

Teton Watershed Soil Health Initiative: No Till and Cover Crop Demonstration Project



Teton Soil Conservation District



Protecting and caring for
soil, water and other natural
resources on privately held
lands in Teton County,
Idaho

Friends of the Teton River

Working together for
clean water, healthy
streams and resilient
fisheries



FTR/TSCD Shared Concerns



- Soil erosion
- Local streams 303(d) listed for nitrate, sediment, temperature
- TMDL Implementation Plan: Cultivated fields #1 source of sediment -> nutrients -> temperature
- Source Water Protection Plan: water quality impairment puts drinking water sources at risk
- Portion of county in Nitrate Priority area
- Local desire to implement cover crop & no till technology, but inaccessible due to cost, lack of experience

Unique partnership

“In recognition of FTR’s interest in improving water quality and meeting Total Maximum Daily Loads in the Teton River and its tributaries, and TSCD’s interest in reducing soil erosion and improving agricultural business practices and returns, FTR and TSCD have agreed to enter into a partnership to implement a no-till, direct farming demonstration project, including the use of cover crops, as a means for further reducing soil erosion and thus improving water quality, while also directly benefitting agricultural producers.”

Project Goals



- Reduce Soil Erosion
- Improve Water Quality in 303(d) listed streams
 - Sediment
 - Nitrogen
 - Temperature
- Protect Drinking Water Sources
- Increased adoption of ag BMP's
- Quantify effects on ground & surface water quality

Project Methods



- **No Till Drill**
- **Rental Program**
- **Demonstration Farms**
- **Producer Education**
- **Advertise Rental & Education Programs**
- **Monitor ground & surface water effects**

Anticipated Benefits: Water Quality



IDEQ Technical Division
STEPTL Load Reduction
Analysis (based on 200 acre
demonstration project):

- 291 tons sediment (55%)
- 373 lbs phosphorus (45%)
- 1863 lbs nitrogen (75%)

Partnership with IDEQ:
Ground-truth predicted
water quality benefits,
quantify actual effects on
ground & surface water

Anticipated Benefits: Ag Producers



- Low cost, low risk opportunity to apply new technology
- Reduced fertilizer cost (esp. with cover crops)
- Reduced labor & fuel costs
- Increased soil moisture
- Increased productivity

Grant Application Budget

Budget Category	Project Total	Secured Matching Funds (52% of total project cost)	Funds Requested (319 Grant)
Equipment Purchase (No Till Drill)	\$58,000	\$25,000	\$33,000
Project Management	\$13,230	\$5,980	\$7,250
Sub-Contractual Costs: Water quality testing, website/education materials	\$52,670	\$33,920	\$18,750
Totals:	\$123,900	\$64,900	\$59,000

Match Sources: FTR, TSCD

Not included in match: Landowner O&M, seed costs, insurance; IDEQ research; NRCS technical assistance; Idaho Soil & Water Conservation Commission assistance



Questions on the Teton Watershed Soil Health Initiative

No Till and Cover Crop
Demonstration Project?