

Visual Impact of Proposed New Shine Quarry

Supplement to Visual Impact Report of November, 2009

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A supplemental report illustrating the view impacts anticipated from the proposed New Shine Quarry from the closest and most southwest corner of the of the MPR Jefferson County zone. Impacts were determined by using Lidar images obtained from Puget Sound Consortium Lidar.

Visual Impact of Proposed New Shine Quarry from Southwest Corner of MPR Zone

Abstract

The proposed New Shine Quarry site and surrounding areas were evaluated to assess the future quarry's impact on views from the nearest corner of the existing Port Ludlow MPR zone in Jefferson County. Tree heights and ground levels from the MPR corner were measured by Lidar analysis. A previous visual impact analysis and report was prepared in late 2009 and included within the February, 2010 New Shine Quarry Stormwater Management Permit application. This earlier analysis indicated that there would be no significant view impacts from of the quarry on four residential points in the Port Ludlow MPR.

Further Lidar analysis confirms this original analysis. As described in greater detail below, Lidar analysis from the southwest corner of the MPR zone nearest to the quarry shows that no significant visual impact would, or could occur from the mining operation. The images from the southwest corner of the MPR zone are included with this report.

Location and Description of Proposed Quarry Site

The New Shine Quarry is proposed to be located primarily in Section 29, Township 28 North, Range 1 EWM. The New Shine Quarry is proposed to be located south and west of the existing Shine Quarry, which is under different ownership than the proposed New Shine Quarry.

Method of Visual Analysis

Analysis of the potential view impact from the southwest corner of the MPR zone nearest to the potential mining activity was completed by combining the GPS measurements and "Lidar" data of the quarry site and area provided by Puget Sound Consortium Lidar. Lidar, or light detection and ranging, measures elevations of objects by monitoring reflective laser light from the air to the ground at a very rapid rate. The technique is used in this analysis to determine elevations of the proposed quarry in relation to other objects upon the ground at the point of analysis.

Figure 1 illustrates the Lidar data in the vicinity of the proposed quarry and the Port Ludlow MPR. The Lidar data shown in Figure 1 depicts trees, ground cover and ground elevation normally found from a land survey throughout the area. The data is presented in the same manner as an aerial photograph except that each dot on the Figure represents a point actually measured from the aerial data recording device. The bright red colored area represents measured ground items within the proposed New Shine Quarry site. The golden or yellow area designates the highest peaked areas on the quarry site. This distinct coloration distinguishes the quarry site laser measurements from other measurements within the Lidar of the area when viewing from various angles.

Figure 1 also shows the southwest corner of the Port Ludlow MPR and the two lines of sight depicted in Figures 2 through 5. The lines from the southwest point indicate the direction measured from the point to the quarry at two different, but similar angles. Figure 2 and 4 are data one would see looking toward the proposed quarry from the southwest corner of the MPR,

Figure 1: Lidar Data for New Shine Quarry and Surrounding Area

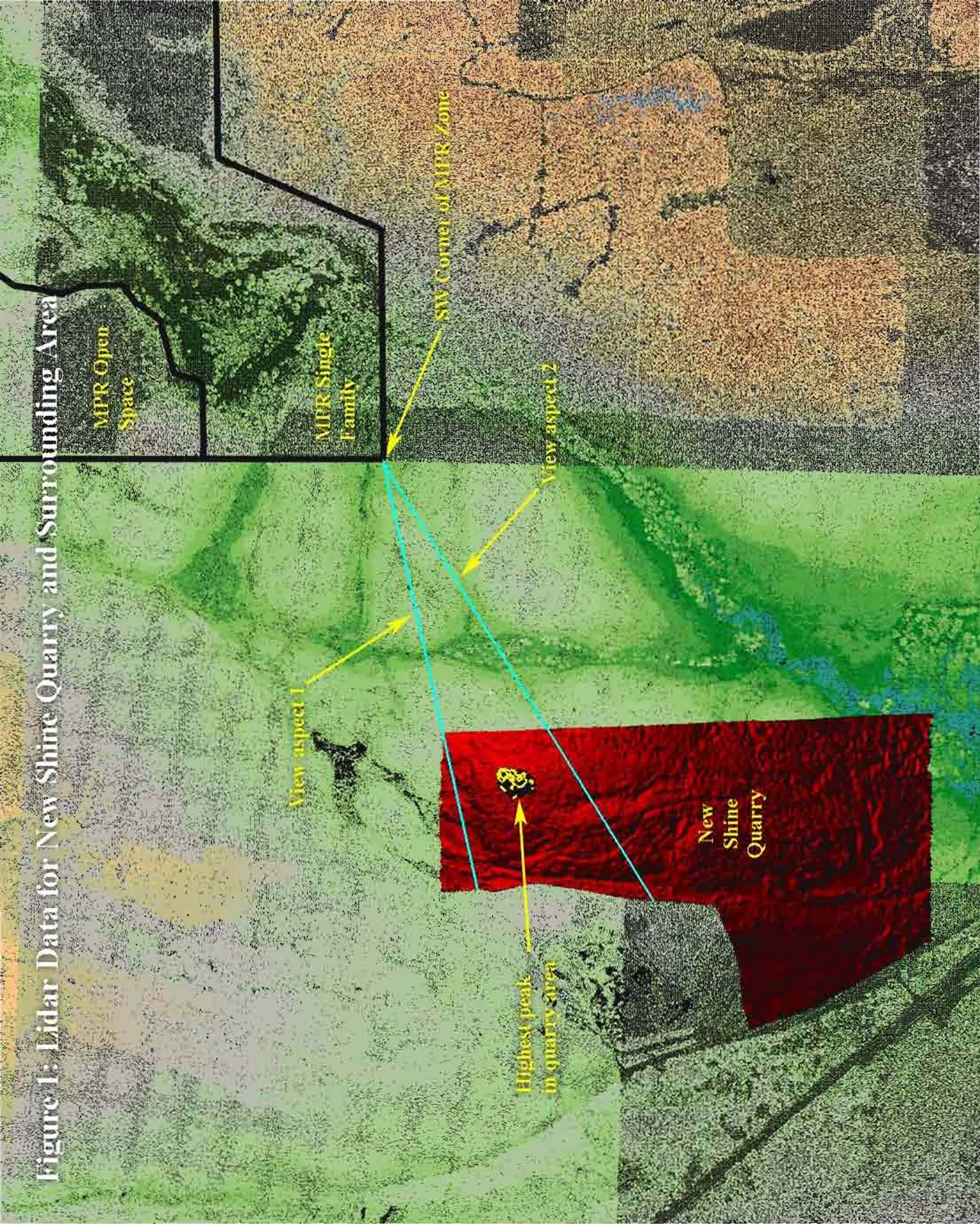


Figure 2: Perpendicular Elevation of View Aspect 1

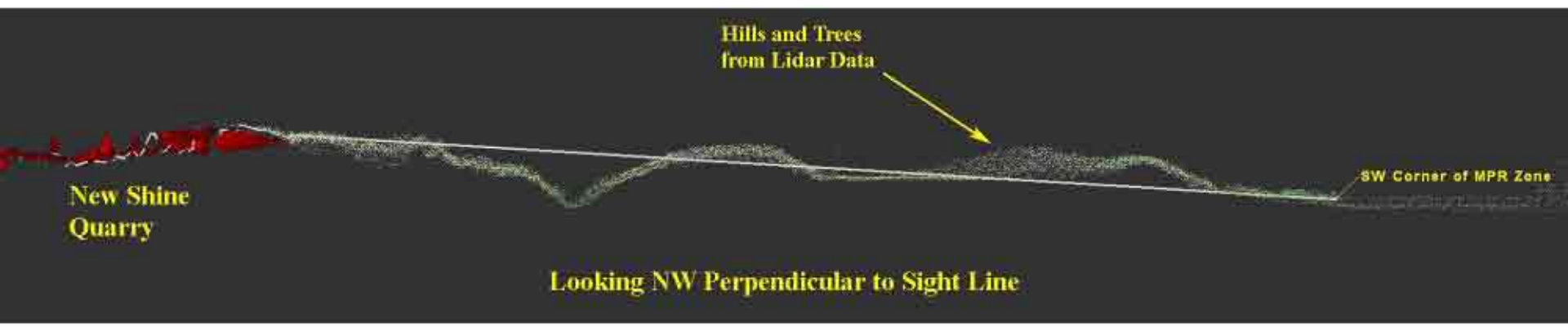


Figure 3: View of Quarry from SW Corner of Closest MPR-Zoned Lot (View Aspect 1)

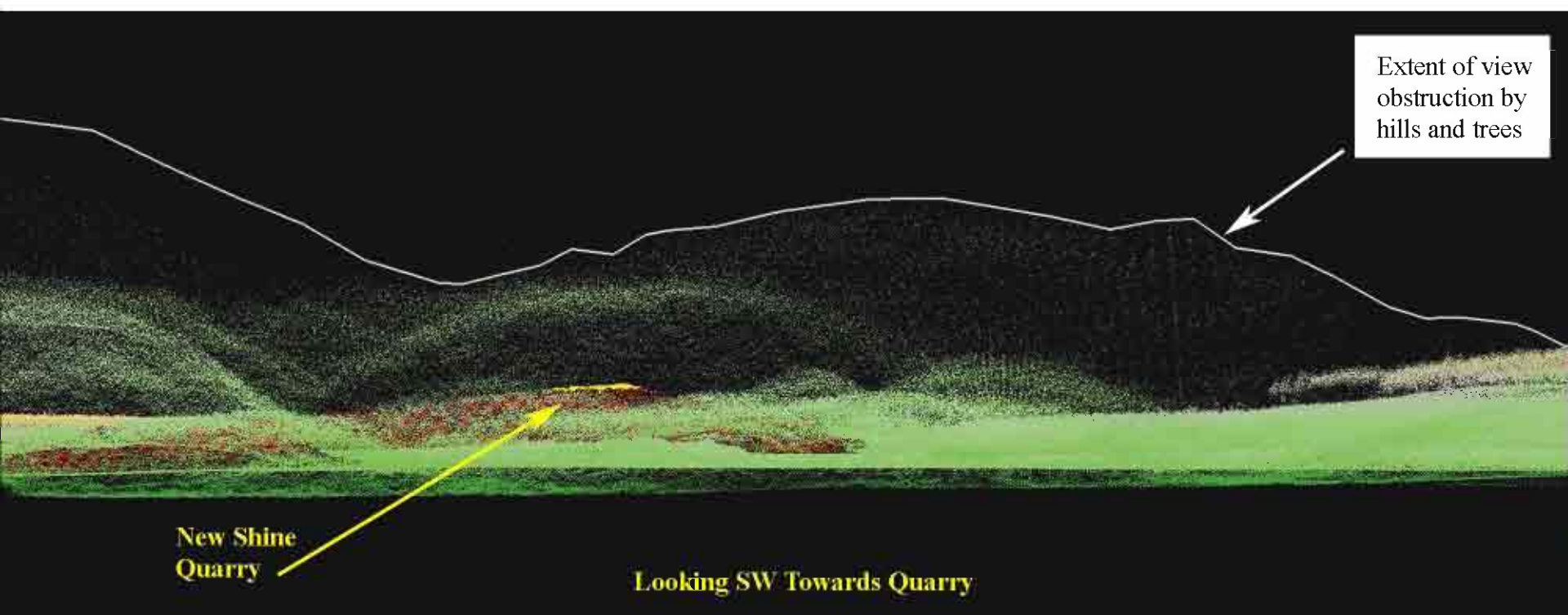


Figure 4: Perpendicular Elevation of View Aspect 2

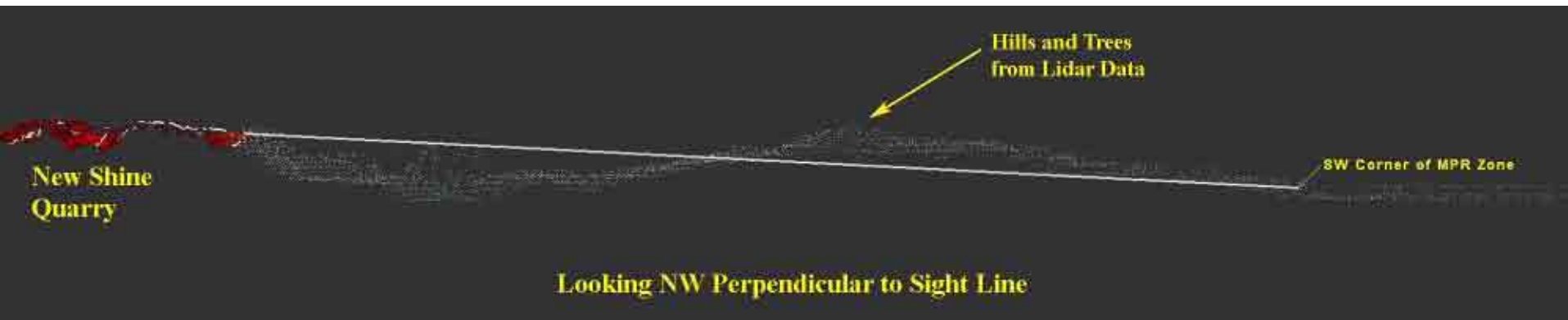
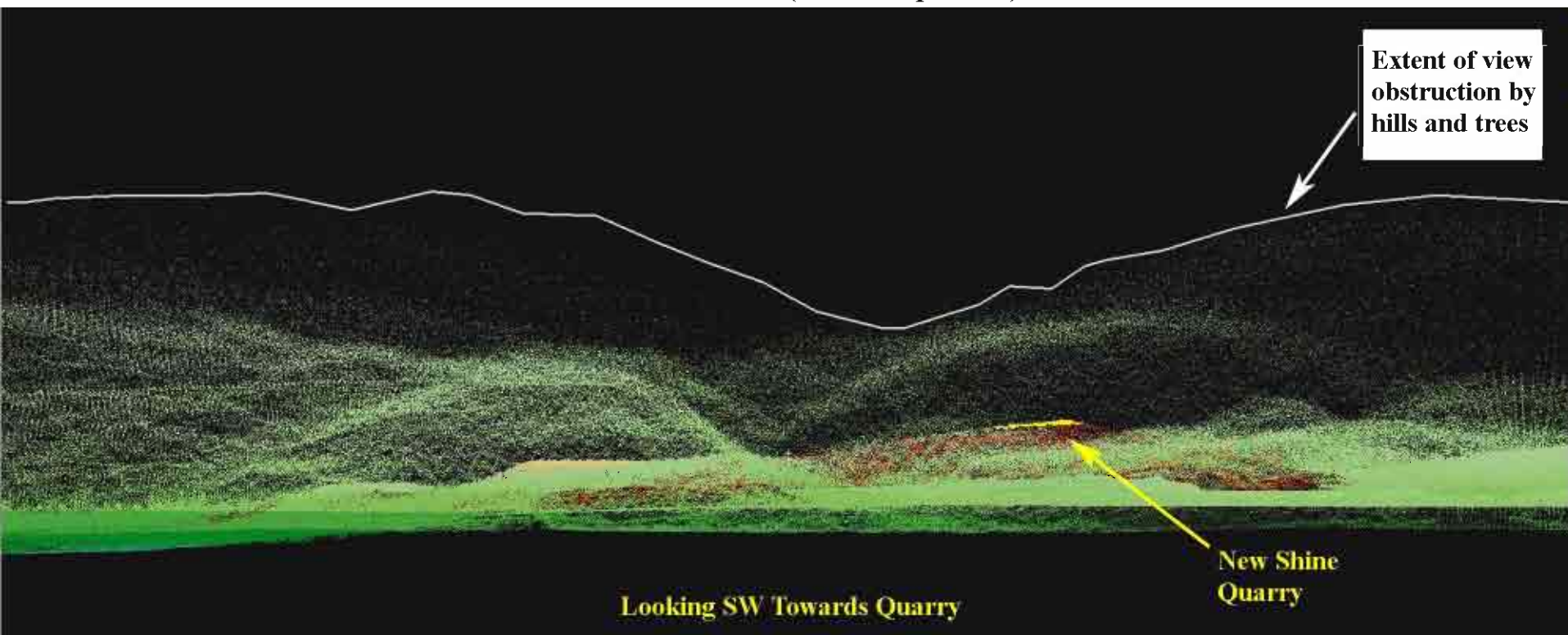


Figure 5: View of Quarry from SW Corner of Closest MPR-Zoned Lot (View Aspect 2)



and Figures 3 and 5 are data representing views looking perpendicular to the area between the quarry and southwest corner of the MPR. White lines added to Figures 2-5 provide our interpretation of the data that is presented in relation to the quarry.

Findings

Figures 2 through 5 demonstrate that the proposed New Shine Quarry would not create any significant impact upon views from the closest MPR-zoned point to the proposed mining activity. Figure 2 shows an elevation view between the southwest corner of the MPR-zoned area and the proposed quarry site. As shown by the line of sight drawn from the southwest corner of the MPR to the highest elevation of the quarry, views of the area to be mined are blocked entirely by trees and two hillsides. Figure 3 shows the view of the quarry from the southwest corner. It shows how the hillsides and trees block views of the quarry from that vantage point. The estimated tree and ground areas are shown by the white line in this data set, though these areas not necessarily on the same planes.

Figure 4 displays the more southern elevation view from the same southwest corner of the MPR zone and the proposed quarry. As shown by the line of sight drawn from southwest corner of the MPR to the highest elevation of the quarry, views of the area to be mined will be blocked entirely by trees and ground of the major adjacent hillside. Figure 5 shows the view of the quarry from the established point of sight. The entire quarry and top is blocked from the point of sight by hills and trees. Again, the tree areas and ground is estimated from the Lidar data.

In conclusion, our analysis shows that views from the nearest corner of the Port Ludlow MPR to the New Shine Quarry will be entirely blocked by intervening hills and trees. There will be no visual impact to the nearest corner of the MPR.


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2-3-2011
Date

Interpretation of Lidar provided by:


Norman Larson, PLS
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2-3-2011
Date