction of travel and will occupy less than 15 percent of the principal views. Even though the surface area of this reservoir is large, there will be no views of the stored water from Stage Gulch Road.

Adobe Road. (Alternative 2B). Reservoir can be seen for short distances (up to .5 mile) along Old Adobe Road (scenic corridor in Sonoma County and Petaluma General Plans) and Sonoma Mountain Road (scenic corridor in Petaluma General Plan). Although corridor exposure is limited, views to the dam will be in the foreground (less than .5 mile) with strong visual contrast due to the rock face of the dam, view obstruction of the background ridge line, and scenic resource loss of mature groves of trees on the site (see Figure 14.4-2. Note that the weather conditions mask full views of the scenic background ridgeline).

The Lakeville Hillside reservoir is discussed below under No Impact.

Sears Point. (Alternative 2D). The main dam will be clearly visible from a designated scenic corridor, Highway 121 (Sonoma County General Plan). Visual contrast will be strong, the view up a scenic valley will be obstructed, and a specific scenic resource consisting of several groupings of mature trees on the site will be lost. The view range will also be fairly close (.75 mile from the selected viewpoint). The saddle dams will be much less contrasting due to their relatively subtle effect on the skyline seen from the highway.

Bloomfield. (Alternative 3B). Visibility of the dam will exist for a .75 mile section along Petaluma Valley Ford Road, a designated Sonoma County scenic corridor to the south at a distance of .75 mile. The dam will be a dominant landscape element due to its strong contrast, view obstruction and scale. The reservoir dam will reduce views of scenic resources consisting of trees and the undulating landform of the slopes of English Hill as seen from the scenic corridor (see Figure 14.4-6).

Carroll Road. (Alternative 3C). The visual impact is similar to Bloomfield, although the dam will be viewed from a farther distance of 1.25 miles (middleground), resulting in somewhat reduced scale and view obstruction.

Valley Ford. (Alternative 3D). Construction of the reservoir at this location will introduce significant visual impacts to Highway 1, a state designated Scenic Highway and Petaluma-Valley Ford Road, a County designated Scenic Corridor. The dam is fully visible to viewers traveling north on Highway 1 and west on Petaluma-Valley Ford Road, though screened by topography, as well as by foreground elements (e.g., trees, water tank closer to the road), from most viewers traveling west to east. Because the hill on the east side of the dam is recessed, little screening is provided to viewers traveling west. The dam is relatively close to the highway (.5 to .75 miles) and will be visible for an estimated highway distance of up to 3 miles. The dam will exhibit strong visual contrast and will obscure ridgelines in the background (see Figure 14.14-8). Specific scenic resources consisting of views of the inundated valley containing trees and dissected landforms will be eliminated.

*No Impact; Alternatives 1, 3A, 3E, 4 and 5.*

Two Rock. (Alternative 3A). Based on computerized viewshed mapping and field observation, it is estimated that the dam will not be seen from Valley Ford Highway, a County designated Scenic Corridor. It is possible that minor effects of vegetation clearing at the periphery of the Project may be just visible, but these are not expected to introduce significant visual contrasts.

Huntley. (Alternative 3E). The dam will not be visible from any designated scenic corridor.

The Lakeville Hillside site (Alternatives 2B and 2D) will have no impact on scenic corridors. Views of the reservoir site from Lakeville Highway, a designated scenic corridor, are screened by topography to the north of Old Lakeville Highway No. 3 and by foreground elements between Lakeville Highway and Old Lakeville Highway No. 3. However, because this site is paired with the Adobe Road and Sears Point sites (Alternative 2B and 2D respectively), the overall impact for both alternatives will be significant

Alternatives 1, 4 and 5 do not have a storage reservoir component.

Mitigation: *Alternative 2, 3B, 3C, 3D.*

2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.

2.4.7. Establish Tree Screening.

2.4.8. Vegetate Face of Reservoir Dam.

*Alternatives 1, 3A, 3E, 4 and 5.* No mitigation is needed.

After

Mitigation: *Significant after Mitigation; Alternative 2, 3B, 3C, and 3D.*

These measures will reduce the visual contrast of the dam face by introducing vegetation consisting of grasses on the dam face, and thereby maintaining a consistent color and texture with the surrounding hills. Planting of trees and other vegetation to screen other high contrast visual elements such as concrete diversion channels, energy dissipation structures and roadways, as well as the points at which the dam joins the adjacent hillsides, will also blend the dam with the surrounding land forms.

However, no mitigation is available to reduce the impact on visual contrast for the Bloomfield and Carroll Road sites related to views of the reservoir bottom from English Hill. There is no mitigation available to reduce the impacts on visual obstruction for any site to less than significant.

Mitigation measures intended to reduce view obstruction or replace a degraded/eliminated visual resource are not available. Typically, the dam will block views up a scenic valley containing interesting landform and trees. Another condition that cannot be mitigated is an elevated viewpoint that overlooks a scenic valley that will be inundated. Because the water level may fluctuate and the edge conditions may be unsightly, the presence of the reservoir does not constitute replacing a scenic resource of equal value.

**Impact:** **14.5.5. Will the storage reservoir component cause an adverse effect on foreground or middleground views from a high volume travelway (excluding scenic corridors), recreation use area, or other public use area?**

**Analysis:** *Significant; Alternatives 2B, 2D, 3B and 3E.*

Adobe Road. (Alternative 2B). In addition to Adobe Road which is a designated scenic corridor, the reservoir will potentially be seen from many streets throughout Petaluma including Washington Street which is directly aligned with the reservoir (although vegetation along Adobe Road does provide some visual screening). Many public use areas, including the Petaluma Airport, are within the 3-mile view radius of the reservoir. The potential visibility of the dam poses significant impacts due to the strong visual contrast.

The Lakeville Hillside reservoir is discussed below under No Impact.

Sears Point. (Alternative 2D). Within the immediate area of Sears Point, public use areas include the Roche Winery from which the reservoir site is visible. People visiting the Sears Point Raceway will also be able to see the dam. Visual contrast, view obstruction of the valley and loss of scenic resources consisting of groups of mature trees are all considered significant.

Bloomfield. (Alternative 3B). Bloomfield cemetery located about 1 mile away to the southeast is anticipated to have views of the dam resulting in significant impacts due to the strong visual contrast of the dam face.

Huntley. (Alternative 3E). The dam will be visible along a short .25 mile section of Fallon Two Rock Road. Viewing distance will be from a range of 1 mile (middleground). Visual contrast will be strong, but view obstruction will be limited for travelers other than viewers along Martinoni Road which serves local residents. There are no recreation or public use areas within the middleground view range.

*No Impact. Alternatives 1, 2A, 2C, 3A, 3C, 3D, 4, and 5.*

Tolay Extended and Confined. (Alternatives 2A and 2C). The reservoir site is surrounded by hills which greatly limit the extent of visibility. There are no high volume travelways (other than scenic corridors), recreation, or public use areas within the middleground view range.

Two Rock. (Alternative 3A). The dam and reservoir have limited visibility except from the tops of surrounding hills. There are no high volume travelways, recreation or public use areas within the middleground view range.

Carroll Road. (Alternative 3C). There are no other high-volume travelways (other than scenic corridors), recreation, or public use areas within the middleground view range.

Valley Ford. (Alternative 3D). There are no high volume travelways (other than scenic corridors), recreation or public use areas within the middleground view range.

In addition, the Lakeville Hillside site (Alternatives 2B and 2D) will have no impact under this criterion. Views of the reservoir site are extremely limited with the only public views from the little used Old Lakeville Highway. There are no other recreation or public use areas within the area of visibility. However, because this site is paired with the Adobe Road and Sears Point sites (Alternative 2B and 2D respectively), the overall impact for both alternatives will be significant

Alternatives 1, 4 and 5 do not have a storage reservoir component.

Mitigation: *Alternatives 2B, 2D, 3B and 3E.*

2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.

2.4.7. Establish Tree Screening.

2.4.8. Revegetate Face of Reservoir Dam.

*Alternatives 1, 2A, 2C, 3A, 3C, 3D, 4, and 5.* No mitigation is needed.

After

Mitigation: *Significant; Alternative 2D.*

*Less than Significant after Mitigation; 2B, 3B, and 3E.*

These measures will reduce the visual contrast of the dam face by introducing vegetation consisting of grasses on the dam face, and thereby maintaining a consistent color and texture with the surrounding hills. Planting of trees and other vegetation to screen other high contrast visual elements such as concrete diversion channels, energy dissipation structures and roadways, as well as the points at which the dam joins the adjacent hillsides, will also blend the dam with the surrounding land forms.

No mitigation is available to reduce impacts on view obstruction for the Sears Point site (Alternative 2D) to less than significant. Mitigation measures intended to reduce view obstruction are not available. The dam will block views from the Roche Winery up a scenic valley containing interesting landform and trees.

**Impact: 14.5.6. Will the storage reservoir component cause an adverse effect on foreground views from one or more private residences (not subject to relocation as a result of the Project)?**

Analysis: *Significant; Alternatives 2 and 3.*

Tolay Extended and Confined. (Alternatives 2A and 2C). Several residences have views of the dam or overlooking views of the water surface in the middleground view range, which creates strong visual contrast. Limited views of the back dam and saddle also exist at private residences in middleground.

Adobe Road. (Alternative 2B). Residences along Adobe Road will have views of the main dam, while residences above the site on Sonoma Mountain Road will have views overlooking the water surface and bottom of the reservoir, all of which will create strong visual contrast. The northern back dam also will be visible from one residence, while the east side Saddle dam will not be visible.

Lakeville Hillside. (Alternatives 2B and 2D). The dam will be viewed by residences to the south in the foreground (.5 mile) that are located near Lakeville Highway. There will be no residences in the hills closely surrounding the reservoir that will have overlooking views.

Sears Point. (Alternative 2D). Private residences in the hills north and northeast of the site that will overlook the reservoir from a viewing range of .5 to .75 miles. The main dam will not be visible from the nearby farmhouse to the east, due to topography. The saddle dams may be partly visible on the skyline from this residence, but with low contrast after the construction period.

Two Rock. (Alternative 3A). A residence located off Walker Road will have views of the dam at a view range of .75 miles creating strong visual contrast and obstructing views up the valley.

Bloomfield. (Alternative 3B). Residences on two properties are located in the valley leading up to the reservoir site and will have views of the dam. In addition, residential views exist along Bloomfield and Jones Road which are all located within 1.25 miles of the dam. Overlooking residences located on English Hill, approximately 0.5 miles to the north, will also have views of the reservoir site and observe exposed soil when the water level in the reservoir is down.

Carroll Road. (Alternative 3C). Several residences are located in the valley leading up to the reservoir site, with views of the dam at close viewing range (.25 to .5 miles) with strong visual contrast, view blockage, and loss of scenic features. Overlooking residences located on English Hill, approximately 0.5 miles to the northeast, will also have views of the reservoir site and observe exposed soil when the water level in the reservoir is down.

Valley Ford. (Alternative 3D). For residences located adjacent to Petaluma-Valley Ford Road near the reservoir and in the hills south of the



highway, the dam will pose significant visual impacts due to the close viewing range (.5 to 1 miles), creating strong visual contrast in the foreground views, as well as obstruction of views up the valley.

Huntley. (Alternative 3E). A residence is located approximately .75 miles southwest of the reservoir from which the dam will be visible, creating strong visual contrast and obstructing views. Views from other residences in the foreground or close middleground will be screened by topography. There will be limited visibility of the saddle dam on the ridgeline east of the reservoir, seen from homes in the valley adjoining but this will be in the middleground view, and therefore not significant. Potential views from elevated residences in the far middleground located to the south also will not be significant.

*No Impact; Alternatives 1, 4 and 5.*

These alternatives do not have a storage reservoir component.

Mitigation: *Alternatives 2 and 3.*

2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.

2.4.7. Establish Tree Screening.

2.4.8. Revegetate Face of Reservoir Dam.

*Alternatives 1, 4 and 5.* No mitigation is needed.

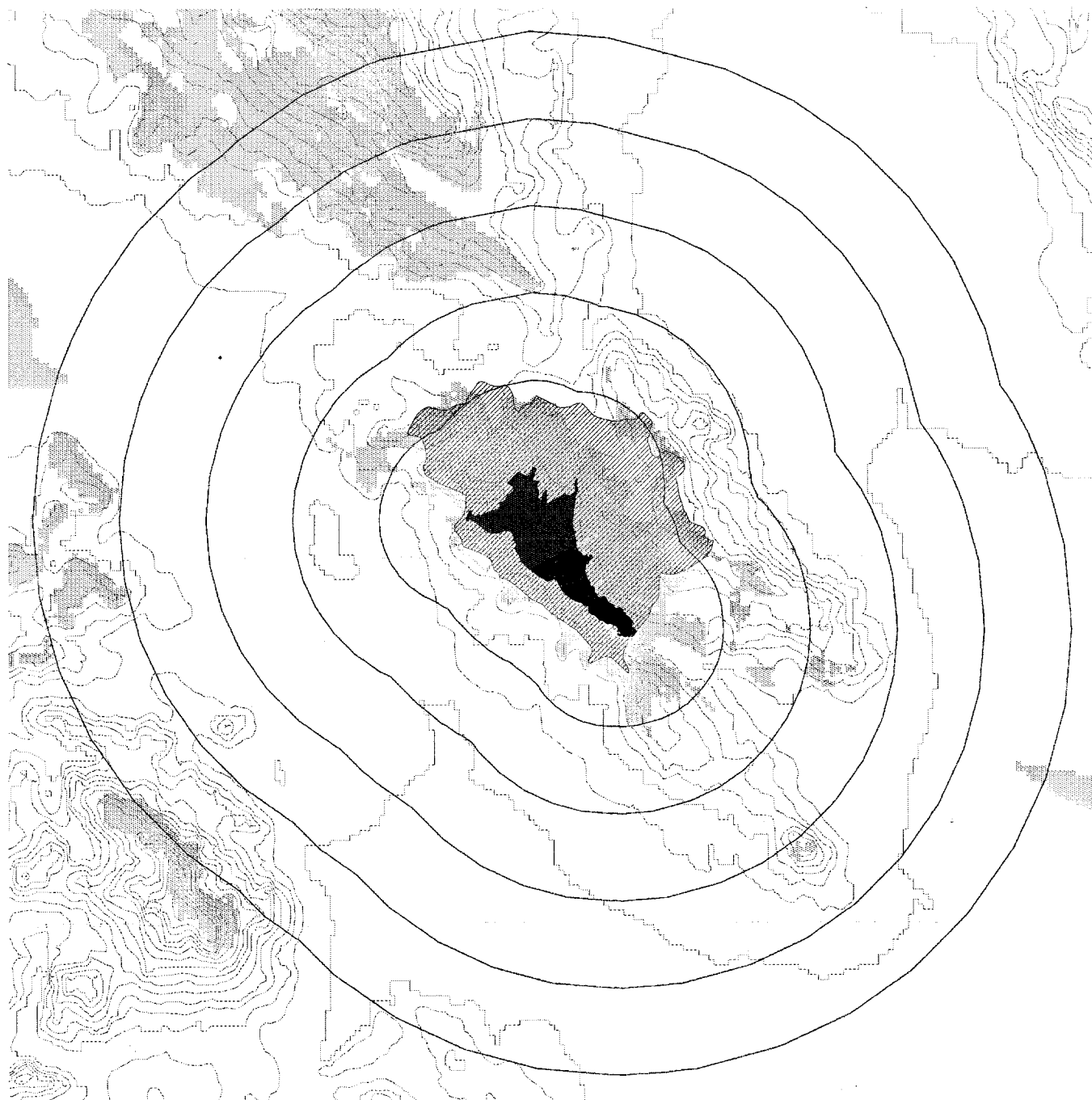
After

Mitigation: *Significant; Alternatives 2A, 2B, 2C, 2D, 3A, 3B, 3C and 3D.*

*Less than Significant; Alternative 3E.*

For all alternatives these measures will reduce the visual contrast of the dam face by introducing vegetation consisting of grasses on the dam face, and thereby maintaining a consistent color and texture with the surrounding hills. Planting of trees and other vegetation to screen other high contrast visual elements such as concrete diversion channels, energy dissipation structures and roadways, as well as the points at which the dam joins the adjacent hillsides, will also blend the dam with the surrounding land forms.

Provision of dense vegetative screening on the affected residential properties to create an opaque all season visual block could be undertaken, and will result in a more aesthetically pleasing view by obscuring view of the dam face. However, this will not mitigate the obstruction of existing views.



0 5,000 10,000



scale: 1"=10,000'



Viewsheds calculated by Arch/Info using  
USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
using USGS 1:250,000 DEM data.

Roads and streams from USGS  
1:250,000 DLG data.

Rings represent buffering of the proposed  
reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

HARLAND BARTHOLOMEW & ASSOCIATES, INC.

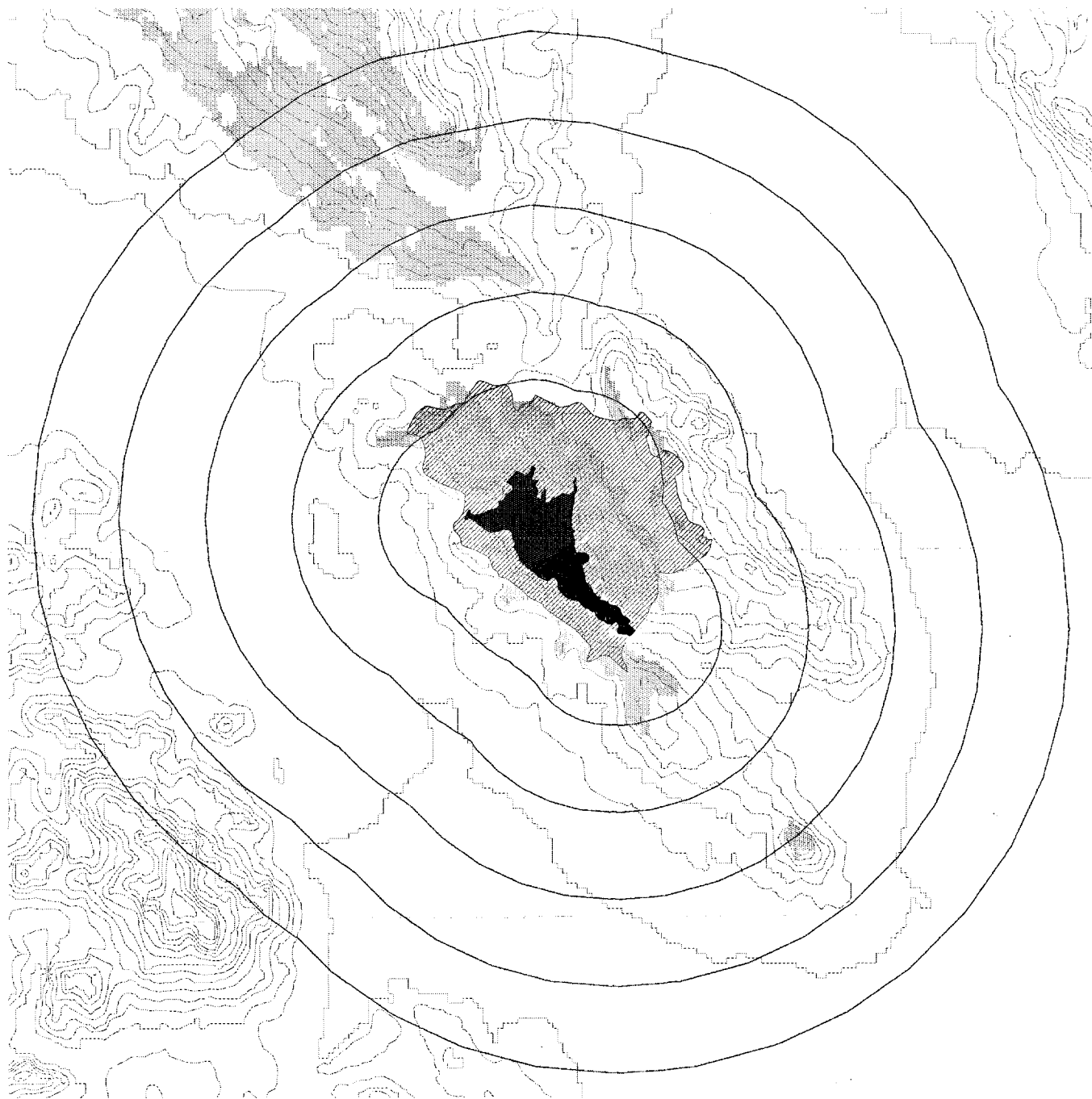
A UNIT OF PARSONS INFRASTRUCTURE & TECHNOLOGY INC.



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Subregional Long-Term  
Wastewater Project

**VISIBILITY MAPPING** Figure 4.14-1a  
**VIEW FROM RESERVOIR**  
**TOLAY EXTENDED RESERVOIR**



0 5,000 10,000



scale: 1"=10,000'



Viewsheds calculated by Arc/Info using  
USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
using USGS 1:250,000 DEM data.

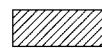
Roads and streams from USGS  
1:250,000 DLG data.

Rings represent buffering of the proposed  
reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

HARLAND BARTHOLOMEW & ASSOCIATES, INC.

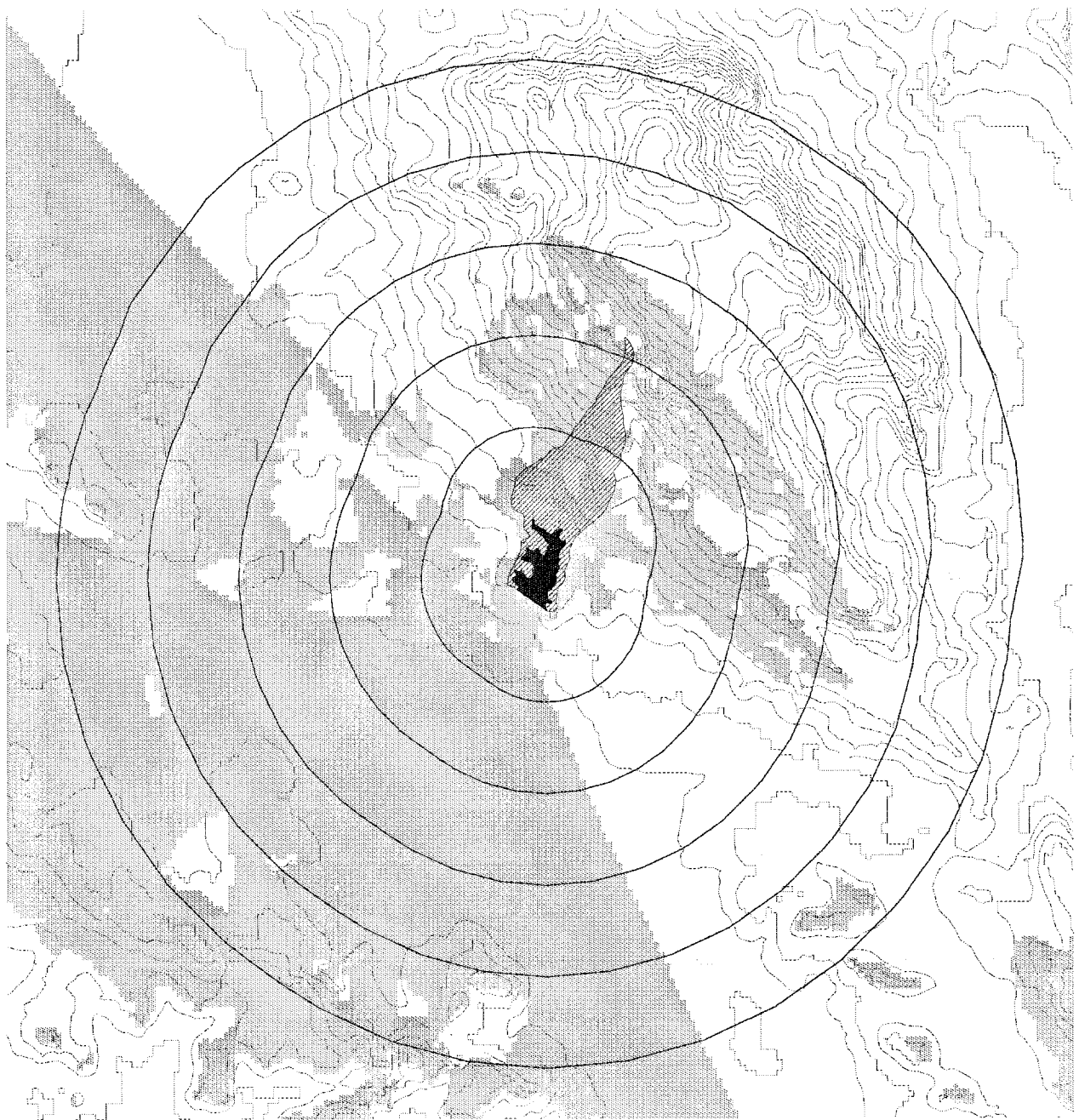
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**VISIBILITY MAPPING** Figure 4.14-1b  
**VIEW FROM DAM**  
**TOLAY EXTENDED RESERVOIR**



0 5,000 10,000



scale: 1"=10,000'



Viewsheds calculated by Arch/Info using  
USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
using USGS 1:250,000 DEM data.

Roads and streams from USGS  
1:250,000 DLG data.

Rings represent buffering of the proposed  
reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

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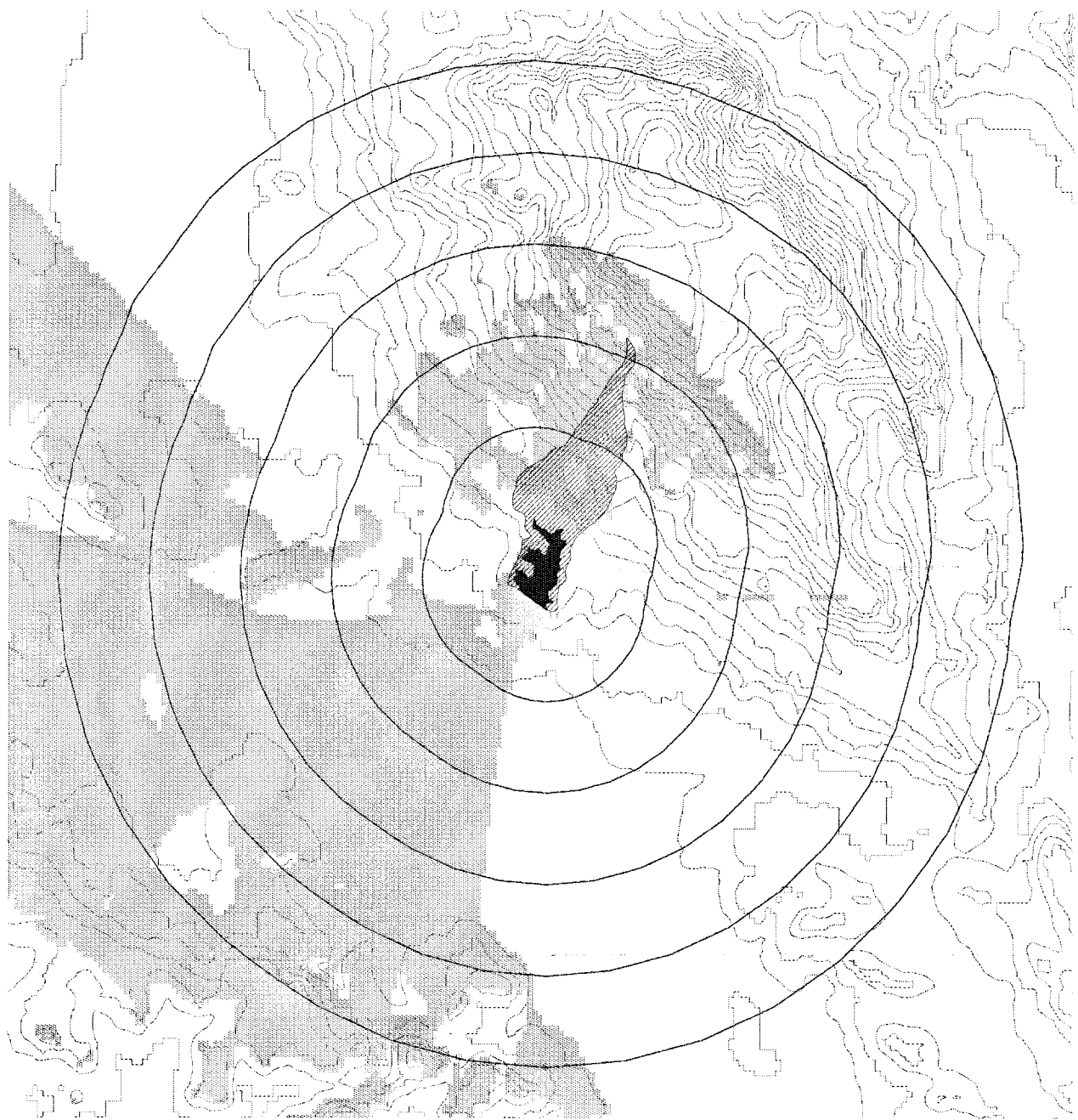


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**VISIBILITY MAPPING  
VIEW FROM RESERVOIR  
ADOBE ROAD RESERVOIR**

Figure 4.14-2a



0 5,000 10,000  
 scale: 1"=10,000'







Viewsheds calculated by Arch/Info using  
 USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
 using USGS 1:250,000 DEM data.

Roads and streams from USGS  
 1:250,000 DLG data.

Rings represent buffering of the proposed  
 reservoir at increments of one mile.

#### LEGEND

-  Reservoir
-  Watershed Boundary
-  Areas Having Visibility
-  Reservoir Buffering  
1 Mile increments

source: Dames & Moore

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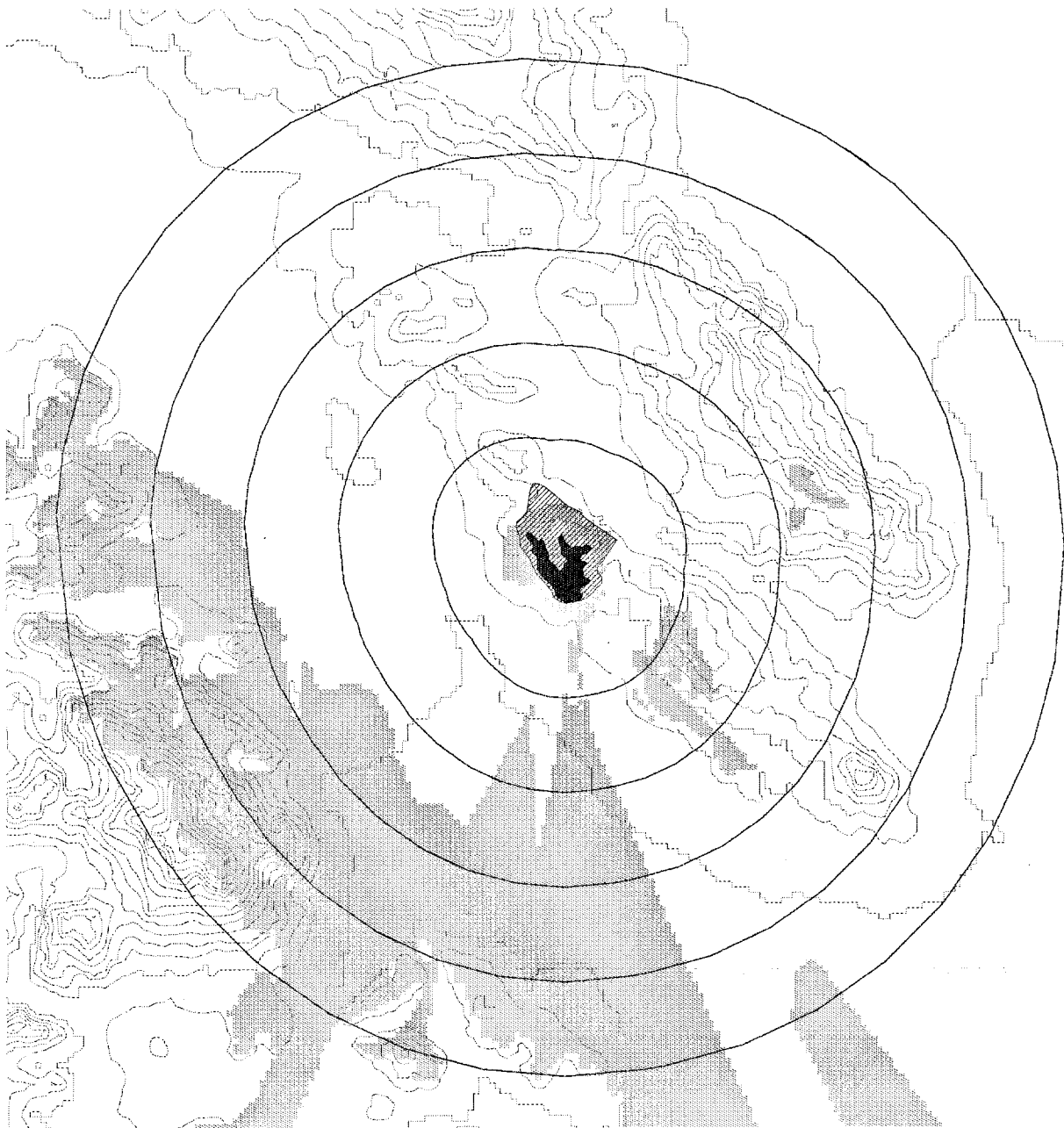


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 Wastewater Project

**VISIBILITY MAPPING  
 VIEW FROM DAM  
 ADOBE ROAD RESERVOIR**

Figure 4.14-2b



0 5,000 10,000

scale: 1"=10,000'



Viewsheds calculated by Arch/Info using  
USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
using USGS 1:250,000 DEM data.

Roads and streams from USGS  
1:250,000 DLG data.

Rings represent buffering of the proposed  
reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

HARLAND BARTHOLOMEW & ASSOCIATES, INC.

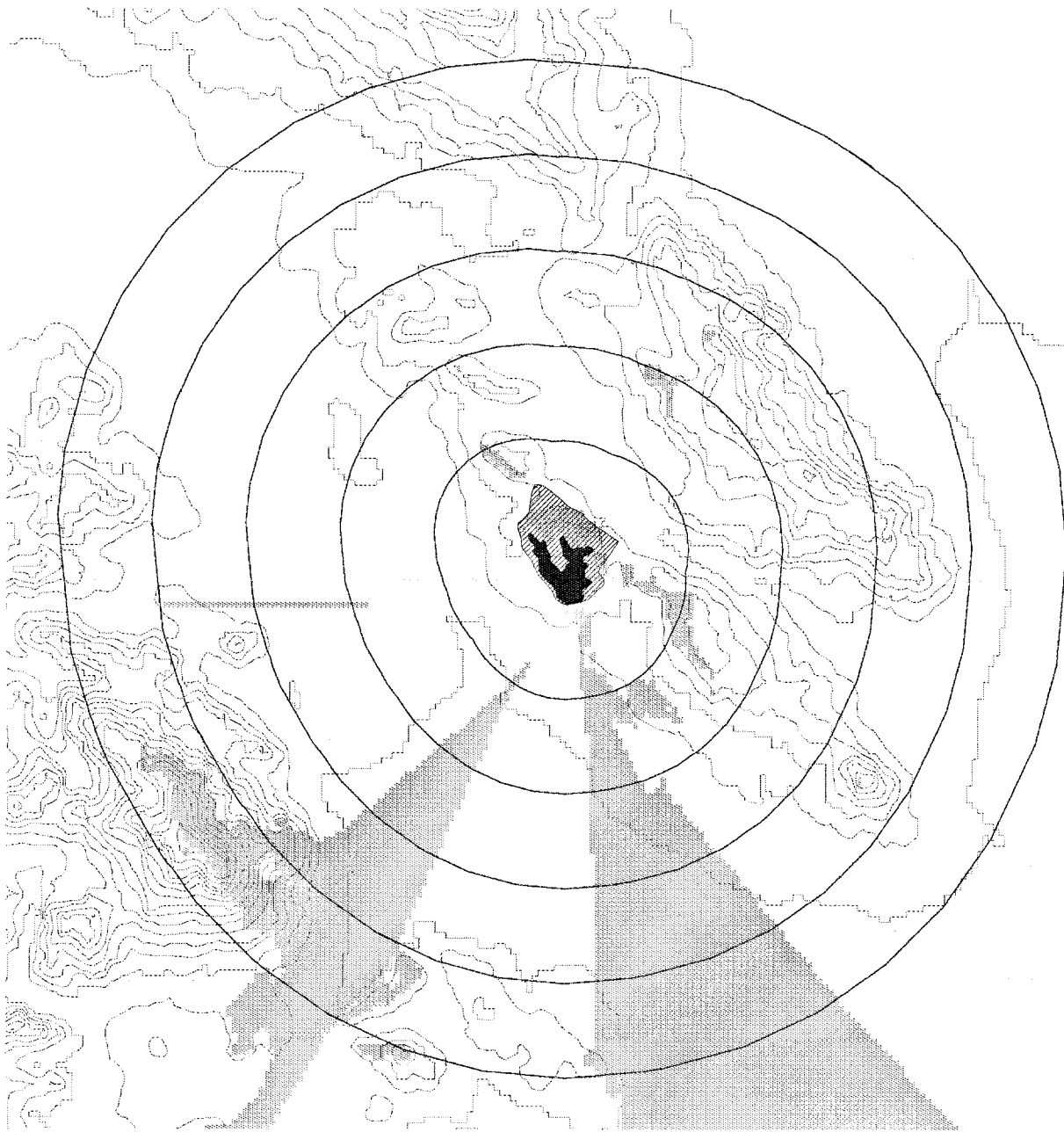
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Wastewater Project

**VISIBILITY MAPPING** Figure 4.14-3a  
**VIEW FROM RESERVOIR**  
**LAKEVILLE HILLSIDE RESERVOIR**



0 5,000 10,000

scale: 1"=10,000'



Viewsheds calculated by Arch/Info using  
USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
using USGS 1:250,000 DEM data.

Roads and streams from USGS  
1:250,000 DLG data.

Rings represent buffering of the proposed  
reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

HARLAND BARTHOLOMEW & ASSOCIATES, INC.

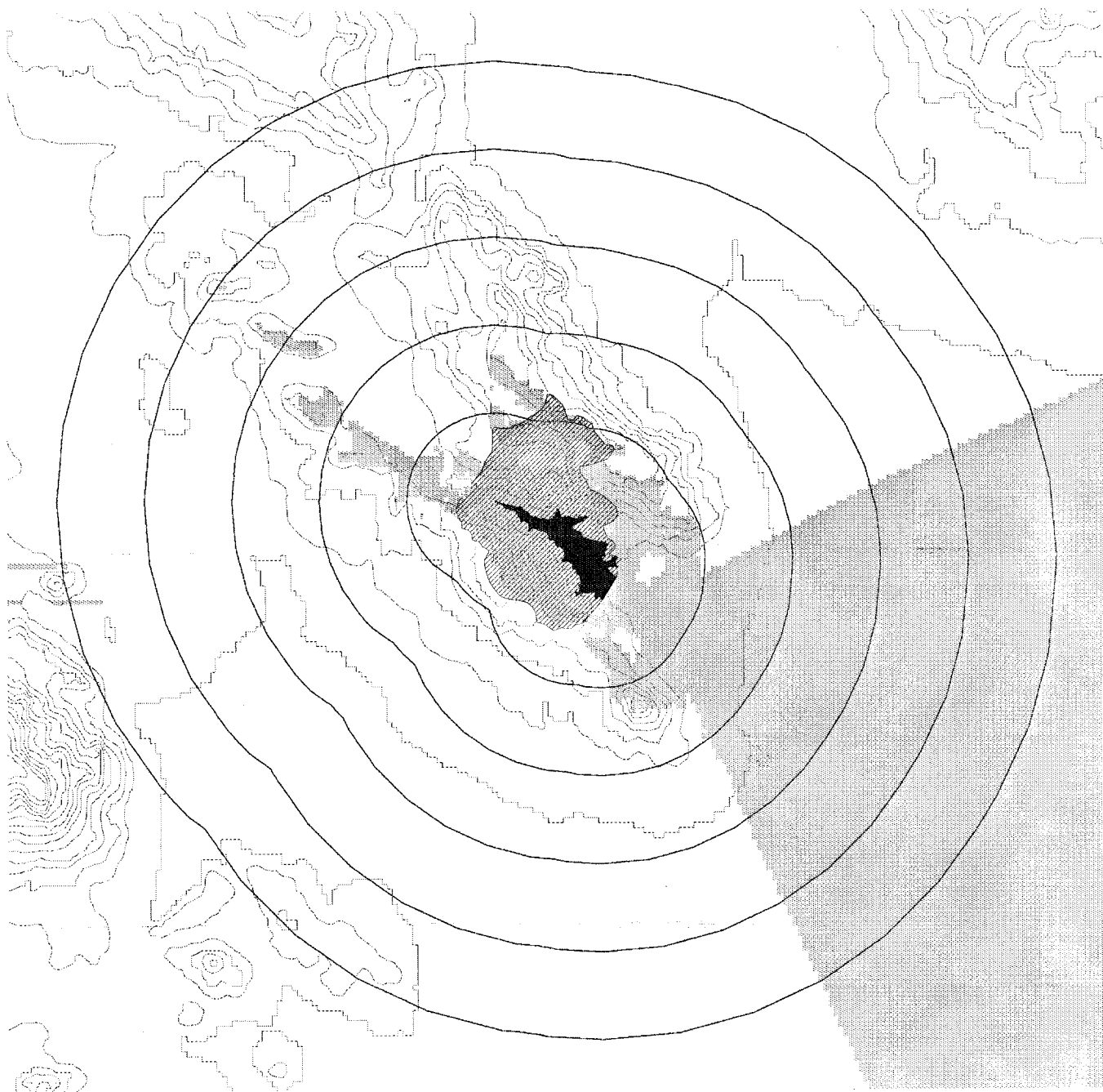
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Wastewater Project

**VISIBILITY MAPPING** Figure 4.14-3b  
**VIEW FROM DAM**  
**LAKEVILLE HILLSIDE RESERVOIR**



0 5,000 10,000

scale: 1"=10,000'



Viewsheds calculated by Arch/Info using USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info using USGS 1:250,000 DEM data.

Roads and streams from USGS 1:250,000 DLG data.

Rings represent buffering of the proposed reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

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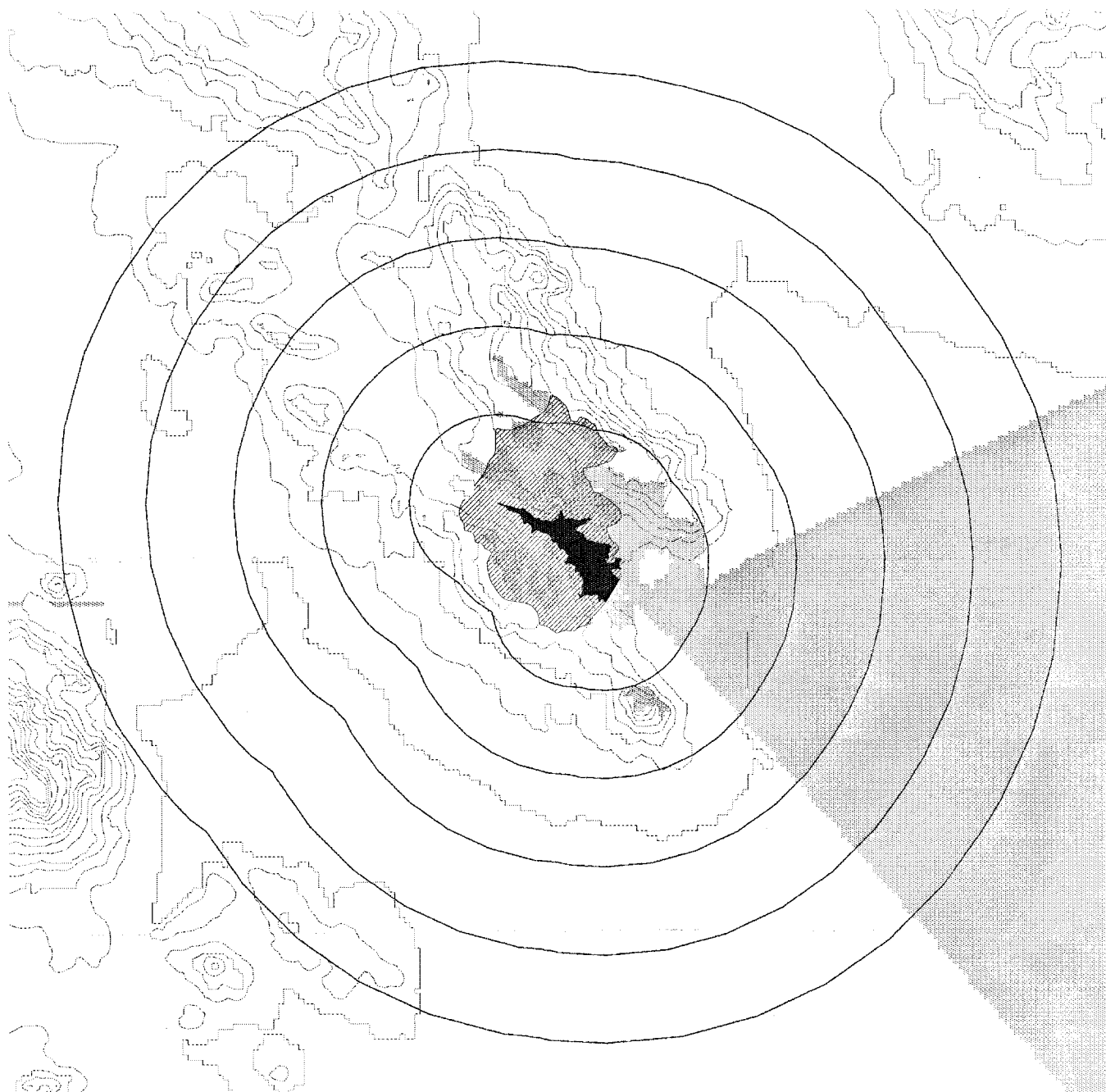
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**VISIBILITY MAPPING  
VIEW FROM RESERVOIR  
SEARS POINT RESERVOIR**

Figure 4.14-4a





0 5,000 10,000

scale: 1"=10,000'



Viewsheds calculated by Arch/Info using USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info using USGS 1:250,000 DEM data.

Roads and streams from USGS 1:250,000 DLG data.

Rings represent buffering of the proposed reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

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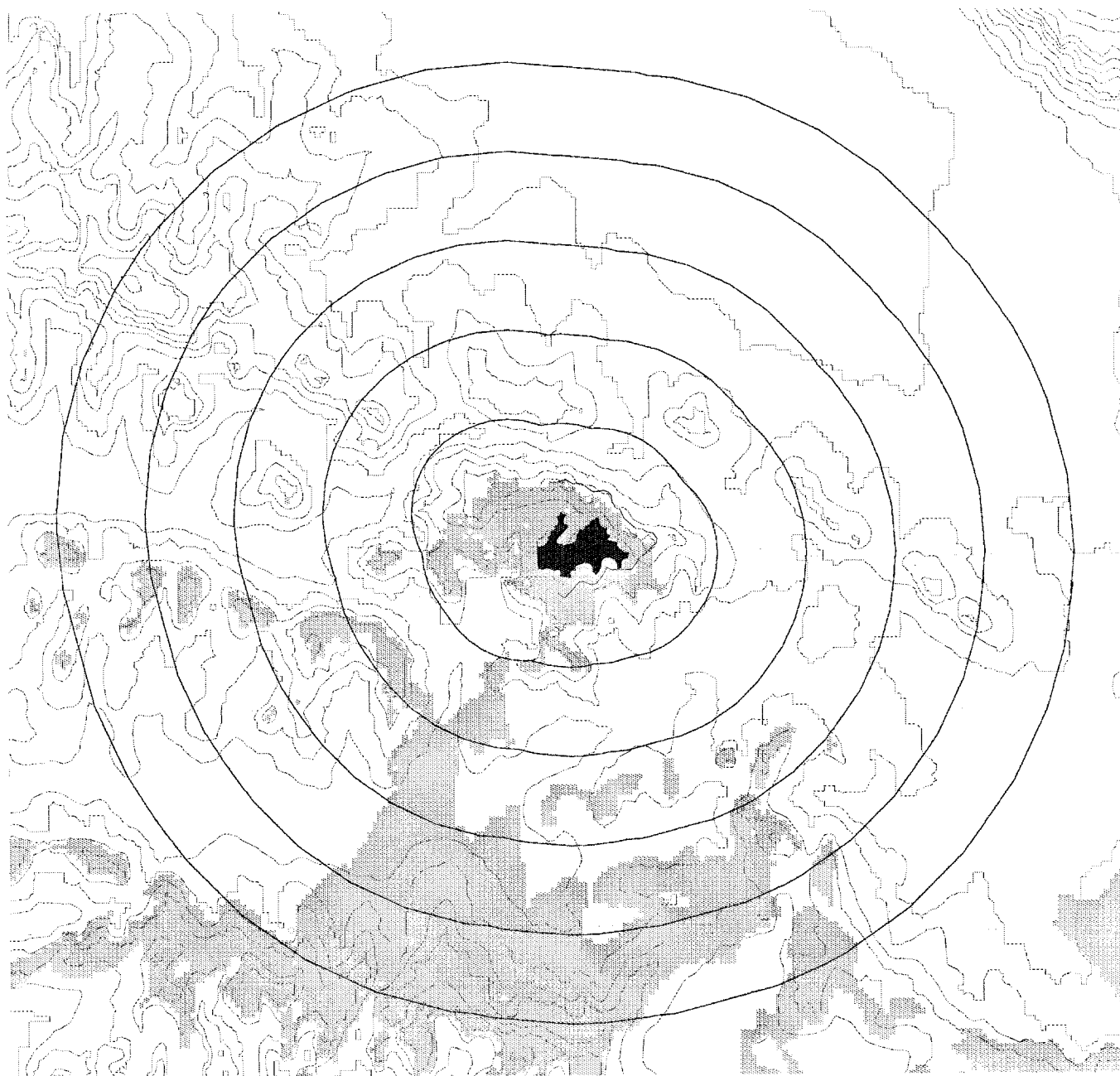


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Wastewater Project

**VISIBILITY MAPPING  
VIEW FROM DAM  
SEARS POINT RESERVOIR**

Figure 4.14-4b



0 5,000 10,000

scale: 1"=10,000'







Viewsheds calculated by Arch/Info using USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info using USGS 1:250,000 DEM data.

Roads and streams from USGS 1:250,000 DLG data.

Rings represent buffering of the proposed reservoir at increments of one mile.

#### LEGEND

-  Reservoir
-  Watershed Boundary
-  Areas Having Visibility
-  Reservoir Buffering 1 Mile increments

source: Dames & Moore

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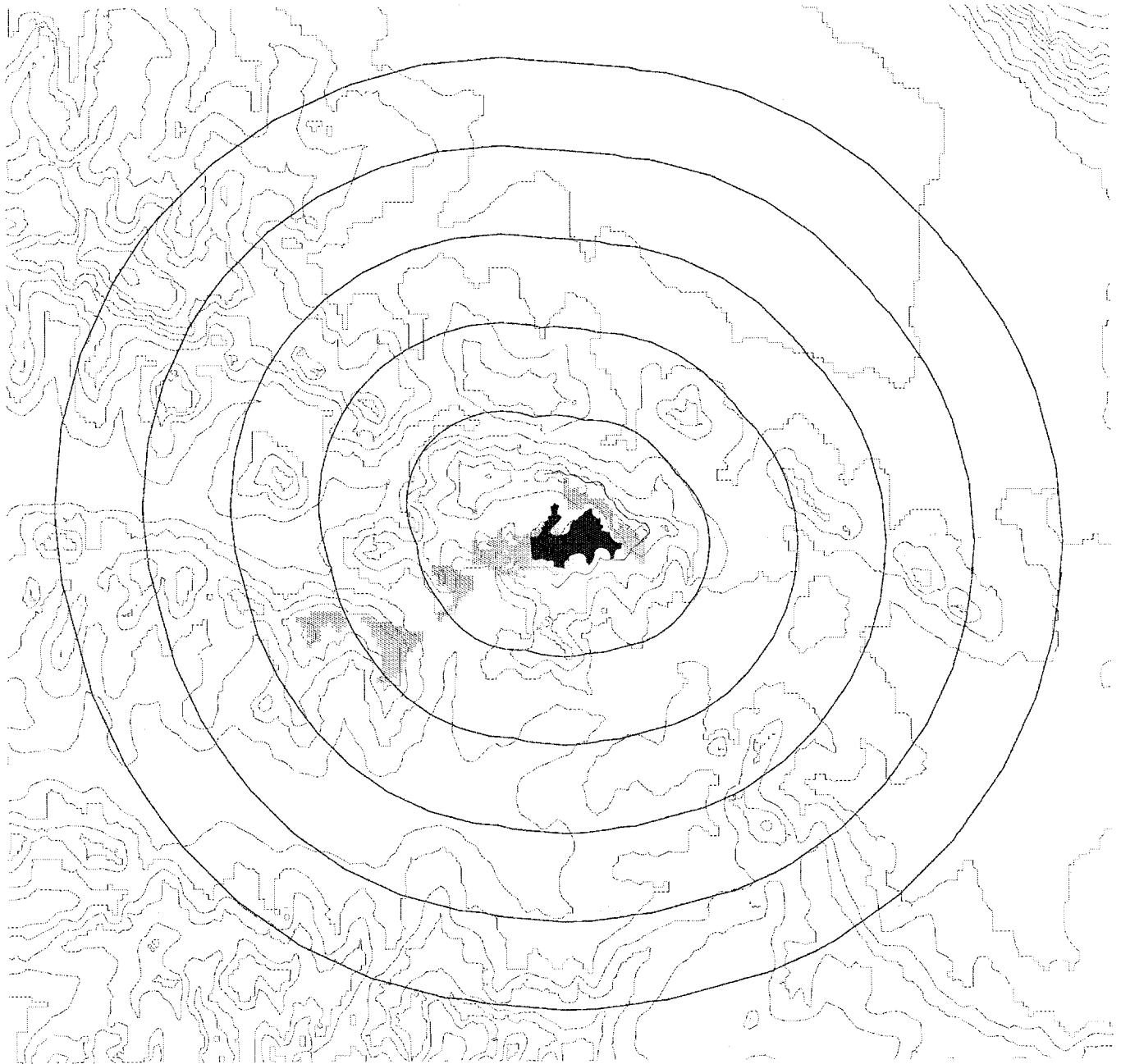


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**VISIBILITY MAPPING  
VIEW FROM RESERVOIR  
TWO ROCK RESERVOIR**

Figure 4.14-5a



0 5,000 10,000



scale: 1"=10,000'



Viewsheds calculated by Arch/Info using  
USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
using USGS 1:250,000 DEM data.

Roads and streams from USGS  
1:250,000 DLG data.

Rings represent buffering of the proposed  
reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

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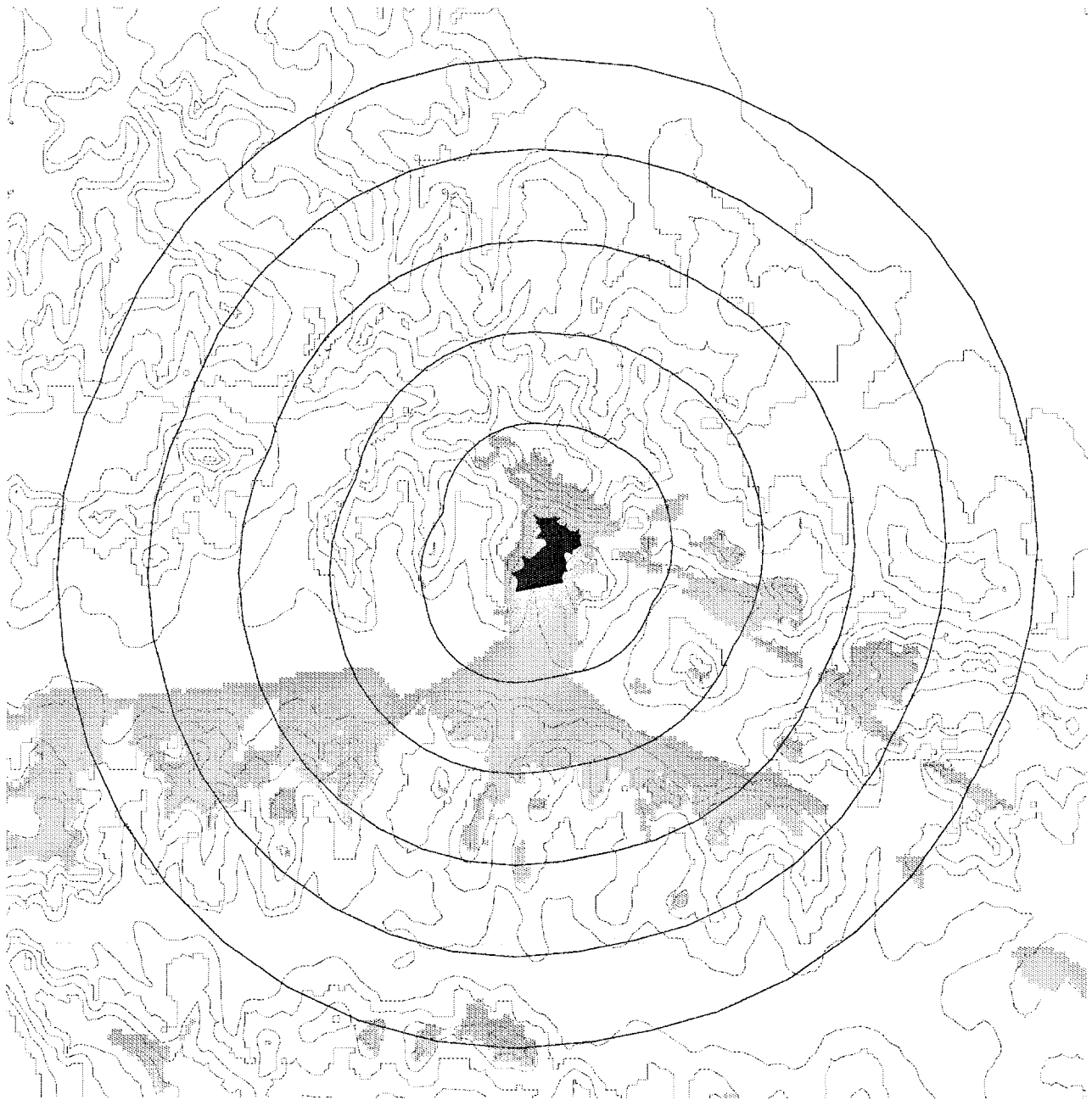


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Wastewater Project

**VISIBILITY MAPPING  
VIEW FROM DAM  
TWO ROCK RESERVOIR**

Figure 4.14-5b



0 5,000 10,000

scale: 1"=10,000'



Viewsheds calculated by Arch/Info using  
USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
using USGS 1:250,000 DEM data.

Roads and streams from USGS  
1:250,000 DLG data.

Rings represent buffering of the proposed  
reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

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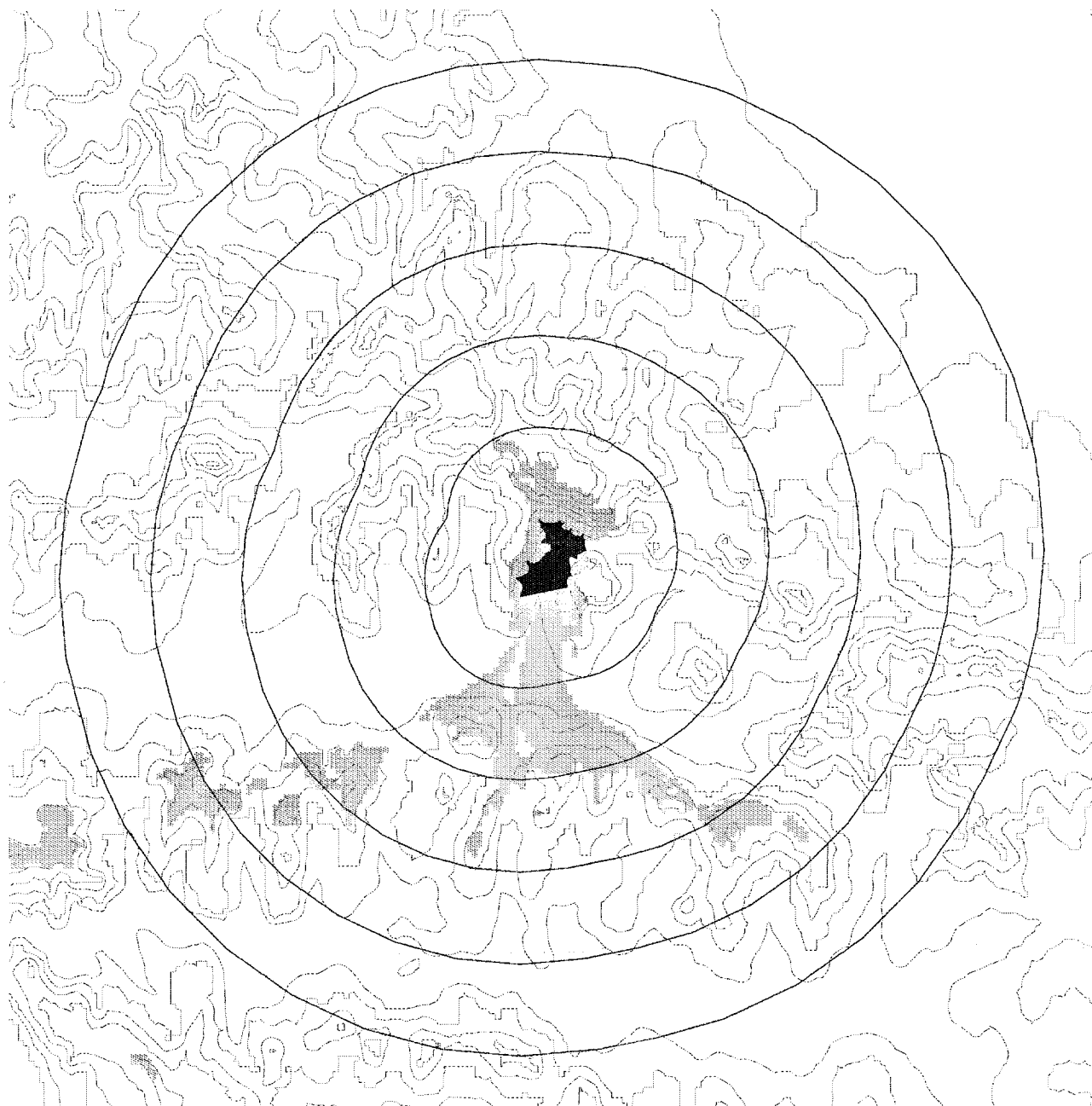


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Wastewater Project

**VISIBILITY MAPPING  
VIEW FROM RESERVOIR  
BLOOMFIELD RESERVOIR**

Figure 4.14-6a



0 5,000 10,000  
 scale: 1"=10,000'







Viewsheds calculated by Arch/Info using  
 USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
 using USGS 1:250,000 DEM data.

Roads and streams from USGS  
 1:250,000 DLG data.

Rings represent buffering of the proposed  
 reservoir at increments of one mile.

#### LEGEND

-  Reservoir
-  Watershed Boundary
-  Areas Having Visibility
-  Reservoir Buffering  
1 Mile increments

source: Dames & Moore

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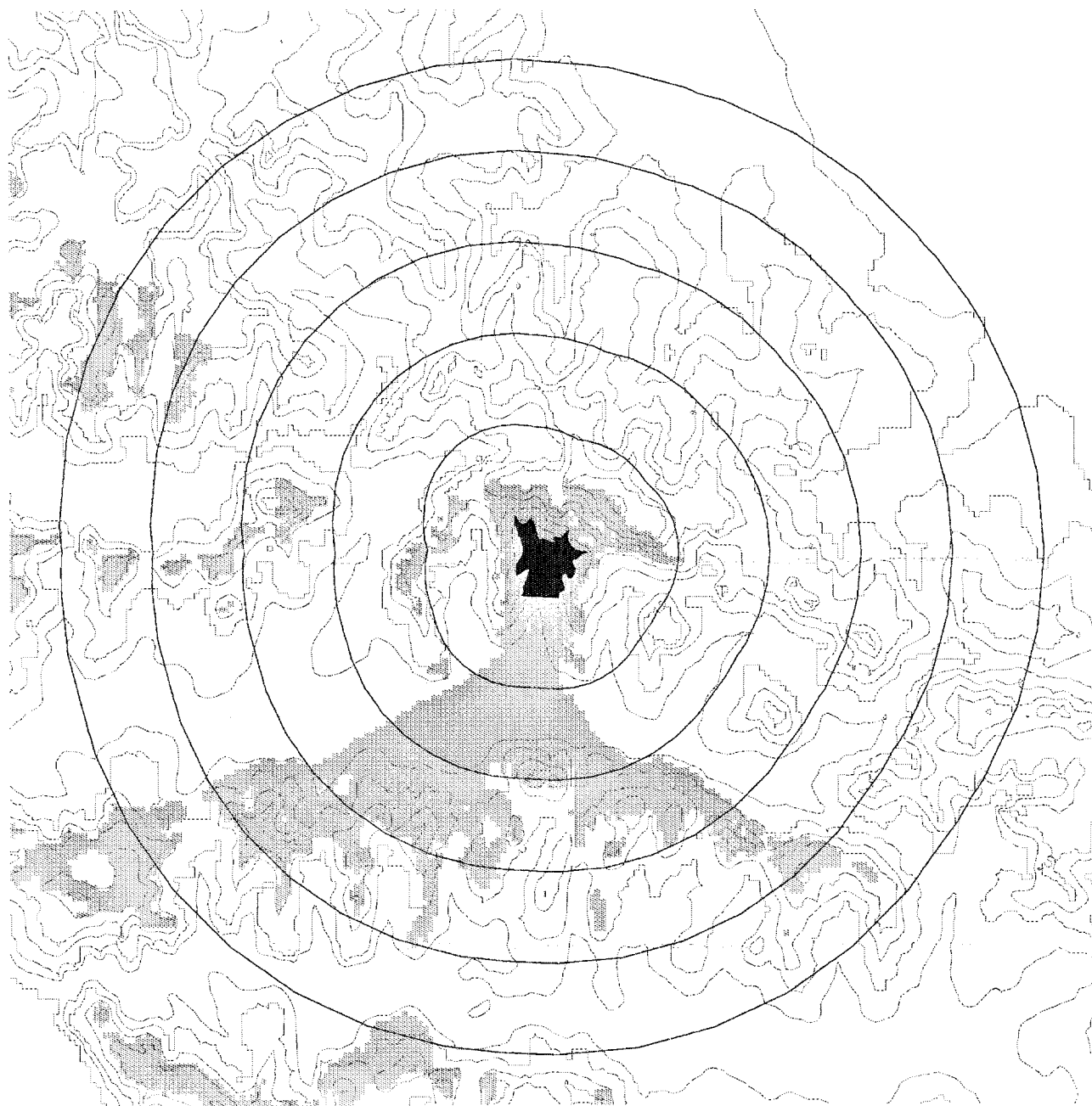


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Subregional Long-Term  
 Wastewater Project

**VISIBILITY MAPPING  
 VIEW FROM DAM  
 BLOOMFIELD RESERVOIR**

Figure 4.14-6b



0 5,000 10,000  
 scale: 1"=10,000'







Viewsheds calculated by Arch/Info using  
 USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
 using USGS 1:250,000 DEM data.

Roads and streams from USGS  
 1:250,000 DLG data.

Rings represent buffering of the proposed  
 reservoir at increments of one mile.

#### LEGEND

-  Reservoir
-  Watershed Boundary
-  Areas Having Visibility
-  Reservoir Buffering  
1 Mile increments

source: Dames & Moore

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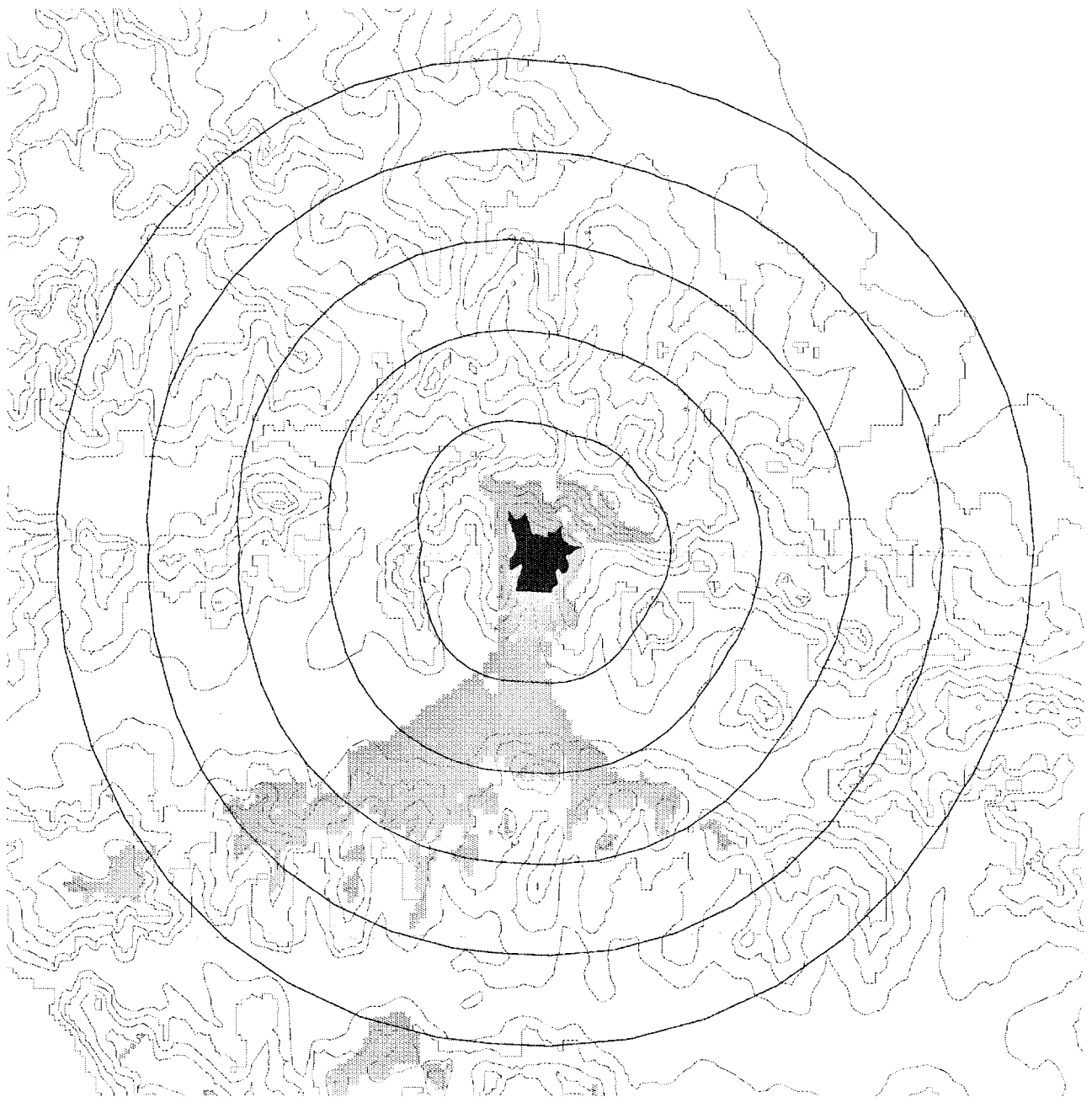


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 Wastewater Project

**VISIBILITY MAPPING**  
**VIEW FROM RESERVOIR**  
**CARROLL ROAD RESERVOIR**

Figure 4.14-7a



0 5,000 10,000

scale: 1"=10,000'



Viewsheds calculated by Arch/Info using USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info using USGS 1:250,000 DEM data.

Roads and streams from USGS 1:250,000 DLG data.

Rings represent buffering of the proposed reservoir at increments of one mile.

#### LEGEND



Reservoir



Watershed Boundary



Areas Having Visibility



Reservoir Buffering  
1 Mile increments

source: Dames & Moore

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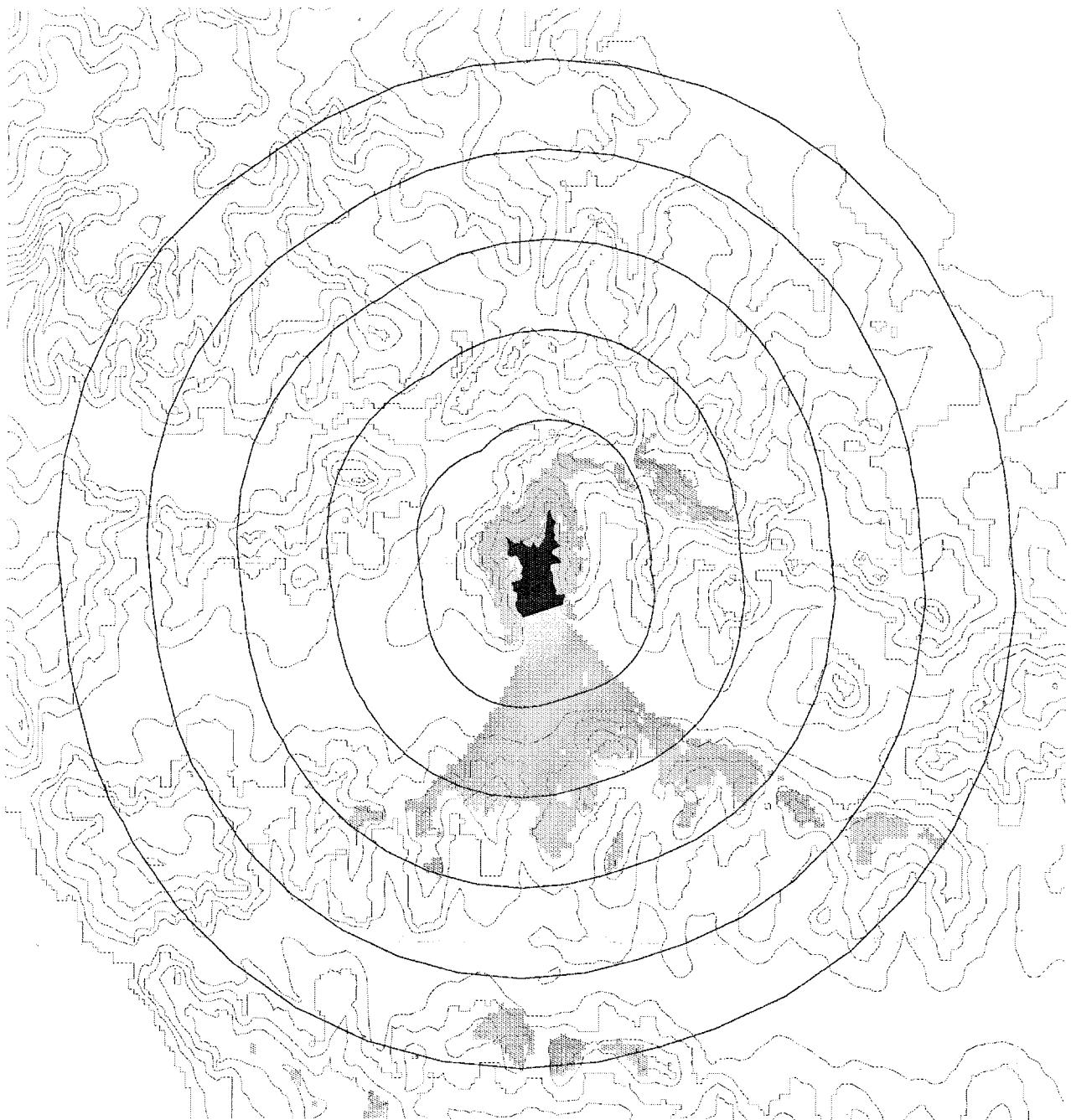


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Subregional Long-Term  
Wastewater Project

**VISIBILITY MAPPING  
VIEW FROM DAM  
CARROLL ROAD RESERVOIR**

Figure 4.14-7b



0 5,000 10,000

scale: 1"=10,000'



Viewsheds calculated by Arch/Info using  
USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
using USGS 1:250,000 DEM data.

Roads and streams from USGS  
1:250,000 DLG data.

Rings represent buffering of the proposed  
reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

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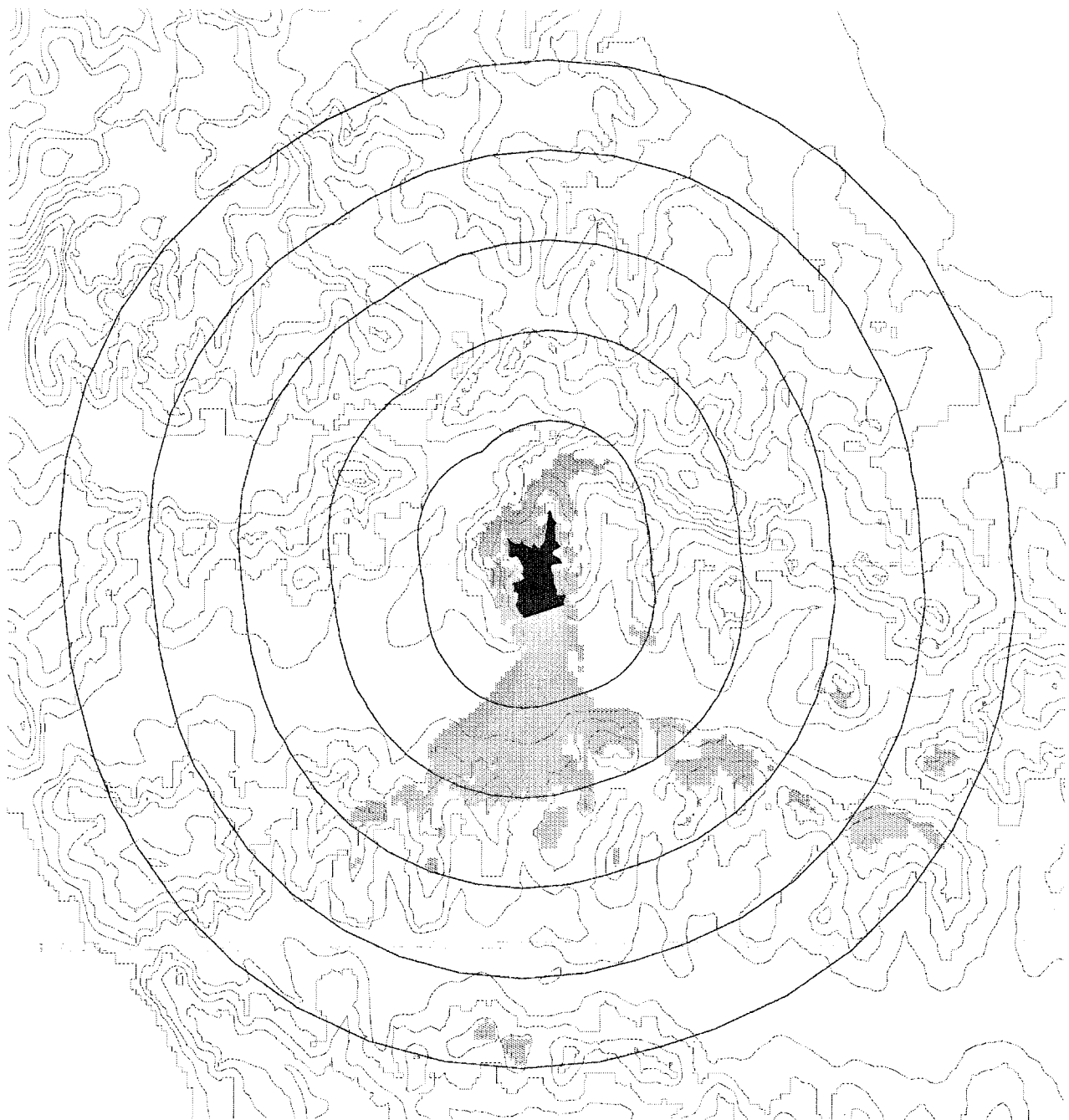
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Wastewater Project

**VISIBILITY MAPPING  
VIEW FROM RESERVOIR  
VALLEY FORD RESERVOIR**

Figure 4.14-8a





0 5,000 10,000

scale: 1"=10,000'



Viewsheds calculated by Arch/Info using  
USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
using USGS 1:250,000 DEM data.

Roads and streams from USGS  
1:250,000 DLG data.

Rings represent buffering of the proposed  
reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile Increments**

source: Dames & Moore

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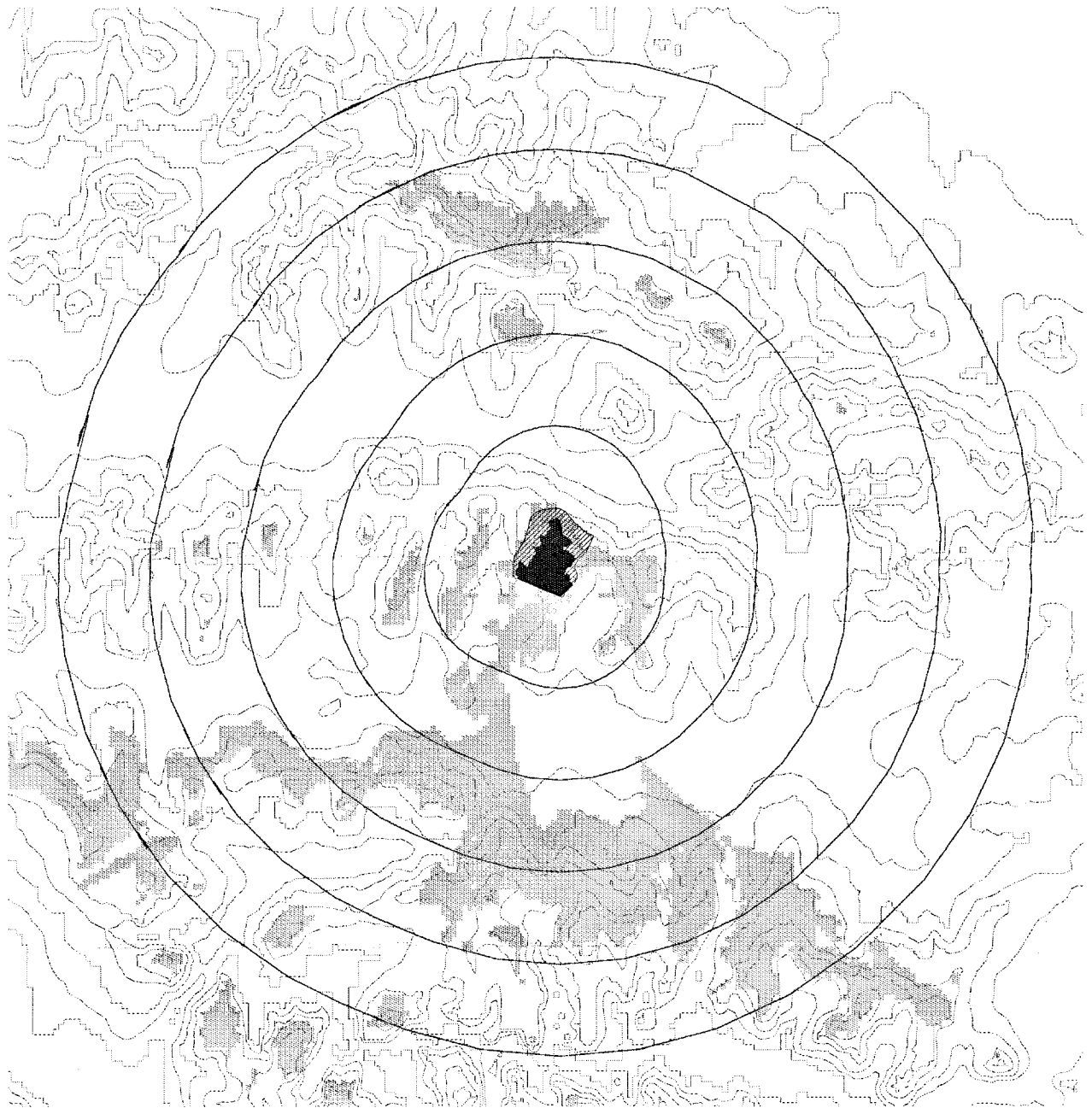


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Subregional Long-Term  
Wastewater Project

**VISIBILITY MAPPING  
VIEW FROM DAM  
VALLEY FORD RESERVOIR**

Figure 4.14-8b



0 5,000 10,000



scale: 1"=10,000'



Viewsheds calculated by Arch/Info using  
USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info  
using USGS 1:250,000 DEM data.

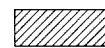
Roads and streams from USGS  
1:250,000 DLG data.

Rings represent buffering of the proposed  
reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

HARLAND BARTHOLOMEW & ASSOCIATES, INC.

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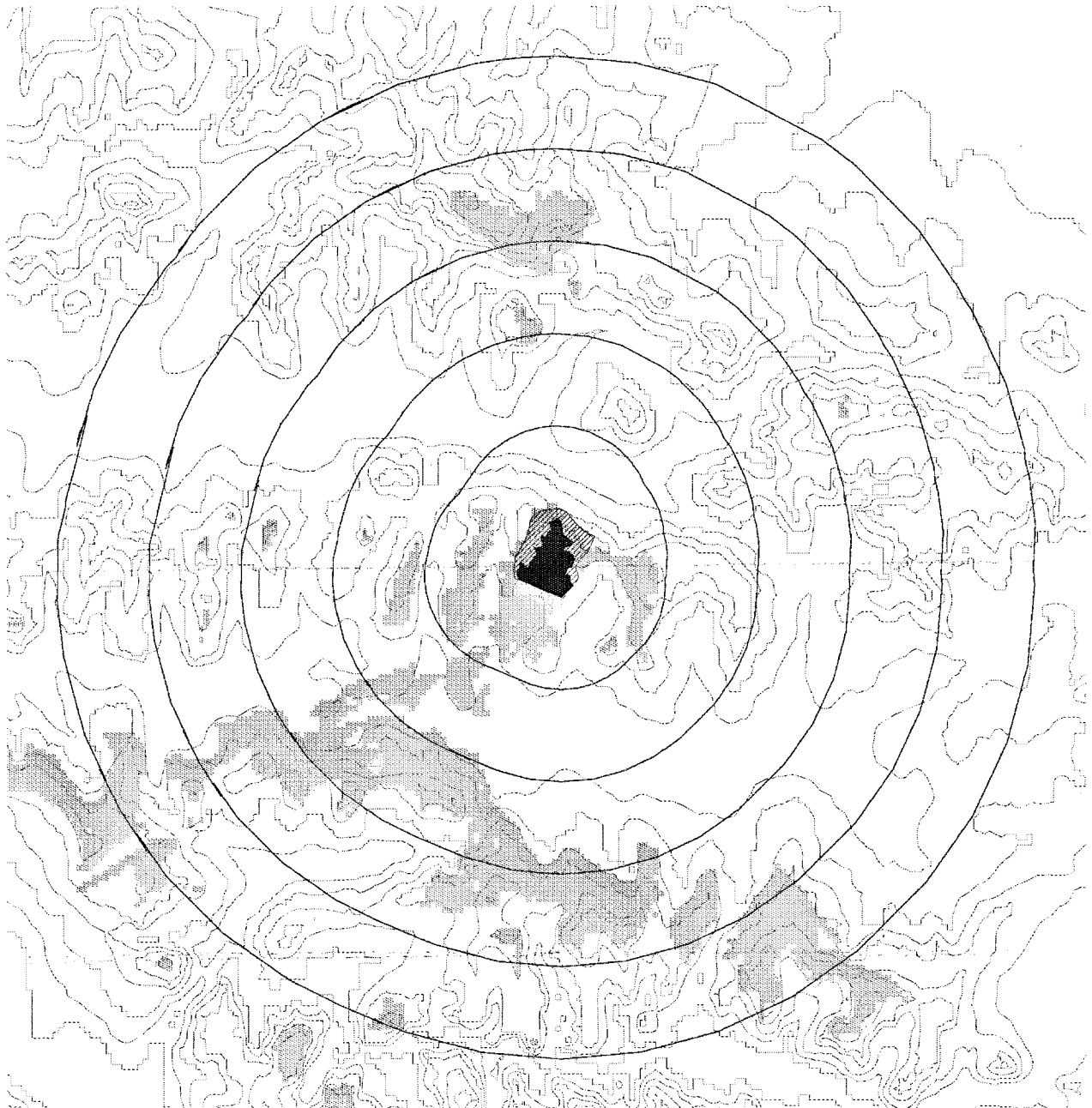


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Subregional Long-Term  
Wastewater Project

**VISIBILITY MAPPING  
VIEW FROM RESERVOIR  
HUNTLEY RESERVOIR**

Figure 4.14-9a



0 5,000 10,000

scale: 1"=10,000'



Viewsheds calculated by Arch/Info using USGS 1:250,000 DEM data.

30 meter contours calculated by Arc/Info using USGS 1:250,000 DEM data.

Roads and streams from USGS 1:250,000 DLG data.

Rings represent buffering of the proposed reservoir at increments of one mile.

#### LEGEND



**Reservoir**



**Watershed Boundary**



**Areas Having Visibility**



**Reservoir Buffering  
1 Mile increments**

source: Dames & Moore

HARLAND BARTHOLOMEW & ASSOCIATES, INC.

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*Santa Rosa*

Subregional Long-Term  
Wastewater Project

**VISIBILITY MAPPING  
VIEW FROM DAM  
HUNTLEY RESERVOIR**

Figure 4.14-9b

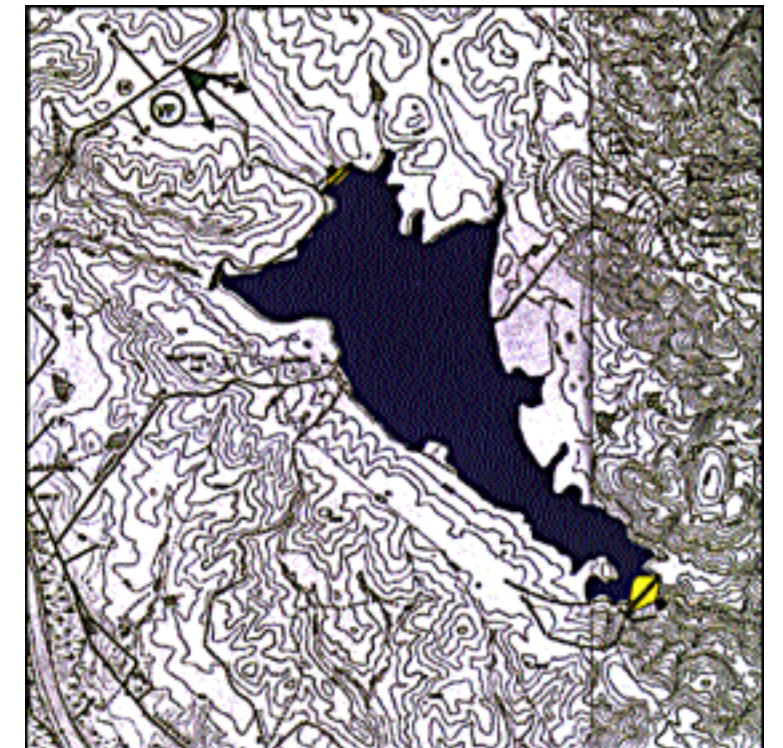




Existing view from Gulch Road.




Computer model of dam one year after construction



Viewpoint Location



Computer model of dam

Source:  **DAMES & MOORE**




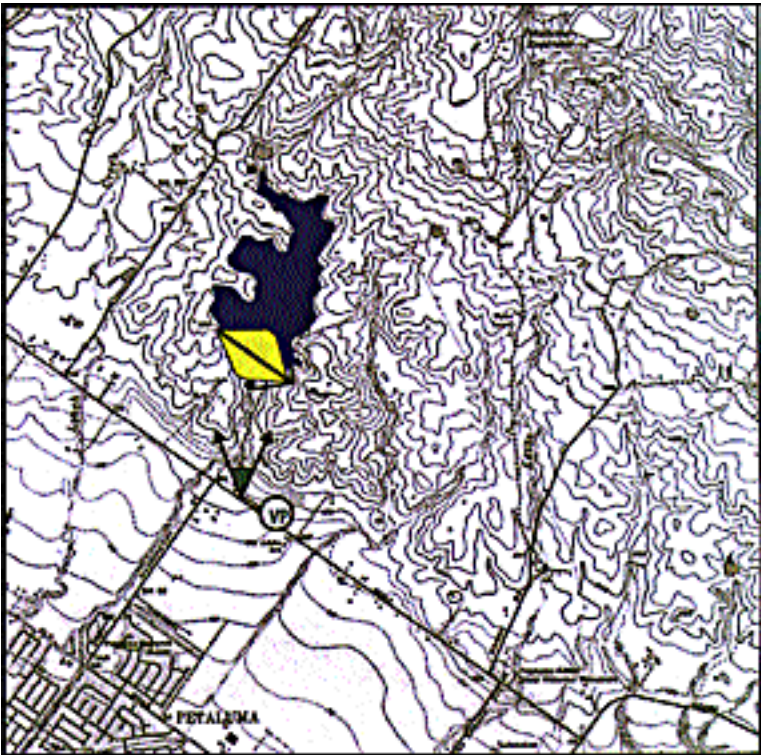


Existing view from Adobe Road near intersection of Washington Street



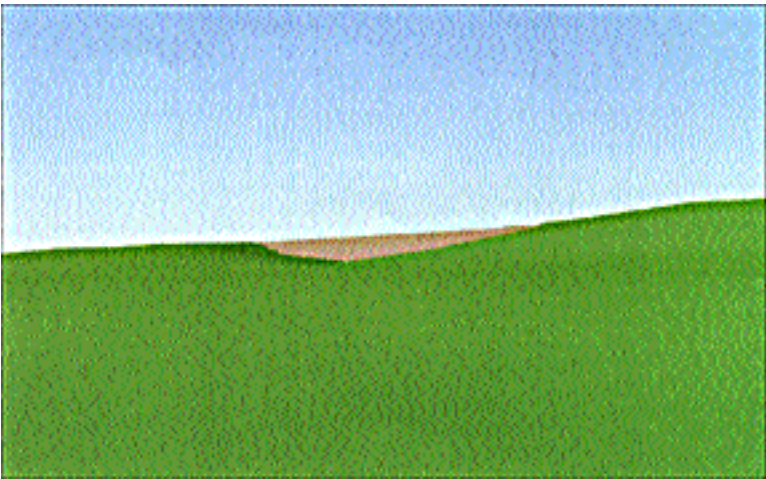
Computer model of dam one year after construction

Source:  **DAMES & MOORE**



Viewpoint Location

Source:USGS



Existing view from Highway 1






Existing view from Highway 121



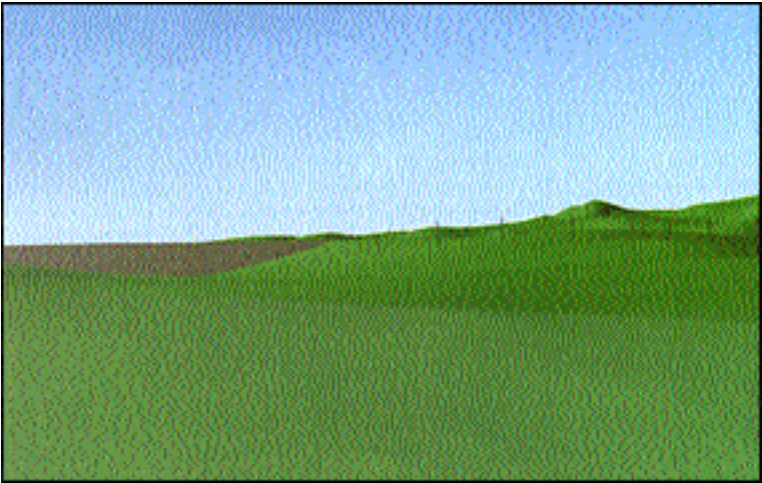
Computer simulation of dam one year after construction

Source:  **DAMES & MOORE**



Viewpoint Location

Source:USGS



Computer model of dam






Existing view from road off Lakeville Highway.



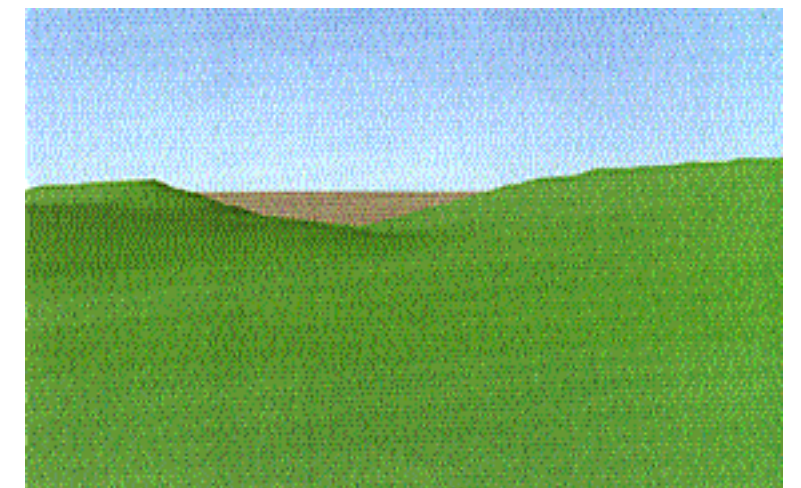
Computer simulation of dam one year after construction

Source:  **DAMES & MOORE**



Viewpoint Location

Source:USGS

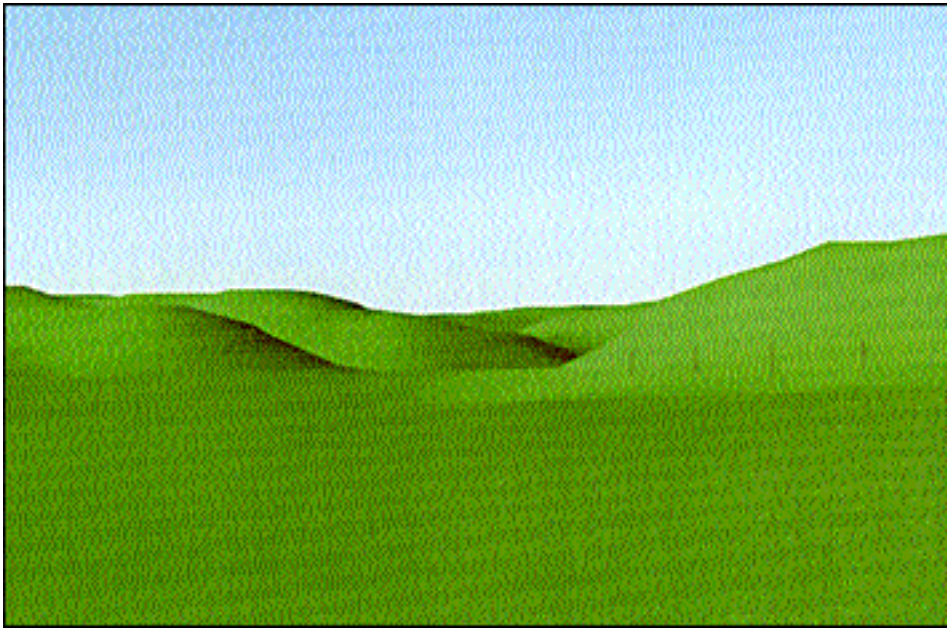


Computer model of dam.




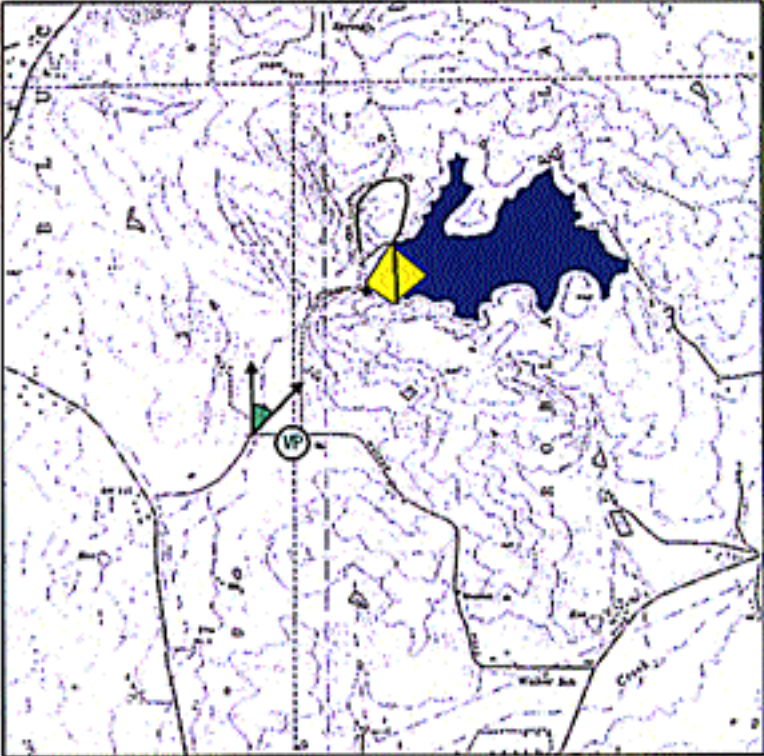


Existing view from Walker Road



Computer model of view from Walker Road

Source:  **DAMES & MOORE**



Viewpoint Location Source:USGS




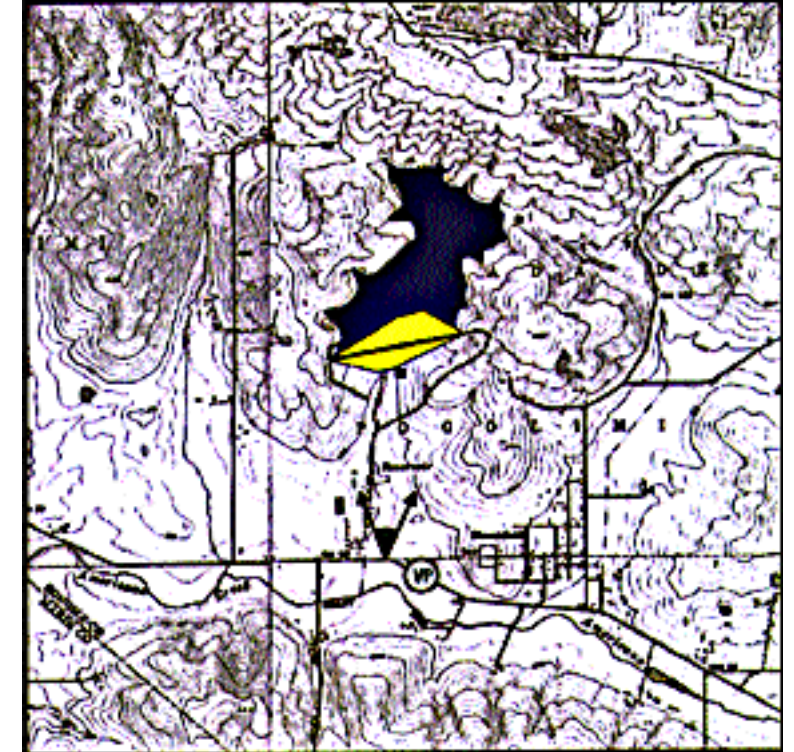


Existing view from Highway 1



Computer model of dam one year after construction

Source:  **DAMES & MOORE**



Viewpoint Location

Source:USGS



Computer model of dam






Existing view from intersection of Valley Ford Road and Carroll Road



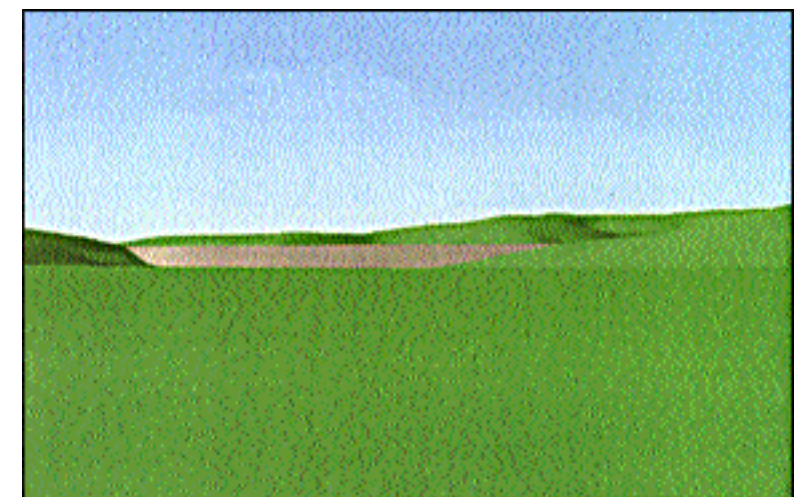
Computer model of dam one year after construction

Source:  **DAMES & MOORE**



Viewpoint Location

Source:USGS



Computer model of dam




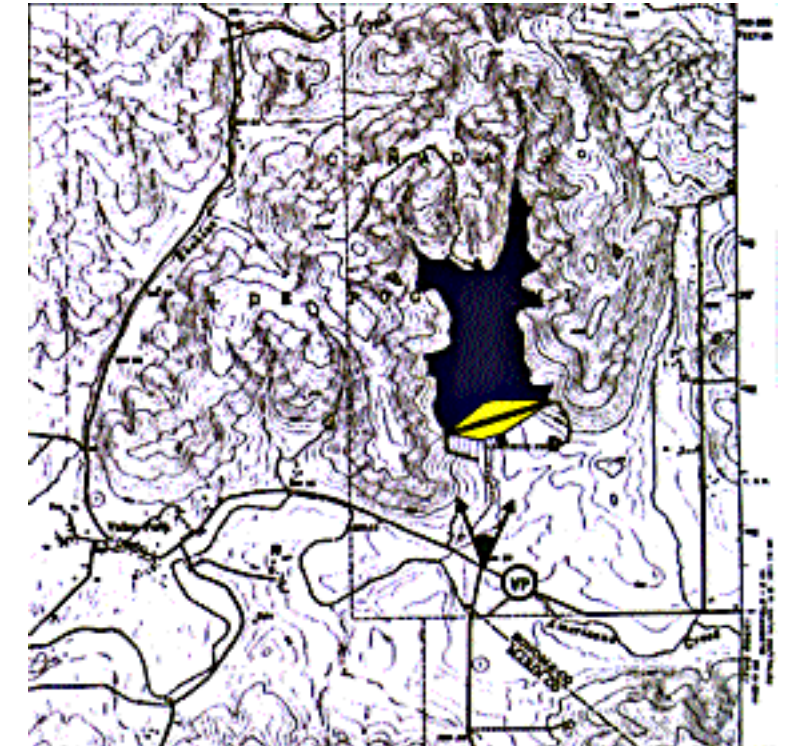


Existing view from Highway 1 and Valley Ford Road



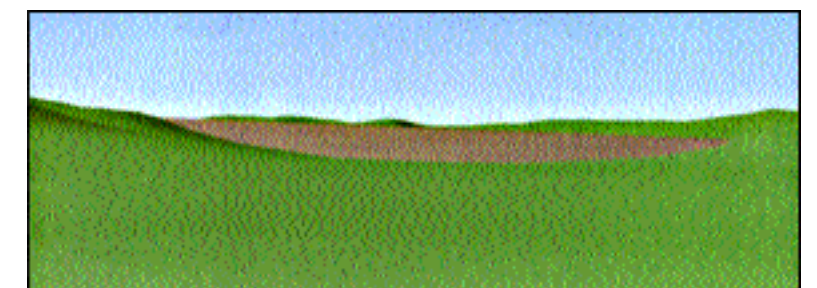
Computer model of dam one year after construction

Source:  **DAMES & MOORE**



Viewpoint Location

Source:USGS

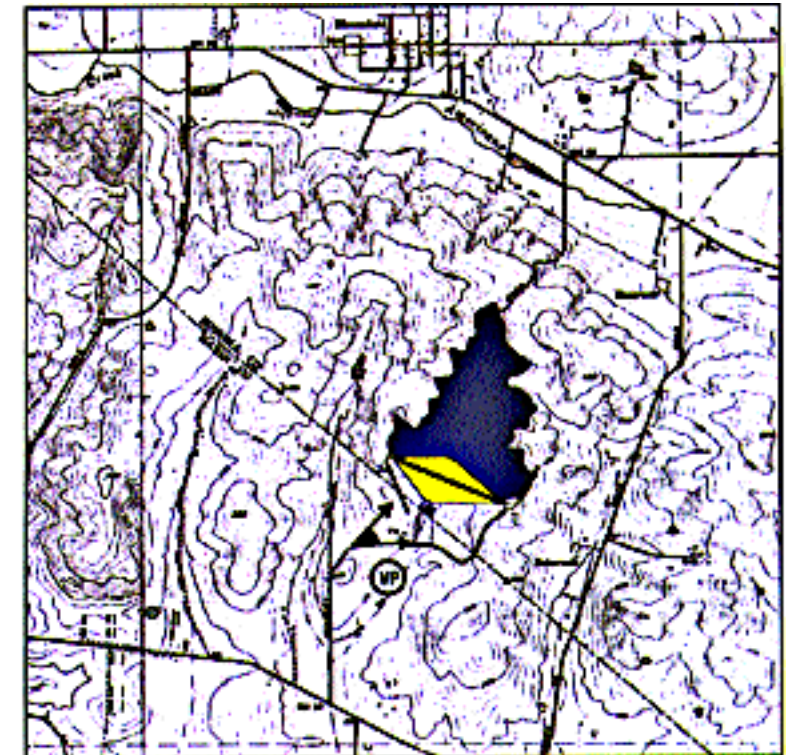


Computer model of dam



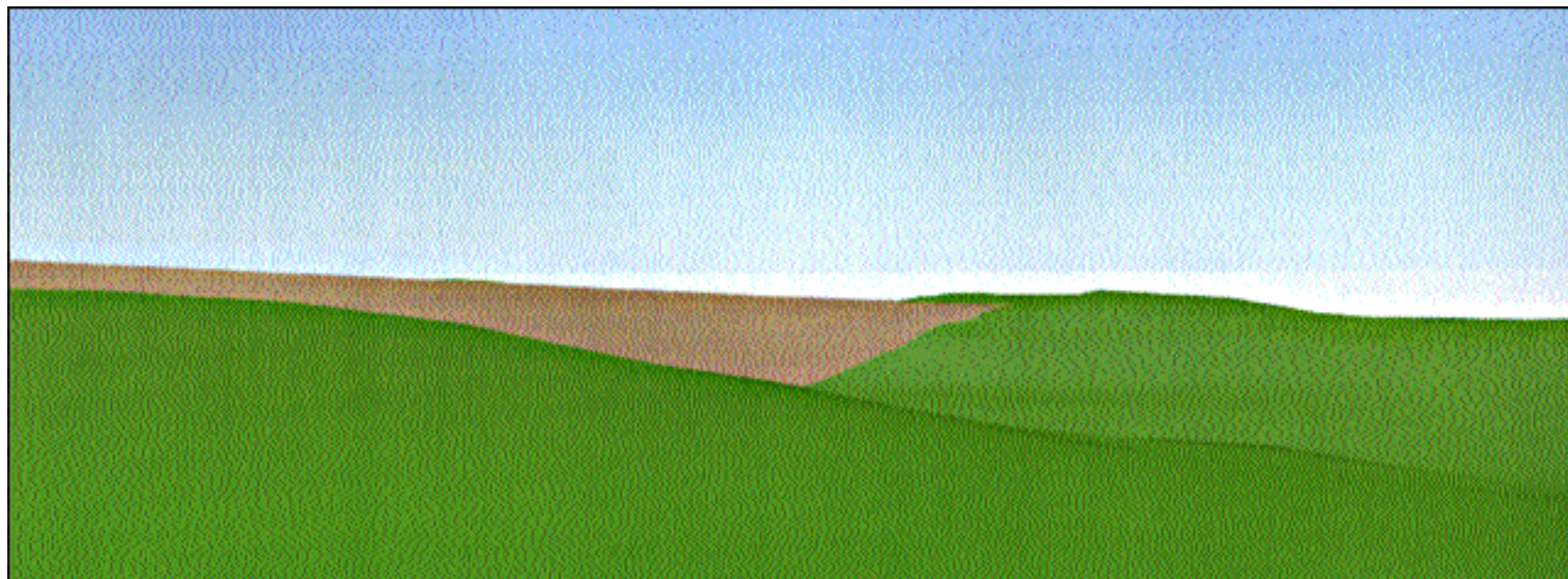


Existing view from Huntley Road.




Viewpoint Location

Source:USGS



Computer model of dam.

Source:  **DAMES & MOORE**



However, no mitigation is available to reduce the impact on visual contrast for the Bloomfield and Carroll Road sites (Alternatives 3B and 3C) related to views of the reservoir bottom from overlooking residences. There is no mitigation available to reduce the impacts on visual obstruction for the Tolay, Adobe Road, Sears Point, Two Rock, Bloomfield, Carroll Road and Valley Ford sites (Alternatives 2A, 2B, 2C, 2D, 3A, 3B, 3C and 3D) to less than significant. Mitigation measures intended to reduce view obstruction or replace a degraded/eliminated visual resource are not available. Typically, the dam will block views up a scenic valley containing interesting landform and trees. Another condition that cannot be mitigated is an elevated viewpoint that overlooks a scenic valley that will be inundated. Because the water level may fluctuate and the edge conditions may be unsightly, the presence of the reservoir does not constitute replacing a scenic resource of equal value.

## PUMP STATION COMPONENT

**Table 4.14-7**

### Visual Resource Impacts by Component - Pump Stations

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
14.6.1. Will the pump station component be inconsistent with the Sonoma County General Plan Open Space Element regarding Community Separator Areas seen from public viewpoints?	Strong visual contrast	None	C, P,	==
	Permanent Visual Obstruction	None	C, P,	==
	Loss or alteration of a specific scenic resource	None	C, P	==
14.6.2. Will the pump station component be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units seen from public viewpoints?				

**Table 4.14-7**

Visual Resource Impacts by Component - Pump Stations

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
• Pump Stations G1 and G2	Strong visual contrast	Strong	C, P	●
• Pump Stations SBPS-3, SBPS-11, SBPS-12, WBPS-6, LBPS-2, LBPS-3 and LBPS-4		Strong	C, P	⊙
• Pump Stations ARSW, AR, L, and SEB		Slight	C, P	○
• All other pump stations		None	C, P	==
• Pump Stations G1 and G2	Permanent Visual Obstruction	Permanent	C, P	●
• All other pump stations		None	C, P	==
• All pump stations	Loss or alteration of a specific scenic resource	None	C, P	==
14.6.3. Will the pump station component be inconsistent with the Sonoma County or City General Plan Open Space Elements regarding Scenic Corridors?				
• Pump Stations G1, G2, SP, and SBPS-10	Strong visual contrast	Strong	C, P	●
• Pump Stations SBPS-2, SBPS-3, SBPS-7, SBPS-8, SBPS-11, SBPS-12, WBPS-5, WBPS-6, WBPS-8, LBPS-1, and LBPS-3		Strong	C, P	⊙
• Pump Stations SEB, T, AR, B, CR, and VF		Slight	C, P	○
• All other pump stations		None	C, P	==

**Table 4.14-7**

Visual Resource Impacts by Component - Pump Stations

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
<ul style="list-style-type: none"> <li>Pump Stations G1 and G2</li> </ul>	Permanent Visual Obstruction	Permanent	C, P	●
<ul style="list-style-type: none"> <li>All other pump stations</li> </ul>		None	C, P	==
<ul style="list-style-type: none"> <li>All pump stations</li> </ul>	Loss or alteration of a specific scenic resource	None	C, P	==
14.6.4. Will the pump station component be inconsistent with minimum building setbacks for structures along Sonoma County designated scenic corridors?				
<ul style="list-style-type: none"> <li>Pump Stations G2, SBPS-2, SBPS-3, SBPS-7, SBPS-8, SBPS-10, SBPS-11, SBPS-12, WBPS-5, WBPS-6, WBPS-8, LBPS-1, and LBPS-3</li> </ul>	Less than 200 feet	25 feet or less	C, P	●
<ul style="list-style-type: none"> <li>All other pump stations</li> </ul>		None	C, P	==
14.6.5. Will the pump station component cause an adverse effect on foreground or middleground views from a high volume travelway (excluding scenic corridors), recreation use area, or other public use area?				
<ul style="list-style-type: none"> <li>Pump Stations G3, G4, and S</li> </ul>	Strong visual contrast	Strong	C, P	●
<ul style="list-style-type: none"> <li>Pump Stations FGB, BVB, SBPS-9, WBPS-3, WBPS-4, WBPS-7, LBPS-2, and LBPS-4</li> </ul>		Strong	C, P	⊙
<ul style="list-style-type: none"> <li>Pump Stations L and H</li> </ul>		Slight	C, P	○
<ul style="list-style-type: none"> <li>All other pump stations</li> </ul>		None	C, P	==

**Table 4.14-7**

Visual Resource Impacts by Component - Pump Stations

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
<ul style="list-style-type: none"> <li>Pump Stations G3 and G4</li> </ul>	Permanent Visual Obstruction	Permanent	C, P	●
<ul style="list-style-type: none"> <li>All other pump stations</li> </ul>		None	C, P	==
<ul style="list-style-type: none"> <li>All pump stations</li> </ul>	Loss or alteration of a specific scenic resource	None	C, P	==
14.6.6. Will the pump station component cause an adverse effect on foreground views from one or more private residences (not subject to relocation as a result of the Project)?				
<ul style="list-style-type: none"> <li>Pump Station G-2, S, T, SP, TR, B and SBPS-10</li> </ul>	Strong visual contrast	Strong	C, P	●
<ul style="list-style-type: none"> <li>Pump Stations SBPS-2, SBPS-3, SBPS-7, SBPS-8, SBPS-9, SBPS-11, SBPS-12, WBPS-1, WBPS-3, WBPS-4, WBPS-5, WBPS-6, WBPS-7, WBPS-8, LBPS-1, LBPS-2, LBPS-3, and LBPS-4</li> </ul>		Strong	C, P	⊙
<ul style="list-style-type: none"> <li>Pump Stations L, AR, CR, VF, and H</li> </ul>		Slight	C, P	○
<ul style="list-style-type: none"> <li>All other pump stations</li> </ul>		None	C, P	==
<ul style="list-style-type: none"> <li>Pump Station G-2</li> </ul>	Permanent Visual Obstruction	Permanent	C, P	●
<ul style="list-style-type: none"> <li>All other pump stations</li> </ul>		None	C, P	==
<ul style="list-style-type: none"> <li>All pump stations</li> </ul>	Loss or alteration of a specific scenic resource	None	C, P	==



**Table 4.14-7**

**Visual Resource Impacts by Component - Pump Stations**

<b>Evaluation Criteria</b>	<b>Point of Significance</b>	<b>Impact</b>	<b>Type of Impact<sup>1</sup></b>	<b>Level of Significance<sup>2</sup></b>
14.6.7. Will the pump station component create a new light source?	Greater than 0 residential units affected	None	C, P	==

Source: Harland Bartholomew and Associates, Inc., 1996

Notes:	1. Type of Impact:	2. Level of Significance:
C	Construction	● Significant impact before and after mitigation
P	Project	⊙ Significant impact before mitigation; less than significant impact after mitigation
		= No impact
		○ Less than significant impact; no mitigation proposed

**Impact: 14.6.1. and 7. Will the pump station component impact visual resources as based on evaluation criteria 1 and 7?**

**Analysis:** *No Impact. All Alternatives.*

All the pump stations are located outside designated Community Separator areas delineated in the Sonoma County General Plan.

Low intensity lights at the building entrance may be used during maintenance, but the lights will be shielded to avoid casting light on residential properties. Lights will only be turned on by personnel when needed, and will not be on continuously or automatically.

Alternatives 1 and 5 do not have a new pump station component.

**Mitigation:** No mitigation is needed.

**Impact: 14.6.2. Will the pump station component be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units seen from public viewpoints?**

**Analysis:** *Significant; Alternatives 2, 3 and 4.*

*Pump Stations G1, G2, SBPS-3, SBPS-11, SBPS-12, WBPS-6, LBPS-2, LBPS-3 and LBPS-4.*

These sites are located within a designated Sonoma County Scenic Landscape Unit, and strong visual contrast due to the proximity of the

structures to the roadway will occur. View obstruction from public viewpoints will be minimal due to the small size of the structures (typically 20 feet by 20 feet or smaller), except for pump stations G-1 and G-2, which have larger structures (a 30 feet by 60 feet pump station building, along with a 50 foot high storage tank and, for pump station G-2, an electrical substation). In addition, the proposed electrical service to Pump Station G-2 will introduce another overhead electrical line on the north side of Highway 128. (The other pump stations will have short [approximately 100-200 feet] connections to existing electrical service lines). Refer to photo simulations Figures 4.14-19 and 4.14-20 at the end of the pump station component evaluation.

No specific scenic resources have been identified which will be impacted by any of these pump station sites.

*Pump Stations ARSW, AR, L, and SEB.*

Pump stations ARSW AR and L which are at the Adobe Road and Lakeville Hillside reservoir sites will be several hundred feet from a public viewpoint, and due to the distance will not create a strong visual contrast. The proposed 12 kV electrical line from the existing service on Sonoma Mountain Road to Pump Station ARSW also will not be visible from public view except where it joins the existing line. (The other pump stations will have short [approximately 100-200 feet] connections to existing electrical service lines.)

Pump station SEB is located behind the Delta Pond south of Guerneville Road and screened from public view by the pond itself. It will also be served by a short underground connection from an existing electrical line. No specific scenic resources have been identified which will be impacted by any of these pump station sites.

*All other pump stations.*

None of the other pump stations are located in a designated Scenic Landscape Unit.

*No Impact; Alternatives 1 and 5.*

These alternatives do not have a new pump station component.

Mitigation: *Alternatives 2, 3, and 4.*

2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.

*Alternatives 1 and 5.* No mitigation is needed.

After

Mitigation: *Significant after Mitigation; Alternative 4 (Pump Stations G-1 and G-2)*

*Less Than Significant after Mitigation; Alternatives 2 and 3 (Pump Stations SBPS-3, SBPS-11, SBPS-12, WBPS-6, LBPS-2, LBPS-3 and LBPS-4)*

Except for Pump Stations G-1 and G-2, this measure will reduce the visual contrast of the pump stations by introducing vegetation to screen the structure from public view. The use of vegetation, will also blend the site with the surrounding landscape. The scale of structures at Pump Stations G-1 and G-2 is such that screening with vegetation will only partially eliminate views of the structures from public viewpoints. The 50 feet high storage tanks, in particular, will not be able to be screened from view by vegetation due to the proximity to the roadway. In addition, the proposed electrical service to Pump Station G-2 on the north side of Highway 128 could not effectively be screened from view.

**Impact: 14.6.3. and 4. Will the pump station component be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Corridors or with minimum building setbacks along Scenic Corridors?**

*Significant. Alternatives 2, 3, and 4.*

*Pump Stations G1, G2, SP, SBPS-2, SBPS-3, SBPS-7, SBPS-8, SBPS-10, SBPS-11, SBPS-12, WBPS-5, WBPS-6, WBPS-8, LBPS-1, and LBPS-3.* Except for Pump Station SP, these sites are located within a designated Sonoma County Scenic Corridor, and strong visual contrast due to the proximity of the structures to the roadway will occur. View obstruction from public viewpoints will be minimal due to the small size of the structures (typically 20 feet by 20 feet or smaller), except for pump stations G-1 and G-2, which have larger structures (a 30 feet by 60 feet pump station building, along with a 50 foot high storage tank and, for pump station G-2, an electrical substation).

To provide service to Pump Station SP at the Sears Point reservoir, a new 115 kV line will be constructed along Highway 121. This will introduce additional service with 70 foot high poles in a rural area. In addition, the proposed electrical service to Pump Station G-2 visual contrast from another overhead electrical line on the north side of Highway 128 and a proposed 115 kV line along Railroad Avenue and Petaluma Hill Road to Pump Station SBPS-10 will introduce additional service with 70 feet high of poles along these roads. (The other pump stations will have short [approximately 100-200 feet] connections to existing electrical service lines.)

All of these pump stations, except Pump Station SP, will have structures located within the 200 feet minimum setback required along Sonoma

County Scenic Corridors. No specific scenic resources have been identified which will be impacted by any of these pump station sites.

*Pump Stations SEB, T, AR, B, CR, and VF.* Pump stations located on the Tolay, Adobe Road, Bloomfield, Carroll Road and Valley Ford reservoir sites will be several hundred feet from a public viewpoint, and due to the distance will not create a strong visual contrast. The extension of the existing 12 kV electrical line on the Bloomfield site from its present terminus approximately 2,500 feet north of Valley Ford Road to Pump Station B will be in the middleground viewed from Valley Ford road and will not represent an additional contrasting visual element. The proposed new 12 kV electrical line from the east end of Cannon Lane to Pump Station T at the Tolay Dam site will not be visible from public view, except where it joins the existing line. (The other pump stations will have short [approximately 100-200 feet] connections to existing electrical service lines.)

Pump station SEB is located behind the Delta Pond south of Guerneville Road and screened from public view by the pond itself. No specific scenic resources have been identified which will be impacted by any of these pump station sites. None of these pump stations will be located within the required setback along Scenic Corridors.

*All other pump stations.* None of the other pump stations are located in a designated Scenic Corridor.

*No Impact; Alternatives 1 and 5.*

These alternatives do not have a new pump station component.

Mitigation: *Alternatives 2, 3, and 4. (Pump Stations G1, G2, SP, SBPS-2, SBPS-3, SBPS-7, SBPS-8, SBPS-10, SBPS-11, SBPS-12, WBPS-5, WBPS-6, WBPS-8, LBPS-1, and LBPS-3).*

2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.

*Alternatives 1 and 5.* No mitigation is needed.

After

Mitigation: *Significant after Mitigation; Alternatives 2, 3, and 4.*

Except for Pump Stations G-1, G-2, SP, and SBPS-10, this measure will reduce the visual contrast of the pump stations by introducing vegetation to screen the structure from public view. The use of vegetation, will also blend the site with the surrounding landscape. The scale of structures at Pump Stations G-1 and G-2 is such that screening with vegetation will only partially eliminate views of the structures from public viewpoints. The 50 foot high storage tank at Pump Station G-2, in particular, will not be able to be screened from view by vegetation due to the proximity to the

roadway, and the proposed electrical lines north of Highway 128, and along Railroad Avenue and Petaluma Hill Road cannot be screened from view.

The impact related to the location of structures within the required 200 foot setback along scenic corridors cannot be mitigated. The location of the structures cannot feasibly be changed and providing a greater setback will create additional intrusions on agricultural land, potential natural habitat and residential areas. The structures will be subject to design review under Sonoma County policies for Scenic Corridors.

**Impact: 14.6.5. Will the pump station component cause an adverse effect on foreground or middleground views from a high volume travelway (excluding scenic corridors), recreation use area, or other public use area?**

**Analysis:** *Significant; Alternatives 2, 3, and 4.*

*Pump Stations S, G3, G4, FGB, BVB, SBPS-9, WBPS-3, WBPS-4, WBPS-7, LBPS-2, and LBPS-4.* These sites are along frequently traveled roads, and strong visual contrast due to the proximity of the structures to the roadway will occur. View obstruction from public viewpoints will be minimal due to the small size of the structures (typically 20 feet by 20 feet or smaller), except for pump stations G-3 and G-4, which have larger structures (a 30 feet by 60 feet pump station building, along with a 50 foot high storage tank and, for pump station G-2, an electrical substation). A new electrical service along Pine Flat Road to Pump Stations G-3 and G-4 (and extending to Pump Station G-2 at the west end of Pine Flat Road as well) will introduce a new visual element. While this line at least in part will parallel the existing 230 kV line to the Geysers, it will create additional visual contrast in an otherwise undeveloped area.

Although the proposed electrical line Pump station S is located among other structures at the Laguna Treatment Plant, and will not present any visual contrast with its surroundings, the proposed 115 kV electrical line with 70 foot high poles along the Laguna de Santa Rosa to serve Pump Station S will introduce a new contrasting visual element along the Laguna. The other pump stations will have short (approximately 100-200 feet) connections to existing electrical service lines.

No specific scenic resources have been identified which will be impacted by any of these pump station sites.

*Pump Stations L and H.* Pump stations L and H are at the Lakeville Hillside and Huntley reservoir sites several hundred feet from a public viewpoint, and due to the distance will not create a strong visual contrast. These pump stations will have short (approximately 100 feet) connections

to existing electrical service lines which will not introduce a new contrasting visual element.

*All other pump stations.* None of the other pump stations are located along a high volume travelway (excluding scenic corridors), recreation use area, or other public use area.

*No Impact; Alternatives 1 and 5.*

These alternatives do not have a new pump station component.

Mitigation: *Alternatives 2, 3, and 4.*

2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.

*Alternatives 1 and 5.* No mitigation is needed.

After

Mitigation: *Significant after Mitigation; Alternative 2, 3, and 4. (Pump Stations G3, G4 and S).*

Except for Pump Stations G-3, G-4 and S, this measure will reduce the visual contrast of the pump stations by introducing vegetation to screen the structure from public view. The use of vegetation, will also blend the site with the surrounding landscape. The scale of structures at Pump Stations G-3 and G-4 is such that screening with vegetation will only partially eliminate views of the structures from public viewpoints. The 50 foot high storage tanks, in particular, will not be able to be screened from view by vegetation due to the proximity to the roadway. The new electrical service lines to Pump Stations G-3, G-4 and S cannot be effectively screened from public view.

**Impact: 14.6.6. Will the pump station component may an adverse effect on foreground views from one or more private residences (not subject to relocation as a result of the Project)?**

Analysis: *Significant; Alternatives 2, 3 and 4.*

*Pump Stations G-2, S, T, SP, TR, B, SBPS-2, SBPS-3, SBPS-7, SBPS-8, SBPS-9, SBPS-10, SBPS-11, SBPS-12, WBPS-1, WBPS-3, WBPS-4, WBPS-5, WBPS-6, WBPS-7, WBPS-8, LBPS-1, LBPS-2, LBPS-3 and LBPS-4.* Pump Station G-2 and all of the agricultural irrigation booster pump stations are within the potential foreground view of one or more residences, and due to the small size of the parcels (approximately one acre), and proximity of the structures to the roadway, strong visual contrast with the residential character will occur. However, view obstruction from residences will be minimal due to the small size of the structures (typically 20 feet by 20 feet or smaller), except for pump station

G-2, which has larger structures (a 30 feet by 60 feet pump station building, along with a 50 foot high storage tank and, for pump station G-2, an electrical substation). The new electrical services to Pump Stations S, T, SP, TR, B and SBPS-10 will be visible to residences in the foreground view and will introduce new visual contrast in these views. (The other pump stations will have short [approximately 100-200 feet] connections to existing electrical service lines.)

No specific scenic resources have been identified which will be impacted by any of these pump station sites.

*Pump Stations L, AR, CR, VF and H.* These pump stations are at the proposed reservoir sites several hundred feet from the nearest residence, and while they will be in the foreground view (less than 2,000 feet) will not create a strong visual contrast or block any scenic views, due to the distance from the residence. These pump stations will have short (approximately 100-200 feet) connections to existing electrical service lines.

No specific scenic resources have been identified which will be impacted by any of these pump station sites.

*All other pump stations.* None of the other pump stations are visible in a foreground view from any residence.

*No Impact; Alternatives 1 and 5.*

These alternatives do not have a new pump station component.

Mitigation: *Alternatives 2, 3, and 4.*

2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.

*Alternatives 1 and 5.* No mitigation is needed.

After

Mitigation: *Significant after Mitigation; Alternatives 2, 3 and 4.*

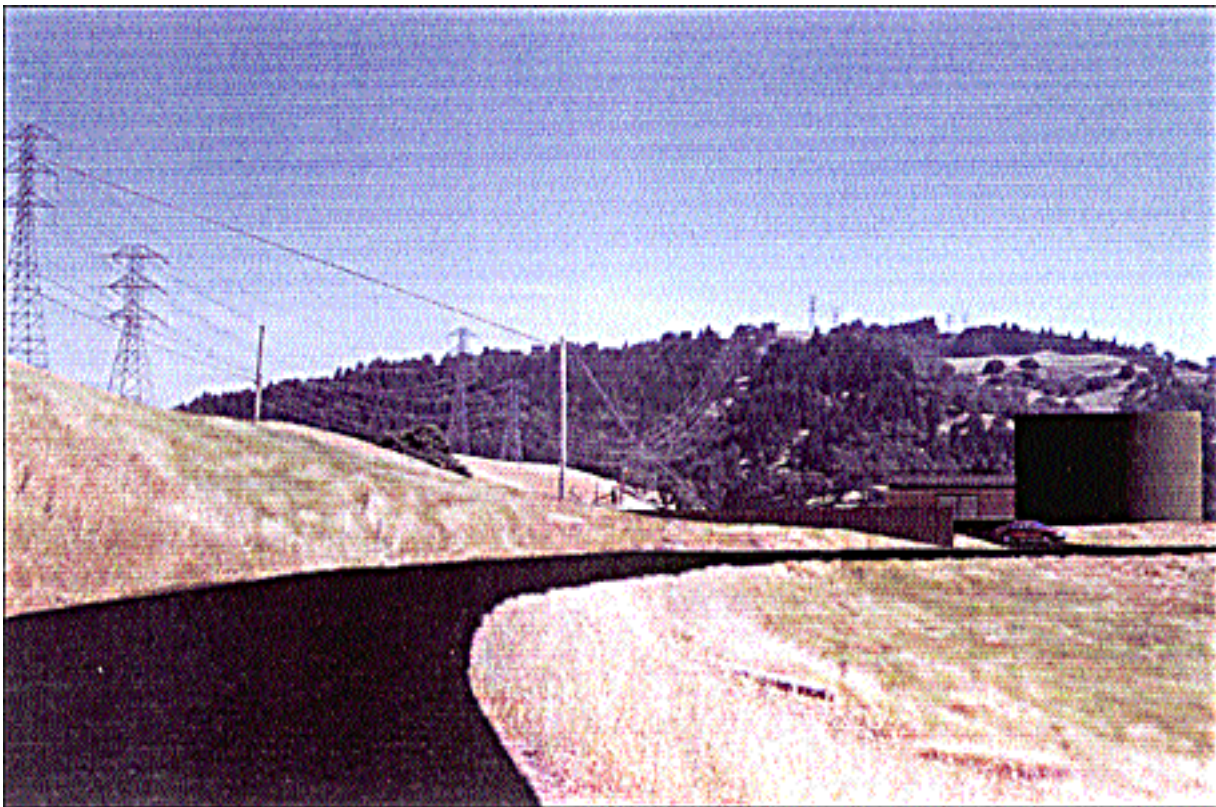
Except for Pump Stations G-2, S, T, SP, TR ,B and SBPS-10, this measure will reduce the visual contrast of the pump stations by introducing vegetation to screen the structure from public view. The use of vegetation, will also blend the site with the surrounding landscape. The scale of structures at Pump Station G-2 is such that screening with vegetation will only partially eliminate views of the structures from public viewpoints. The 50 foot high storage tanks, in particular, will not be able to be screened from view by vegetation due to the proximity to the roadway. The new electrical service lines to Pump Stations G-2, S, T, SP, TR , B and SBPS-10 cannot feasibly be screened from the view of nearby residences.





Source: William Kaneomoto





Source: William Kaneomoto

## Agricultural Irrigation Component

**Table 4.14-8**

### Visual Resource Impacts by Component - Agricultural Irrigation

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
14.7.1. Will the agricultural irrigation component be inconsistent with the Sonoma County General Plan Open Space Element regarding Community Separator Areas seen from public viewpoints?	Strong visual contrast	Slight	C, P	○
	Permanent View Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==
14.7.2. Will the agricultural irrigation component be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units seen from public viewpoints?	Strong visual contrast	Slight	C, P	○
	Permanent View Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P,	==
14.7.3. Will the agricultural irrigation component be inconsistent with the Sonoma County or City General Plan Open Space Elements regarding Scenic Corridors?	Strong visual contrast	Slight	C, P	○
	Permanent Visual Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==
14.7.4. Will the agricultural irrigation component be inconsistent with minimum building setbacks for structures along Sonoma County designated scenic corridors?	Less than 20 feet	None	P	==

**Table 4.14-8**

Visual Resource Impacts by Component - Agricultural Irrigation

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
14.7.5. Will the agricultural irrigation component cause an adverse effect on foreground or middleground views from a high volume travelway (excluding scenic corridors), recreation use area, or other public use area?	Strong visual contrast	Slight	C, P	○
	Permanent Visual Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==
14.7.6. Will the agricultural irrigation component cause an adverse effect on foreground views from one or more private residences (not subject to relocation as a result of the Project)?	Strong visual contrast	Slight	C, P	○
	Permanent Visual Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==
14.7.7. Will the agricultural irrigation component create a new light source?	Greater than 0 residences affected	None	C, P	==

Source: Harland Bartholomew and Associates, Inc., 1996

Notes: 1. Type of Impact: 2. Level of Significance:

C Construction ○ Less than significant impact; no mitigation proposed

P Permanent == No impact

-- Not Applicable

**Impact: 14.7.1-3, 5-6. Will the agricultural irrigation component be inconsistent with the Sonoma County General Plan Open Space Elements regarding Community Separators and Scenic Landscape Units seen from Public Viewpoints; with Sonoma County or City General Plan Open Space Elements regarding Scenic Corridors; with foreground or middleground views from high volume travelways or public areas; and with foreground views from one or more private residences?**

**Analysis:** *Less than Significant; Alternatives 2 and 3.*

Agricultural irrigation facilities may result in changes in cropping patterns and visible irrigation lines, which may cause some visual contrast, but will not be considered a strong visual contrast because they will be consistent with the mosaic of different cultivation types associated with agricultural activity. View obstruction and loss of scenic resources will not occur because crops are low to the ground, and no visual impacts will occur for these criteria. Winter irrigation may be utilized as part of the city's contingency plan operation.

*No Impact; Alternatives 1, 4 and 5.*

These alternatives do not have an agricultural irrigation component.

**Mitigation:** No mitigation is proposed.

**Impact: 14.7.4 and 7. Will the agricultural irrigation component impact visual resources based on evaluation criteria 4 and 7?**

**Analysis:** *No Impact; All Alternatives.*

None of the irrigation facilities will conflict with the 20-foot setback along Sonoma County scenic corridors, because they are not considered a permanent building or structure. No new light source will be created by the pipelines.

Alternatives 1, 4, and 5 do not have an agricultural irrigation component.

**Mitigation:** No mitigation is needed.

### **Geysers Steamfield Component**

**Impact: 14.8.1-7. Will the geysers steamfield component impact visual resources based on evaluation criteria 1 through 7?**

**Analysis:** *No Impact. All Alternatives.*

The geysers steamfield is not located in or near a Community Separator or Scenic Landscape Unit as defined in the Open Space Element of the Sonoma County General Plan. The steamfield is not visible from a

designated Scenic Corridor, the foreground or middleground of a public viewpoint as defined in Evaluation Criterion 5, or a private residence. There are no new lighting sources proposed.

Alternatives 1, 2, 3, and 5 do not have a geysers steamfield component.

Mitigation: No mitigation is needed.

## Discharge Component

**Table 4.14-9**

### Visual Resource Impacts by Component - Discharge

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
14.9.1. Will the discharge component be inconsistent with the Sonoma County General Plan Open Space Element regarding Community Separator Areas seen from public viewpoints?	Strong visual contrast	None	C, P	==
	Permanent View Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==
14.9.2. Will the discharge component be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units seen from public viewpoints?	Strong visual contrast	None	C, P	==
	Permanent View Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==
14.9.3. Will the discharge component be inconsistent with the Sonoma County or City General Plan Open Space Elements regarding Scenic Corridors?	Strong visual contrast	None	C, P	==
	Permanent View Obstruction	None	C, P	==
	Loss or alteration of a specific scenic resource	None	C, P	==



**Table 4.14-9**

Visual Resource Impacts by Component - Discharge

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
14.9.4. Will the discharge component be inconsistent with minimum building setbacks for structures along Sonoma County designated scenic corridors?	Less than 200 feet	None	P	==
14.9.5. Will the discharge component cause an adverse effect on foreground or middleground views from a high volume travelway (excluding scenic corridors), recreation use area, or other public use area?				
• Russian River Discharge	Strong visual contrast	Slight	C, P	○
• Laguna Discharge		None	C, P	==
• All discharge	Permanent Visual Obstruction	None	C, P	==
• All discharge	Loss or alteration of a specific scenic resource	None	C, P	==
14.9.6. Will the discharge component cause an adverse effect on foreground views from one or more private residences (not subject to relocation as a result of the Project)?				
• Russian River Discharge	Strong visual contrast	Slight	C, P	○
• Laguna Discharge		None	C, P	==
• All discharge	Permanent Visual Obstruction	None	C, P	==
• All discharge	Loss or alteration of a specific scenic resource	None	C, P	==

**Table 4.14-9**

Visual Resource Impacts by Component - Discharge

Evaluation Criteria	Point of Significance	Impact	Type of Impact <sup>1</sup>	Level of Significance <sup>2</sup>
14.9.7. Will the discharge component create a new light source?	Greater than 0 residences affected	None	C, P	==

Source: Harland Bartholomew and Associates, Inc., 1996

Notes: 1. Type of Impact:

C Construction

P Permanent

2. Level of Significance:

● Significant impact before and after mitigation

○ Less than significant impact; no mitigation proposed

== No Impact

**Impact: 14.9.1-4 and 7. Will the discharge component impact visual resources based on evaluation criteria 1, 2, 3, 4, and 7?**

**Analysis:** *No Impact; All Alternatives.*

None of the existing or proposed discharge facilities is located in a Community Separator or Scenic Landscape Unit, is located along or visible from a designated Scenic Corridor, or will create a new source of light.

**Mitigation:** No mitigation is needed.

**Impact: 14.9.5 and 6. Will the discharge component be inconsistent with foreground or middleground views from high volume travelways or public areas; and with foreground views from one or more private residences?**

**Analysis:** *Less than Significant; Alternative 5A.*

For discharge to the Russian River, the discharge structure located at an elevation nearing summer flow in the river will provide less visual impact during high flow/discharge season, and recreationists are not expected to observe increased turbulence at the discharge point. A few residences may see the proposed Russian River discharge area within an industrial context, but potential visibility of the discharge structure will blend with adjacent sand and gravel operations. Contingency discharge to the Russian River may be required, however, existing structures will be used, and the additional volume will not be sufficient to cause additional visual impacts.

*No Impact; Alternatives 1, 2, 3, 4, and 5B.*

Use of existing facilities for the discharge of reclaimed water to the Laguna de Santa Rosa will increase the amount of water discharged, but the increase will not be noticeable, and there will be no new structures constructed.

Mitigation: No mitigation is proposed.

## **CUMULATIVE IMPACTS**

There are six types of impacts -- either significant or less than significant -- identified in the Visual Resources section:

**Impact: 14.1C. Will the Project plus cumulative projects be inconsistent with the Sonoma County General Plan Open Space Element regarding Community Separator Areas seen from public viewpoint?**

**Analysis:** Alternatives 2, 3, 4, and 5A.

There are three segments of Project pipeline routes which are located in Community Separators: one on Pleasant Avenue in Windsor; and three north of Petaluma on Stony Point Road, West Railroad Avenue, and Adobe Road. These segments have been determined to have significant impacts because construction may destroy vegetation along the side of the road and revegetation will take one to two years to reduce the visual contrast created by the construction.

The cumulative projects list includes the following projects which are in the vicinity of these pipeline segments and may have similar impacts:

- Road reconstruction on Adobe Road from Davis Lane to Willow Brook;
- Road signalization and turn lane addition on Adobe Road at Frates Road;
- Road channelization on Petaluma Hill Road at Adobe Road;
- Road improvements on Stony Point Road from Meacham to Pepper Road; and
- Channelization of Willow Brook to 75 feet wide and 10 feet deep from Petaluma Blvd. North to Old Redwood Hwy.

Each of these projects is expected to have similar impacts as the Project on the views within the Community Separator. However, the Project impact is already determined to be significant and mitigation will be effective at returning the views to baseline conditions within one to two years. The cumulative projects may extend the length of time that disturbance is experienced alongside the roadways.



**Impact: 14.2C. Will the Project plus cumulative projects be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units seen from public viewpoints?**

**Analysis:** Alternatives 2, 3, 4, and 5A.

There are 21 segments of pipeline routes, four reservoirs, and 13 pump stations within Scenic Landscape Units. There are at least a hundred cumulative projects in the vicinity of these Project components which could have related visual impacts. A few of the cumulative projects will have permanent impacts, but most will be temporary construction impacts due to road or utility improvements. For temporary construction impacts, similar to the discussion of Community Separators above, the cumulative projects may extend the time span in which views are disturbed within the Landscape Units, but Project impacts are considered to be significant and mitigation fully rehabilitates the baseline views. For permanent impacts, cumulative projects may exacerbate the impact of Project components on views within the Scenic Landscape Units. However, impacts are identified as significant and already mitigated to the extent feasible.

**Impact: 14.3C. Will the Project plus cumulative projects be inconsistent with the Sonoma County or City General Plan Open Space Elements regarding Scenic Corridors?**

**Analysis:** Alternatives 2, 3, 4, and 5A.

The Project includes two pipeline segments within state designated Scenic Corridors, 21 segments within County designated Scenic Corridors, two segments within Santa Rosa Scenic Roads, six segments within Petaluma Scenic Routes, and three segments within Windsor Scenic Corridors. In addition, seven reservoirs and 21 pump stations are visible from scenic corridors, most of which have temporary construction impacts. Again, there are well over a hundred projects on the cumulative project list which are in the vicinity of these Project components and could have visual impacts similar to those of the Project. For temporary construction impacts, the cumulative projects may extend the time span in which views are disturbed from the scenic corridor, but Project impacts are considered to be significant and mitigation fully rehabilitates the baseline views. For permanent impacts, cumulative projects may exacerbate the impact of Project components on views from scenic corridors. However, impacts are identified as significant and already mitigated to the extent feasible.

**Impact: 14.4C. Will the Project plus cumulative projects be inconsistent with minimum building setbacks for structures along Sonoma County designated scenic corridors?**

Analysis: Alternatives 2, 3, and 4.

There are 13 pump stations within the minimum setback distance from County Scenic Corridors. No known cumulative projects will be located within the setback near any of the pump stations. Even if there were such projects, they will not cause Project impacts to change or new mitigation to be required.

**Impact: 14.5C. Will the Project plus cumulative projects cause an adverse effect on foreground or middleground views from a high volume travelway (excluding scenic corridors), recreation use area or other public use area?**

Analysis: Alternatives 2, 3, 4, and 5A.

Any Project pipeline segments not included in the impacts listed above are assumed to have impacts on high volume travelways. Adobe Road reservoir is visible from many streets throughout Petaluma as well as the Petaluma Airport; Sears Point reservoir is visible from the Roche Winery and Sears Point Raceway; Bloomfield reservoir is visible from Bloomfield cemetery; and Huntley reservoir is visible from Fallon Two Rock Road. Thirteen pump stations are visible from public roads. Again, these widespread and numerous Project components have many cumulative projects located near them with similar impacts. But because Project impacts have been listed as significant, and because mitigation has been provided to the extent feasible, cumulative impacts have been fully considered within the main analysis.

**Impact: 14.6C. Will the Project plus cumulative projects cause an adverse effect on foreground views from one or more private residences (not subject to relocation as a result of the Project)?**

Analysis: Alternatives 2, 3, 4, and 5A.

The Project includes many pipelines routes visible from private residences. Also, all reservoirs and 31 pump stations are in the foreground views from at least one private residence. Many projects on the cumulative projects list will also be visible from the same private residences with visual impacts similar to Projects components. But because Project impacts are already considered as significant and mitigation has been provided to the extent feasible, cumulative impacts have been fully considered.

## Summary of Significant Impacts and Mitigation Measures

**Table 4.14-10**

### Summary of Significant Impacts and Mitigation Measures - Visual Resources

Impact	Level of Significance	Mitigation Measure
<b>Pipeline Component</b>		
14.4.1. The pipeline component may be inconsistent with the Sonoma County General Plan Open Space Element regarding Community Separator Areas.	Alt 2 - ⊙ Alt 3 - ⊙ Alt 4 - ⊙	2.3.10. Limit Construction Disturbance.
14.4.2. The pipeline component may be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units.	Alt 2 - ⊙ Alt 3 - ⊙ Alt 4 - ⊙ Alt 5A - ⊙	2.3.9. Adjust Pipeline Alignments. 2.3.10. Limit Construction Disturbance.
14.4.3. The pipeline component may be inconsistent with the Sonoma County or City General Plans regarding designated Scenic Corridor.	Alt 2 - ⊙ Alt 3 - ⊙ Alt 4 - ⊙ Alt 5A - ⊙	2.3.9. Adjust Pipeline Alignments. 2.3.10. Limit Construction Disturbance.
14.4.5. The pipeline component may cause adverse effects on foreground or middleground views from a high volume travelway, recreation use area, or other public use area.	Alt 2 - ⊙ Alt 3 - ⊙ Alt 4 - ● Alt 5A - ⊙	2.3.9. Adjust Pipeline Alignments. 2.3.10. Limit Construction Disturbance.
14.4.6. The pipeline component may cause an adverse effect on foreground or middleground views from one or more private residence.	Alt 2 - ⊙ Alt 3 - ⊙ Alt 4 - ⊙	2.3.9. Adjust Pipeline Alignments.
	Alt 5A - ⊙	2.3.10. Limit Construction Disturbance.
<b>Storage Reservoir Component</b>		
14.5.2. The storage reservoir component may be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units.	Alt 2B - ⊙	2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other

**Table 4.14-10**

Summary of Significant Impacts and Mitigation Measures - Visual Resources

Impact	Level of Significance	Mitigation Measure
		Facilities  2.4.7. Establish Tree Screening. 2.4.8. Revegetate Face of Reservoir Dam.
14.5.3. The storage reservoir component may be inconsistent with the County Open Space Element regarding Scenic Corridors.	Alt 2 - ● Alt 3B - ● Alt 3C - ● Alt 3D - ●	2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities. 2.4.7. Establish Tree Screening. 2.4.8. Revegetate Face of Reservoir Dam.
14.5.5. The storage reservoir component may cause adverse effects on foreground or middleground views from a high volume travelway, recreation use area, or other public use area.	Alt 2B - ⊙ Alt 2D - ● Alt 3B - ⊙ Alt 3E - ⊙	2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities. 2.4.7. Establish Tree Screening. 2.4.8. Revegetate Face of Reservoir Dam.
14.5.6. The Storage reservoir component may cause an adverse effect on foreground or middleground views from one or more private residences.	Alt 2 - ● Alt 3A - ● Alt 3B - ● Alt 3C - ● Alt 3D - ● Alt 3E - ⊙	2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities. 2.4.7. Establish Tree Screening. 2.4.8. Revegetate Face of Reservoir Dam.

**Table 4.14-10**

Summary of Significant Impacts and Mitigation Measures - Visual Resources

Impact	Level of Significance	Mitigation Measure
<b>Pump Station Component</b>		
14.6.2. The pump station component may be inconsistent with the Sonoma County General Plan Open Space Element regarding Scenic Landscape Units.	Alt 2 - ☉ Alt 3 - ☉ Alt 4 - ●	2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.
14.6.3. The pump station component may be inconsistent with the County Open Space Element regarding Scenic Corridors.	Alt 2 - ● Alt 3 - ● Alt 4 - ●	2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.
14.6.4. The pump station component may be inconsistent with minimum building setbacks for structures along Sonoma County designated scenic corridors.	Alt 2 - ● Alt 3 - ● Alt 4 - ●	2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.
14.6.5. The pump station component may cause adverse effects on foreground or middleground views from a high volume travelway, recreation use area, or other public use area.	Alt 2 - ● Alt 3 - ● Alt 4 - ●	2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.
14.6.6. The pump station component may cause an adverse effect on foreground or middleground views from one or more private residences.	Alt 2 - ● Alt 3 - ● Alt 4 - ●	2.4.6. Screen Concrete Diversion Channels, Pump Stations, and Other Facilities.

Source: Harland Bartholomew & Associates, Inc. 1996

## Summary of Impacts By Alternative

**Table 4.14-11**

### Summary of Impacts by Alternative - Visual Resources

Component	Alt 1	Alt 2A	Alt 2B	Alt 2C	Alt 2D	Alt 3A	Alt 3B	Alt 3C	Alt 3D	Alt 3E	Alt 4	Alt 5A	Alt 5B
No Project	==	--	--	--	--	--	--	--	--	--	--	--	--
Headworks Expansion	--	==	==	==	==	==	==	==	==	==	==	==	==
Urban Irrigation	--	==	==	==	==	==	==	==	==	==	--	--	--
Pipelines	--	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	●	⊙	--
Storage Reservoirs	--	●	●	●	●	●	●	●	●	⊙	--	--	--
Pump Stations	--	●	●	●	●	●	●	●	●	●	●	--	--
Agricultural Irrigation	--	○	○	○	○	○	○	○	○	○	--	--	--
Geysers Steamfield	--	--	--	--	--	--	--	--	--	--	==	--	--
Discharge	--	==	==	==	==	==	==	==	==	==	==	○	==

Source: Harland Bartholomew & Associates, Inc., 1996

Notes:

Level of Significance

- |    |  |    |  |
|----|--|----|--|
| -- | Not applicable                                       | == | No impact  |
| ●  | Significant impact before and after mitigation       | ⊙  | Significant impact; less than significant after mitigation |
| ○  | Less than significant impact; no mitigation proposed |    |  |

## **PREPARERS, REFERENCES, AND CONSULTATION AND COORDINATION**

### **Preparers**

Howard Hahn, Dames & Moore  
Dennis Papilion, Dames and Moore  
Robert Duchek, Harland Bartholomew & Associates, Inc.

### **Reviewers**

Patricia I. Collins, Harland Bartholomew & Associates, Inc.  
Robin P. Cort, Ph.D., Parsons Engineering Science, Inc.  
Anders J. Hauge, Harland Bartholomew & Associates, Inc.  
Stephen Sheppard, EDAW  
John Cummings, Ph.D., Peer Review Committee  
David Ziegler, Peer Review Committee

### **References**

#### ***HBA Team Documents***

None

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## Consultation and Coordination

### *Persons Contacted*

None

### *Correspondence*

None