

Design Fundamentals



Objective

Students will learn concepts, methods, and techniques to minimize adverse affects to visual resources from resource development projects on the public lands.

Design Fundamentals

- Proper Siting & Location
- Reduction of Visibility
- Repetition of Landscape Character Elements
- Reduction of Unnecessary Surface Disturbance

Proper Siting & Location

- The location is screened by topographic or vegetative features
- The optimum site enables the operator to minimize visual impacts and surface disturbance
- Locate project away from sensitive areas
- Locate project away from dominant landscape features
- Locate project away from points of convergence

Proper Siting & Location

Locating projects to minimize visual impacts



Proper Siting & Location

Water tank located in plain view



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Proper Siting & Location

Better location for water tank



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Proper Siting & Location

Gas well exposed on skyline

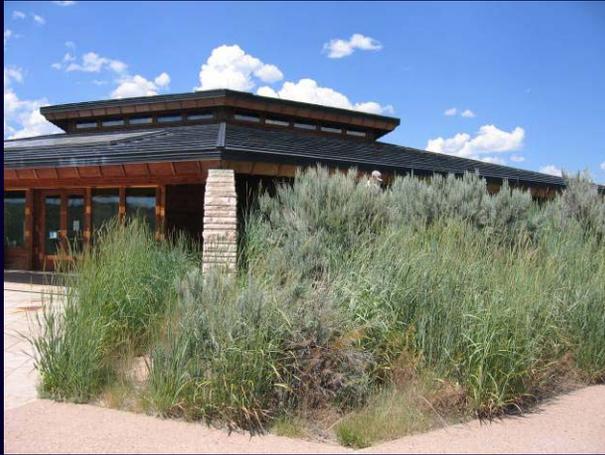


Proper Siting & Location

Gas well located below skyline



Proper Siting & Location



Proper Siting and Location



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Reduction of Visibility



- Screen project with vegetation
- Bury projects underground
- Hide projects behind a hill or knoll

Reduction of Visibility

Screen project with vegetation



Reduction of Visibility

Water tank is screened from view



Reduction of Visibility

Bury projects underground



Reduction of Visibility

Taking advantage of vegetative screening



Reduction of Visibility

Hide projects behind a hill or knoll



Repetition of Landscape Character Elements



- Modifications don't contrast with Forms in the landscape
- Modifications follow Lines in the landscape
- Modifications repeat dominant Colors in the landscape
- Modification's texture is similar to Texture in the landscape

Repeating FORM

Remember: Forms that are bold, regular, vertical, or solid tend to be dominant in the landscape.



Repeating FORM

Openings repeat natural forms



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Repeating FORM

Water tank form similar to vegetative form



Repeating FORM

Ski Area Development - Kemmerer



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Repeating LINE

Road in Red Canyon



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Repeating LINE

Roads fit lines in the landscape



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NOT Repeating LINE



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NOT Repeating LINE



NOT Repeating LINE

Straight line in a horizontal landscape



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Repeating COLOR

- Color is a powerful design tool
- Color is increasingly effective in direct proportion to the distance the project is located from where it is viewed
- Color has not been used nearly as effectively as it should have been
- Past experience reveals that colors have often been lighter than they should be
- Use desert brown and greens with caution

Repeating COLOR

Standard Environmental Colors

Standard Environmental Colors

Selecting a Color
Observe the color scheme of the overall landscape. Lighter colors visually advance toward the viewer, and darker colors recede into the landscape regardless of the actual distance. Choose a color that repeats the darker, more recessive color scheme of the surrounding soils and/or vegetation. Re-evaluate from a distance to select a color that is slightly darker than the undisturbed landscape.



Observe the color scheme of the overall landscape

Color Choices

Carlsbad Canyon: Use where herbaceous vegetation is dominant in a grassland or other light colored landscape.



Narrow color choices and re-evaluate at a distance to select the best one

Covert Green: Use in a mixed shrub/grass steppe where the shrub component is dominant.

Shadow Gray: Use in heavy shrublands, deciduous forests, or open pine or juniper woodlands where dark gray trunks and branches darken the landscape color.

Juniper Green: Use in mixed coniferous/deciduous or deciduous forests.

Shale Green: Use in dense shrublands, coniferous or deciduous forests, and mixed shrub woodlands.

Sudan Brown: Use in areas where dark soils give the landscape a brownish color or in forests where dark brown trunks and branches are dominant.

Beetle: Use in spruce-fir or other dark coniferous forests having a bluish hue.

Yuma Green: Use in dense coniferous or deciduous forests. Use when viewing from a distance or in areas that are typically in shadow.

Carob Brown: Use when exposed red soil and rock clearly dominate color in the landscape. Use another dark color if the dominance of red tones is diminished by vegetation.

Design Solutions
Proper color selection can dramatically mitigate adverse visual impacts. However, the design solution is more effective if used in combination with other mitigation such as: repeating the elements of form, line, and texture; proper siting and location; minimizing scale; and reducing unnecessary surface disturbance.

For more information visit: <http://www.blm.gov/bmp>

BLM
U.S. Department of the Interior - Bureau of Land Management



Standard Environmental Colors



Carlsbad Canyon Covert Green Shadow Gray

Juniper Green Shale Green Sudan Brown

Beetle Yuma Green Carob Brown

The Standard Environmental Colors chart was developed to assist with color selection to minimize the visual contrast of a facility in the landscape.

In order to ensure color accuracy, use an original color chart to match paint. When matching the color chip, request the paint company to have their computer scan set on "natural light." Compare the new paint sample to the color chip under indirect natural sunlight. Use semi-gloss paint, where appropriate, to enhance durability yet reduce reflectivity. Select colors a shade or two darker than the surrounding landscape to account for natural shadows, normal fading, and weathering.

Order Standard Environmental Colors charts by emailing your request to: Printed Material Distribution System (PMDS), BLM_NOC_PMDS@blm.gov or fax to 303-236-0845. Provide the quantity requested along with a contact name, physical address (no P.O. Boxes), and telephone number. For more information or questions, please call 202-785-6574.

Standard Environmental Colors Chart CC-001 June 2008
BLM/WY ST-08-015-6450

Repeating Color



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Not Repeating COLOR

Material site near Casper. The high degree of contrast draws attention to the disturbance.



Repeating COLOR

Water Tank at
Arches National
Park



Repeating COLOR

Effective use of color to minimize visual impacts for power line development



Repeating COLOR

Recreation Site Development



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Repeating COLOR

Dark color matches dominant colors in landscape



Repeating COLOR



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Repeating COLOR

Always use a color that is equal to or **SLIGHTLY DARKER** than the surrounding colors.

Color selected should match the dominant color in the landscape.

Repeating COLOR

Gas development near Parachute, CO



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Repeating COLOR

Same scene, better color (Simulation)



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Repeating COLOR

Visualize the impact with the proper color



Repeating COLOR

A structure very close to the highway



Repeating TEXTURE

Repeating
“Texture” means
matching the
overall character
of the surfaces of
major features in
the landscape.



Repeating TEXTURE

Building with natural materials often results in a texture that fits the surroundings better than building with man-made materials



Repeating TEXTURE



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Repeating TEXTURE

Recreating texture through reclamation



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Repeating TEXTURE

Reclamation to restore texture



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Reduction of Unnecessary Disturbance



- Fit the project to the landscape
- Use smallest area necessary for project
- Minimize cuts and fills
- Promote early reclamation

Reduction of Unnecessary Disturbance

I-70 Corridor – Glenwood Springs, Colorado



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Reduction of Unnecessary Disturbance

Use the smallest possible location



Reduce Unnecessary Disturbance

Use the minimum road necessary



Reduction of Unnecessary Disturbance



Reduction of Unnecessary Disturbance

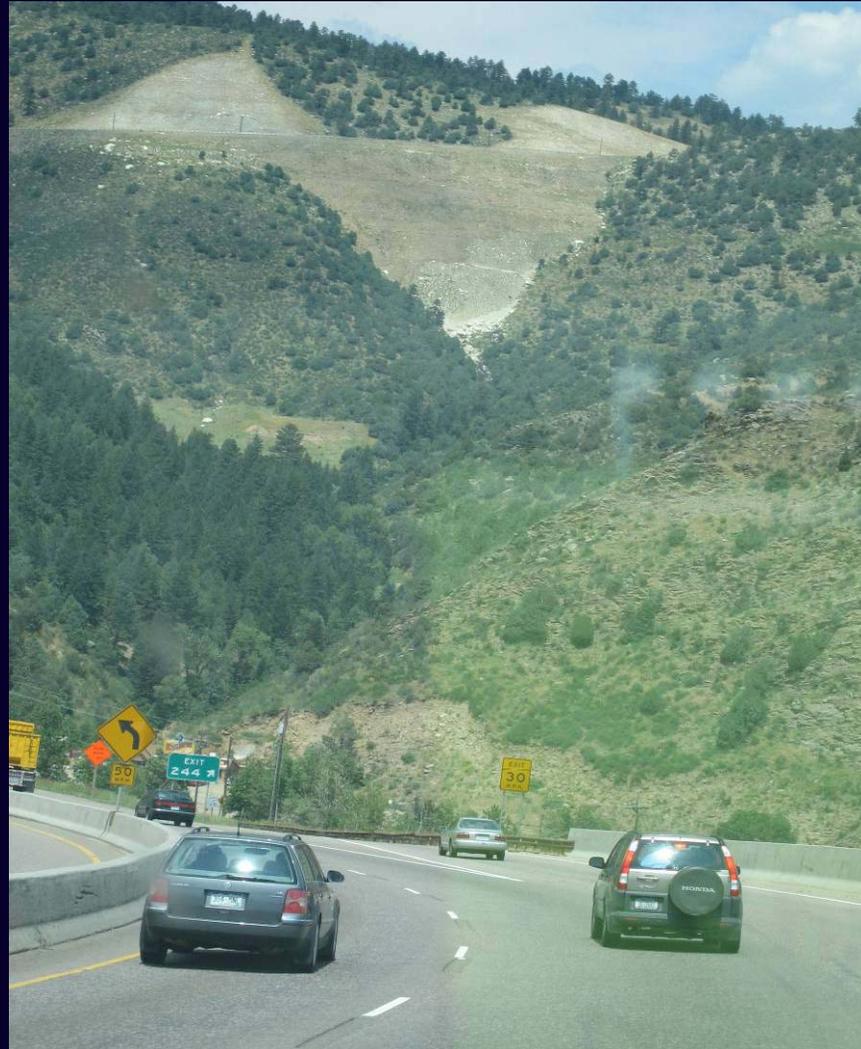
It isn't always necessary to clear the ROW



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Reduction of Unnecessary Disturbance

Avoid locations that require large cuts and fills.



Reduction of Unnecessary Disturbance

Don't cast excess material down-slope



Camouflage Patterns



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Camouflage Patterns



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