

## **Condensed Summary of Christo's Over the River (OTR) Plan<sup>1</sup> Facts and Issues**

**Fact** The panels will be suspended using a total of 8,992 nine foot rock anchors.<sup>2</sup> Anchors weigh from 1.5 lbs to 13.2 lbs each, depending on the diameter, which was not specified.<sup>3</sup> Where bedrock is not available for drilling, concrete caissons will be used for anchor placement.<sup>4</sup>

**Issue** 8,992 anchors will require 8,992 drill holes. In comparison, only 23,481 oil and gas wells were drilled in the entire State of Colorado in *the past 8 years*, an average of about 2,900 wells per year.<sup>5</sup> Christo's proposal, then, is to shoehorn the equivalent of 2 ½ times the number of annual STATEWIDE oil and gas drill holes within 5.9 miles of designated bighorn sheep habitat in Bighorn Sheep Canyon EVERY YEAR of the construction period.

The weight of each anchor would be between 13.5 lbs and 118 lbs, depending on the diameter – which was not specified. Total cumulative weight of all the anchors would then be between 121,392 lbs and 1,068,249 lbs.

88% of this *would be left behind*. (Christo proposes to leave all anchors and concrete caissons 12 inches below the surface in perpetuity).<sup>6</sup>

How will the sheer volume of drill holes and weight of the anchors affect the stability of the rock and erosion in the Canyon? Will rockslides become more common?

**Fact** The Plan proposes using almost 7 tons of polypropylene fabric.<sup>7</sup>

**Issue** Polypropylene is a petroleum-based product. What are the environmental (and greenhouse gas effects) effects of manufacturing and transporting the panels? What are the effects on the River if the petroleum-based panels are blown into the River?

**Fact** Drilling of anchors typically takes between 3 and 4 hours at any one anchor point.<sup>8</sup>

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<sup>1</sup> Christo's 2,200 plus page proposal (Plan) is located on the BLM's website at [http://www.blm.gov/pgdata/content/co/en/fo/rgfo/planning/over\\_the\\_river\\_proposal.html](http://www.blm.gov/pgdata/content/co/en/fo/rgfo/planning/over_the_river_proposal.html). These are very large files. An extended, annotated summary with references is located at ROAR's website: [www.roarcolorado.org](http://www.roarcolorado.org).

<sup>2</sup> Plan Supplement Section 1.3, Project Facts, p. 2 of Introduction.

<sup>3</sup> Plan Appendix (Appx) J1, Williams Engineering Specifications, page 2.

<sup>4</sup> Plan at 5-86 to 5-87.

<sup>5</sup> See <http://www.ewg.org/reports/Free-Pass-for-Oil-and-Gas>.

<sup>6</sup> Plan at 5-86 to 5-87; Plan Appx. J1, Hayward Baker report (no page references in original), see also Golder 2000 report and Golder 2006 report (each in Plan Appx. J1) for abandonment procedure.

<sup>7</sup> Plan Supplement Section 1.3, Project Facts, p. 2 of Introduction.

**Issue** This means between 26,976 (1,124 days) and 35,968 (1,498 days) hours of drilling to install the anchors alone. This does not include installing the “anchor transition frames,” cables or panels.

**Fact** Christo’s publicity states that all activity in the “busy summer months” will take place on the railroad side of the river.<sup>9</sup> The publicity fails to tell “the rest of the story.”

**Issue** This publicity ignores the relevant fact that if you add up the activity days listed in the drilling and event schedules in the Plan, Christo proposes 600.7 activity days on the highway side, 493.35 activity days on the railroad side and 1227.07 activity days that are unspecified as to location.<sup>10</sup> The Plan also notes that highway side lane closures will occur during the weeks prior to the exhibit – this is within the “peak summer months.”<sup>11</sup>

**Fact** A 6 x 8 foot oval area (48 square feet) of disturbance of vegetation will be required for each anchor point.<sup>12</sup> Equipment access for drilling will require 5 feet in width for a small drill, 20 feet for a larger drill.<sup>13</sup> Total area of vegetation disturbed for access to drilling areas is unexplained in the Plan.

**Issue** If you multiply the number of anchors (8,992) by the area to be disturbed by drilling each anchor (48 sq. ft.), you will understand that 431,616 square feet of vegetation will be removed or disturbed for drilling alone (this is close to 10 acres). This figure does not match the estimates for total vegetation impact of anchor point clearing, equipment access and pathways of 4.7 acres (listed later on same page of the plan).<sup>14</sup> This illustrates inconsistencies and inaccuracies in the plan proposal.

**Fact** Elsewhere the plan notes only 240,053 square feet of total surface disturbance (a little more than 5.5 acres).<sup>15</sup> This does not include the use of US 50 shoulders, railroad corridor, or, presumably, private land.

**Issue** How could there be total surface disturbance of only 240,053 square feet when the Plan notes that 431,616 square feet of vegetation<sup>16</sup> will be removed or disturbed for drilling alone?

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<sup>8</sup> Plan at 5-92.

<sup>9</sup> See advertisement placed in Mountain Mail, June 29, 2009.

<sup>10</sup> Plan Supplement, Site Calendar, pp. 1-2.

<sup>11</sup> Plan Supplement, Event Management Plan, p. 7.

<sup>12</sup> Plan at 5-97.

<sup>13</sup> Plan at 5-97.

<sup>14</sup> Plan at 5-97.

<sup>15</sup> Plan at 5-91.

<sup>16</sup> 8,992 anchors multiplied by a 6 by 8 foot area of vegetation disturbance per anchor.

**Fact** The Plan states that the anchor transition frames (ATFs) will require excavating 2,472.8 cubic yards of soil.<sup>17</sup>

**Issue** A typical dump truck utilized in this area carries 10 to 12 cubic yards, so this would amount to 200 to 250 dump truck loads of excavated material. Couple this with the above vegetation disturbance area solely for the installation of the anchors and ATF units and the disturbance covers nearly 20 acres.

**Fact** Christo proposes two alternatives: 7.7 miles of fabric panels and 10.4 miles of fabric panels.<sup>18</sup>

**Issue** No locations for these expanded project alternatives are specified. These alternative proposals would increase the number of panels, anchors and infrastructure (and impacts) by 30% and 76%, respectively.

**Fact** The Plan acknowledges sedimentation (pollution) may occur into the Arkansas River.<sup>19</sup>

**Issue** The Plan does not acknowledge the need for a Clean Water Act “404” permit. Discharges of sediment and other substances into the river are illegal without a State-issued 401 permit and an Army Corps of Engineers 404 permit.

**Fact** The Plan does not address the real potential for increased costs of commodities for Salida and Canon City due to traffic impacts and use of alternate routes during construction and viewing period.

**Issue** Will there be shortages of water, fuel, food? How will increased transportation costs affect the local consumer?

**Fact** The Plan acknowledges the following unavoidable impacts:

- potential disturbance and other impacts to bighorn sheep
- potential bird-cable collisions
- disruptions to residents
- increased travel/commuting time
- increase in solid waste, crowd control and provision of emergency services<sup>20</sup>

**Fact** Portions of the project will be located within in the Arkansas Canyonlands Area of Critical Environmental Concern (ACEC)<sup>21</sup> and adjacent to the McIntyre Hills Wilderness Study Area (WSA).<sup>22</sup>

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<sup>17</sup> Plan Supplement Section 1.3, Project Facts, p. 2 of Introduction (number of cubic yard for ATF multiplied by number of ATFs).

<sup>18</sup> Plan Supplement – Artists’ Goals, p. 3.

<sup>19</sup> Plan Table 5.1-1, p. 5-3.

<sup>20</sup> Plan Table 5.1-1, p. 5-13.

<sup>21</sup> Plan at 5-189.

<sup>22</sup> Plan Table 5.1-1, p. 5-12.

**Issue** Is this project appropriate located so close to the WSA and within an ACEC? Will the EIS address impacts to the WSA and ACEC?

**Fact** The panels are designed for 42 mph wind speeds, although the Plan acknowledges higher wind speeds in at least one panel section.<sup>23</sup>

**Issue** Wind speeds in Howard routinely reach 60-80 MPH as recorded by a local weather station.

**Fact** The Plan notes that activities in areas designated by BLM or CDOW as sensitive for Bighorn sheep, lambing, wintering or drinking areas will be prohibited when these areas are most likely to be used.<sup>24</sup>

**Issue** 7 of the 9 panel sections are located within areas CDOW has recently designated as “restricted surface occupancy” or wintering range for Bighorn Sheep under new Colorado oil and gas drilling rules.<sup>25</sup> CDOW reports indicate that the bighorn sheep utilize these areas generally year round.<sup>26</sup> How could oil and gas drilling be prohibited, but intensive drilling to install anchors – utilizing the same types of equipment in closer density – be allowed?

While there are regulations for drilling, environmental standards and reclamation associated with oil and gas and mining development, THERE ARE NO REGULATIONS regarding these same activities if they are utilized for art projects, even though the impacts are the same.

**Fact** Mitigation proposed in the Plan for impacts to Bighorn sheep includes “luring sheep away from the river with food and water” and “importation” of sheep from other areas.<sup>27</sup>

**Issue** Bighorn sheep are not like domestic sheep and cattle that easily can be replaced. Where does OTR Corporation propose to get the imported sheep? Will other Colorado herds be impacted in order to facilitate this art project? CDOW wildlife biologists have noted that the Canyon’s Bighorn sheep herd is unique because it is a largely indigenous herd.<sup>28</sup> Does “luring” the sheep away from the Canyon fit best mitigation practices for wildlife? Generally speaking, feeding wildlife is not encouraged.

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<sup>23</sup> Plan at 5-168.

<sup>24</sup> Plan at 5-197.

<sup>25</sup> See Colorado Oil and Gas Conservation Commission’s website for maps of these areas.

<sup>26</sup> Colorado Division of Wildlife (CDOW), Evaluation of Methods for Assessing the Effects of Human Disturbance on Rocky Mountain Bighorn Sheep in the Upper Arkansas River Canyons, Colorado, 1999 (1999 CDOW Report) at 2.

<sup>27</sup> Plan Table 5.1-1, p. 5-13; Plan at 5-50; Plan Supplement Section 2.2, p. 3.

<sup>28</sup> 1999 CDOW Report at 2.

- Fact** The Plan states that OTR contractors are allowed to use US 50 pullouts throughout the year, even in “peak summer months.”<sup>29</sup>
- Issue** Will pullouts utilized by fishermen and rafters be taken by OTR during the busy summer rafting season, and the heavily attended spring caddis and summer and fall angling seasons? This indicates that Christo indeed proposes summer OTR activity on the highway side.<sup>30</sup>
- Fact** Fabric panels will be removed within 2 weeks of the viewing period. Cables will be removed within 6 weeks of the viewing period.<sup>31</sup>
- Issue** Practically speaking, some activity on the highway side will be required to remove the panels and unhook the cables from that side of the river. This activity falls within the end of the “peak summer months” and then into the school year. Are lane closures anticipated to facilitate cable removal? If so, how will this impact school bus traffic? Extensive activity will be required to remove the anchors and anchor transition frames, fill drill holes, and restore, reclaim and revegetate excavated areas on the highway side of the river. Are lane closures anticipated to facilitate these activities? Again, how will this impact school bus traffic?
- Fact** The Plan acknowledges that lodging in Salida, Canon City, Pueblo and Colorado Springs is normally fully occupied in July and August during the viewing periods. OTR visitors will displace normal visitors and this time of year.<sup>32</sup> The Plan notes that the areas likely to gain from increased demand for lodging from OTR visitors are Breckenridge, Aspen, Snowmass, Vail and Denver.<sup>33</sup>
- Issue** There will be no local revenue gains to businesses and government tax revenues from lodging due to OTR. The areas with economic gains are the most well-off areas of the state, while the local governments are the ones that will be strained without an accompanying tax revenue boost. While admitting this effect<sup>34</sup> – the Plan then neglects to net out the lodging and other expenditures that will be offset by losses due to displaced visitors, in essence taking credit for economic activity that is already occurring.<sup>35</sup>
- Fact** Some anchors will be placed in wetlands, primarily in the Parkdale area, and impacts on wetlands from erosion and sedimentation from drilling is anticipated.

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<sup>29</sup> Plan Supplement, Event Management Plan at 4.

<sup>30</sup> Plan Supplement, Event Management Plan at 4.

<sup>31</sup> Plan Supplement, Event Management Plan at 23.

<sup>32</sup> Plan at 5-155.

<sup>33</sup> Plan at 5-155.

<sup>34</sup> Plan at 5-155.

<sup>35</sup> Plan at 5-155. We note that Christo also takes credit for the spiritual and economic recovery of New York after 9/11. Plan at 5-150.

The Plan also anticipates sedimentation from soil disturbance areas during high-intensity precipitation. Fuel also may be carried into these wetlands.<sup>36</sup>

**Issue** The Plan does not call for a Clean Water Act 404 permit. Discharges of sediment, fuel and other substances into the river are illegal without a State-issued 401 permit and an Army Corps of Engineers 404 permit. Is there a wetland mitigation plan?

**Fact** The Plan does not anticipate that a visual resource management analysis will be required because of the “temporary” nature of the construction, viewing and removal.<sup>37</sup>

**Issue** A three year project is not “temporary.” Also, since OTR proposes project elements will be left in place (portions of anchors, etc.), and erosion is likely to expose these elements, a full VRM analysis of the project, and its permanent characteristics should be conducted.

**Fact** Christo claims that the Environmental Impact Statement is being prepared “at the artists’ request.”<sup>38</sup>

**Issue** This is true, although it again fails to tell “the rest of the story.” We do not know what transpired in private meetings between BLM and Christo regarding the decision in 2006 to change tracks from the then-in-process environmental assessment (EA) to a full environmental impact statement (EIS). The law requires (the National Environmental Policy Act or NEPA) that for large projects on federal lands (mines, oil and gas development, ski resorts and OTR) an EA is prepared in order to find out if project impacts are significant. If they are not significant, then an EA provides sufficient analysis for BLM to approve the project. If the impacts ARE significant, then an EA is not sufficient and an EIS is REQUIRED BY LAW as one of steps BLM must take before it can approve a project.<sup>39</sup> We surmise that during EA preparation, Christo saw the writing on the wall that the OTR impacts were so significant that an EA was not legally sufficient. At that point the decision was probably made to elevate the analysis to an EIS. This voluntary action does not mean that an EIS was not legally required, or that Christo’s decision is especially laudable. The practical effect of this decision is to save Christo time and money by skipping the EA.

For more information please go to [www.roarcolorado.org](http://www.roarcolorado.org), or contact ROAR at [contactroar@roarcolorado.org](mailto:contactroar@roarcolorado.org) or ROAR, P.O. Box 786, Canon City, Colorado 81215. ROAR is an all volunteer non-profit organization dedicated to protecting and preserving Bighorn Sheep Canyon and its inhabitants.

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<sup>36</sup> Plan at 5-65 to 5-66.

<sup>37</sup> Plan at 5-127.

<sup>38</sup> See Mountain Mail advertisement, June 29, 2009.

<sup>39</sup> See generally the National Environmental Policy Act.