Lewiston Urban Renewal Agency
SPECIAL MEETING ** AMENDED** AGENDA
November 13, 2025 - 12:00 PM
Bell Building – Second Floor Conference Room – 215 D Street
Lewiston, Idaho 83501

Seating will be available on a first-come, first-served basis.

I. CALL TO ORDER

II. CITIZEN COMMENTS

An opportunity for citizens to address the Agency. Citizens are asked to limit their time to three (3) minutes each. Comments and questions can be made by: 1) attending in-person; 2) emailing comments and questions prior to the start of the meeting to sgrow@cityoflewiston.org or dortiz@cityoflewiston.org; 3) mailing written comments prior to the start of the meeting to Katie Hollingshead, PO Box 617, Lewiston ID 83501; or 4) calling 208-746-1318 x 7265 and leaving a message. Your comments will then be forwarded to the Urban Renewal Agency.

III. ACTIVE AGENDA

A. APPROVAL OF MINUTES, OCTOBER 14, 2025 - ACTION ITEM

B. APPROVAL OF INVOICES - ACTION ITEM
1. O'SULLIVAN LEGAL PLLC, LEGAL SERVICES, OCTOBER 2025, $619.50
2. CITY OF LEWISTON, REIMBURSEMENT REQUEST FOR EAST ORCHARDS SEWER PHASE 3 CONSTRUCTION, $55,600.00

C. APPROVAL OF ENGAGEMENT LETTER WITH PRESNELL GAGE FOR THE ANNUAL AUDIT - ACTION ITEM

D. REVIEW OF FINANCIAL SUMMARY - INFORMATIONAL ITEM

E. REVIEW OF DOWNTOWN/NORMAL HILL REVENUE ALLOCATION AREA #7 PLAN AND PRIORITIZATION OF PROJECTS - ACTION ITEM

IV. UNFINISHED & NEW BUSINESS

A. COMMISSIONER COMMENTS
STAFF COMMENTS

V. ADJOURNMENT - Action Item

The City of Lewiston is committed to providing access and reasonable accommodation in its services, programs, and activities and encourages qualified persons with disabilities to participate. If you anticipate needing any type of accommodation or have questions about the physical access provided at this meeting, please contact Nikki Province, ADA Coordinator, at least forty-eight (48) hours in advance of the meeting at 208-746-3671 x 6211.

October 14, 2025

THE URBAN RENEWAL AGENCY BOARD OF THE CITY OF LEWISTON, IDAHO, met in a regular meeting Tuesday, October 14, 2025, at Lewiston City Hall. Chairperson Sheila Bond called the meeting to order at 12:00 p.m.

I. CALL TO ORDER

BOARD MEMBERS PRESENT: Sheila Bond, Chairperson; Tim Switzer, Vice Chair; Jim Kleeburg (at 12:04 pm); Doug Havens; A.L. "Butch" Alford;

BOARD MEMBERS EXCUSED: Joe Anderson;

STAFF MEMBERS PRESENT: Katie Hollingshead, URA Director;

OTHERS PRESENT: Thad O'Sullivan, URA Legal Counsel (via Zoom); Luke Antonich, City Engineer; Joe Kaufman, Engineering Supervisor; Bill Maughan, Lewiston Orchards Irrigation District; Barney Metz, Lewiston Orchards Irrigation District, Lynn Rasmussen, Nez Perce Soil and Water Conservation District

II. CITIZEN COMMENTS

None.

III. ACTIVE AGENDA (ACTION ITEM)

A. Approval of Minutes, September 09, 2025 – Action Item

Chair Bond asked if the board had any questions or changes. Chair Bond asked that an extra period under the East Orchards Sewer bond payment be deleted. Board member Alford and Vice Chair Switzer moved and seconded, respectively, to approve the minutes with Chair Bond's amendment. Motion carried 5-0.

B. Approval of Invoices – Action Item

1. O' Sullivan Legal PLLC, Legal Services, September 2025, $708.00

2. Redevelopment Association of Idaho, Inc, Annual Membership dues and Legislative Contribution, $2600.00

3. City of Lewiston, Reimbursement Request, East Orchards Sewer Phase 3 Construction, $523,411.66

Chair Bond stated she would combine the three invoices for one motion and vote. Board member Kleeburg and Vice Chair Switzer moved and seconded, respectively, to approve. Commissioner Havens asked that invoice number three be separated out from the other two because he would be voting against it. Chair Bond ask for a motion to approve invoice number one and invoice number two. Board members Alford and Kleeburg moved and seconded, respectively to approve invoices one and two. Chair Bond asked if there was any discussion. There was none. Motion carried 5-0. Chair Bond then asked for a motion to approve invoice number three from the City of Lewiston for reimbursement for construction

n the East Orchards Sewer Phase 3. Board member Kleeburg and Vice Chair Switzer moved and seconded, respectively, to approve. Motion carried 4-1 with Board member Havens voting against.

C. Review of Financial Summary – Information Item

1. August 2025

2. September 2025

Director Hollingshead briefly reviewed the financial summaries and stated as payments to M.L. Albrights are made the board will see changes in the East Orchards Sewer account balances.

D. Bryden Avenue Revenue Allocation Area Plan - Discussion

Director Hollingshead stated that, per the board's request, she will keep Bryden on the agenda for future meetings so that updates can be provided regularly. City Engineer, Luke Antonich, stated that he does not have an update or request for the board this this time.

E. East Orchards Sewer Revenue Allocation Area

1. Plan Review and Bond Payment Summary

Director Hollingshead stated that she had split this agenda item into two sections because the original request had been to discuss the plan and the repayment of the bond and then Board member Havens requested nitrate information. Director Hollingshead gave a brief review of the establishment of the revenue allocation area for East Orchards Sewer, the major goals set in the plan and the four primary goals set in the plan. Director Hollingshead then reviewed the original bond amount and the payments that have been made on the bond since payments started in 2019.

2. Project Review and Nitrates

Director Hollingshead introduced Joe Kaufman, Engineering Supervisor to provide an update on the progress that has been made on the sewer main installations and the number of sewer connections that have resulted. Board member Havens asked about goal number two in the memo Mr. Kaufman had provided, "Provide a primary sewer trunk main in the east orchards located along a route that allows for maximum sewer service expansion in the future to currently undeveloped property, both inside and adjacent to City limits.". Board member Havens asked if Mr. Kaufman thought that line provided for the maximum hookups. Mr. Havens asked Mr. Kaufman, if Mr. Kaufman would have picked another route. Mr. Kaufman stated no, that he thought the chosen route went through the center of the project area and had stuck out as the best option. Luke Antonich, City Engineer, interjected that the path of the sewer main line was a result of an extensive study performed by a 3rd party engineer as part of the creation of the East Orchards Sewer RAA Plan, that was approved by the URA board at the time of the RAA being approved. Mr. Kaufman then reviewed that through the three phases of construction the average distance of a home from sewer has fallen from 4500 feet to 485 feet. Mr. Kaufman reviewed a map of "springs" where the ground water is coming up to the surface. Board member Havens asked if Mr. Kaufman was saying that the springs were a result of septic systems. Mr. Kaufman stated that he would say that they are probably contributing to it, more water from septic's being pushed into that shallow

ground water. Mr. Kaufman reviewed the increase in assessed value within the RAA and the number of new homes that were able to be built on smaller lots due to sewer access. Board member Alford asked how many of the 78 homes serviced by the East Orchards Sewer line were existing homes and how many were new homes. Director Hollingshead stated that 46 homes from the 101 along the original trunk line have converted to sewer and another 19 along that original trunk line have stubbed the sewer line to their properties but have not converted to sewer yet.

Mr. Kaufman then reviewed memo and a study that had been provided by DEQ in regards to nitrates and stated that DEQ has been paying close attention to septic effluent in Lindsey Creek and has found evidence of artificial sweeteners which is a tracer for septic effluent because artificial sweeteners don't get broken down, there has also been evidence of caffeine found which is more problematic because a properly working septic system should break down caffeine so the presence of caffeine in Lindsey Creek means that septic systems are failing. Mr. Kaufman pointed out DEQ has noted in the report that they provided that there is insufficient evidence to conclude that data are trending one way or the other. Board member Havens asked if there was more current data and Director Hollingshead stated that the report from 2019 was the most current document that DEQ could provide. Board member Havens stated that he thought the document was supposed to be updated every five years. Director Hollingshead stated that Board member Havens was free to make that request of DEQ but these documents were what staff was provided with when they reached out to DEQ for the most updated information.

Board member Havens stated that he had invited Lynn Rassmussen from Nez Perce County Soil and Water District to speak to the board. Board member Havens pointed out that the County has never been supportive of this revenue allocation area and the East Orchards Sewer Plan. Board member Havens stated he believed that the springs were actually instances where Lewiston Orchards Irrigation District pipes had leaked or broken.

Lynn Rassmussen from Nez Perce County Soil and Water introduced herself. She said it is statistically difficult to collect enough data to determine exactly where nitrates come from. Ms. Rassmussen provided a review of available literature on water quality monitoring (attached to these minutes). Ms. Rassmussen stated that the Conservation district tries to work with landowners to reduce all types of pollutants entering into the water shed. Ms. Rassmussen stated that back in the 1970's data collection began and identified septic systems as contributing nitrates to the Lindsey Creek Water shed. Additional data was collected in 2002 and 2007 also stating that septic systems are part of the contributors to nitrates to the Lindsey Creek Water shed, but the data is not able to tell us that a certain percentage of the nitrates is specifically septic's. Ms. Rassmussen stated that Mr. Kaufman already shared the report from DEQ showing the presence of caffeine in the water shed which is evidence of failed septic systems. Ms. Rassmussen stated that Nez Perce County Soil and Water did work with the URA back in 2017 when this plan was developed. Ms. Rassmussen stated that the 2024 report from DEQ that the board had just looked at contained data that had been collected between 2021 and 2023 and she wasn't sure how that matched up with when houses switched from septic to sewer as part of the East Orchards Sewer project so the data might not reflect those septic systems being removed yet. Ms. Rassmussen stated that she had heard someone ask about how often DEQ updates their information and they

typically do it every five (5) years but they are also in charge of hundreds of water sheds and have had a reduction in funding causing budgetary restraints so they are behind. Ms. Rassmussen stated she expects updated data to be available sometime in the next year. Ms. Rassmussen stated that Lindsey Creek is still the priority area and until they receive data from DEQ telling them otherwise, that is what they will continue to concentrate on. The board thanked Ms. Rassmussen for her information.

Chair Bond asked if there were any other questions. Board member Havens stated that unless there is evidence that there has been some improvement the County's position is that this is not a URA project. Legal Counsel O'Sullivan commented that the URA does not have to justify to the County that every goal has been met to the County's satisfaction.

IV. UNFINISHED AND NEW BUSINESS

A. Board Member Comments

None.

B. Staff Comments

November meeting is currently scheduled as a special meeting Thursday, November 13 because of the Veteran's Day holiday on November 11. The November meeting will be after the general election and City Council directed City staff to move forward with the Downtown Water line rebuild General Obligation Bond on the general election ballot. The November agenda will include a review of the Downtown Revenue Allocation Area plan and prioritization of projects.

V. ADJOURN (ACTION ITEM)

There being no further business, Board members Havens and Alford moved and seconded, respectively, to adjourn. The motion carried 5-0 and the Urban Renewal Agency Board adjourned at approximately 1:05 p.m.

RESPECTFULLY SUBMITTED,

_____

KATIE HOLLINGSHEAD,
RECORDING SECRETARY

ATTEST:

_____

URBAN RENEWAL AGENCY CHAIR

Approved this _____ day of _____, 2025

WATER QUALITY STATUS REPORT

LINDSAY CREEK

(Nez Perce County)

1976-1977

Department of Health & Welfare
Division of Environment
Boise, ID 83720

August 1978

Report No. WQ-34

D150-LI

WATER QUALITY STATUS REPORT

Lindsay Creek
(Nez Perce County)

1976-1977

Data Collected By:

H. Edwin Tulloch

Report Prepared By:

Stephen B. Bauer

August 1978

Department of Health & Welfare
Division of Environment
Statehouse
Boise, Idaho 83720

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ABSTRACT

A water quality survey was conducted on Lindsay Creek, Nez Perce County, between May 1976 and November 1977. Samples were collected approximately on a monthly frequency at one station at the mouth in Lewiston, Idaho.

Total coliform bacteria and fecal coliform bacteria exceeded Idaho water quality standards for Class A streams. Nutrients and organic material were high in concentration and produce nuisance slime growths in the stream. Nitrate-nitrogen averaged 3.6 mg/l and total phosphorus averaged 0.24 mg/l. Because of these high bacteria and nutrient concentrations, Lindsay Creek should be classified as water quality limiting.

Two minor point sources discharge to the stream. Nonpoint sources which have a major effect on the stream include runoff from farming land, livestock feeding and grazing, and individual sewage disposal systems. The high fecal coliform concentrations (geometric mean of 1,330/100 ml) are probably due to septic tank and drainfield systems located along the lower mile of Lindsay Creek.

I. INTRODUCTION

A limited survey was conducted on Lindsay Creek to acquire water quality data to classify the stream as either Water Quality Limiting or Effluent Limiting. Information is needed to determine if Lindsay Creek meets requirements for Class A waters listed in Idaho's Water Quality Standards and Wastewater Treatment Requirements. The study plan is included as Appendix A.

Lindsay Creek is located in the Clearwater River Basin and empties into the Clearwater River (RM 2.4) at Lewiston (Figure 1). The creek flows through grass covered upland hills which border the Clearwater River. Soils are silty on gently sloping to steep loess-mantled basalt plateaus with moderately low rainfall.

Most land in the drainage is privately owned. The upper section of the drainage is used as dryland farming of wheat and peas with the lower section for cattle grazing. Low density individual housing is scattered along the lower mile of the stream. Levee construction associated with the Lower Granite Reservoir project necessitated modification of the creek below the sampling station in 1974. Modification included construction of a concrete outlet structure and pump station. These facilities and the low seasonal stream flows preclude sustaining a fishery in Lindsay Creek.

II. MATERIALS AND METHODS

The sample station was located at the mouth of Lindsay Creek on the Main Street Bridge in Lewiston. STORET number for the station is 2020001, latitude is 46°25'05", longitude is 116°59'30". Monthly samples were collected in May, June, July, and August of 1976 and from December 1976 to November 1977. Samples were collected on August 30 and 31, 1976, to coincide with an intensive survey by the U.S. Army Corps of Engineers on Lower Granite Reservoir.

Temperature and dissolved oxygen were measured in the field with a Yellow Springs Instruments Dissolved Oxygen Meter, Model 54A. pH was measured with a Model 404 Orion pH meter. Flows were estimated by timing a float and measuring the cross-sectional area since the water was too shallow for use of a flow meter.

Samples for laboratory analysis were collected in approximately one liter cubitainers. Samples for nutrients were preserved with sulphuric acid, samples for metals with nitric acid, and samples for minerals and solids were untreated and put on ice according to the Idaho Department of Health and Welfare, Division of Environment, Technical Procedures Manual. Laboratory analyses were performed according to EPA, Methods for Chemical Analysis of Water and Wastes.

Field and laboratory analyses were:

Flow	Nitrite-N	Specific Conductance
Temperature	Ammonia-N	Alkalinity
Dissolved Oxygen	Total Kjeldahl Nitrogen	Chloride
pH	Total Phosphorus	Total Mercury
Total Coliform	Ortho-Phosphate (as P)	Total Lead
Fecal Coliform	Turbidity	Total Zinc
Fecal Streptococcus	Total Solids	Total Cadmium
Nitrate-N	Suspended Solids	Total Copper

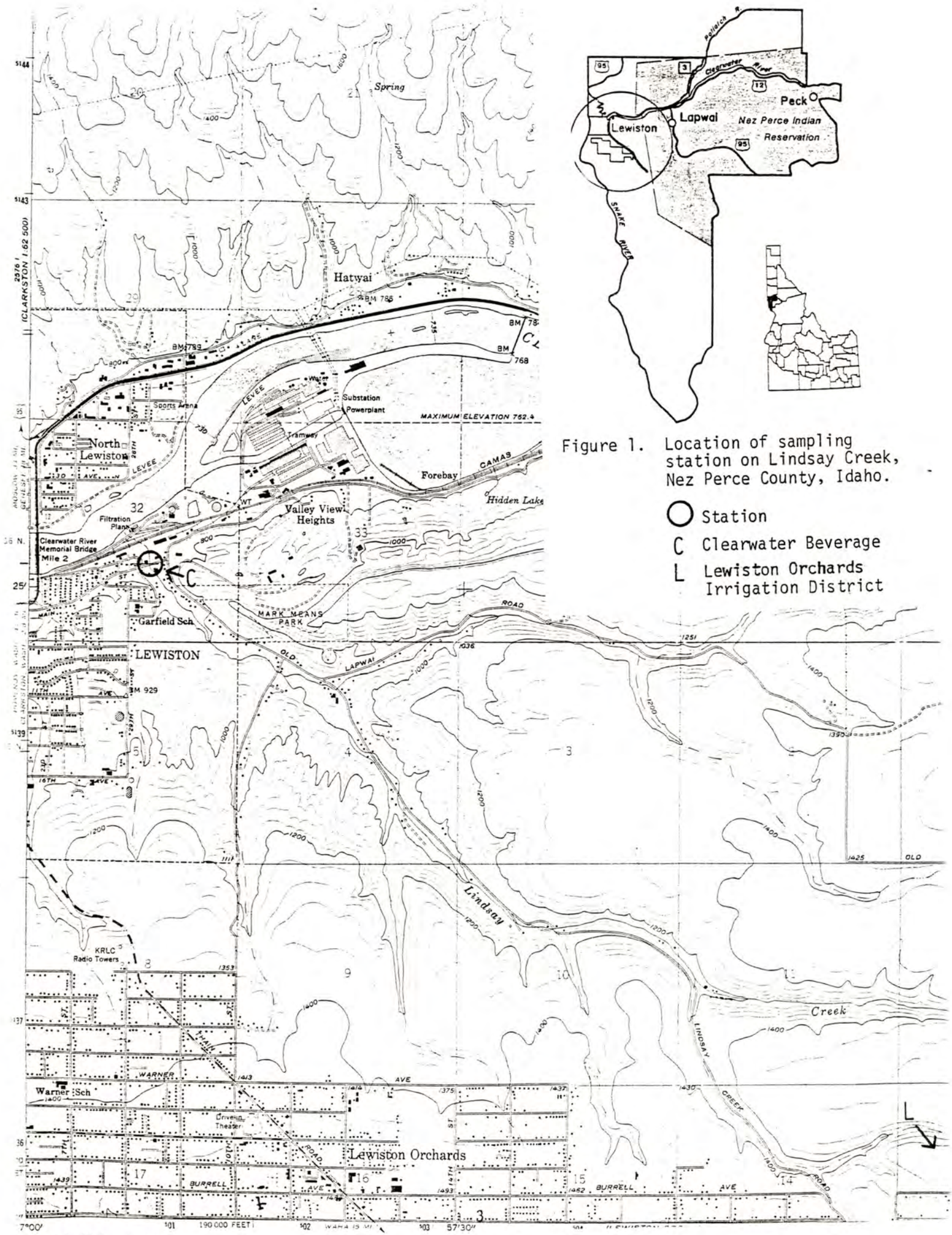


Figure 1. Location of sampling station on Lindsay Creek, Nez Perce County, Idaho.

- ○ Station
- C Clearwater Beverage
- L Lewiston Orchards Irrigation District

III. WASTE SOURCES

Point Sources:

1) Clearwater Beverages, Inc., Lewiston, Idaho ID-000085-0 (see Figure 1)

Clearwater Beverages operates a facility for mixing and bottling carbonated soft drinks. The discharge consist of rinse water and backwash for the sand and gravel filter and carbon filter. Daily average waste flow is 718 gallons. As a temporary measure, the discharge to Lindsay Creek was discontinued by construction of septic tank and drainfield system in June 1977. This discharge is scheduled to be connected to the Lewiston sewage treatment plant when the Lindsay Creek interceptor is completed.

2) Lewiston Orchards Irrigation District ID-002297-7 (see Figure 1)

The LOID operates a 1 mgd water treatment plant that serves approximately 15,000 people. Discharges from the facility consist of sludge pumped from the coagulation basin and backwash water from the filters. Filters are backwashed approximately once a day with 4,500 to 7,000 gallons of water.

Nonpoint Sources:

Along the upper section, Lindsay Creek flows through dryland farms which are a source of sediments during runoff conditions. Throughout the year cattle and horses are grazed along the creek. In the winter, the East Fork of Lindsay Creek along Old Lapwai Road is the site of several concentrated cattle feeding operations. Housing along the lower mile of the creek utilizes individual sewage systems. Drainage from failing septic systems are considered a source of pollutants to Lindsay Creek.

IV. RESULTS

Idaho Water Quality Standards and Wastewater Treatment Requirements include specific instream standards for total and fecal coliform bacteria, dissolved oxygen, and pH. The other parameter categories fall into the "General Water Quality Standards" section and are evaluated according to EPA Quality Criteria for Water and other sources. The rationale for the criteria used are listed in Appendix D. Raw data, means, and variance are listed in STORET printouts in Appendix B. Figures of parameters versus time in months are shown in Appendix C.

Temperature: (Figure 2, Appendix C)

Parameter	Criteria	Number	Mean	Range	Criteria Exceeded-%	Protected Uses Affected
Temperature deg. C^{o}	19^{o} max.	14	13.1^{o}	7.0^{o}-20.2^{o}	7%	Fisheries

The temperature was generally within the range recommended for cold water biota. The $19^{o}C$ criteria was exceeded only slightly in August of 1976.

Dissolved Oxygen: (Figure 3, Appendix C)

Parameter	Criteria	Number	Mean	Range	% Violation	Protected Uses Affected
Concentration mg/l	6 mg/l min.	11	10.6	8.5-14.0	0%	None
Percent Saturation %	90% min.	11	103%	87-118%	7%	None

Dissolved oxygen exceeded Idaho water quality minimum standards a majority of the time only dropping slightly below 90% saturation on one occasion.

pH: (Figure 4, Appendix C)

Parameter	Criteria	Number	Mean	Range	% Violation	Protected Uses Affected
pH	6.5-9.0	14	--	7.8-8.9	0%	None

pH was within Idaho water quality standards of 6.5-9.0 for all sampling dates.

Bacteria*: (Figure 5-7, Appendix C)

Parameter	Criteria	Number	Mean	Range	% Violation	Protected Uses Affected
Total Coliform	240	17	14,700	600-114,000	100%	Drinking Water Supplies & Contact Recreation
Fecal Coliforms	50	17	1,330	120-24,400	100%	
Fecal Streptococcus	--	17	721	78-10,000	--	

Bacteria concentrations are high and exceed geometric means and single sample water quality standards for primary and secondary contact recreation.

For recent fecal contamination, a fecal coliform/fecal streptococcus ratio above 4 is considered indicative of a human source, whereas animal sources are characterized by a ratio which does not exceed .7 (Claussen, 1977). Since all the monthly ratios exceed 1.4 (ratios average 5.9), there is strong evidence that the bacterial contamination is due to a human source. However,

*Total coliform Class A_2 standard is a geometric mean of 240/100 ml, Class B standard is geometric mean of 1000/100 ml. Fecal coliform Class A_2 standard is geometric mean of 50/100 ml, single sample of 500/100 ml; Class B standard is geometric mean of 200/100 ml, single sample of 800/100 ml.

these ratios are highly variable. For example, on August 30, 1976, estimated densities for these bacteria give a fecal coliform/fecal streptococcus ratio of 1.8 compared to a ratio of 20 on August 31 when fecal coliforms were estimated at 24,400/100 ml. For this reason these ratios may be subject to differing interpretation. The bacterial loads may also be due to a mixture of human and animal wastes.

Trophic: (Figures 8-14, Appendix C)

Parameter	Criteria	Number	Mean	Range	Criteria Exceeded-%	Protected Uses Affected
Nitrate-N mg/l	.3	17	3.6	1.8-4.9	100%	Recreation
Nitrite-N mg/l	--	17	0.01	0-.22	--	--
Total Kjeldahl Nitrogen	--	17	1.5	.8-2.9	--	--
Ammonia Nitrogen mg/l	.20	17	0.05	.01-.11	0%	None
Total Phosphorus mg/l (P)	.05	17	0.24	.09-.71	100%	Recreation
Ortho-Phosphate mg/l (as P)	.025	17	0.12	.04-.33	100%	Recreation
Chemical Oxygen Demand mg/l	--	11	24.8	2-71	--	--

Nitrates, total phosphorus, and ortho-phosphate exceeded recommended criteria based on preventing excess algal growth throughout the sampling period. Nitrates did not vary significantly throughout the year. Total phosphorus peaked both years at the end of August. Samples for chemical oxygen demand indicate a high concentration of organic material.

These high organic loads and nutrient concentrations may stimulate nuisance growths of algae and fungi in Lindsay Creek. Also, Lindsay Creek is a source of these nutrients to Lower Granite Reservoir.

Aesthetic: (Figure 15, Appendix C)

Parameter	Criteria	Number	Mean	Range	Criteria Exceeded-%	Protected Uses Affected
Turbidity JTU	25	17	9.8	0.8-43	6%	--

Turbidity was generally below 25 JTU's throughout the year. Peaks in turbidity (Figure 15) usually occurred after storms indicating the relation of turbidity to runoff. Precipitation on August 30, 1977, when turbidity peaked at 43 JTU's was .89 inches (NOAA).

Solids: (Figures 16-18, Appendix C)

Parameter	Criteria	Number	Mean	Range	Criteria Exceeded-%	Protected Uses Affected
Total Solids	--	17	590	127-787	--	--
Suspended Solids	80	12	43.6	2-161	17%	--
Conductivity (umhos/cm)	750	17	835	286-919	88%	Drinking Water
Total Alkalinity	--	17	366	300-800	--	--
Chloride	--	14	23.7	6.2-43.7	--	--

Suspended solids as with turbidity increased following storms exceeding recommended maximum of 80 mg/l for aquatic life on two sampling dates.

Dissolved solids exceeded the desirable concentration for domestic water use (indicated by conductivity above 750 umhos/cm) the majority of the time.

Inorganic Toxicity:

Quarterly samples for cadmium, copper, lead, mercury, and zinc were below detection limits or below recommended criteria.

V. OBSERVATIONS

Brown, filimentous slime growths were observed at the station during both summers. These bacterial or fungal mats are formed in response to the high organic and nutrient concentrations.

The stream was noticeably turbid following any precipitation. Observed turbidity corresponded to peaks in measured turbidity over 10 JTU's shown in Figure 15.

VI. CONCLUSIONS

1) Lindsay Creek meets instream Idaho water quality standards for dissolved oxygen and pH.

2) Fecal coliform bacteria exceed standards for primary and secondary contact recreation throughout the year. High bacterial concentrations are derived from fecal contamination. Analysis of the bacterial ratios would strongly indicate that this is due to a human source which is assumed to be from failing septic systems located along the lower section of the stream.

3) Nitrate-nitrogen and phosphorus concentrations exceed acceptable levels. These nutrients stimulate nuisance growths in the creek and are a source of nutrients to Lower Granite Reservoir.

4) Because of the bacteria and nutrient violations, Lindsay Creek should be classified as water quality limiting. Lindsay Creek does not presently meet Class A_2 standards for primary contact recreation.

5) Dissolved solids are high as indicated by conductivity values which exceed acceptable levels for domestic water supplies.

6) Turbidity increases substantially following storms. The major source of this turbidity is probably silts washed from dryland farm areas.

7) Nonpoint sources degrade the water quality of Lindsay Creek. Nonpoint sources which may be responsible for this degradation include farming practices, livestock feeding and grazing, construction, urban runoff, and individual sewage disposal systems.

VII. RECOMMENDATIONS

Lindsay Creek is classified as water quality limiting because of bacteria and nutrient violations attributable to nonpoint sources. Sampling at one station does not allow for certain identification of specific pollution sources. However, the following general recommendations can be made:

1) Failing septic tank and drainfield systems should be identified and replaced or hooked to a community sewerage system. Construction of the Lindsay Creek interceptor this year should allow access to the Lewiston sewage treatment plant.

2) As Best Management Practices are identified in the 208 program, they should be applied to reduce erosion from the dryland farms and reduce pollutants from summer livestock grazing.

3) Animal confinement methods along the East Fork of Lindsay Creek should be modified to reduce contamination of the stream from this source.

4) The conductivity readings for Lindsay Creek are higher than expected for a stream in the Clearwater River Basin. This should be investigated to determine if it is a natural characteristic of the drainage or a result of man-made degradation.

LITERATURE CITED

Clausen, E. M.; Green, B. L.; and Litsky, Warren. "Fecal Streptococci: Indicators of Pollution" in Bacterial Indicators/Health Hazards Associated with Water, ASIM STP 635, A. W. Hoadley and B. J. Dutka, Eds., American Society for Testing and Materials, 1977, pp. 247-264.

Environmental Protection Agency, United States, July 1976. Quality Criteria for Water, U.S. Government Printing Office 1977 0-222-904, 256 p.

Idaho Department of Environmental and Community Services, June 1973. Water Quality Standards and Wastewater Treatment Requirements, 19 p., and Appendix.

National Oceanic and Atmospheric Administration, Aug. 1977, Environmental Data Service, Climatological Data-Idaho, Volume 89, Number 8.

APPENDIX A

Final Draft of Study Plans

LINDSAY CREEK
(Nez Perce County)
STUDY PLAN

PURPOSE:

To acquire water quality data to classify the stream segment.

BACKGROUND:

The uses to be protected must be specified and a classification of water quality limiting or effluent limiting must be designated.

STUDY PERIOD:

Monthly samples will be collected for a period of 12 months beginning in January, 1977.

SAMPLING STATION:

The creek will be sampled at the Main Street bridge (Lewiston) near the mouth. The STORET number for this station is 202001.

FIELD AND LABORATORY ANALYSES:

Field: Flow, D.O., pH, temperature

Laboratory: Specific conductance, alkalinity, turbidity, total solids, suspended solids, COD, total phosphorus, ortho-phosphate, nitrate, nitrite, ammonia, total kjeldhal nitrogen, chloride, total coliform, fecal coliform, fecal strep.

In addition to the above monthly analyses the following trace metals will be determined quarterly: total mercury, total lead, total zinc, total cadmium, total copper.

MANPOWER REQUIREMENTS:

One Environmental Quality Specialist for two hours per month will be required. A total of three man-days will be required for field work and two additional man-days for report preparation. One and one-half man-days will be expended in FY 77 and 3 1/2 man-days in FY 78.

SPECIAL EQUIPMENT REQUIREMENTS:

None.

REPORT:

A stream segment status report should be drafted in February of 1978 discussing whether or not the stream segment meets the State's Class A water quality standards.

APPENDIX B

Raw Data: STORET Retrieval and Inventory

STORET DATE 78/11/28

2020001
46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH
16069 IDAHO
PACIFIC NORTHWEST

/TYPA/AMBNT/STREAM

21IDSURV 760810
0000 CLASS 00

INDEX 1310001 002740
MILES 0324.30 0002.40

PARAMETER				NUMBER	MEAN	VARIANCE	STAN DEV	COEF VAR	STAND ER	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010	WATER	TEMP	CENT	14	13.1000	18.0969	4.25405	.324737	1.13694	20.2000	7.00000	76/05/17	77/11/29
00061	STREAM	FLOW,	INST-CFS	8	6.44999	12.9544	3.59922	.558019	1.27252	11.3000	1.20000	77/03/31	77/11/29
00070	TURB	JKSN	JTU	17	9.75882	125.826	11.2172	1.14945	2.72058	43.0000	.800000	76/05/17	77/11/29
00095	CNDUCTVY	AT 25C	MICROMHO	17	835.059	21948.6	148.151	.177413	35.9318	919.000	286.000	76/05/17	77/11/29
00300	DO		MG/L	11	10.6364	2.93262	1.71249	.161003	.516335	14.0000	8.50000	76/05/17	77/11/29
00335	COD	LOWLEVEL	MG/L	14	26.7500	336.351	18.3399	.730661	4.90154	71.0000	3.00000	76/05/17	77/10/25
00400	PH		SU	14	8.37856	.108023	.328668	.039227	.087840	8.90000	7.80000	76/05/17	77/11/29
00403	LAB	PH	SU	16	8.32499	.067350	.259519	.031173	.064880	8.60000	7.50000	76/05/17	77/11/29
00410	T ALK	CACO3	MG/L	17	365.882	12852.4	113.368	.309849	27.4958	800.000	300.000	76/05/17	77/11/29
00425	HCO3 ALK	CACO3	MG/L	11	320.727	233.400	15.2774	.047634	4.60632	341.000	286.000	77/01/24	77/11/29
00430	CO3 ALK	CACO3	MG/L	10	9.70000	79.5667	8.92002	.919589	2.82076	27.0000	.000000	77/01/24	77/11/29
00500	RESIDUE	TOTAL	MG/L	17	590.294	17312.6	131.577	.222901	31.9122	787.000	127.000	76/05/17	77/11/29
00505	RESIDUE	TOT VOL	MG/L	2	137.500	60.5000	7.77817	.056569	5.50000	143.000	132.000	76/08/30	76/08/31
00530	RESIDUE	TOT NFLT	MG/L	12	43.5833	2406.45	49.0556	1.12556	14.1611	161.000	2.00000	76/12/08	77/11/29
00535	RESIDUE	VOL NFLT	MG/L	2	4.50000	12.5000	3.53553	.785674	2.50000	7.00000	2.00000	76/08/30	76/08/31
00610	NH3-N	TOTAL	MG/L	17	.045136	.000660	.025691	.569193	.006231	.113000	.012000	76/05/17	77/11/29
00615	NO2-N	TOTAL	MG/L	17	.022398	.002608	.051068	2.28025	.012386	.219000	.001000	76/05/17	77/11/29
00620	NO3-N	TOTAL	MG/L	17	3.62556	.656651	.810340	.223507	.196536	4.90000	1.78781	76/05/17	77/11/29
00625	TOT KJEL	N	MG/L	17	1.47823	.262558	.512404	.346633	.124276	2.90000	.800000	76/05/17	77/11/29
00650	T PO4	PO4	MG/L	4	1.02250	.588427	.767090	.750211	.383545	2.08000	.360000	76/08/24	76/08/31
00665	PHOS-TOT		MG/L P	17	.244117	.028551	.168970	.692167	.040981	.710000	.090000	76/05/17	77/11/29
00669	PHOS-TOT	HYDRO	MG/L P	3	.386667	.104633	.323471	.836563	.186756	.750000	.130000	77/03/31	77/11/29
00680	T ORG C	C	MG/L	5	9.66000	37.3280	6.10966	.632471	2.73232	20.5000	5.90000	77/03/31	77/10/25
00900	TOT HARD	CACO3	MG/L	1	200.000					200.000	200.000	77/08/30	77/08/30
00940	CHLORIDE	CL	MG/L	14	23.7214	67.0691	8.18957	.345240	2.18875	43.7000	6.20000	76/05/17	77/11/29
01002	ARSENIC	AS,TOT	UG/L	1	10.0000					10.0000	10.0000	77/09/29	77/09/29
01007	BARIUM	BA,TOT	UG/L	1	100.000					100.000	100.000	77/09/29	77/09/29
01027	CADMIUM	CD,TOT	UG/L	3	2.33333	5.33334	2.30940	.989744	1.33333	5.00000	1.00000	77/01/24	77/09/29
01034	CHROMIUM	CR,TOT	UG/L	1	10.0000					10.0000	10.0000	77/09/29	77/09/29
01042	COPPER	CU,TOT	UG/L	3	10.0000	.000000	.000000		.000000	10.0000	10.0000	77/01/24	77/09/29
01051	LEAD	PB,TOT	UG/L	3	36.6667	533.334	23.0940	.629838	13.3333	50.0000	10.0000	77/01/24	77/09/29
01055	MANGNESE	MN	UG/L	1	20.0000					20.0000	20.0000	77/09/29	77/09/29
01077	SILVER	AG,TOT	UG/L	1	1.00000					1.00000	1.00000	77/09/29	77/09/29
01092	ZINC	ZN,TOT	UG/L	3	5.33333	56.3333	7.50555	1.40729	4.33333	14.0000	1.00000	77/01/24	77/09/29
01147	SELENIUM	SE,TOT	UG/L	1	10.0000					10.0000	10.0000	77/09/29	77/09/29
31501	TOT COLI	MFIMENEO	/100ML	17	32100.0	.115E+10	33595.5	1.05905	8245.11	114000	600.000	76/05/17	77/11/29
31616	FEC COLI	MFM-FCER	/100ML	17	3862.35	.347E+08	5895.50	1.52640	1429.87	24400.0	120.000	76/05/17	77/11/29
31679	FECSTREP	MF M-ENT	/100ML	17	1382.23	5340496	2310.95	1.67189	560.488	10000.0	78.0000	76/05/17	77/11/29
70507	PHOS-T	ORTHO	MG/L P	17	.119708	.006280	.079248	.662013	.019221	.326000	.036000	76/05/17	77/11/29
71900	MERCURY	HG,TOTAL	UG/L	3	2.00000	6.75000	2.59808	1.29904	1.50000	5.00000	.500000	77/01/24	77/09/29

STORET RETRIEVAL DATE 78/12/06

2020001
46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH
16069 IDAHO
PACIFIC NORTHWEST

/TYPE/AMBNT/STREAM

211DSURV 76C810
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00010 WATER TEMP CENT	00061 STREAM FLOW, INST-CFS	00300 DO MG/L	00335 COD LOWLEVEL MG/L	00400 PH SU	00403 LAB PH SU	31501 TOT COLI MFIMENDO /100ML	31616 FEC COLI MFM-FCBR /100ML	31679 FECSTREP MF M-ENT /100ML	00625 TOT KJEL N MG/L
76/05/17			12.6		11.7	33.6	8.20	7.5	600L	600L	200L	1.000
76/08/24								8.2	8500	600L	800	1.600
76/07/27						33.0		8.2	13200	2960	1290	1.500
76/08/30			20.2		8.5	12.0	8.80	8.4	24700J	5000J	2850J	1.340
76/08/31			19.8		8.7	31.0	8.50	8.5	114000	24400	1200	1.040
76/12/08	14	00	7.2			3.0	8.90	8.3	80000	1700	660	2.230
77/01/24						32.0	8.40		27000	7700	560	1.600
77/02/28			9.0		11.1	32.0	8.50	8.4	72000	4300	840	1.000
77/03/31	09	30	7.0	5	14.0	29.0	8.60	8.3	17000	830	78	0.930
77/04/14	10	00	10.5	8	12.8		8.60	8.4	20000	1000	730	0.800
77/05/24			15.1	8	10.6	11.0	8.40	8.4	21900	120L	840	1.300
77/06/15	11	45	18.0	1	10.8	18.0	8.50	8.6	4200	910	360	1.600
77/07/18	11	30	14.0	3	9.5	12.0	8.20	8.6	8000L	600L	1000L	1.430
77/08/30	14	10	15.0			71.0		8.5	85000	8200	10000L	2.900
77/09/29	10	20	13.2	5		42.0	7.80	8.5	35000	5200	1360	1.500
77/10/25	10	55	11.9	11	9.2	15.0	7.80	8.2	3100	1420	560	1.790
77/11/29	12	30	9.9	3	10.1		8.10	8.2	11500	120L	170	1.570

SITE RETRIEVAL DATE 78/12/06

2020001
46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH
16059 IDAHO
PACIFIC NORTHWEST

/TYPE//AMBNT/STREAM

211DSURV 760810
C000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	00610 NH3-N TOTAL MG/L	00615 NO2-N TOTAL MG/L	00620 NO3-N TOTAL MG/L	00650 T PO4 PO4 MG/L	70507 PHOS-T ORTHO MG/L P	00665 PHOS-TOT MG/L P	00669 PHOS-TOT HYDRO MG/L P	00680 T ORG C C MG/L	00070 TURB JKSN JTU	00095 CNDUCTVY AT 25C MICROMHO
76/05/17			0.030	0.016	3.521		0.088	0.130			9.5	870
76/06/24			0.039	0.027	1.788	0.57	0.078	0.200			23.0	848
76/07/27			0.062	0.011	3.783	0.36	0.095	0.140			4.7	880
76/08/30			0.029	0.004	3.609	1.08	0.241	0.350			5.0	286
76/08/31			0.031	0.012	3.515	2.08	0.326	0.710			3.7	919
76/12/08	14	00	0.030	0.007	4.270		0.039	0.150			2.3	848
77/01/24			0.050	0.007	4.900		0.105	0.220			18.0	902
77/02/28			0.030	0.001K	4.350		0.082	0.140			13.0	858
77/03/31	09	30	0.028	0.011	3.871		0.036	0.160	0.130	5.9	1.0	827
77/04/14	10	00	0.030	0.016	3.860		0.040	0.140			1.8	895
77/05/24			0.030	0.013	2.680		0.097	0.210	0.750		22.0	879
77/06/15	11	45	0.012	0.013	3.397		0.093	0.090			3.4	913
77/07/18	11	30	0.045	0.011	4.330		0.129	0.200		6.5	1.4	918
77/08/30	14	10	0.088	0.014	3.250		0.239	0.600		20.5	43.0	742
77/09/29	10	20	0.036	0.003	2.150		0.120	0.210		7.7	9.3	870
77/10/25	10	55	0.113	0.004	4.380		0.077	0.180		7.7	0.8	880
77/11/29	12	30	0.075	0.219	3.940		0.150	0.320	0.280		4.0	821

SECRET RETRIEVAL DATE 78/12/06

2020001
46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH
16069 IDAHO
PACIFIC NORTHWEST

/TYPE/AMBNT/STREAM

211DSURV 760810
0000 FEET DEPTH CLASS 00

DATE FROM TO	TIME OF DAY	DEPTH FEET	70300 RESIDUE DISS-180 C MG/L	00530 RESIDUE TOT NFLT MG/L	00500 RESIDUE TOTAL MG/L	00505 RESIDUE TOT VOL MG/L	00535 RESIDUE VOL NFLT MG/L	00900 TOT HARD CACO3 MG/L	00410 T ALK CACO3 MG/L	00425 HCO3 ALK CACO3 MG/L	00430 CO3 ALK CACO3 MG/L	00940 CHLORIDE CL MG/L
76/09/17					574				300			44
76/08/24					642				336			27
76/07/27					600				350			25
76/08/30					550	143	7		344			
76/08/31					637	132	2		396			
76/12/08	14 00			15	574				342			
77/01/24				73	669				336	326	10	13
77/02/28				44	606				338	330		24
77/03/31	09 30			2K	556				341	341	1K	23
77/04/14	10 00			22	575				337	325	12	25
77/05/24				107	646				327	313	14	21
77/06/15	11 45			9	603				326	309	27	24
77/07/18	11 30			4	127				346	314	0	6
77/08/30	14 10			161	787			200	800	286	14	29
77/09/29	10 20			30	621				334	317	17	24
77/10/25	10 55			2K	564				334	334	1K	24
77/11/29	12 30			54	664				333	333	1K	23

SITE RETRIEVAL DATE 78/12/06

2020001
46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH
16069 IDAHO
PACIFIC NORTHWEST

/TYPE/AMBNT/SITEAM

21IDSURV 760810
0000 FEET DEPTH CLASS 00

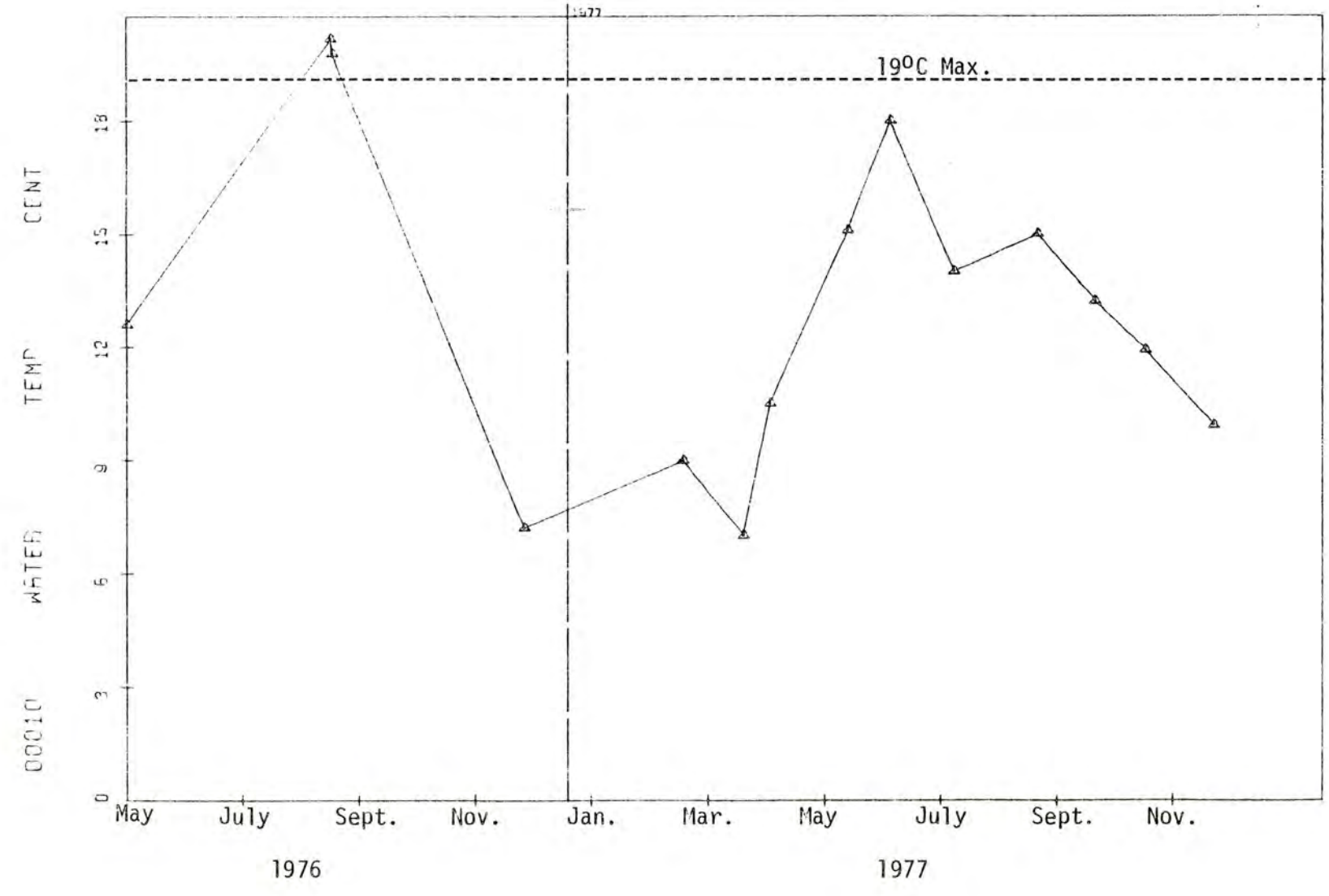
DATE FROM TO	TIME OF DAY	DEPTH FEET	01045 IRON FE,TOT UG/L	74010 IRON FE MG/L	01055 MANGANESE MN UG/L	01027 CADMIUM CD,TOT UG/L	01042 COPPER CU,TOT UG/L	01051 LEAD PB,TOT UG/L	01092 ZINC ZN,TOT UG/L	71900 MERCURY HG,TOTAL UG/L
77/01/24						5K	10K	10K	14	5.0K
77/05/24						1K	10	50K	1	0.5K
77/09/29	10	20			20.0	1K	10K	50K	1	0.5K

APPENDIX C

Figures 2-18

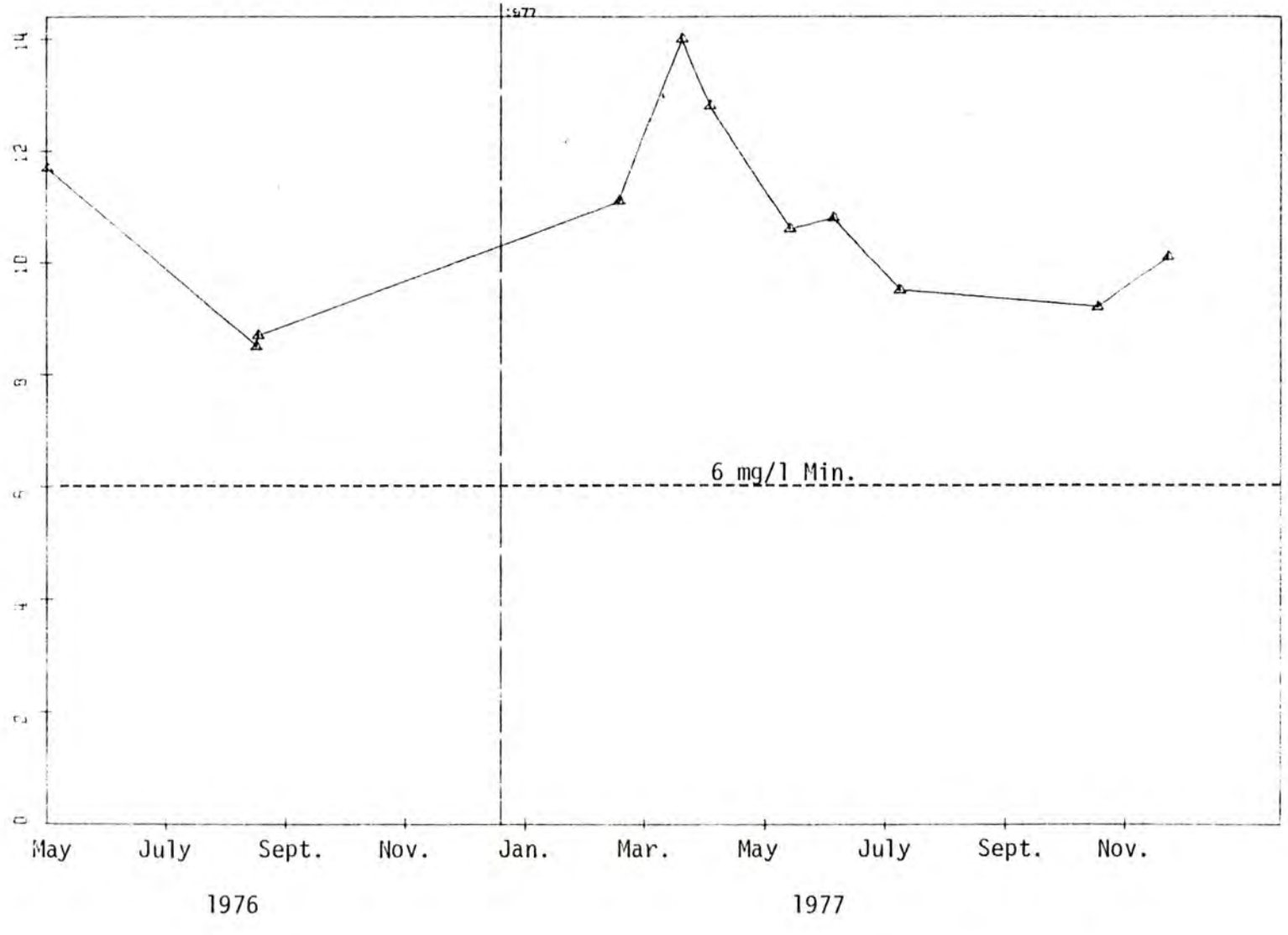
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LINDSAY CREEK AT MOUTH

Figure 2. Water Temperature Deg. C.



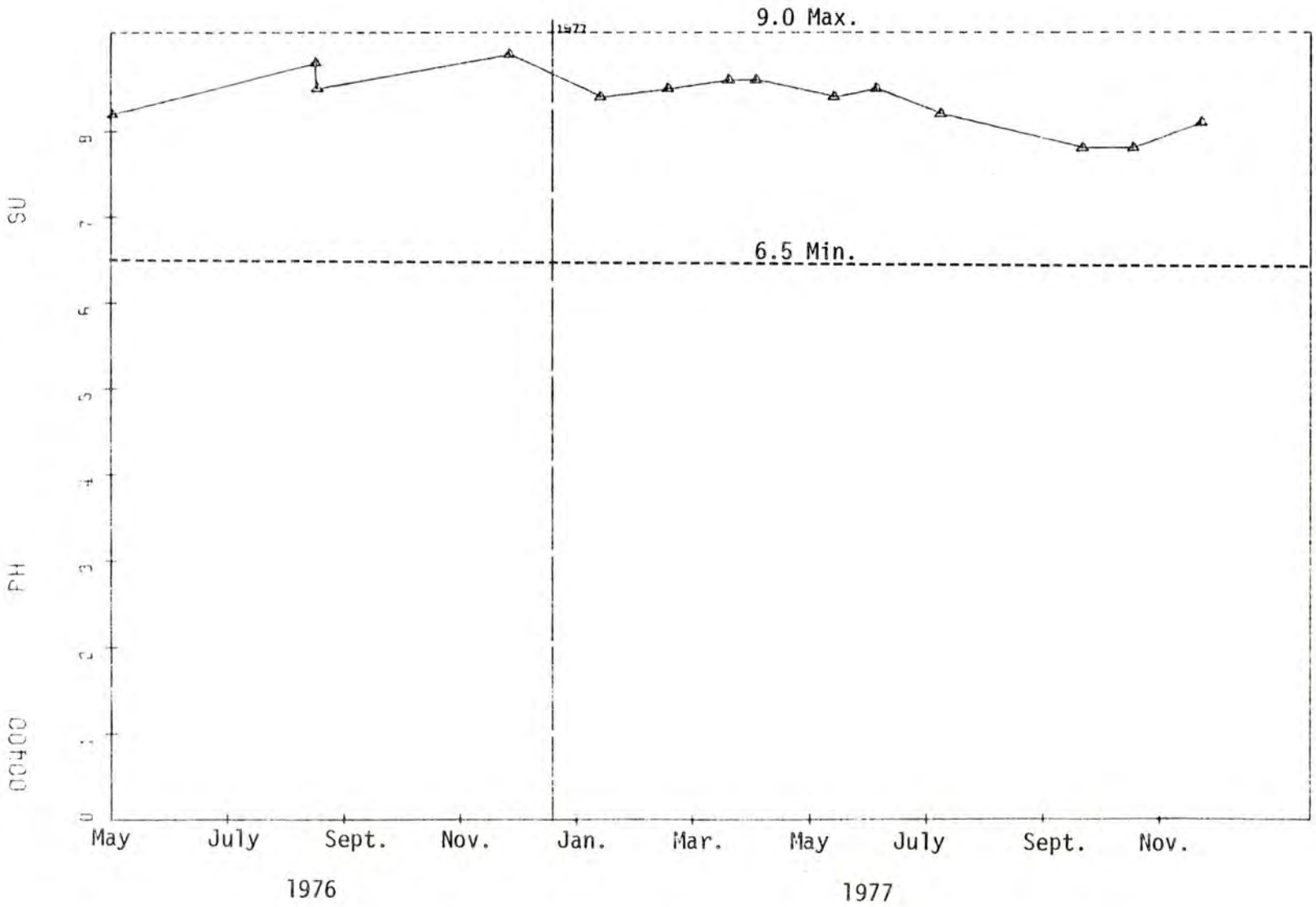
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LINDSAY CREEK AT MOUTH

Figure 3. Dissolved Oxygen mg/l



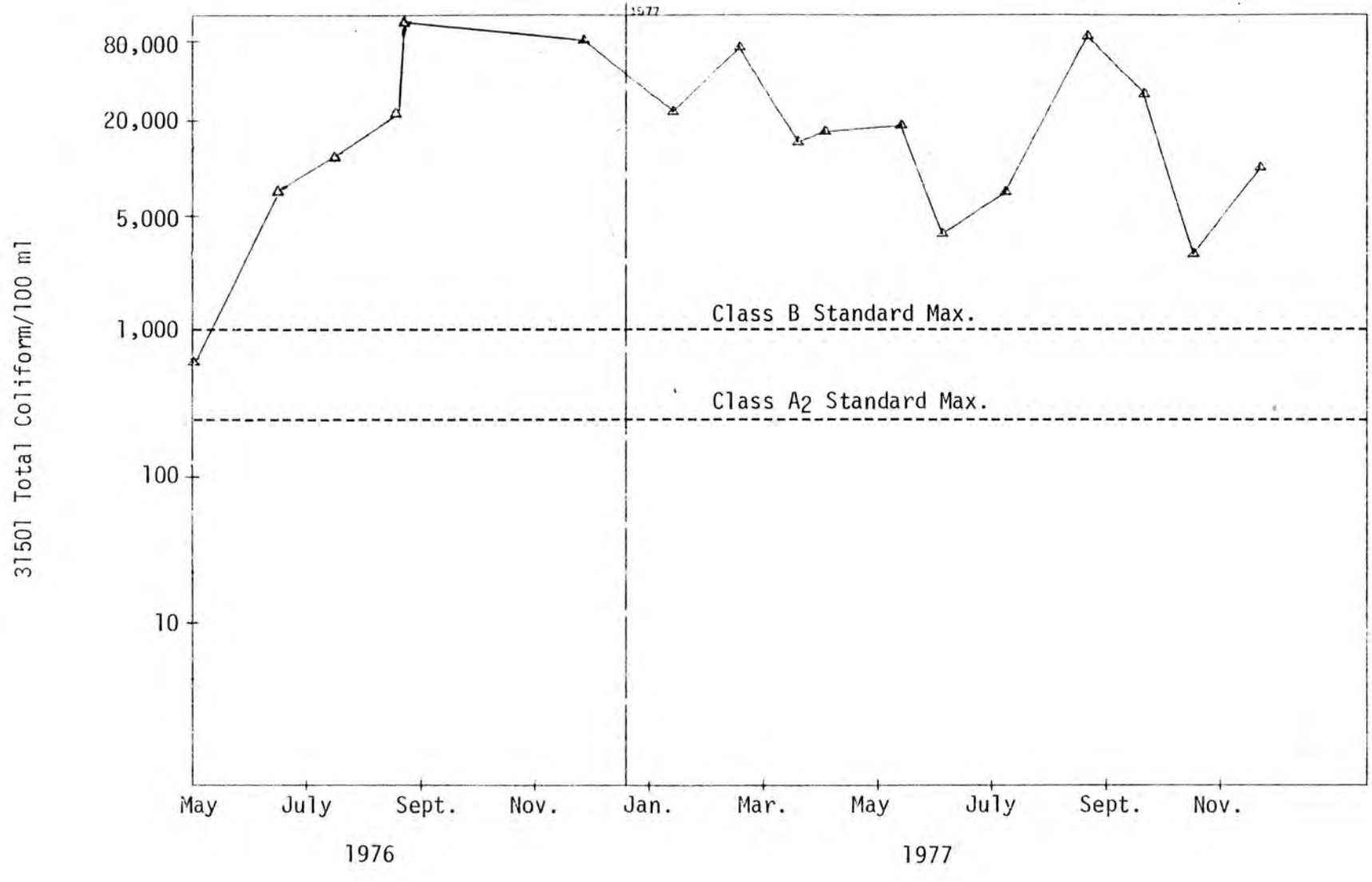
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LINDSAY CREEK AT MOUTH

Figure 4. pH in Standard Units



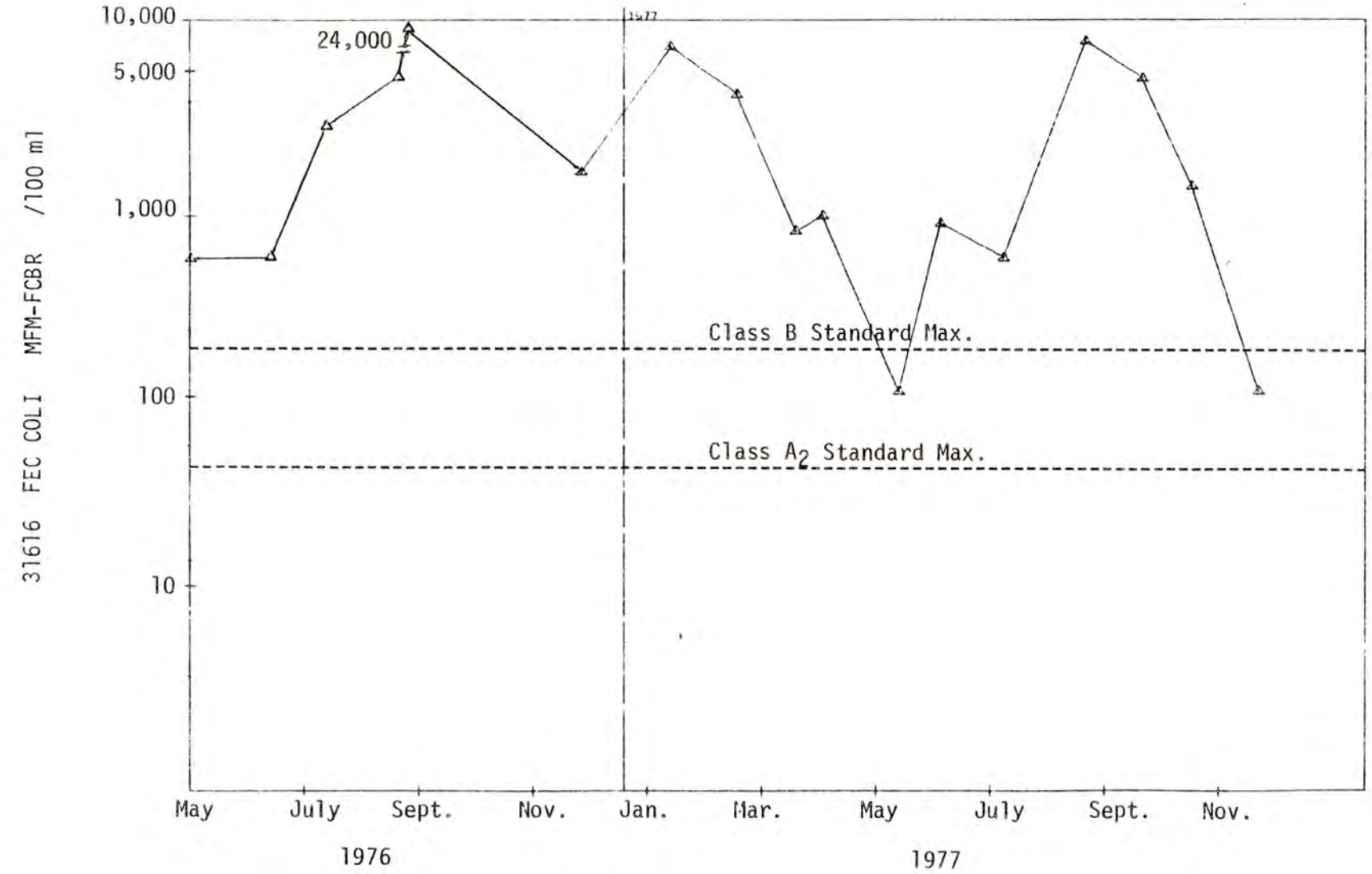
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46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH

Figure 5. Total Coliform, number/100 ml



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LINDSAY CREEK AT MOUTH

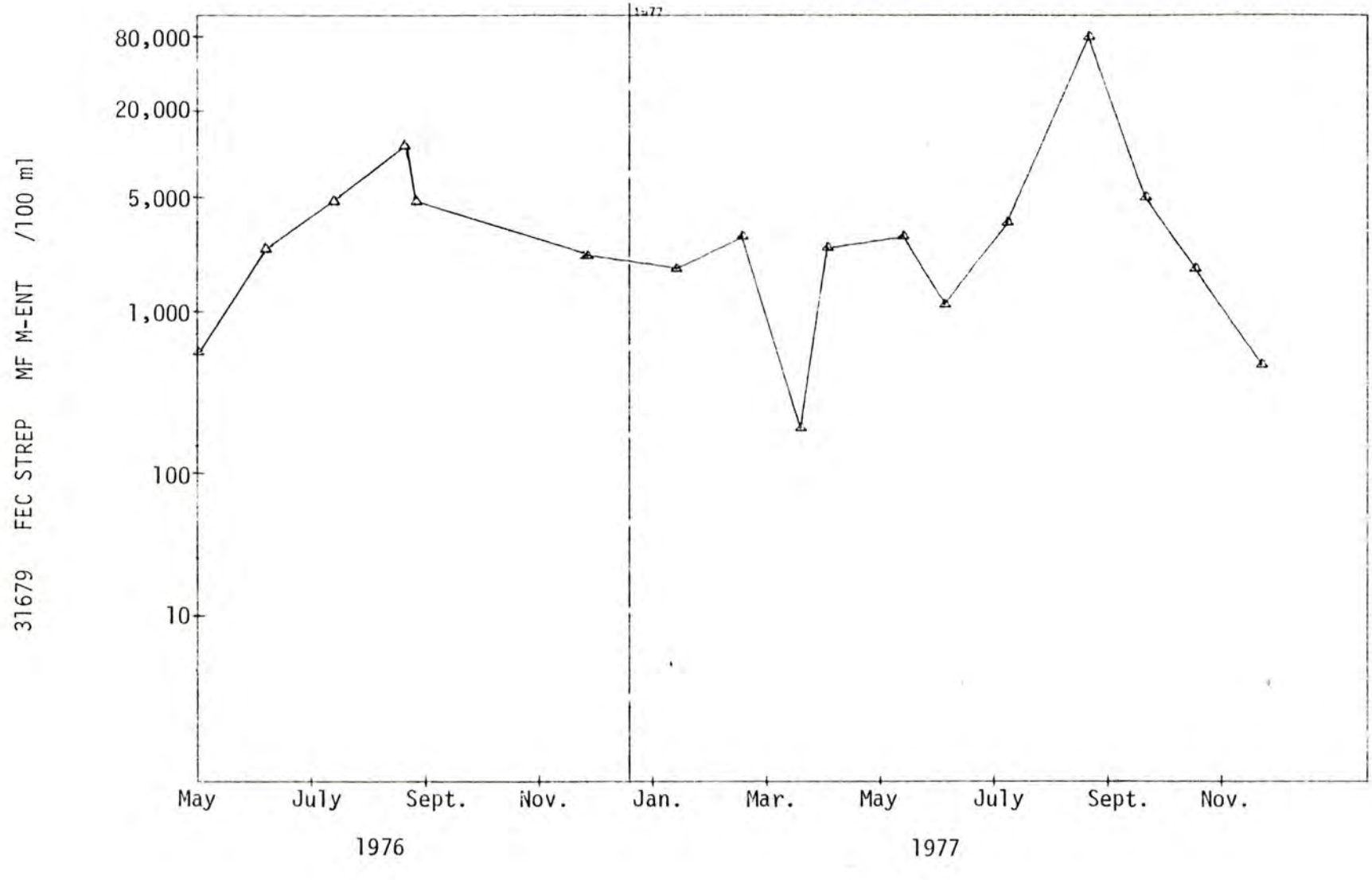
Figure 6. Fecal Coliform, number/100 ml



C-5

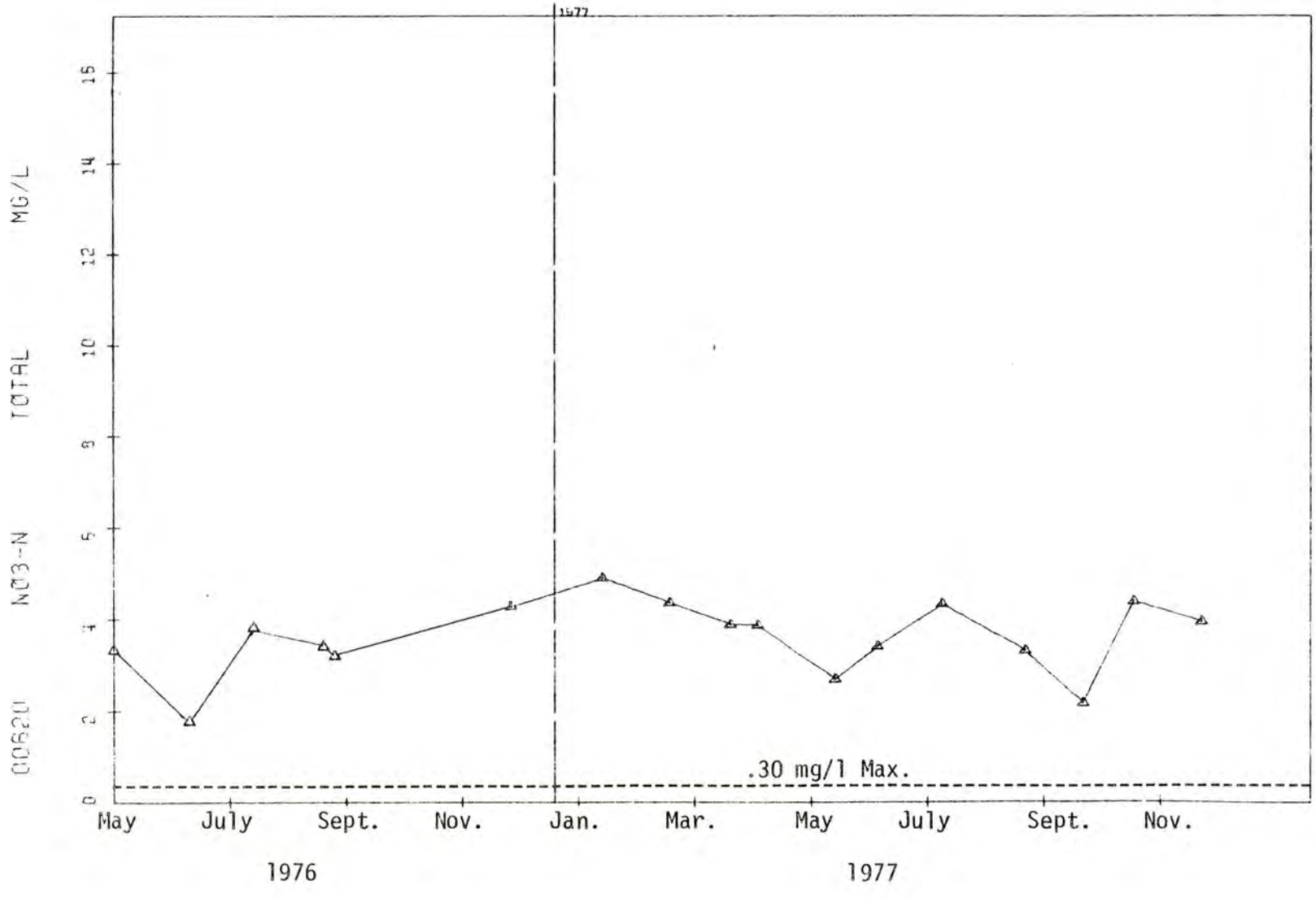
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. 46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH

Figure 7. Fecal Streptococcus, number/100 ml



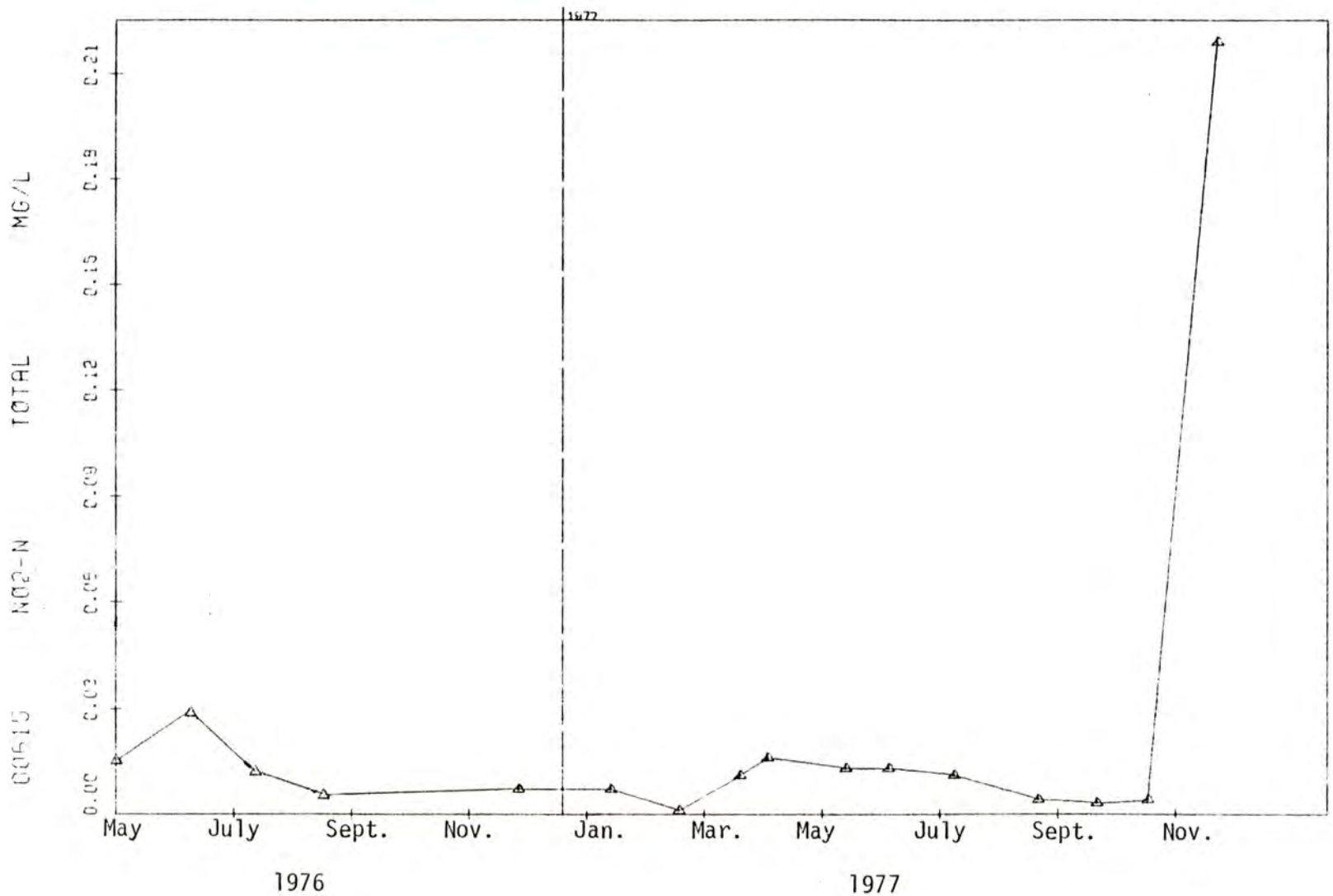
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46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH

Figure 8. Nitrate-Nitrogen, mg/l



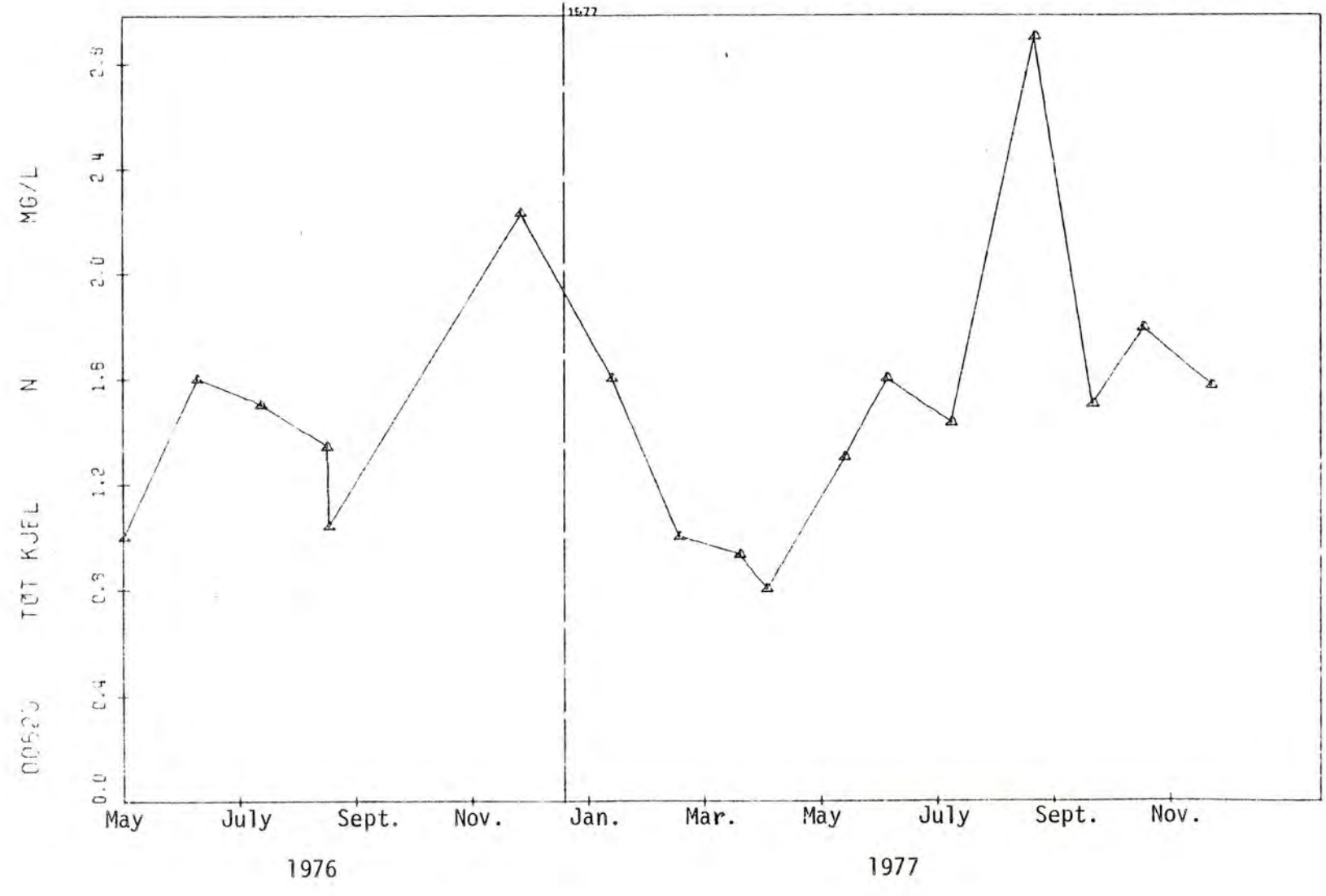
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LINDSAY CREEK AT MOUTH

Figure 9. Nitrite-Nitrogen mg/l



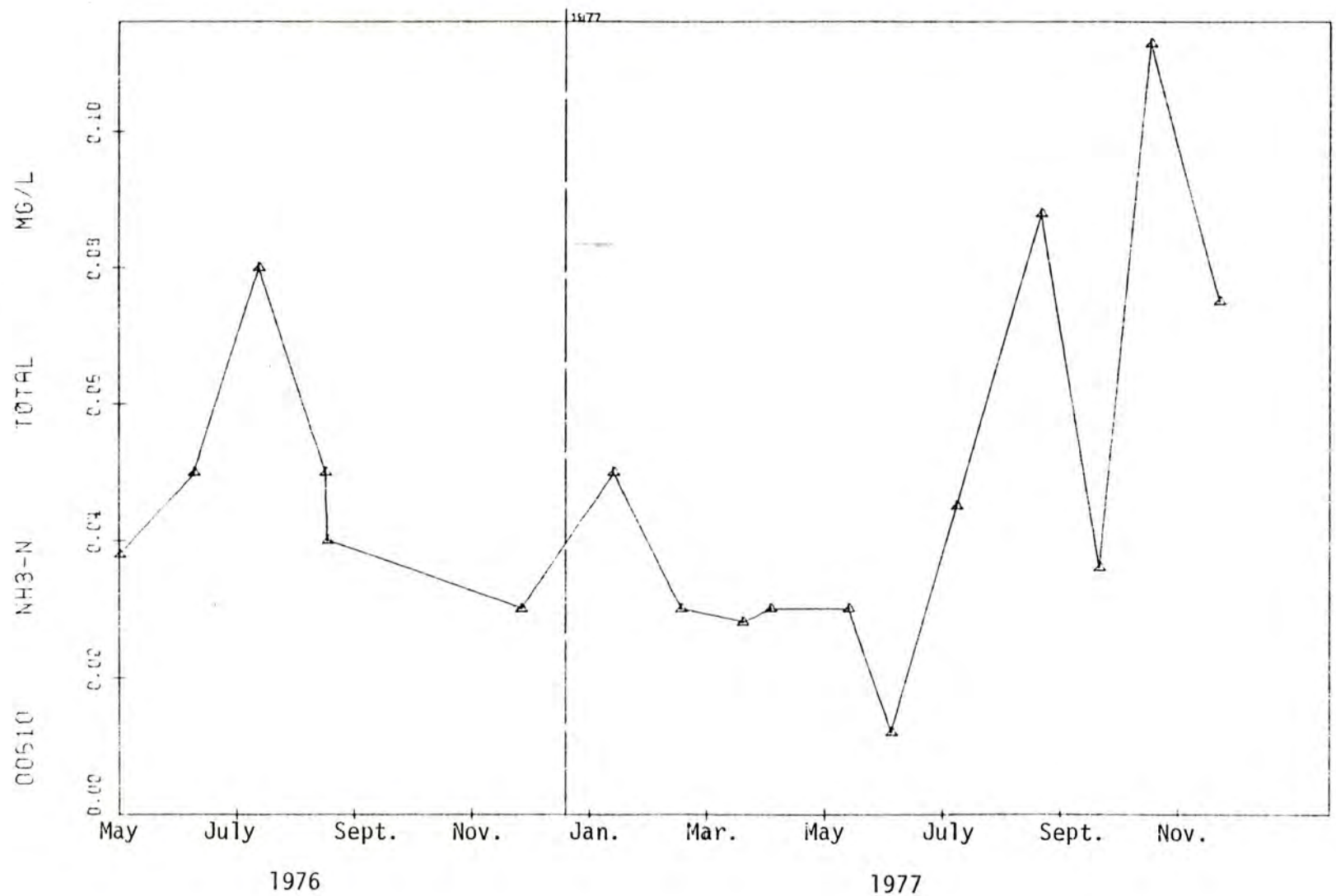
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LINDSAY CREEK AT MOUTH

Figure 10. Total Kjeldahl Nitrogen, mg/l



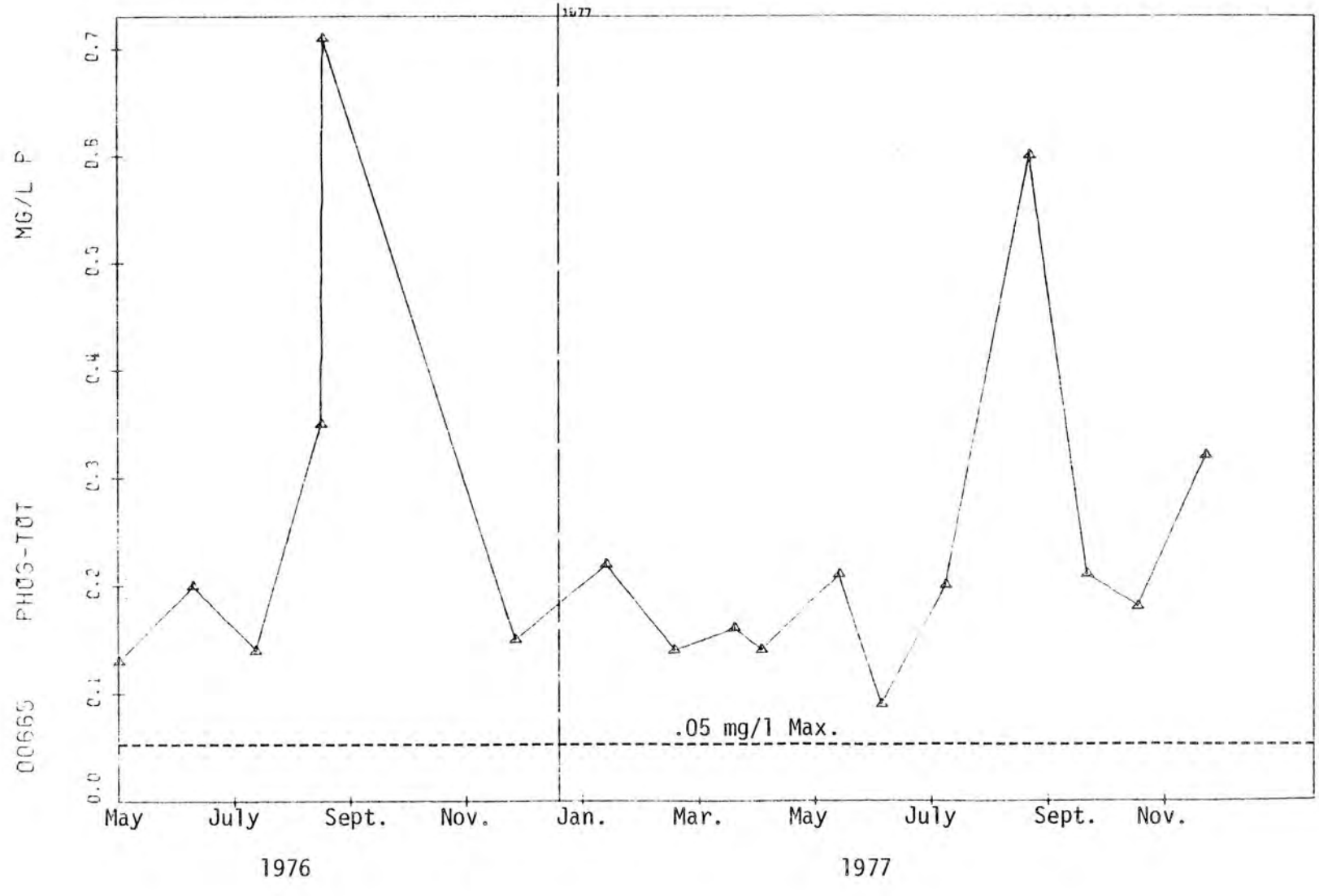
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46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH

Figure 11. Ammonia-Nitrogen, mg/l



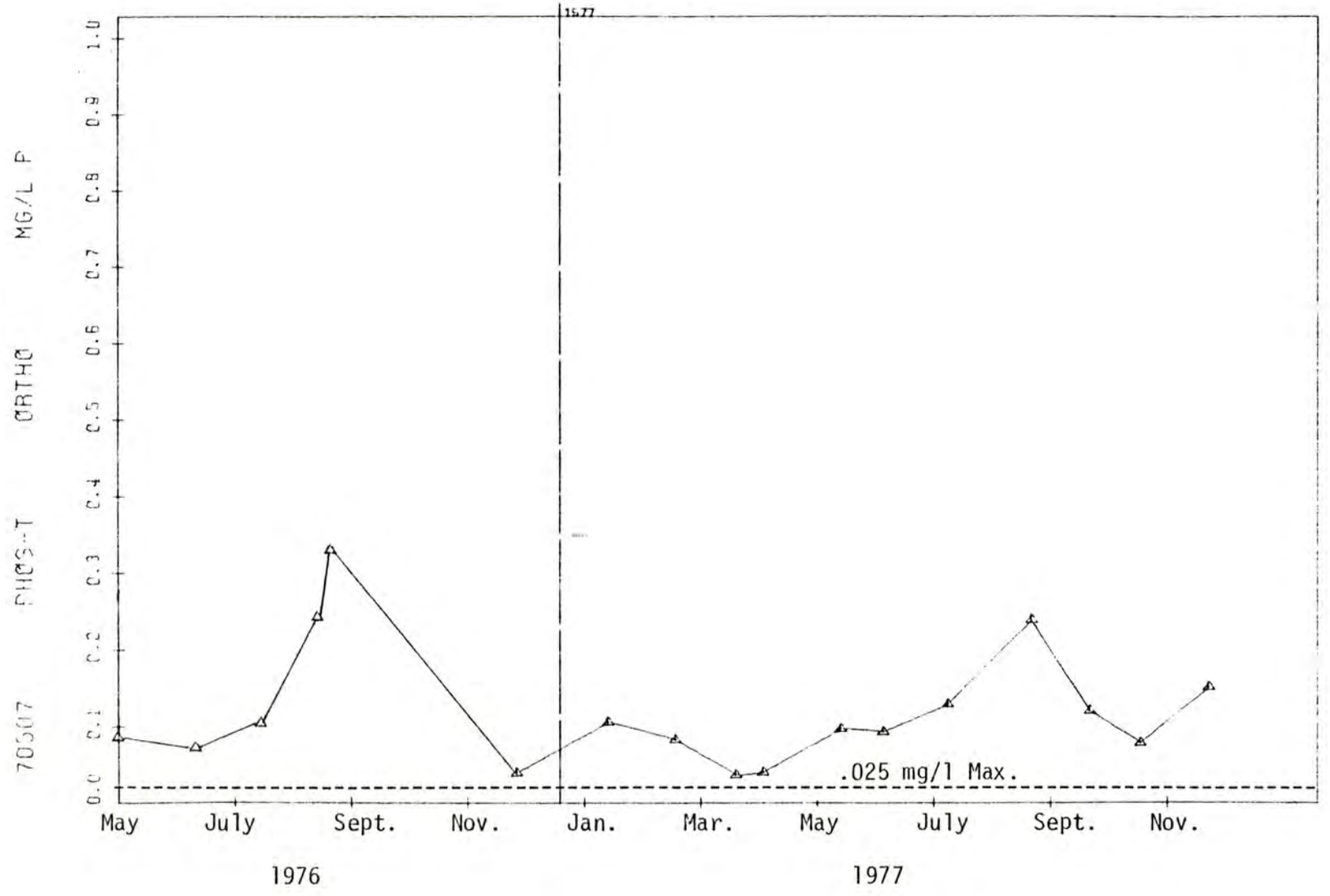
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46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH

Figure 12. Total Phosphorus, mg/l



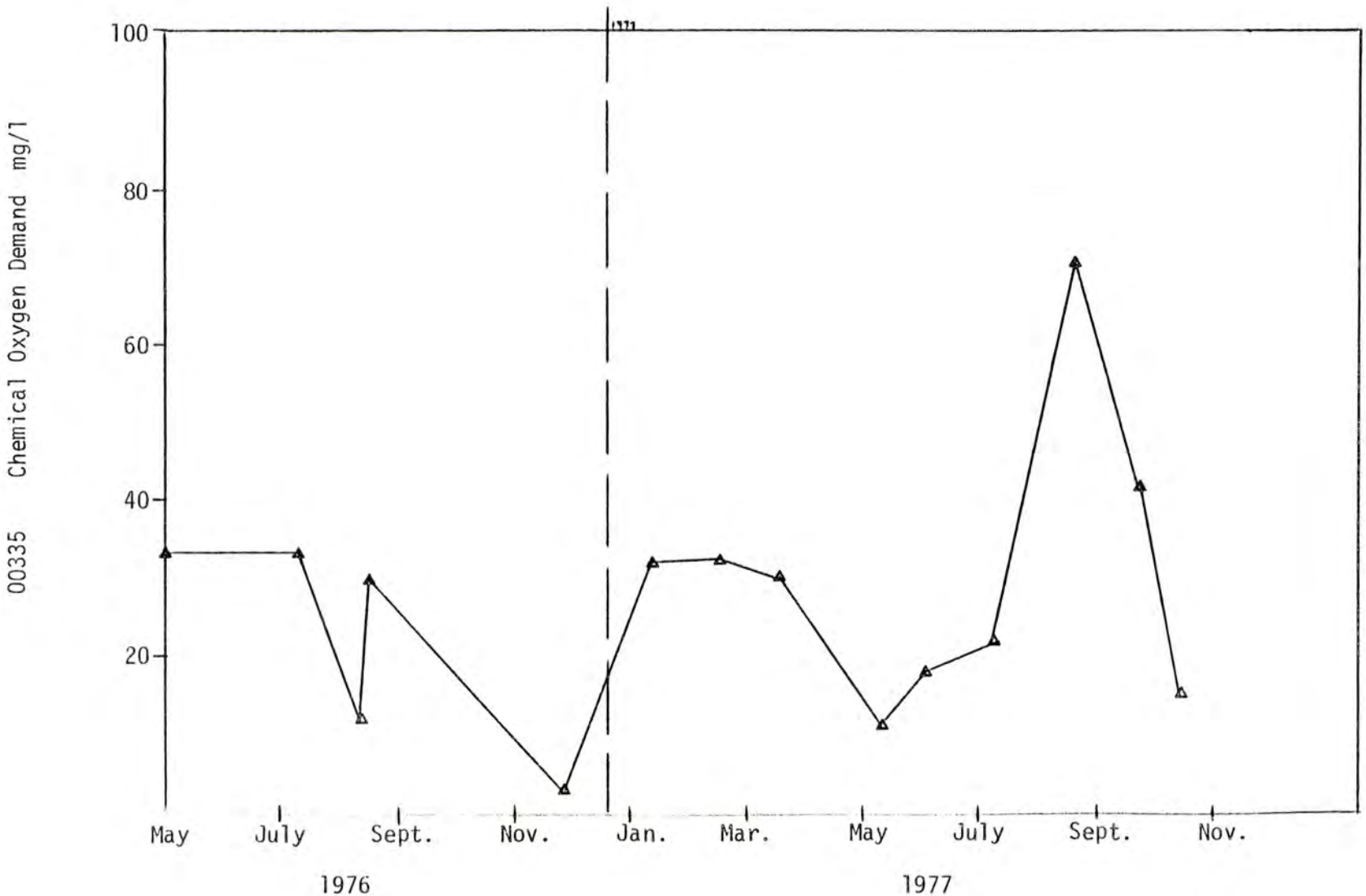
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LINDSAY CREEK AT MOUTH

Figure 13. Ortho-phosphate, mg/l (P)



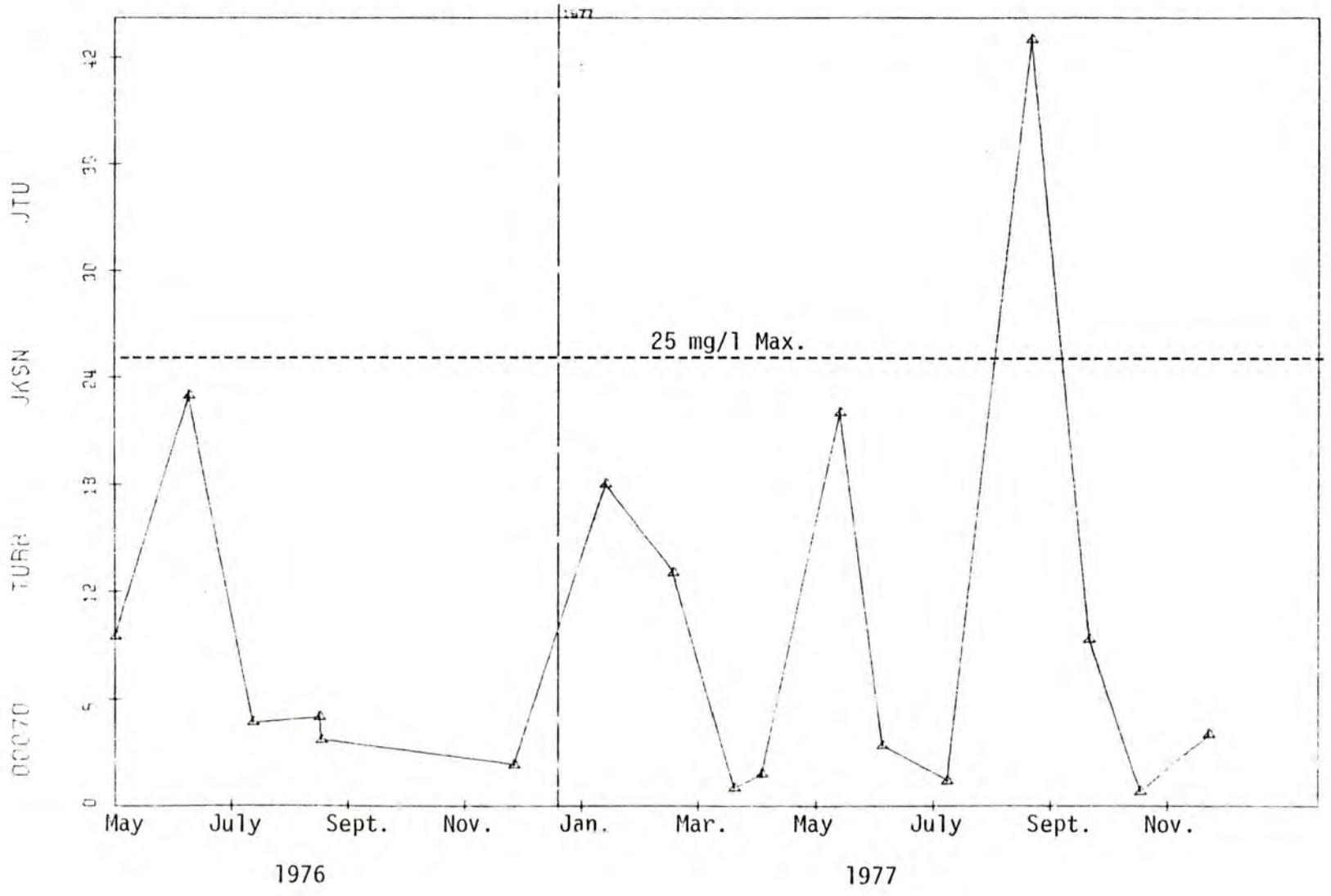
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46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH

Figure 14. Chemical Oxygen Demand, mg/l



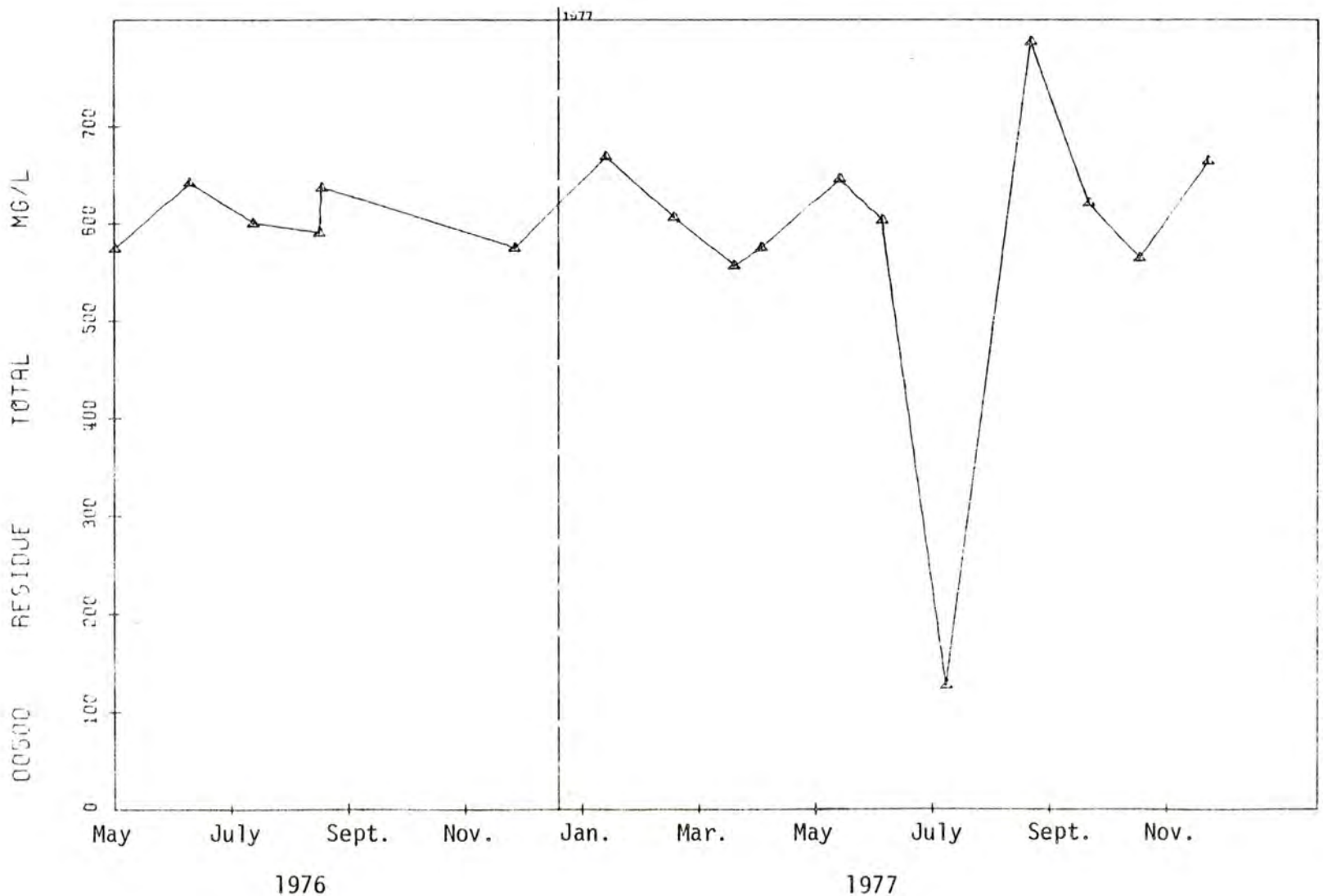
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LINDSAY CREEK AT MOUTH

Figure 15. Turbidity, JTU



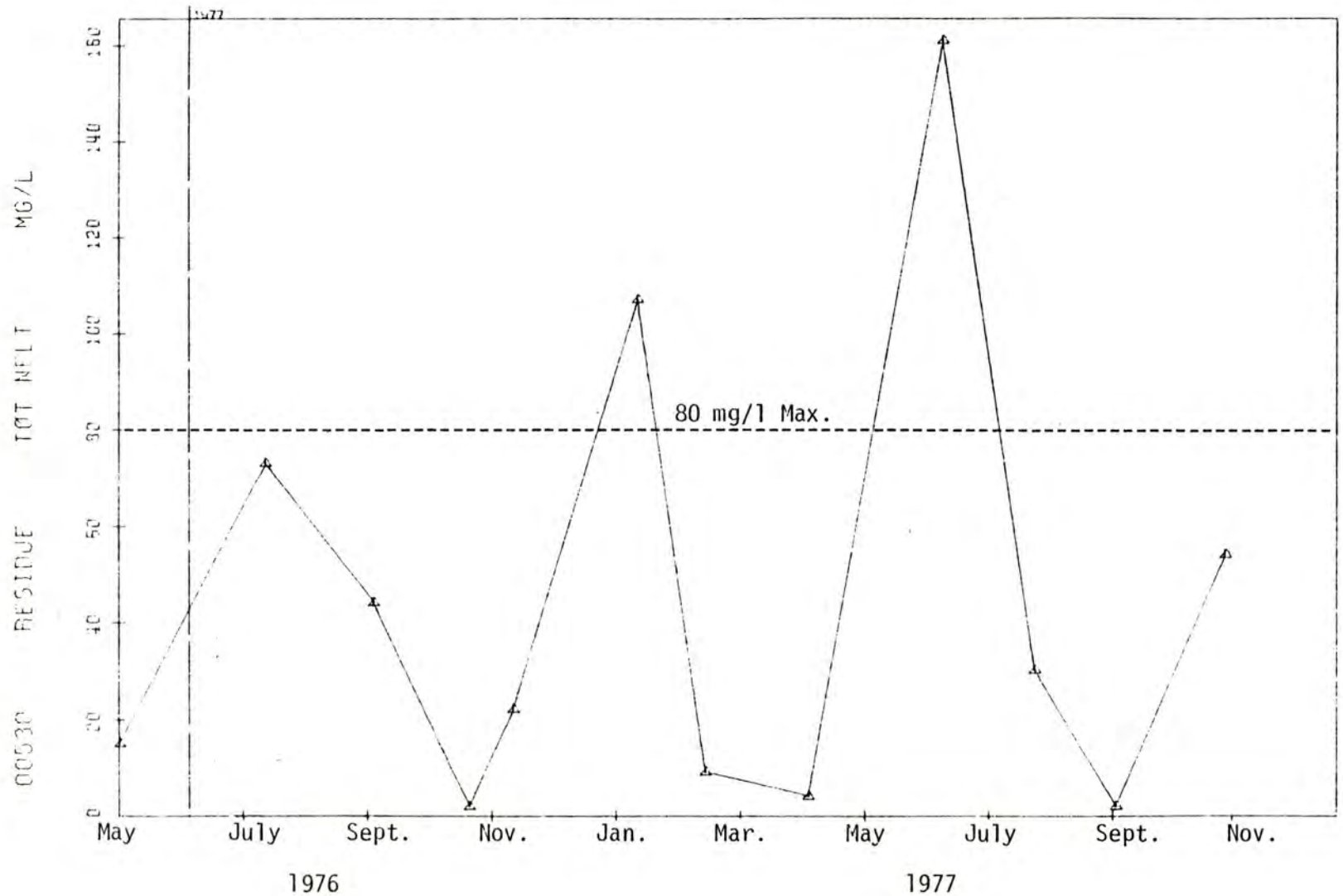
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46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH

Figure 16. Total Residue, mg/l



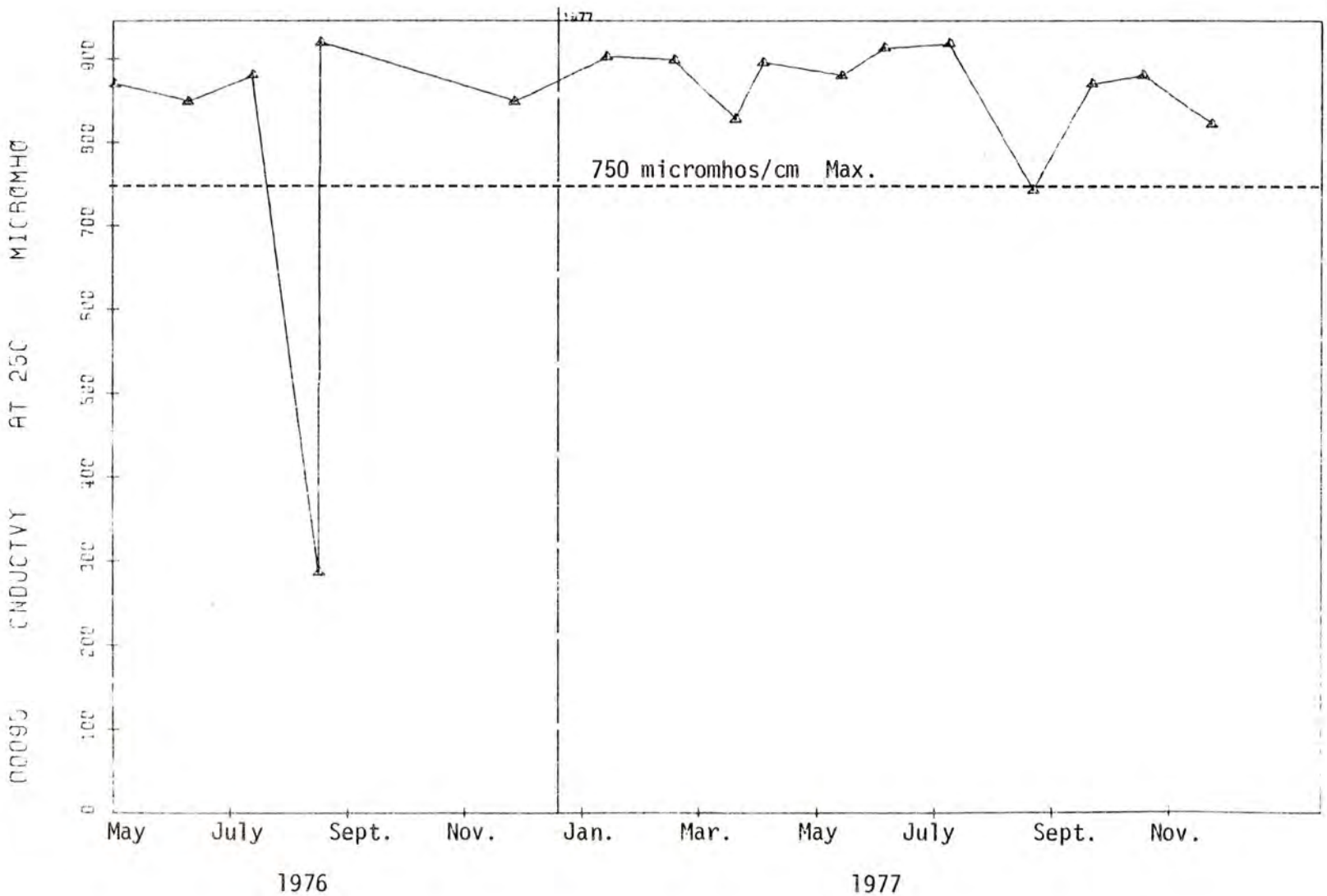
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2020001
46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH

Figure 17. Suspended Solids (Non-filterable Residue), mg/l



STORET
2020001
46 25 05.0 116 59 30.0 5
LINDSAY CREEK AT MOUTH

Figure 18. Conductivity, micromhos/cm



APPENDIX D

Idaho Water Quality Standards

and Appropriate Criteria

III. GENERAL REQUIREMENTS

A. Interstate Compacts, Court Decrees and Adjudicated Water Rights

It shall be the policy of the Board that the adoption of water quality standards and the enforcement of such standards is not intended to conflict with the apportionment of water to the State of Idaho through any of the interstate compacts or court decrees, or to interfere with the rights of Idaho appropriators in the utilization of the water appropriations which have been granted to them under the statutory procedure or to interfere with water quality criteria established by mutual agreement of the participants in interstate water pollution control enforcement procedures.

B. Waters of the State Protected

All waters of the State to be protected for appropriate beneficial use shall include all recreational use in and/or on the water surface and for preservation and propagation of desirable species of aquatic biota shall include all natural streams and lakes, reservoirs or impoundments on natural streams and other specified waterways unless excepted on the basis of existing irreparable conditions which preclude such uses. Man-made waterways, unless otherwise specified, shall be protected for the use for which the waterways were developed.

C. Highest and Best Practicable Treatment and Control Required

Notwithstanding the water quality standards contained herein, where a higher standard can be achieved, the highest and best practicable treatment and/or control of wastewaters, activities and flows shall be provided so as to maintain dissolved oxygen at the highest desirable levels and overall water quality as good as possible, and water temperatures, coliform bacteria concentrations, dissolved chemical substances, toxic materials, radioactivity, turbidities, color, odor and other deleterious factors at the lowest desirable levels. Such policy to apply not only to existing wastewater sources but to future wastewater sources as they may develop, and for such other streams not listed herein.

D. Antidegradation of State Waters

Waters whose existing quality is better than the established standards as of the date on which such standards become effective will be maintained at their existing high quality. These and other waters of Idaho will not be lowered in quality unless and until it has been affirmatively demonstrated to the Department and the Federal Environmental Protection Agency that such change is justifiable as a result of necessary economic or social development and will not interfere with or become injurious to any assigned uses made of, or presently possible in, such waters. This will require that any industrial, public or private project or development which would constitute a new source of water pollution or an increased source

of water pollution to high quality waters will be required, as part of the initial project design, to provide the highest and best degree of wastewater treatment available under existing technology, and, since there are also Federal standards, these wastewater treatment requirements will be developed cooperatively.

IV. RESTRICTIONS ON THE DISCHARGE OF SEWAGE AND INDUSTRIAL WASTEWATERS AND HUMAN ACTIVITIES WHICH AFFECT WATER QUALITY IN THE WATERS OF THE STATE

A. No wastewaters shall be discharged and no activities shall be conducted in such a way that said wastewaters or activities either alone or in combination with other wastewaters or activities will violate or can reasonably be expected to violate the water quality standards contained herein.

B. It is noted that from time to time certain short-term activities which are deemed necessary to accommodate essential activities and protect the public interest may be authorized by the Department under such conditions as the Department may prescribe, even though such activities may result in a reduction of water quality below the standards contained herein.

V. MAINTENANCE OF STANDARDS OF QUALITY

A. The degree of sewage or wastewater treatment required to restore and maintain the standards of quality shall be determined in each instance by the Board and shall be based upon the following:

1. The uses which are or may likely be made of the receiving stream.

2. The size and nature of flow of the receiving stream.

3. The quantity and quality of the sewage or wastewater to be treated.

4. The presence or absence of other sources of water pollution on the same watershed.

B. The water quality standards are subject to revision (following public hearings and concurrence of the Administrator of the EPA) as technical data, surveillance programs, and technological advances make such revisions desirable. Further, public hearings for the purpose of reviewing water quality standards shall be initiated in accordance with Title 67, Chapter 52, Idaho Code.

C. Established water quality standards shall not be applicable in the receiving waters within the mixing zone of limited size adjacent to and/or surrounding a wastewater discharge outfall as defined by specific mixing zone boundaries. Aesthetic values of receiving waters shall be protected irrespective of mixing zone boundaries.

Receiving water quality outside the mixing zone will be maintained at water quality standards contained herein, or existing water quality levels, whichever is higher.

D. In the application of the use classification, the most stringent criterion of a multiple criteria shall apply.

E. Sample collection, preservation and analytical procedures to determine compliance with these standards shall conform to the procedures prescribed by the latest edition of Standard Methods For The Examination Of Water And Wastewater, and other superseding methods published by the Department following consultation with adjacent states, and the concurrence of the Environmental Protection Agency.

VI. WATER USE CLASSIFICATION

The designated use(s) for which the waters of the State are to be protected shall include, but not necessarily limited to domestic and industrial water supply, irrigation and stock watering, recreation and/or aesthetic qualities. (See appendix, USES TO BE PROTECTED.) Recreational waters are further divided into two classes: (1) primary contact, and (2) secondary contact. Primary contact recreational waters (Class A) are for uses where the human body may come in direct contact with the raw water to the point of complete submergence. The raw water may be accidently ingested and certain sensitive organs such as eyes, ears, nose, etc. may be exposed to the water. These waters may be used for swimming, water skiing, skin diving, support and propagation of fish, aquatic and semi-aquatic life, and other forms of wildlife.

Primary contact recreational waters are further divided into sub-classes A_1 and A_2. Class A_1 is restricted to lakes and impoundments in which exceptionally high water quality exists. Waters of all lakes and impoundments shall be class A_1 unless otherwise excepted. In the instances where a flowing stream is classified and subsequently becomes an impoundment, that impoundment shall carry the same classification as the flowing stream. Class A_2 includes the remainder of the primary contact recreational waters.

Secondary contact recreational waters (Class B) are for uses in which the raw water supply is suitable for support and propagation of fish and other aquatic and semi-aquatic life, and other forms of wildlife. These waters may be used for boating, wading and other activities where ingestion of the raw water is not probable.

Waters classified as excepted (Class E) are waters in which, due to natural and/or man-made cause, the quality is not compatible with recreational uses. These waters are protected for the use(s) specified. The numerical value of the various parameters for specific Water Quality Standards contained herein under Section VIII shall apply to all Class E waters unless an alternate value for a given parameter is specified in Section IX for the waters under consideration.

Natural tributaries to the stream reaches are classified as primary recreational waters, Class A_2, unless otherwise specified. Waterways defined as a point source in Section 502(14), Public Law 92-500, are a means of conveyance for waters with no use classification. Canals and other man-made waterways excluded as a point source are protected for agricultural uses and aesthetic qualities and may be protected for other uses when specified.

In the instance where a flowing stream is classified and subsequently becomes an impoundment, that impoundment shall carry the same classification as the flowing stream. The criteria established for the various use-classifications may be modified by the Administrator for limited periods when receiving waters fall below their assigned water quality standards due to natural causes or if, in the opinion of the Administrator, the protection of the overall interest and welfare of the public requires such a modification.

VII. GENERAL WATER QUALITY STANDARDS FOR WATERS OF THE STATE

The following general water quality standards will apply to waters of the State, both surface and underground, in addition to the water quality standards set forth for specifically classified waters. Waters of the State shall not contain:

A. Toxic chemicals of other than natural origin in concentrations found to be of public health significance or to adversely affect the use for which the waters have been classified.*

B. Deleterious substances of other than natural origin in concentrations that cause tainting of edible species of fish or tastes and odors to be imparted to drinking water supplies.

C. Radioactive materials or radioactivity other than of natural origin which

   1. Exceed 1/3 of the values listed in Column 2, Table II, Appendix A, Idaho Radiation Control Regulations as adopted by the Board on May 9, 1973.

   2. Exceed the concentrations specified in the 1962 U. S. Public Health Service Drinking Water Standards for waters used for domestic supplies.

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* Guides such as the Water Quality Criteria published by the State of California Water Quality Control Board (Second Edition, 1963) and more recent research papers will be used in evaluating the tolerances of the various toxic chemicals for the use indicated.

3. Have a demonstrable effect on aquatic life.

The concentration of radioactive materials in these waters shall be less than those required to meet the Radiation Protection Guides for maximum exposure of critical human organs recommended by the former Federal Radiation Council in the case of foodstuffs harvested from these waters for human consumption.

D. Floating or submerged matter not attributable to natural causes.

E. Excess nutrients of other than natural origin that cause visible slime growths or other nuisance aquatic growths.

F. Visible concentrations of oil, sludge deposits, scum, foam or other material that may adversely affect the use indicated.

G. Objectionable turbidity which can be traced to a man-made source.

VIII. SPECIFIC WATER QUALITY STANDARDS

No wastewaters shall be discharged and/or no activity shall be conducted in waters of the State which either alone or in combination with other wastewaters or activities will cause in waters of any specified reach, lake or impoundment, or in general surface waters of the State

A. The organism concentrations of the coliform group

1. In waters of lakes and impoundments (A_1), except the following, which are classified as A_2 waters:

American Falls Reservoir	R.M. 738.0 to R.M. 714.0
Lake Walcott	
Milner Lake	R.M. 675.0 to R.M. 640.0
Murtaugh Lake	R.M. 690.0 to R.M. 675.0
Crane Falls Reservoir	
C. J. Strike Reservoir	R.M. 514.0 to R.M. 492.0
Lake Lowell	
Brownlee Reservoir	R.M. 338.0 to R.M. 285.0
Oxbow Reservoir	R.M. 285.0 to R.M. 273.0
Hells Canyon Reservoir	R.M. 273.0 to R.M. 247.0

a. Total coliform concentrations where associated with a fecal source(s) to exceed a geometric mean of 50/100 ml., nor shall more than 20 percent of total samples during any 30-day period exceed 200/100 ml. (as determined by multiple-tube fermentation or membrane filter procedures and based on not less than 5 samples for any 30-day period).

b. Fecal coliform concentrations to exceed a geometric mean of 10/100 ml., nor shall more than 10 percent of total samples during any 30-day period exceed 20/100 ml,; or greater than 50/100 ml. for any single sample.

Coliform criteria for shoreline waters shall conform with that of Class A_2 waters. Shoreline water waters shall be defined as the 100 feet of water surface as measured from the shoreline.

2. In waters protected for primary contact recreation (A_2)

a. Total coliform concentrations where associated with a fecal source(s) to exceed a geometric mean of 240/100 ml., nor shall more than 20 percent of total samples during any 30-day period exceed 1000/100 ml. (as determined by multiple-tube fermentation or membrane filter procedures and based on not less than 5 samples for any 30-day period).

b. Fecal coliform concentrations to exceed a geometric mean of 50/100 ml., nor shall more than 10 percent of total samples during any 30-day period exceed 200/100 ml.; or greater than 500/100 ml. for any single sample.

3. In waters protected for secondary contact recreation (B)

a. Total coliform concentrations where associated with a fecal source(s) to exceed a geometric mean of 1000/100 ml., nor shall more than 20 percent of total samples during any 30-day period exceed 2400/100 ml. (as determined by multiple-tube fermentation or membrane filter procedures and based on not less than 5 samples for any 30-day period).

b. Fecal coliform concentrations to exceed a geometric mean of 200/100 ml., nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.; or greater than 800/100 ml. for any single sample.

B. Dissolved Oxygen

The DO concentration to be less than 6 mg/1 or 90 percent of saturation, whichever is greater.

1. The DO standard shall apply to all flowing waterways.

2. The DO standard shall apply to the waters of all natural lakes and reservoirs except as excluded below:

a. In depths of water less than 100 feet in natural lakes or reservoirs, the bottom 20 percent of water depth shall

be excluded from application of the DO standard. In water depths greater than 100 feet, the bottom 20 feet of water depth shall be excluded for application of the DO standard.

b. Waters below a thermocline in stratified lakes or impoundments shall be excluded from application of the DO standard.

c. No wastewaters shall be discharged and/or no activity shall be conducted in waters excluded by a. and b. above, which either alone or in combination with other wastewaters or activities will cause the DO concentration in these waters to be less than 4 mg/l.

3. Notwithstanding exclusion of a. and b. above, the DO standard shall always apply to the top two feet of any lake or reservoir.

C. Hydrogen Ion Concentration (pH)

The pH values to be outside the range of 6.5 to 9.0. The induced variations shall not be more than 0.5 pH units.

D. Temperature

1. Any measurable increase when water temperatures are 66°F or above, or more than 2°F increase other than from natural causes when water temperatures are 64°F or less (unless otherwise specified).

2. Any increase exceeding 0.5°F due to any single source, or 2°F due to all sources combined.

For purposes of determining compliance, a "measurable increase" means no more than 0.5°F rise in temperature of the receiving water as measured immediately outside of an established mixing zone. Where mixing zone boundaries have not been defined, cognizance will be given to the opportunity for admixture of wastewater with the receiving water.

3. Any measurable increase when water temperatures are 68°F or above, or more than 2°F increase other than from natural causes when the water temperatures are 66°F or less in the following waters:

a. The main stem of the Snake River from the Oregon-Idaho border (R.M. 407) to the interstate line at Lewiston, Idaho (R.M. 139).

b. The Spokane River from Coeur d'Alene Lake outlet to the Idaho-Washington border.

c. The Palouse River from Princeton to the Idaho-Washington border.

d. The Pend Oreille River from the Pend Oreille Lake outlet to the Idaho-Washington border.

E. Turbidity

The turbidity other than of natural origin to exceed 5 Jackson Turbidity Units (JTU). Whenever the receiving water is greater than 5 JTU, due to conditions other than those caused by man, then no discharge and/or activity either alone or in combination with other wastewater or activity shall cause an increase of more than 5 JTU.

F. Total Dissolved Gas

The total concentration of dissolved gas shall not exceed 110 percent of saturation at atmospheric pressure at the point of sample collection due to non-natural causes. (In compliance with this standard Paragraph C, Section III, General Requirements shall apply.)

IX. SPECIFIC WATER QUALITY STANDARDS FOR CLASS E WATERS

Specific water quality standards contained herein under Section VIII shall apply to all Class E waters except as enumerated in this Section.

A. No wastewater shall be discharged and/or no activity shall be conducted which either alone or in combination with other wastewaters will cause the organism concentration of the coliform group in waters of the South Fork Coeur d'Alene River, Mullan to Enaville, or Paradise Creek, upper reaches to State line.

1. The <u>total coliform</u> concentrations where associated with a fecal source(s) to exceed a geometric mean of 240/100 ml., nor shall more than 20 percent of total samples during any 30-day period exceed 1000/100 ml. (as determined by multiple-tube fermentation or membrane filter procedures and based on not less than 5 samples for any 30-day period); or greater than 2400/100 ml. for any single sample.

2. The <u>fecal coliform</u> concentrations to exceed a geometric mean of 50/100 ml., nor shall more than 10 percent of total samples during any 30-day period exceed 200/100 ml.; or greater than 500/100 ml. for any single sample.

B. No wastewaters shall be discharged and/or no activity shall be conducted which either alone or in combination with other wastewaters will cause the DO concentration to be less than 75 percent of saturation in waters of Paradise Creek, upper reaches to the State line.

The states are responsible for the monitoring of and reporting data for interstate streams which include most tributaries to the major rivers.

3. PARAMETRIC COVERAGE:

The parametric coverage for the stations in the NWQSS network is shown on Table 2. At the present time there is some discrepancy among the various agencies' parametric coverage; however, negotiations are presently underway to develop a uniform parameter package. Station parameters covered by this report include a selection of those constituents which are, 1. considered significant in ambient station analysis and/or, 2. collected at each NWQSS station in the river basin under consideration.

4. REGION 10 WATER QUALITY CRITERIA:

Parameter	Criteria Level/Units	Environmental Impact and Reference
Temperature	20°C (68°F) MAX	To protect growth and migration routes of salmonids (Federal Water Pollution Control Administration (FWPCA), Water Quality Criteria, 1968).
Dissolved Oxygen	6 mg/l MIN 90% SAT MIN	For good growth and the general well-being of trout, salmon, and other species of cold water aquatic life, DO concentrations should not be below 6 mg/l (FWPCA, Water Quality Criteria, 1968). In addition, state water quality standards normally require 90% saturation for dissolved oxygen (Idaho and Oregon).
Dissolved Gas	110% SAT MAX	To prevent fish fatalities by "gas bubble disease", in which dissolved gases in their circulatory system come out of solution to form bubbles (emboli), which block the flow of blood through the capillary vessels (Environmental Protection Agency, Quality Criteria for Water, 1976).

Parameter	Criteria Level/Units	Environmental Impact and Reference
pH	6.5 MIN 8.5 MAX	The pH range of 5 to 9 is not directly lethal to fish. However, the toxicity of several common pollutants is markedly affected by pH changes within this range, and increasing acidity or alkalinity may make these poisons more toxic. Therefore, a pH range of 6.5 to 9.0 is desirable to protect freshwater aquatic life (EPA, Quality Criteria for Water, 1976). In primary contact recreation waters, the pH should be within the range of 6.5-8.3 (except when due to natural causes) to prevent the possibilities of eye irritations in humans (FWPCA, Water Quality Criteria, 1968). State pH standards range from 6.5 to 9.0 for Idaho and 6.5 to 8.5 for Oregon and Washington. In light of the above information, our criteria has been set at 6.5 to 8.5.
Turbidity	25 JTU MAX	Most state standards have a turbidity standard of "not to exceed 5 JTU over background or natural conditions". This is rather ambiguous as to what "background or natural conditions" are. Also, this type of standard does not relate to the fishable/swimmable concept. Excessive turbidity reduces photosynthesis by aquatic plant life and damages the spawning grounds of fish and habitat of aquatic invertebrates. Buck (1956) observed that maximum production in hatchery ponds and reservoirs occurred where the average turbidity was less than 25 JTU (FWPCA, Water Quality Criteria, 1968).

Parameter	Criteria Level/Units	Environmental Impact and Reference
Phosphorus	Total 0.05 mg/l-P Total 0.15 mg/l-PO_4 Ortho 0.025 mg/l-P Ortho 0.075 mg/l-PO_4 Diss. Ortho 0.01 mg/l-P	Limited studies made to date indicate that different species of algae have somewhat different phosphorus requirements, with the range of available phosphorus usually falling between 0.01 and 0.05 mg/l as P. At these levels, when other conditions are favorable, blooms may be expected. While there is no set relationship between total and available phosphorus (because the ratio varies with season, temperature, and plant growth), the total phosphorus is governing, as the reservoir supplies the available phosphorus. A desirable guideline for total phosphorus is 0.05 mg/l as P where streams enter lakes or reservoirs (FWPCA, Water Quality Criteria, 1968). The other criteria levels for different units and forms of phosphorus have been determined by unit conversion and relationships found between the phosphorus forms in Region 10. The other forms of phosphorus are used only as indicators when data for total phosphorus is lacking.
Nitrate Nitrogen	0.30 mg/l-N 1.33 mg/l-NO_3	Mackenthum (1965) cited results indicating that inorganic nitrogen at 0.30 mg/l and inorganic phosphorus at 0.01 mg/l, at the start of an active growing season, subsequently permitted algal blooms (FWPCA, Water Quality Criteria, 1968).
Ammonia Nitrogen	Unionized 0.02 mg/l-N Total 0.20 mg/l-N Total 0.26 mg/l-NH_4	The amount of unionized ammonia is very much dependent upon pH, temperature, and concentration of total ammonia. A maximum level of 0.02 mg/l as unionized ammonia is recommended to minimize toxicity to freshwater aquatic life (EPA, Quality Criteria for Water, 1976). Concentrations of total ammonia above 0.20 mg/l as N are indicative of organic pollution (Klein, River Pollution 1., Chemical Analysis, 1959).

Parameter	Criteria Level/Units	Environmental Impact and Reference
Bacteria	Total Coliform 1000/100 ml Fecal Coliform 240/100 ml	Total and fecal coliform are microbiological indicators used to determine or indicate the safety of water for drinking, swimming, and shellfish harvesting. A fecal coliform log mean of 200 per 100 ml for bathing waters and 14 per 100 ml for shellfish harvesting waters is recommended by Quality Criteria for Water, EPA, 1976. State standards range from 240 total/50 fecal per 100 ml for primary contact recreation in Idaho, 1000 total per 100 ml in Oregon for general beneficial use, and 1000 total per 100 ml in Washington for Class B general recreation. From the above discussion, the suggested criteria level based on general recreation is 1000 per 100 ml for total coliform and 240 per 100 ml for fecal coliform.
Dissolved Solids Conductivity	TDS 500 mg/1 Cond. 750 umho/cm	High levels of dissolved solids are a hazard for irrigation water. A maximum level of 500 mg/1 is indicated for water from which no detrimental effects will usually be noticed. For domestic water supply, the maximum level is 250 mg/1 (EPA, Quality Criteria for Water, 1976). A relationship exists between dissolved solids and conductivity where total dissolved solids = .6 to .8 times the conductivity.
Boron	750 ug/1	For long term irrigation, a maximum level of 750 ug/1 is recommended for sensitive crops (EPA, Quality Criteria for Water, 1976).

Parameter	Criteria Level/Units	Environmental Impact and Reference
Benthic Invertebrate Biomass	--	Is a measure of the standing crops of the benthic fauna. Typical responses of the standing crop to environmental stress are: Stress — Standing Crop Response Toxic Substance — Reduce Severe Temperature Alterations — Variable Silt — Reduce Inorganic Nutrients — Increase Organic Nutrients (high O_2 demand) — Increase (EPA Biological Field and Laboratory Methods, 1973.)
Chlorophyll a	3 mg/l 3-20 mg/l 20 mg/l	Oligotrophic Mesotrophic Eutrophic (Vollenweider, Dr. R.A., Water Management Research, Scientific Fundamentals of the Eutrophication of Lakes and Flowing Waters with Particular Reference to Nitrogen and Phosphorus as Factors in Eutrophication, DAS/CSI/68.27).
Species Diversity	<1 polluted 1-3 moderate pollution >3 unpolluted	The species diversity index reflects the response of the benthic macroinvertebrate community to pollutional stress (Wilhelm 1970).

Heavy Metals Toxicity

Metal	Criteria Level	Environmental Impact	Reference
Cadmium	30 ug/l	Aquatic life protected in hard water	1
	3 ug/l	Eggs and larvae of salmon in hard water	
Chromium	50 ug/l	Mixed aquatic populations protected	1
Copper	20 ug/l	96 hour TL_{50} to Chinook salmon in soft water was 31 ug/l at hatch and 18 ug/l at 1 month old	2
Lead	30 ug/l	Aquatic life protected	1
Mercury	0.2 ug/l	Selected species of fish and predatory aquatic organisms protected	1
Zinc	100 ug/l	96 hour TL_{50} to Chinook salmon in soft water at 1 month old	2
	80 ug/l	Algalcidal concentration for Selenastrum Capriconutum	3

References:

1. EPA R3.73.033, Ecological Research Series, Water Quality Criteria 1972, U.S. Government Printing Office, 1973.

2. EPA, Quality Criteria for Water, 1976.

3. Green, et. al., Report to Region X on the Results of the Spokane River Algal Assays, 1973.

4. Wilhelm, J.L. 1970. "Range of Diversity Index in Benthic Macroinvertebrate Populations" JWPCF, 42(S); R221-R224.

Pesticide Toxicity

The following criteria levels are recommended to protect the freshwater aquatic life (EPA, Quality Criteria for Water, 1976).

Pesticide	Criteria Level
Aldrin	.003 ug/l
Dieldrin	.003 ug/l
Chlordane	.010 ug/l
DDT	.001 ug/l
Endrin	.004 ug/l
Heptachlor	.001 ug/l
Lindane	.010 ug/l
Malathion	.100 ug/l
Parathion	.040 ug/l

Lindsay Creek Watershed Data Locations

Websites

Nez Perce Soil and Water Conservation District
http://www.nezperceswcd.org/Watersheds/Clearwater-River/Lindsay-Creek

Idaho Department of Environmental Quality
https://www.deq.idaho.gov/water-quality/regional-water-quality-plans-and-reports//

Nez Perce Tribe Department of Water Resources
https://www.nptwaterresources.org/nitrate-project-page

Inside Idaho
http://inside.uidaho.edu/

Hosts spatial datasets generated for the inventory and assessment effort, including GIS shapefiles as well as KMZ formatted files for use with Google Earth.

StreamNet
https://www.streamnet.org/

Streamnet houses stream temperature monitoring data (2003 to 2017), with raw data spreadsheets, maps, and reports available for download.

For More Information

Nez Perce Soil & Water Conservation District
npswcd@co.nezperce.id.us
208.843.2931

Information in this handout was compiled by NPSWCD for the 2026 Lindsay Creek Watershed Coordination Meeting.

Lindsay Creek
Assessment Products

Several assessment and monitoring products have been developed for the Linday Creek watershed.

Spatial Products

- **GIS layers –** shapefiles of analysis parameters (Inside Idaho)
- **KMZ files –** for use in Google Earth (Inside Idaho)

Nez Perce Soil & Water Conservation District

- Lindsay Creek Farming Practices Survey – 2002 (Link)
- Lindsay Creek Plant Protection Products Report – 2002 (Unpublished)
- Lindsay Creek Stream Inventory and Assessment Data Summary Report (2012-2015) (Link)
- Lindsay Creek Watershed Resource Assessment – Nez Perce County, Idaho – October 2001 (Unpublished)
- Lindsay Creek Water Quality Improvement Project Grant S472 Final Report – January 2016 (Link)
- Lindsay Creek Monitoring Data Summary (2013-2015) (Link)
- Lindsay Creek Erosion Assessment Using WEPP – September 2014 (Link)
- Lindsay Creek Stream Temperature Data Summary (2000-2010) (Link).
- Nez Perce County Resource Atlas Version 2 – 2016 (Link)
- Lindsay Creek Road Inventory and Assessment – December 2015 (Link)
- Confined Animal Feeding Operations Inventory and Analysis (1999) (Link)

Idaho Association of Soil Conservation Districts

- LINDSAY CREEK MONITORING REPORT – 2002 (LINK)

Idaho Soil and Water Conservation Commission

- Lindsay Creek Watershed Review – Implementation Plan for Agriculture. January 2020 (Link)

Idaho Department of Environmental Quality

- Lindsay Creek Water Quality Status Report – 1977 (Link)
- Lindsay Creek Monitoring Report – Water Years 2021-2023 – (Link)
- Lindsay Creek Nitrate Priority Area – Ground Water Quality Management Plan – December 2009 (Link)
- Lindsay Creek Watershed Assessment and Total Maximum Daily Loads (2007) (Link)
- An Evaluation of Septic Effluent Presence and Spatial Distribution in Lindsay Creek Watershed (2019) (Link)
- Ground Water and Surface Water Nitrate Patterns in the Lewiston Basin (Nez Perce County, Idaho) (1976-2018) – (Link)
- An Evaluation of Nitrogen Sources Contributing to Surface Water and Groundwater Nitrate Contamination in the Lindsay Creek Watershed (Nez Perce County, Idaho) (June 2024) - (Link)
- Lindsay Creek and Lapwai Creek NPA Sampling. Presentation by Leighann Conniff, IDEQ (2024) – (Link)
- Lindsay Creek Surface Water Quality Monitoring Report: 2018- (Link)

University of Idaho

- Nutrient and Bacteria Management within the Lindsay Creek watershed in Nez Perce County, Idaho. (May 2024) (Link)
- Lindsay Creek GIS Story Book (March 2020) (Link)

United States Geological Survey (USGS)

- Monitoring Location Lindsay Creek Tributary NO1 NR Lewiston, Idaho – USGS – 13343020 (Link)
- Monitoring Location Lindsay Creek Tributary NO2 NR Lewiston, Idaho – USGS – 13343040 (Link)

Idaho State Department of Agriculture

- Regional Ground Water Quality Monitoring Results for Idaho, Lewis, and Nez Perce Counties, Idaho (2001-2007) (Link)

Lindsay Creek

Water Quality Monitoring - Review of Available Literature – 10/14/2025 - Amended

Date	Key Findings	Agency	Reference #	Page #
1977[1]	Two minor point sources were identified as discharging to Lindsay Creek. Nonpoint sources with major effects on stream quality included agricultural runoff, livestock feeding and grazing, and individual sewage disposal systems. Elevated fecal coliform concentrations were likely caused by septic tanks and drain fields located along the lower mile of the creek.	Department of Health and Welfare, Boise, Idaho	1	1
2002[2]	Nitrate (NO3) + nitrite (NO2) concentrations in Lindsay Creek were reported as extremely high. Site LZ-2, which parallels Lapwai Creek Road, was a major contributor with NO3+NO2 values averaging just below 6 mg/L. These concentrations suggest that septic systems could be failing in this area (page 2). All monitoring stations identified nitrates and bacteria as the most serious water quality issues concerns. Upstream locations also contributed significant bacteria and nitrate loads. E.coli concentrations ranged from 5,000 to 16,000 cfu/100 mL (very high) (Table 1). Septic systems and livestock were identified as primary sources of bacteria (page 17).	Idaho Association of Soil Conservation Districts	2	2, 8, 14, 17
2007[3]	Nitrate load reductions for nitrate needed during the year, ranging from 45% (June) to 72% (January). Data were based on 2001-2002 monitoring. Isotope analysis was conducted to determine source contributions. Human and animal waste sources were both identified (See Table, page 36). E. coli reductions of 240 cfu/100 ml (a 66% reduction) were required to meet water quality targets. Pollutant sources include livestock, human waste, and agriculture. Monitoring data tables begin on page 89.	Idaho Department of Environmental Quality	3	XVI, 36, 59, 60
2007[4]	Regional groundwater monitoring (2001-2007) indicated nitrate contamination extending from Lewiston eastward to Lapwai. Data on page 6.	Idaho State Department of Agriculture	4	3,6

[1] Department of Health and Welfare. Water Quality Status Report. Lindsay Creek (Nez Perce County) 1976-1977. August 1978. Report No. WQ-34.
[2] Idaho Association of Soil Conservation Districts. Myler, Cary. Lindsay Creek Monitoring Report 2002. June 11, 2002.
[3] Idaho Department of Environmental Quality. Lindsay Creek Watershed Assessment and Total Maximum Daily Loads. December 2006. Revised May 2007.
[4] Idaho State Department of Agriculture. Carlson, Rick. Regional Ground Water Quality Monitoring Results for Idaho, Lewis, and Nez Perce Counties, Idaho 2001-2007. February 2007.

2019[5]	A study evaluated caffeine and artificial sweetener as tracers to determine septic system influence on water quality. Approximately 800 parcels in the watershed were identified with on-site septic systems, representing a potential nitrate source. Artificial sweeteners were detected downstream of areas with high septic density but absent in areas without suspected septic inputs, confirming their reliability as indicators of septic influence. Caffeine presence indicated poorly functioning septic systems, as properly functioning systems remove caffeine. Caffeine and sweetener detections downstream of known septic failure areas suggest effluent contributions to both surface and groundwater, including the Saddle Mountains Aquifer. Nitrate concentrates of 7.1 to 10.3 mg N/L were observed where septic indicators were present, compared to < 1.14 mg N/L in unaffected area. The study concluded that septic effluent contributes significantly to elevated nitrate concentrations in Lindsay Creek and the associated aquifer.	Idaho Department of Environmental Quality	5	vi
2023[6]	Monitoring conducted from 2021–2023 indicated that the average nitrogen (N) load in Lindsay Creek was approximately 2.5 times higher than the N load estimated from septic system discharges. Septic systems were estimated to contribute 27,912 pounds of nitrogen per year to the watershed.	Idaho Department of Environmental Quality.	6	Vii, 15

Disclaimer

This literature review is provided for **educational and informational purposes only**. The summaries and data presented herein are based on publicly available reports and publications from various agencies. This document does **not constitute a regulatory determination, compliance assessment, or official water quality evaluation**.

Users are responsible for verifying the accuracy, completeness, and applicability of all referenced data before using it for planning, regulatory, or project purposes. Independent review of the original source materials is strongly recommended.

[5] Idaho Department of Environmental Quality. An Evaluation of Septic Effluent Presence and Spatial Distribution in the Lindsay Creek Watershed. January 2019.

[6] Idaho Department of Environmental Quality. Lindsay Creek Monitoring Report for Water Years 2021-2023. March 2024.

Lindsay Creek
Monitoring Report 2002



Collection period (2/27/01 to 2/25/02)

Developed for:

Nez Perce Soil and Water Conservation District
Idaho Soil Conservation Commission
Idaho State Department of Agriculture

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Technical Results Summary CDM-LZ-02

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Executive Summary

Water quality monitoring was performed on Lindsay Creek (LZ) by the Idaho Association of Soil Conservation Districts (IASCD) from February 27, 2001 to February 25, 2002. Six sites were selected to represent the LZ watershed with water quality sampling occurring every two weeks. Laboratory analysis of N, P, and total suspended solids was performed by University of Idaho, Analytical Science Laboratories and bacteria samples were analyzed by Anatek Laboratories. Parameters measured were total suspended solids (TSS), nitrate+nitrite (NO_3+NO_2), total phosphorus (TP) and ortho-phosphate (OP). Other measurements include stream discharge, pH, specific conductance (Cond), total dissolved solids (TDS), dissolved oxygen (DO), % saturation (% Sat), turbidity (turb), and temperature (temp). The data generated from this monitoring program will be used by IASCD, Soil Conservation Commission (SCC), and the Nez Perce Soil and Water Conservation District (NPSWCD) to determine loads within the stream, identify areas where best management practices (BMPs) would have the greatest benefit, provide baseline data prior to TMDL development, and identify changes as BMPs are implemented.

All measured values for dissolved oxygen, water temperature, and pH were all observed to be within the acceptable range of standards during the monitoring period. With the exception of one isolated event, very little sediment entered Lindsay Creek from agriculture during the monitoring period. Significant positive correlations were observed between TSS and Turbidity versus Total Phosphorus at all mainstream sites (LZ-1, LZ-3, LZ-5, and LZ-6), which suggests that at least some phosphorus is being mobilized by the release of sediment at these locations. However, TSS concentrations, except for one or two exceptions remained well within acceptable boundaries. At sites LZ-2 and LZ-4 the data suggest that phosphorus could be entering the water column from observed cattle and horse grazing and possibly from septic system failures.

Nitrate+Nitrite concentrations at Lindsay Creek were extremely high. Site LZ-2 seems to be a major contributor with NO_3+NO_2 values averaging just below 6 mg/L. The LZ-2 tributary parallels Lapwai Creek Road. The high NO_3+NO_2 concentrations at this site suggest that septic systems could be failing in this area. There also are several small ranchettes that graze horses in the stream that could be possible contributors. Nitrogen concentrations at LZ-3 seem to be acting as a conduit for nitrogen entering from the LZ-4 and LZ-5 subwatersheds. Baseflow in Lindsay Creek is supported almost entirely from groundwater upwelling. Sites LZ-4 and LZ-5 are located downstream of the most significant upwelling zones. These data suggest that NO_3+NO_2 is entering Lindsay Creek from the groundwater. All Lindsay Creek monitoring stations had several events where bacteria levels for *E. coli* and fecal coliform greatly exceeded the recommended standards. This monitoring program identified nitrates and bacteria as the most serious water quality issue affecting this stream.

Introduction

Lindsay Creek is a small watershed with 7.35 stream miles flowing northeast through dryland agriculture and the eastern urban area of the City of Lewiston. Small residences are located within the watershed to provide a sub-urban aspect to the drainage. Lindsay Creek is listed on the Idaho 303(d) list for bacteria, dissolved oxygen, nutrients, sediment, temperature, habitat alterations, and flow alteration. The TMDL for Lindsay Creek is due 2003. This monitoring program collected data to address bacteria, dissolved oxygen, nutrients, sediment, temperature and concerns surrounding these water quality parameters.

Monitoring Program

Water quality monitoring was performed on Lindsay Creek (LZ) by the Idaho Association of Soil Conservation Districts (IASCD) from February 27, 2001 to February 25, 2002. Six sites were selected to represent the LZ watershed (Figure 1) with water quality sampling occurring every two weeks. Laboratory analysis of nitrogen (N), phosphorus (P), and total suspended solids (TSS) was performed by University of Idaho, Analytical Science Laboratories (UIASL) and bacteria samples were analyzed by Anatek Laboratories. Parameters measured were total suspended solids, nitrate+nitrite (NO_3+NO_2), total phosphorus (TP) and ortho-phosphate (OP). Other measurements include stream discharge, pH, specific conductance (Cond), total dissolved solids (TDS), dissolved oxygen (DO), % saturation (% Sat), turbidity (turb), and temperature (temp). The data generated from this monitoring program will be used by IASCD, Soil Conservation Commission (SCC), and the Nez Perce Soil and Water Conservation District (NPSWCD) to determine loads within the stream, identify areas where best management practices (BMPs) would have the greatest benefit, provide baseline data prior to TMDL development, and identify changes as BMPs are implemented.

Site Descriptions

1. Site located near the mouth of Lindsay Creek within Odom Company's private park.
2. Site located near mouth of tributary, which parallels Lapwai Creek Rd.
3. Site located below feedlot along Lindsay Creek Road.
4. Site located upstream of confluence with Lindsay Creek on the unknown tributary.
5. Site located upstream of confluence between Lindsay Creek and unknown tributary.
6. Site located on outlet of Mann Reservoir.

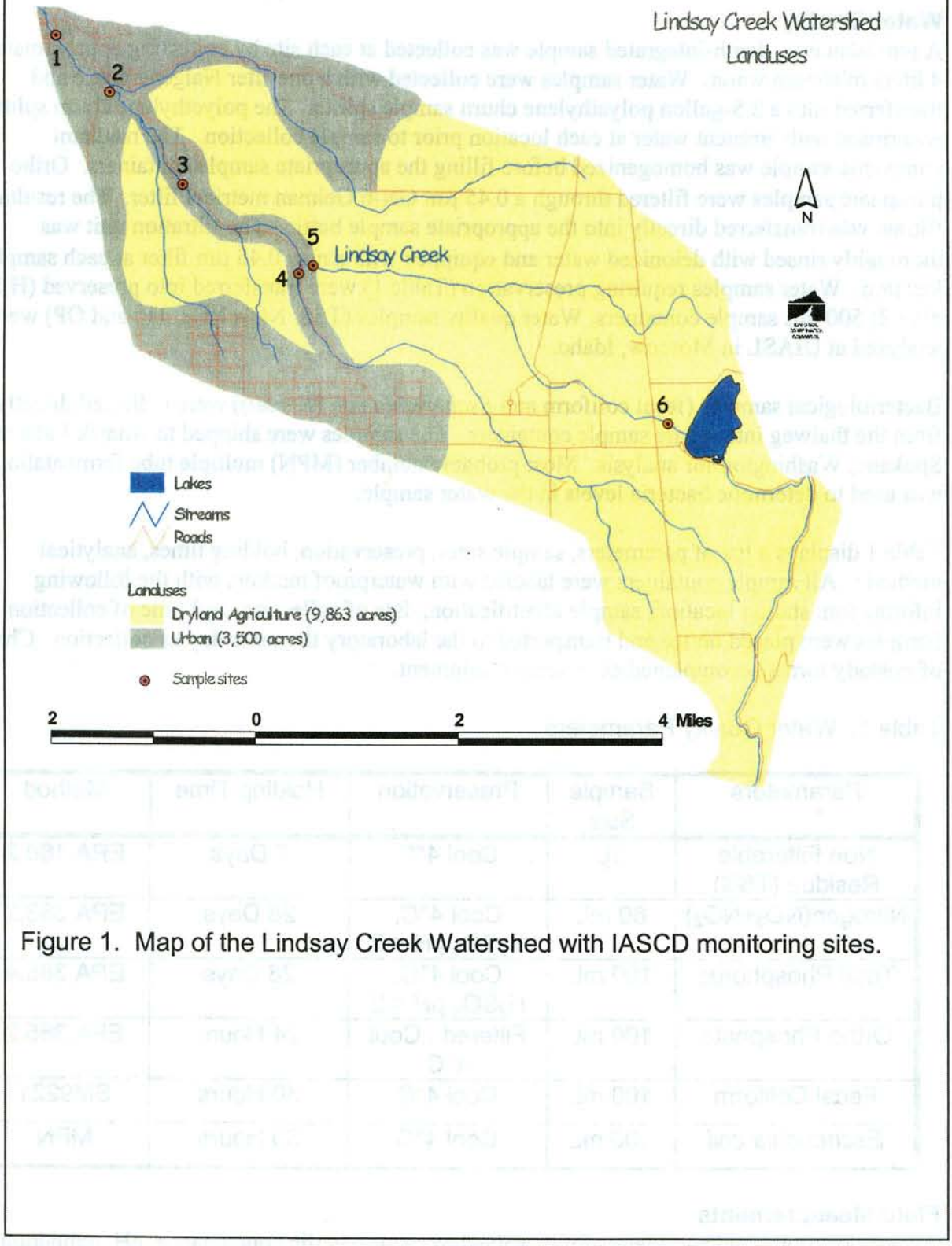


Figure 1. Map of the Lindsay Creek Watershed with IASCD monitoring sites.

Methods

Water Quality

A representative depth-integrated sample was collected at each site by collecting approximately 4 liters of stream water. Water samples were collected with a one-liter Nalgene bottle and transferred into a 2.5-gallon polyethylene churn sample splitter. The polyethylene churn splitter was rinsed with ambient water at each location prior to sample collection. The resultant composite sample was homogenized before filling the appropriate sample containers. Ortho-phosphate samples were filtered through a 0.45 µm GN-6 Gelman metricel filter. The resultant filtrate was transferred directly into the appropriate sample bottle. The filtration unit was thoroughly rinsed with deionized water and equipped with a new 0.45 µm filter at each sampling location. Water samples requiring preservation (Table 1) were transferred into preserved (H_2SO_4 pH <2) 500 mL sample containers. Water quality samples (TSS, NO_2+NO_3, TP, and OP) were analyzed at UIASL in Moscow, Idaho.

Bacteriological samples (fecal coliform and *Escherichia coli* (*E. coli*)) were collected directly from the thalweg into sterile sample containers. The samples were shipped to Anatek Labs in Spokane, Washington for analysis. Most probable number (MPN) multiple tube fermentation was used to determine bacteria levels in the water sample.

Table 1 displays a list of parameters, sample sizes, preservation, holding times, analytical methods. All sample containers were labeled with waterproof markers with the following information: station location, sample identification, date of collection, and time of collection. Samples were placed on ice and transported to the laboratory the same day as collection. Chain-of-custody forms accompanied each sample shipment.

Table 1. Water Quality Parameters

Parameters	Sample Size	Preservation	Holding Time	Method
Non Filterable Residue (TSS)	1L	Cool 4°C	7 Days	EPA 160.2
Nitrogen(NO_3+NO_2)	60 mL	Cool 4°C, H_2SO_4 pH < 2	28 Days	EPA 353.2
Total Phosphorus	100 mL	Cool 4°C, H_2SO_4 pH < 2	28 Days	EPA 365.4
Ortho Phosphate	100 mL	Filtered , Cool 4°C	24 Hours	EPA 365.2
Fecal Coliform	100 mL	Cool 4°C	30 Hours	SM9221
Escherichia coli	100 mL	Cool 4°C	30 Hours	MPN

Field Measurements

At each location, field parameters for dissolved oxygen, specific conductance, pH, temperature, turbidity, and total dissolved solids were measured. Calibration of all field equipment will be in

accordance with the manufacturer's specifications. Table 2 contains a listing of field measurements, equipment and calibration techniques.

Table 2. Field Measurements

Parameters	Instrument	Calibration
Dissolved Oxygen	YSI Model 55	Ambient air calibration
Temperature	YSI Model 55	Centigrade thermometer
Conductance & TDS	Orion Model 115	Specific Conductance (25°C standard)
pH	Orion Model 210A	Standard buffer (7,10) bracketing for linearity
Turbidity	Hach Model 2100P	Formazin Primary Standard

All field measurements were recorded in a field notebook along with any pertinent observations about the site, including weather conditions, flow rates, personnel on site, and any problems observed that might affect water quality.

Stream Discharge Measurements

Flow measurements were collected at each site using a Marsh McBirney Flow Mate Model 2000 flow meter. The six-tenths depth method (0.6 of the total depth from the surface of the water surface) was used. At each monitoring station, a transect line was established across the width of the drain/creek at an angle perpendicular to the flow for the calculation of cross-sectional area. The discharge was computed by summing the products of the partial areas (partial sections) of the flow cross-sections and the average velocities for each of those sections. Stream discharge was reported as cubic feet per second (cfs).

Quality Assurance and Quality Control (QA/QC)

The UIASL utilizes methods approved and validated by the Environmental Protection Agency (EPA). A method validation process, including precision and accuracy performance evaluations and method detection limit studies, are required of ASL Standard Methods. Method performance evaluations include quality control samples, analyzed with a batch to ensure sample data integrity. Internal laboratory spikes and duplicates are part of UIASL's quality assurance program. Laboratory QA/QC results generated from this project can be provided upon request.

QA/QC procedures from the field-sampling portion of this project included a duplicate and a blank sample (one set per sampling day). The field blanks consisted of laboratory-grade deionized water, transported to the field and poured off into the appropriate sample container. The blank sample was used to determine the integrity of the field teams handling of samples, the condition of the sample containers and deionized water supplied by the laboratory, and the accuracy of the laboratory methods. Duplicates were obtained by filling two sets of sample

containers with homogenized composite water from the same sampling site. The duplicate and blank samples were not identified as such to laboratory personnel to ensure laboratory precision.

Data Handling

All of the field and analytical data generated from each survey was reviewed and submitted to ISDA for review. Each batch of data from a survey was evaluated to insure that all necessary observations, measurements, and analytical results have been properly recorded. The analytical results were reviewed for completeness and accuracy. Any suspected errors were investigated and resolved, if possible. The data were then be stored electronically and are available to any interested entity.

Results and Discussion

Descriptive data is presented in Table 3. This table includes maximum, minimum, and average values for each measured parameter as well as the number and percentage of sampling events that exceeded state water quality standards and EPA criteria.

Dissolved Oxygen

The State of Idaho standard for DO states that dissolved oxygen must exceed 6.0 mg/L at all times for cold water biota. All measured dissolved oxygen concentrations at every site were well above the recommended state standard (Figure 2, Table 3).

Water Temperature

The State of Idaho water quality standard for temperature support of cold water biota is less than 22°C. No exceedance of instantaneous water temperature was observed at any Lindsay Creek monitoring station during the monitoring period (Figure 3, Table 3). The stability of water temperature in this stream is probably directly attributed to significant ground water influence.

Specific Conductance and Total Dissolved Solids

No standards or criteria exist that set limits of conductance or TDS. Specific conductance and TDS measurements that were performed during the sampling period were all observed to be extremely high compared to the typical range of values for the Idaho Panhandle (Figure 4, Table 3). Saline and alkaline soils are both present in this area and could explain the high conductivity results. In addition, specific conductance data collected from the Tammany Creek watershed were similar to Lindsay Creek, which supports geologic makeup of the area as the reason for such high values.

pH

The State of Idaho water quality standard for pH states that H^+ concentration must fall between 6.5 and 9.5. All measured pH values during the sampling period were observed to be within the acceptable range (Figure 5, Table 3).

Turbidity and Total Suspended Solids

The State of Idaho water quality standard for Turbidity states that measurements should not exceed 25 NTU for more than 10 consecutive days. No numerical standard exists for TSS, but significant direct associations ($p<0.001$) were found between the two measurements at all sites.

Table 1. Maximum, minimum, median, and average values for each measured parameter at IASCD Upper Lapwai Creek Monitoring locations. # exceedance/ year equals the number of sampling events when each respective value exceeded EPA or State of Idaho water quality standards and critera. % exceedance equals the percentage of sampling events when each respective value exceeded EPA or State of Idaho water quality standards and critera.

LZ-1	D.O.	% Sat	Temp	Cond	TDS	pH	Turbidity	TSS	NO_3 -NO_2	TP	OP	F-Coli	E-Coli	Flow
Maximum	12.5	118%	15.8	1556.0	852.0	8.8	545.0	340.0	7.4	1.1	0.3	9000.0	9000.0	6.0
Minimum	9.1	82%	5.1	794.0	422.0	6.9	4.7	9.0	1.3	0.1	0.1	40.0	20.0	2.1
Average	10.8	97%	10.5	1219.5	644.1	8.2	36.0	48.8	6.0	0.2	0.1	1565.0	1331.9	3.6
Median	10.9	96%	10.2	1241.5	668.5	8.3	11.3	30.0	6.1	0.2	0.1	550.0	500.0	3.5
# exceedance	0.0		0.0			0.0	6.0		26.0	25.0	12.0	13.0	23.0	
% exceedance	0%		0%			0%	23%		100%	96%	46%	50%	88%	

LZ-2	D.O.	% Sat	Temp	Cond	TDS	pH	Turbidity	TSS	NO_3 -NO_2	TP	OP	F-Coli	E-Coli	Flow
Maximum	11.6	100%	18.2	1797.0	972.0	8.5	58.3	63.0	8.2	0.6	0.4	16000.0	16000.0	0.6
Minimum	7.1	70%	1.0	882.0	478.0	7.3	3.1	0.0	0.8	0.1	0.0	500.0	80.0	0.0
Average	9.5	85%	10.3	1415.8	749.1	8.2	16.3	22.8	5.6	0.2	0.2	9711.5	6313.8	0.2
Median	9.4	86%	9.1	1469.0	791.0	8.2	13.3	18.5	5.9	0.2	0.2	16000.0	4250.0	0.1
# exceedance	0.0		0.0			0.0	4.0		26.0	25.0	18.0	25.0	25.0	
% exceedance	0%		0%			0%	15%		100%	96%	69%	96%	96%	

LZ-3	D.O.	% Sat	Temp	Cond	TDS	pH	Turbidity	TSS	NO_3 -NO_2	TP	OP	F-Coli	E-Coli	Flow
Maximum	11.9	117%	17.6	1327.0	709.0	8.8	940.0	740.0	6.8	1.7	0.3	16000.0	16000.0	5.2
Minimum	8.1	63%	5.2	518.0	285.0	8.2	3.0	4.0	1.0	0.1	0.1	230.0	60.0	1.0
Average	10.4	94%	11.0	996.1	527.5	8.5	53.6	69.5	5.1	0.2	0.1	3570.8	2335.4	2.4
Median	10.4	95%	9.9	1010.0	558.5	8.5	16.0	33.0	5.4	0.2	0.1	800.0	750.0	2.1
# exceedance	0.0		0.0			0.0	5.0		26.0	22.0	7.0	15.0	25.0	
% exceedance	0%		0%			0%	19%		100%	85%	27%	58%	96%	

LZ-4	D.O.	% Sat	Temp	Cond	TDS	pH	Turbidity	TSS	NO_3 -NO_2	TP	OP	F-Coli	E-Coli	Flow
Maximum	13.1	125%	16.5	2320.0	1280.0	8.9	26.9	22.0	11.0	0.4	0.4	5000.0	5000.0	0.6
Minimum	7.6	77%	5.2	1132.0	609.0	7.8	1.6	0.0	2.2	0.1	0.1	20.0	20.0	0.1
Average	10.1	91%	10.7	1746.7	937.0	8.4	5.6	6.2	8.4	0.2	0.2	575.4	494.2	0.3
Median	10.0	89%	9.8	1986.0	1035.0	8.5	3.5	6.0	8.8	0.2	0.2	95.0	60.0	0.3
# exceedance	0.0		0.0			0.0	1.0		26.0	26.0	22.0	3.0	12.0	
% exceedance	0%		0%			0%	4%		100%	100%	85%	12%	46%	

LZ-5	D.O.	% Sat	Temp	Cond	TDS	pH	Turbidity	TSS	NO_3 -NO_2	TP	OP	F-Coli	E-Coli	Flow
Maximum	12.0	118%	15.7	946.0	514.0	8.6	417.0	260.0	5.3	0.8	0.2	5000.0	5000.0	2.4
Minimum	7.1	67%	6.6	362.0	193.0	8.1	3.3	0.0	0.8	0.0	0.0	20.0	20.0	0.9
Average	10.0	92%	11.5	680.0	357.3	8.4	28.9	33.8	3.7	0.1	0.1	667.7	518.8	1.4
Median	10.1	92%	11.6	751.0	392.0	8.4	13.2	25.0	4.1	0.1	0.1	265.0	210.0	1.3
# exceedance	0.0		0.0			0.0	3.0		26.0	9.0	1.0	6.0	16.0	
% exceedance	0%		0%			0%	12%		100%	35%	4%	23%	62%	

LZ-6	D.O.	% Sat	Temp	Cond	TDS	pH	Turbidity	TSS	NO_3 -NO_2	TP	OP	F-Coli	E-Coli	Flow
Maximum	10.8	94%	19.0	613.0	318.0	8.5	244.0	910.0	0.5	1.4	0.1	5000.0	5000.0	0.2
Minimum	6.2	55%	2.6	304.0	162.0	7.3	4.2	4.0	0.0	0.1	0.1	20.0	20.0	0.0
Average	8.5	75%	10.6	471.5	244.8	7.8	20.8	61.2	0.3	0.2	0.1	982.7	928.8	0.1
Median	8.3	76%	9.7	484.5	260.0	7.8	9.5	20.5	0.3	0.2	0.1	200.0	200.0	0.1
# exceedance	0.0		0.0			0.0	2.0		13.0	24.0	6.0	8.0	16.0	
% exceedance	0%		0%			0%	8%		50%	92%	23%	31%	62%	

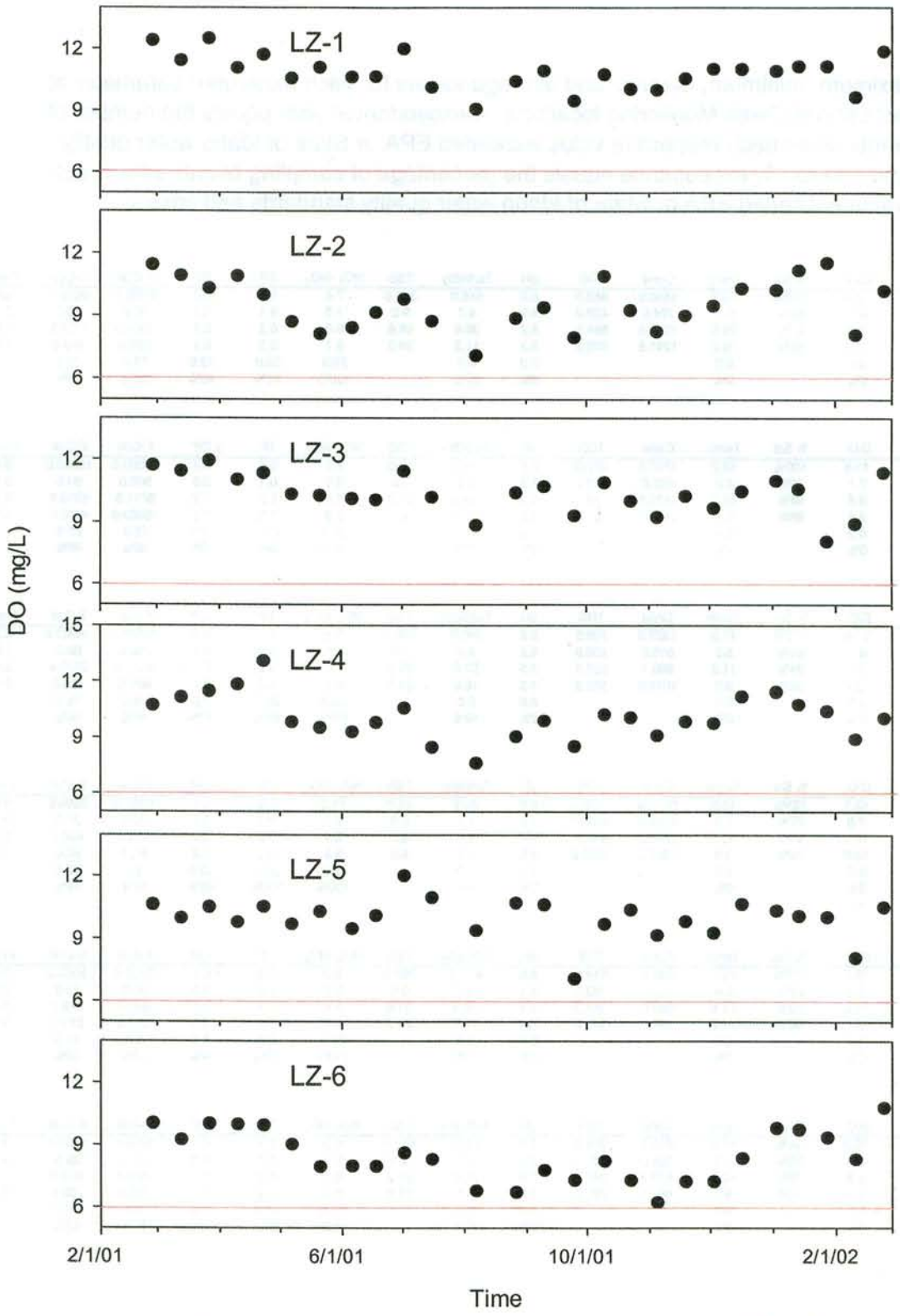


Figure 2. Dissolved oxygen data for Lindsay Creek collected Feb 27, 2001 to Feb 25, 2002.

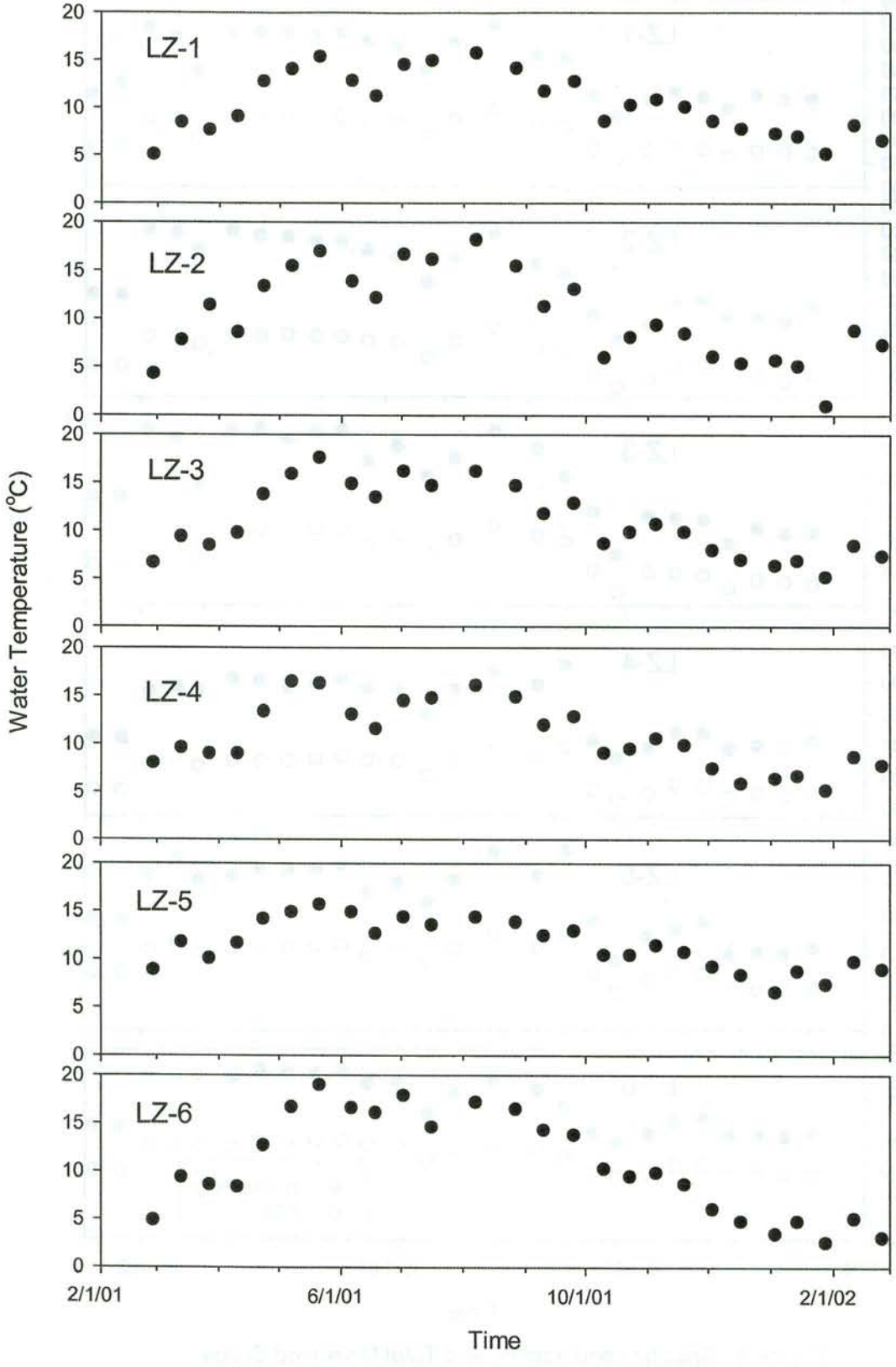


Figure 3. Water temperature data collected from Feb 27, 2001 to Feb 25, 2002 in the Lindsay Creek Watershed.

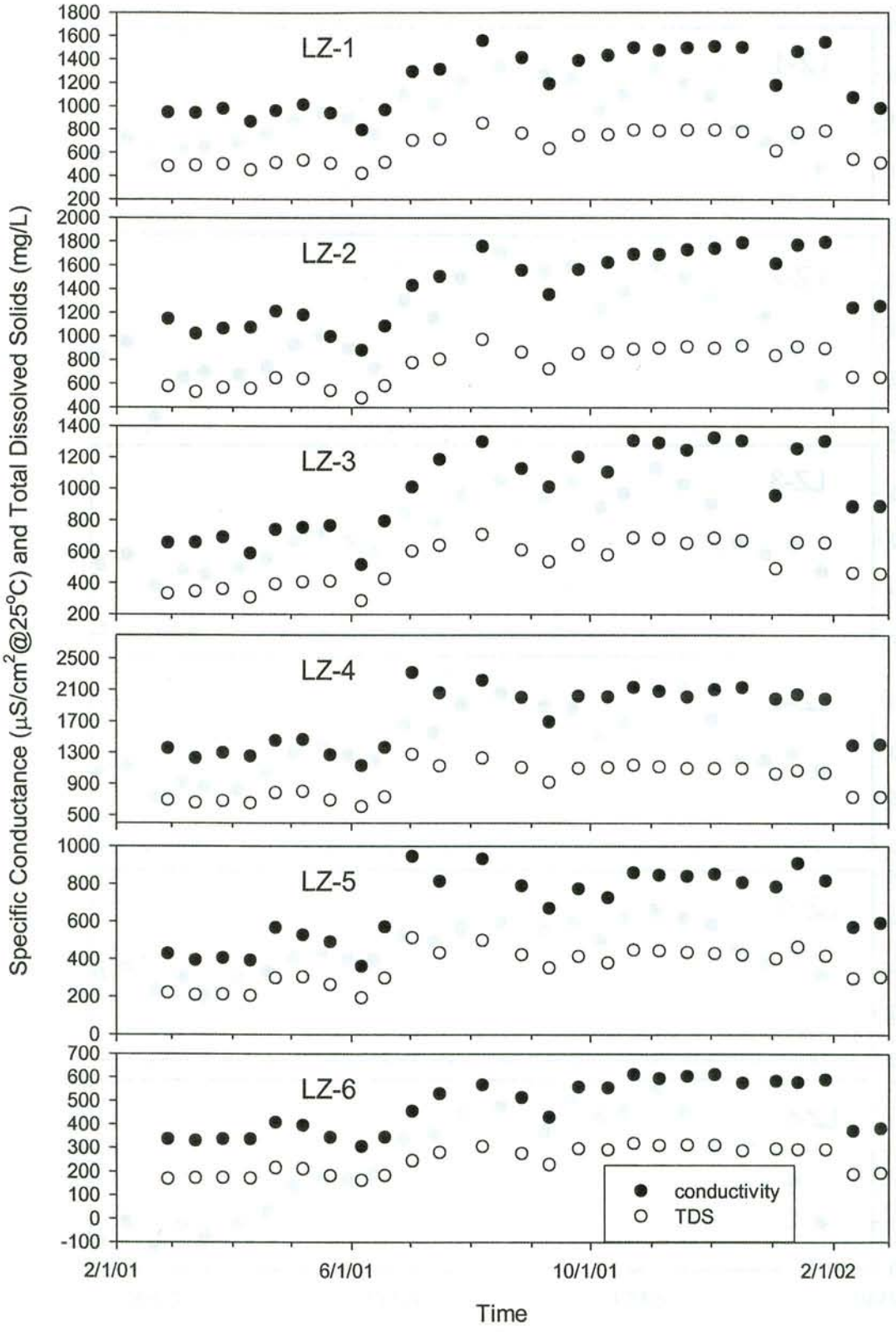


Figure 4. Specific conductance and Total Dissolved Solids collected at Lindsay monitoring sites from Feb 27, 2001 to Feb 25, 2002.

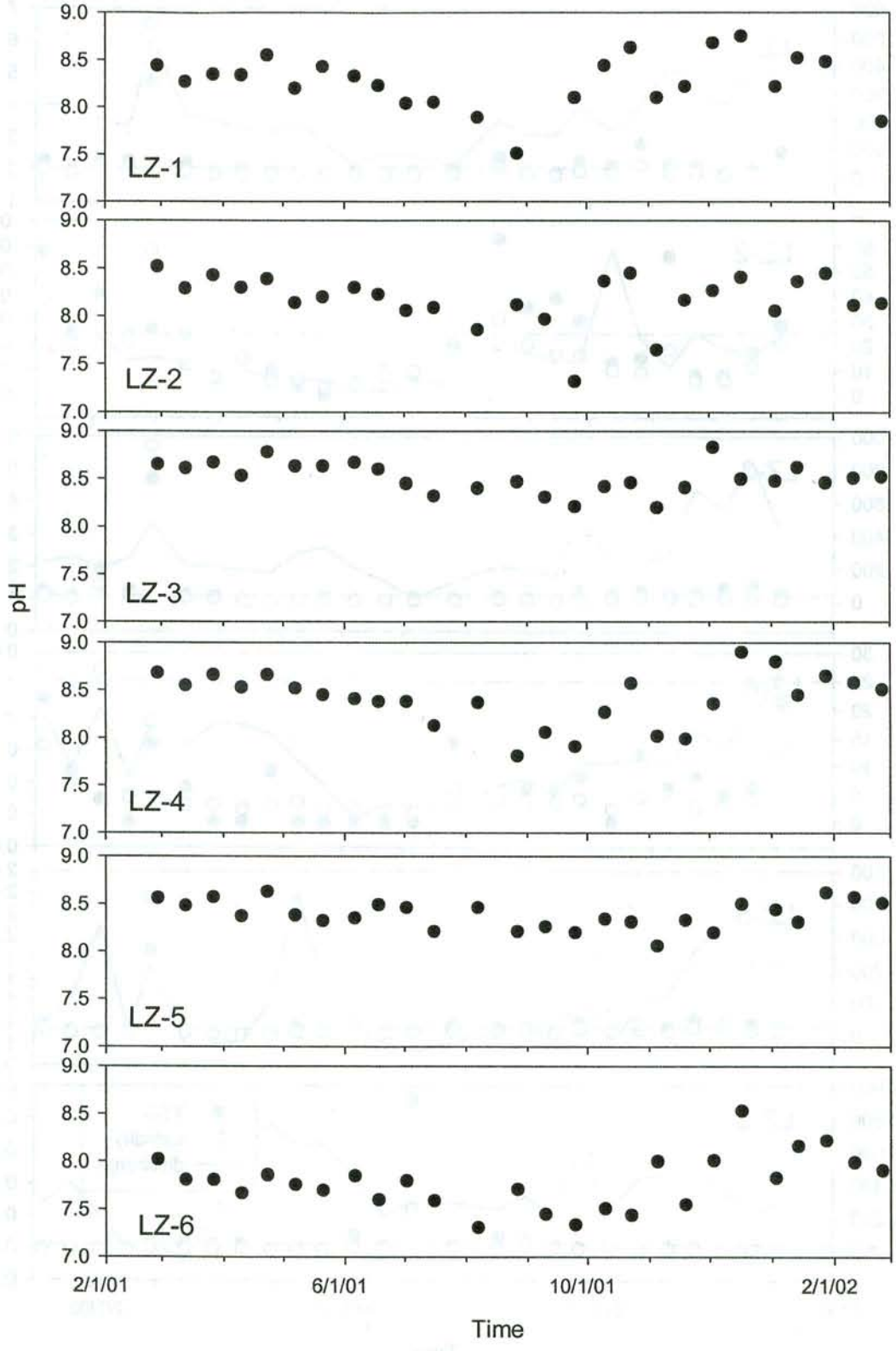


Figure 5. pH data collected at Lindsay Creek from Feb 27, 2001 to Feb 25, 2002.

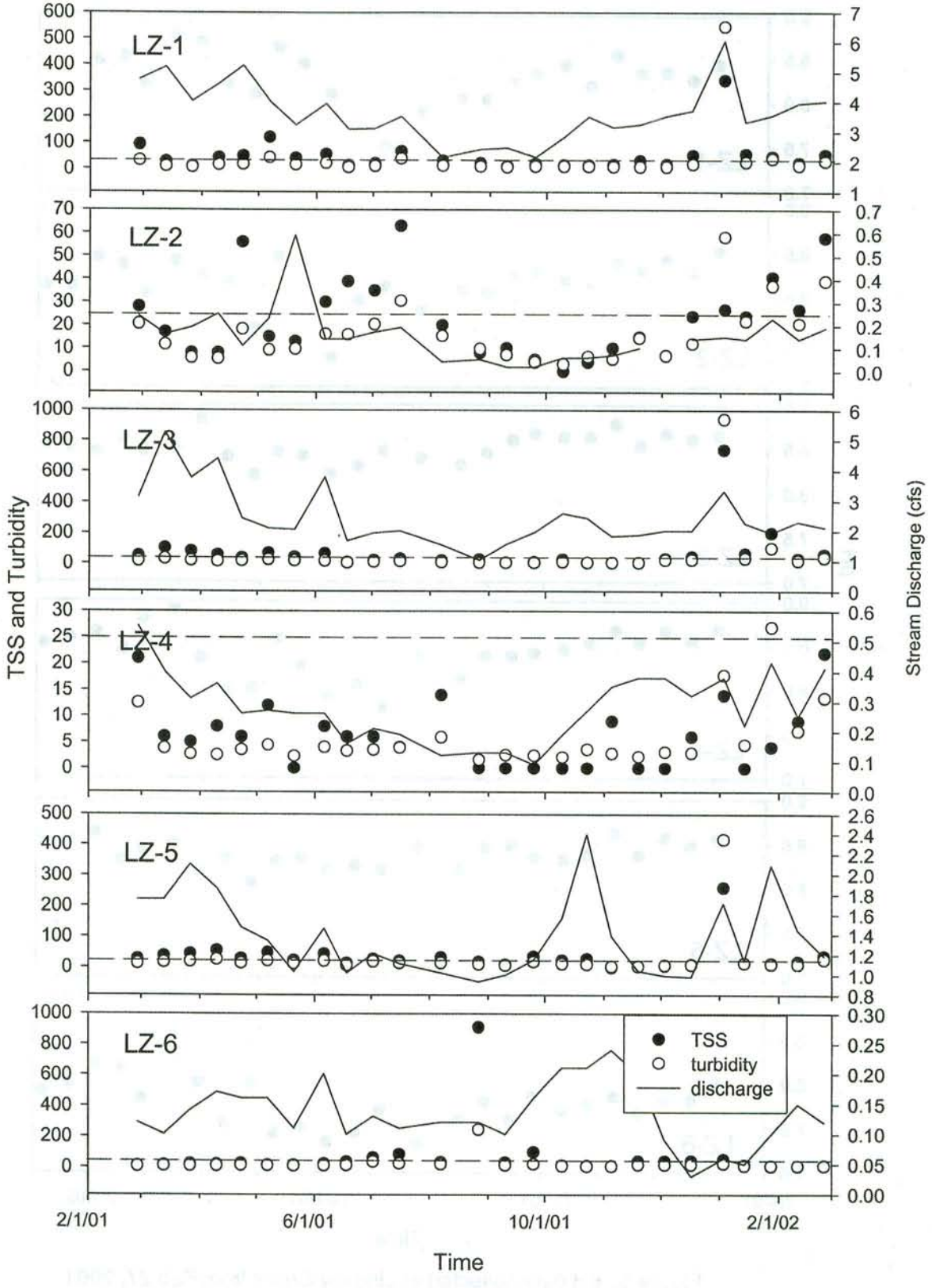


Figure 6. Total suspended solids (TSS), turbidity, and stream discharge data collected at IASCD monitoring locations from Feb 27, 2001 to Feb 25, 2002.

In addition significant direct correlations ($p<0.05$) were between TSS and stream discharge at all mainstem Lindsay Creek sites (LZ-1, LZ-3, LZ-4, and LZ-5). Turbidity and TSS were very low at all sites throughout the year, with one exception at LZ-1, LZ-3, and LZ-5 from a specific field upstream of LZ-5 that experienced heavy tilling just before a major rain event (Figure 6, Table 3). In addition there was an isolated event at LZ-6 where large quantities of organic matter was observed in the stream, which probably resulted from cattle entering the stream upstream of this site (Figure 6, Table 3). Overall, it appears that very little sediment entered Lindsay Creek from agriculture during the monitoring period.

Nitrogen (NO_3+NO_2)

The EPA Gold Book warns that nitrate values in excess of 10 mg/L could be hazardous to young infants if ingested. The literature suggests that NO_3 values in excess of 0.30 mg/L could contribute to excessive plant production and eutrophication in surface water. All measured values at sites LZ-1, LZ-2, LZ-3, LZ-4, and LZ-5 exceeded the recommended nitrogen criterion for surface water (Figure 7, Table 3). Nitrate+Nitrite concentrations at LZ-1 represent a collective value that this watershed discharges into the Clearwater River. Site LZ-2 seems to be a major contributor with NO_3+NO_2 values averaging just below 6 mg/L (Figure 3, Table 7). The LZ-2 tributary parallels Lapwai Creek Road. Lewiston City sewer services do not extend to that area, which indicates that private septic systems are all that are available to residents. The high NO_3+NO_2 concentrations at this site suggest that septic systems could be potentially failing in this area (Figure 7, Table 3). There are also several small ranchettes that pasture horses near this tributary that also could be potential contributors. Nitrogen concentrations at LZ-3 seem to be acting as a conduit for nitrogen entering from the LZ-4 and LZ-5 subwatersheds. There are ranchettes upstream of LZ-3 that have horses and some cows that could potentially contribute to these high levels. Baseflow in Lindsay Creek is supported almost entirely from groundwater upwelling. Sites LZ-4 and LZ-5 are located downstream of the most significant upwelling zones. There are only two private residences on both of these watersheds and it would be unlikely that this number of homes could contribute to values shown in Figure 7. These data suggest that NO_3+NO_2 is entering Lindsay Creek from the groundwater. The Lewiston Orchards development was built just above the headwaters of site LZ-4. It is a possibility that nitrogen based contaminant could be leaking into the ground water and then upwelling at the headwaters of the LZ-4 tributary.

Phosphorus (Total Phosphorus and Ortho-Phosphate)

Ortho-phosphate refers the dissolved or soluble portion of particles less than 0.45 μm. Total phosphorus refers to the total amount of P suspended in the water column (<0.45 and greater). The EPA Gold Book criterion for total phosphorus concentrations is 0.100 mg/L for streams and rivers not discharging directly into lakes or reservoirs. At sites LZ-1, LZ-2, and LZ-4, 100% of total phosphorus concentrations exceeded the recommended criterion (Figure 8, Table 3). At site LZ-1, TP concentrations averaged 0.20 mg/L with a median of 0.15 mg/l (Table 3). At site LZ-2, TP concentrations maintained around 0.2 mg/L and were then elevated to around 0.3 from mid-June to October (Figure 8). Site LZ-3 had a median value of 0.16 mg/L with 88% of the samples exceeding the recommended standard (Figure 8, Table 3). TP concentrations were elevated to 0.3 in July and were also elevated from October to May (Figure 8). LZ-5, which is the site below agricultural landuses had the lowest TP values in Lindsay Creek with a median value of 0.09 mg/L (Figure 8, Table 3). Site LZ-6 was consistent throughout the year (around

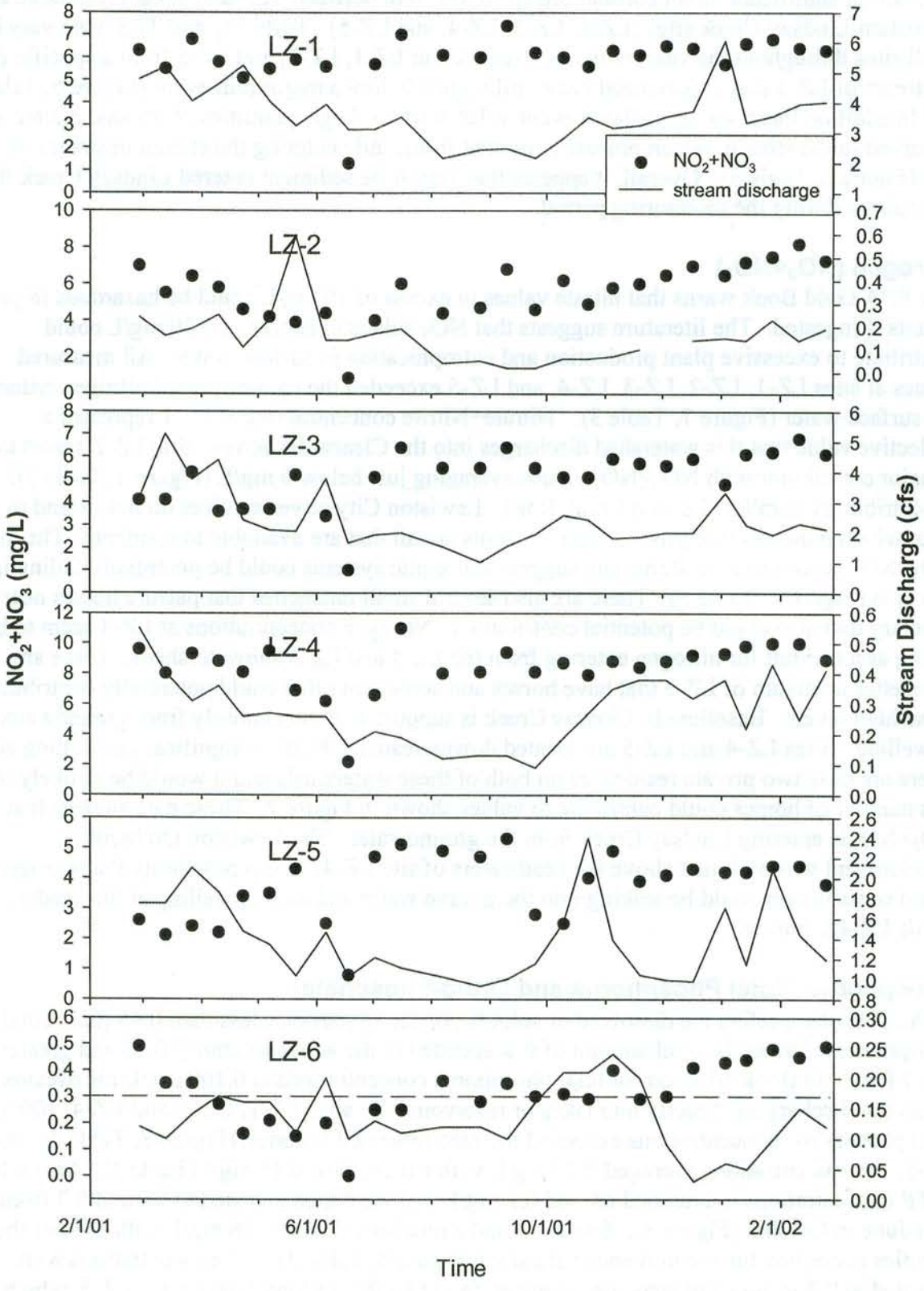


Figure 8. Nitrate+Nitrite concentrations plottled with stream discharge for IASCD Lindsay Creek monitoring stations from Feb 27, 2001 to Feb 25, 2002.

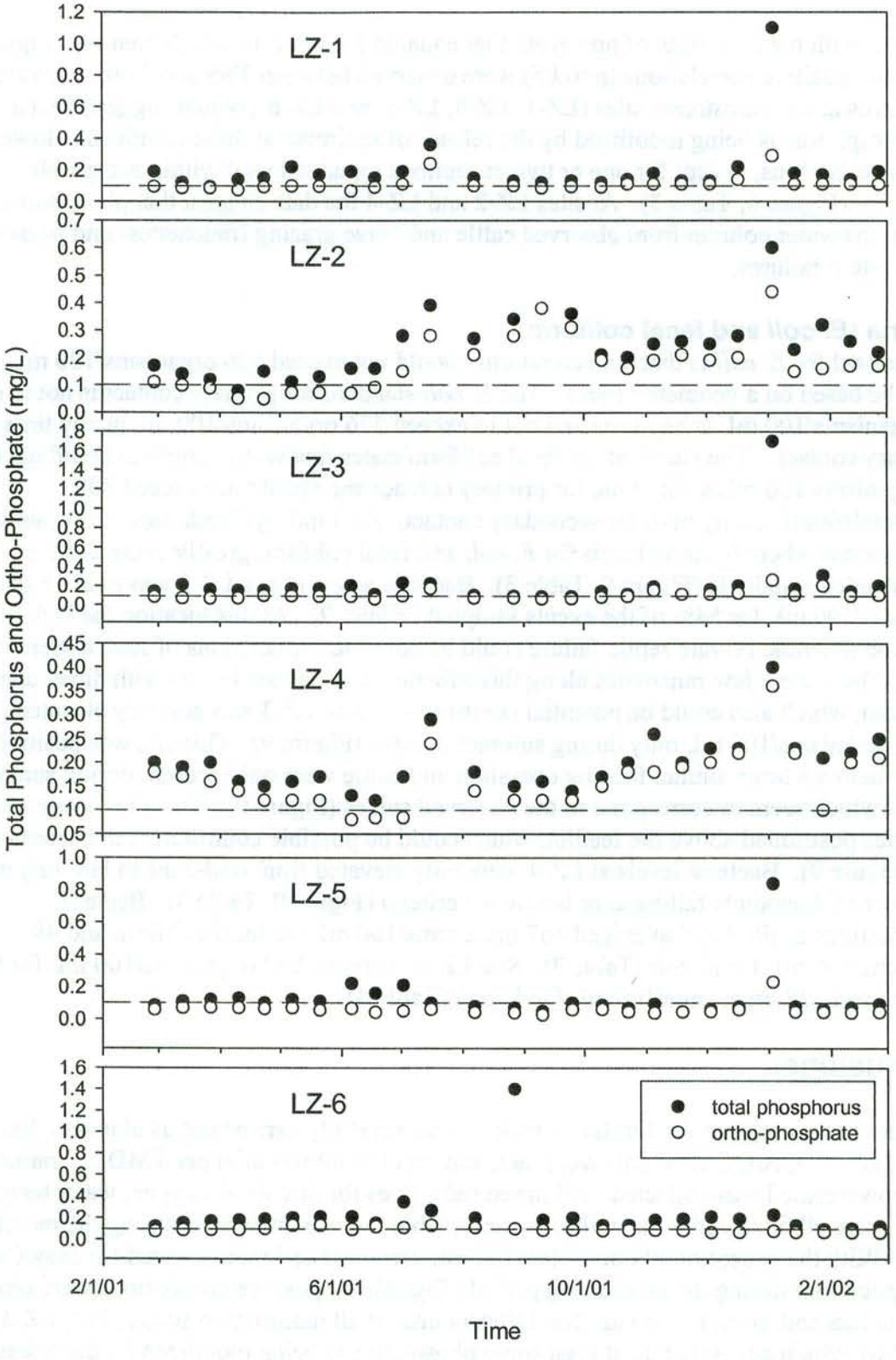


Figure 8. Total phosphorus and ortho-phosphate concentrations for IASCD Lindsay Creek monitoring stations collected from Feb 27, 2001 to Feb 25, 2002.

0.2 mg/L) with the exception of one event that equaled 1.4 mg/L in late September (Figure 8). Significant positive correlations ($p<0.05$) were observed between TSS and Turbidity versus Total Phosphorus at all mainstream sites (LZ-1, LZ-3, LZ-5, and LZ-6), which suggests that at least some phosphorus is being mobilized by the release of sediment at these locations. However, TSS concentrations, except for one or two exceptions remained well within acceptable boundaries (Figure 6, Table 3). At sites LZ-2 and LZ-4 the data suggest that phosphorus is entering the water column from observed cattle and horse grazing (ranchettes) and possibly from septic system failures.

Bacteria (*E. coli* and fecal coliform)

The standard for *E. coli* is that concentrations should not exceed 126 organisms/100 mL, which should be based on a geometric mean. The *E. coli* standard for primary contact is not to exceed 406 organisms/100 mL at any time and not to exceed 576 organisms/100 mL at any time for secondary contact. The standard for fecal coliform states that water samples should not exceed 500 organisms/100 mL at any time for primary contact and should not exceed 800 organisms/100mL at any time for secondary contact. All Lindsay Creek monitoring stations had several events where bacteria levels for *E. coli* and fecal coliform greatly exceeded the recommended standards (Figure 9, Table 3). Bacteria levels at site LZ-2 was over 16,000 organisms/100 mL for 54% of the events sampled (Figure 9). At this location the lack of city sewer and potential private septic failure could be possible explanations of such extremely high values. There are a few ranchettes along this tributary that pasture horses with direct access to the stream, which also could be potential contributors. Site LZ-3 was severely elevated (> 16,000 organisms/100 mL only during summer months (Figure 9). This site was positioned directly below a large animal feeding operation and cattle were only present during summer months, which seem to correspond to the observed spikes (Figure 9). There are some small ranchettes positioned above the feedlot, which could be possible contributors to bacteria levels at LZ-3 (Figure 9). Bacteria levels at LZ-4 were only elevated from mid-June to late July with the remainder of datapoints falling at or below the criteria (Figure 9, Table 3). Bacteria concentrations at site LZ-5 averaged 667 organisms/100 mL for fecal coliform and 494 organisms/100 mL for *E. coli* (Table 3). Site LZ-6 averaged 982 organisms/100 mL for fecal coliform and 928 organisms/100 mL for *E. coli* (Table 3).

Conclusions

The monitoring program for Lindsay Creek was successfully carried out as planned. Protocols were followed, QA/QC standards were met, and specific information per TMDL parameter for each subwatershed was collected. All measured values for dissolved oxygen, water temperature, and pH were all observed to be within the acceptable range of standards during the monitoring period. With the exception of one isolated event, very little sediment entered Lindsay Creek from agriculture during the monitoring period. Significant positive correlations were observed between TSS and Turbidity versus Total Phosphorus at all mainstream sites (LZ-1, LZ-3, LZ-5, and LZ-6), which suggests that at least some phosphorus is being mobilized by the release of inorganic sediment at these locations. However, TSS concentrations, except for one or two exceptions, remained well within acceptable boundaries. At sites LZ-2 and LZ-4 the data

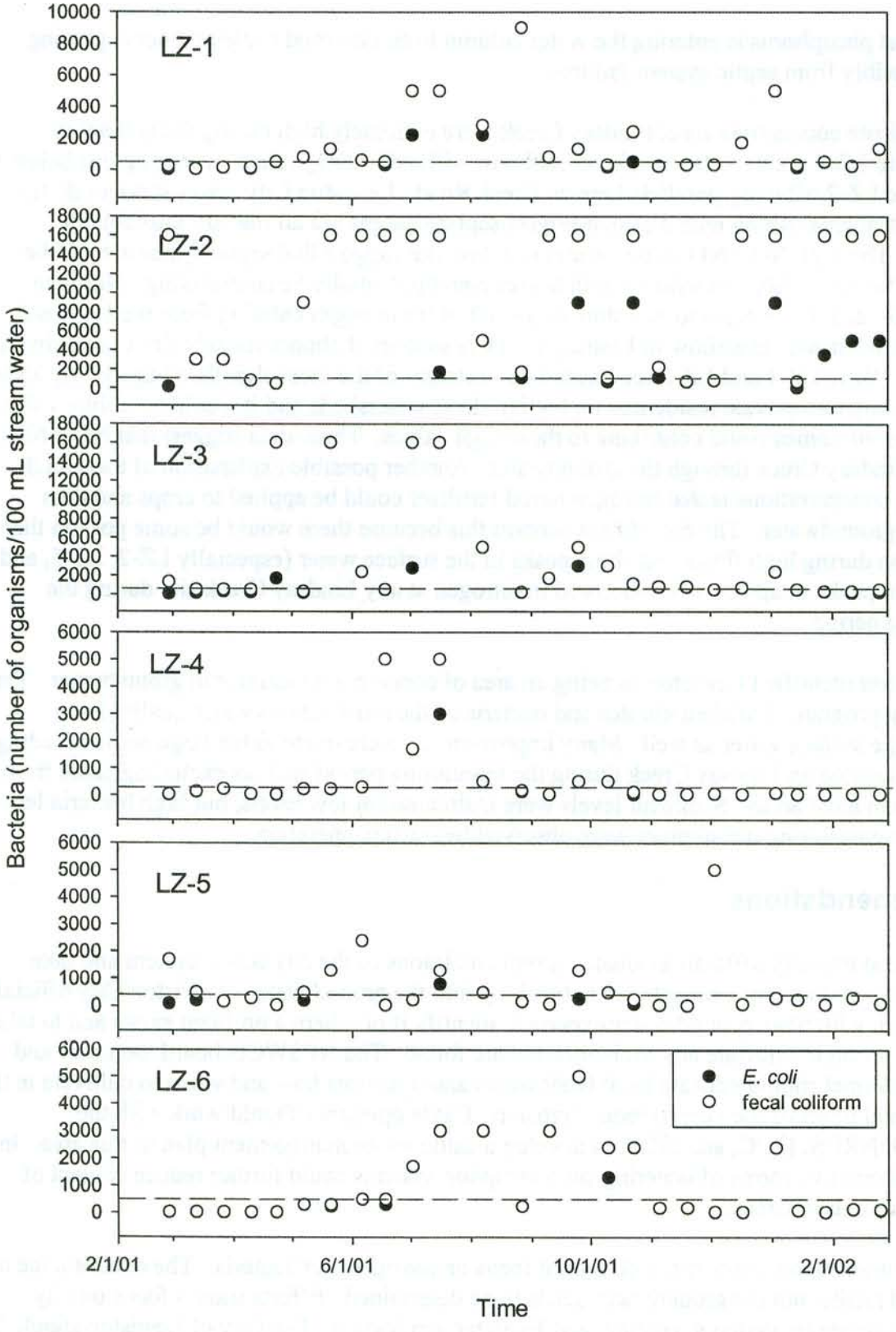


Figure 9. Fecal coliform and E. coli concentrations collected at IASCD Lindsay Creek monitoring stations from Feb 27, 2001 to Feb 25, 2002.

suggest that phosphorus is entering the water column from observed cattle and horse grazing and/or possibly from septic system failures.

Nitrate+Nitrite concentrations at Lindsay Creek were extremely high during the collection period. Site LZ-2 seems to be a major contributor with NO_3+NO_2 values averaging just below 6 mg/L. The LZ-2 tributary parallels Lapwai Creek Road. Lewiston City sewer services do not extend to that area, which indicates that private septic systems are all that are available to residents. The high NO_3+NO_2 concentrations at this site suggest that septic systems could be failing in this area. Also, ranchettes with horses could potentially be contributing. Nitrogen concentrations at LZ-3 seem to be acting as a conduit for nitrogen entering from the LZ-4 and LZ-5 subwatersheds. Baseflow in Lindsay Creek is supported almost entirely from groundwater upwelling. Sites LZ-4 and LZ-5 are located downstream of the most significant upwelling zones. There are only two private residences on both of these watersheds and it would be unlikely that this number of homes could contribute to these high values. These data suggest that NO_3+NO_2 is entering Lindsay Creek through the groundwater. Another possible explanation of these high NO_3+NO_2 concentrations is that nitrogen based fertilizer could be applied to crops and then enters the groundwater. The data do not support this because there would be some portion that would flush during high flows and show peaks in the surface water (especially LZ-2, LZ-5, and LZ-6). No peaks or spikes were observed in nitrogen at any Lindsay Creek site during the monitoring period.

The DEQ has identified Lewiston as being an area of concern with nitrates in groundwater. This monitoring program identified nitrates and bacteria as the most serious water quality issue affecting the surface water as well. Many improvements were made to the large animal feeding operation located on Lindsay Creek during the monitoring period such as excluding cattle from the stream in most areas. Sediment levels were maintained at low levels, but high bacteria levels at certain times during the summer were observed below this operation.

Recommendations

I recommend that city officials evaluate current conditions of the city sewer system and take action to ensure that contaminants are not leaking into the ground water. Lewiston City official should work with State ground water experts to identify if or where a problem exists and to take necessary action to alleviate any problems that are found. The NPSWCD board members and NRCS personnel should educate local landowners and operators how and when to cultivate in the most optimal times of the year to reduce erosion. Cattle operators should work with the NPSWCD, NRCS, ISCC, and ISDA to develop a cattle waste management plan in this area. In addition alternative forms of watering such as siphon systems could further reduce contact of cattle with Lindsay Creek.

Future monitoring on Lindsay Creek should focus on nitrogen and bacteria. The exact source of nitrate and nitrite into the groundwater needs to be determined. Efforts should focus on city sewer, private septic systems, grazing, and fertilizer application. The City of Lewiston should be responsible for monitoring the condition of municipal sewer systems that appear to be leaking into the groundwater. The State should conduct well monitoring in this area to help protect

water quality in the ground water. Further concurrent study and comparison of surface water and ground water should be made in this area. The DEQ and health district should monitor the condition of private septic systems and educate local residents to available options and programs that are available (Home*A*Syst and Farm*A*Syst). Bacterial DNA testing would be able to pinpoint whether the extremely high bacteria levels are coming from humans, cattle, horses, or wildlife and in what proportions.

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Idaho State Department of Agriculture
Division of Agricultural Resources

Regional Ground Water Quality Monitoring Results for Idaho, Lewis, and Nez Perce Counties, Idaho 2001-2007

Rick Carlson
Jessica Atlakson

ISDA Technical Results Summary # 37

February 2007

Introduction

The Idaho State Department of Agriculture (ISDA) developed the Regional Agricultural Ground Water Quality Monitoring Program to characterize degradation of ground water quality by contaminants leaching from agricultural sources. The objectives of the program are to: (1) characterize ground water quality related primarily to nitrate and pesticides, (2) determine if legal pesticide use contributes to aquifer degradation, (3) relate data to agricultural land use practices, and (4) provide data to support Best Management Practices (BMP) and/or regulatory decision making and evaluation processes. ISDA currently is implementing 13 regional ground water quality monitoring projects in Idaho. Additional projects currently are being planned for other areas of the state.

This ISDA Regional Ground Water Monitoring Project in Idaho, Lewis and Nez Perce Counties (Figure 1) was initiated in 2001 as a result of completion of the Idaho Ground Water Quality Plan and Agricultural Ground Water Quality Protection Program for Idaho. In part, these documents mandate regional-scale monitoring of aquifers in the state that may be vulnerable to agricultural activities. Additionally, prior testing by the Idaho Department of Environmental Quality found 20 percent of 55 wells tested across the Camas Prairie exceeded the Environmental Protection Agency (EPA) Maximum Contaminant Level (MCL) for nitrate of 10 milligrams per liter (mg/L) (Bentz, 1998). Also, previous ground water monitoring by the Idaho Department of Water Resources found a well in Nez Perce County that exceeded the EPA MCL for nitrate (Neely and Crockett, 1999).

Nutrients, common ions, stable isotopes, field parameters, and pesticides have been and are currently being evaluated to determine impacts to ground water and locate potential sources. Laboratory results from testing in 2001 through 2007 indicate areas showing water quality degradation from nitrate and to a lesser extent pesticides. Multiple wells in an area between the towns of Cottonwood and Nez Perce and south of Lewiston have

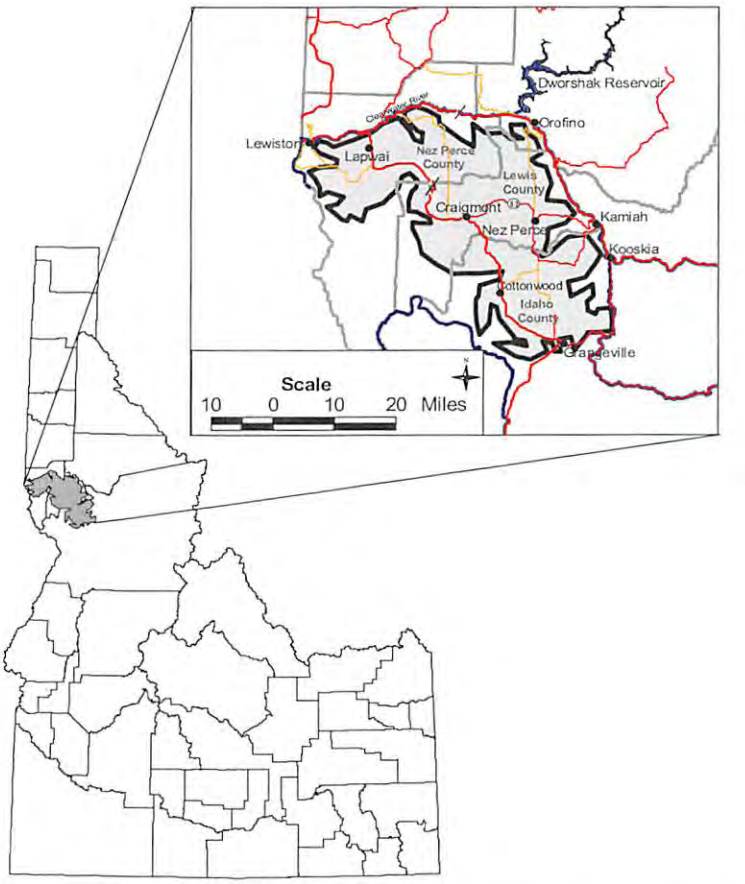


Figure 1. Location of ISDA Regional Ground Water Monitoring Project in Idaho, Lewis, and Nez Perce Counties.

had detections above the EPA MCL for nitrate at sometime during the 2001 to 2007 testing. Also, several wells within the project area have tested positive for pesticides. Of the wells testing positive for pesticides, two well sites have had concentration levels that warrant continued evaluation. One site is located approximately six miles southeast of Lewiston and has had detections of atrazine and atrazine breakdown products with concentrations above half the EPA MCL of 3 parts per billion. The other location, which is approximately six miles east of Ferdinand, has had detections of the pesticide compound triallate that exceed drinking water levels established by the U. S. Food Quality Protection Act.

Methods

To establish this project, ISDA staff developed a project boundary based on known aquifer characteristics and agricultural landuse mapping obtained from the University of Idaho INSIDE Idaho website (University of Idaho, 1997). ISDA staff then statistically assessed Idaho Department of Water Resources Statewide Program nitrate, chloride, and atrazine monitoring data. ISDA statistically determined that sampling 71 randomly selected domestic wells would provide adequate data to evaluate overall ground water quality underlying the area. All sampling was conducted after a quality assurance project plan (QAPP) was developed and approved. Permission was gained from the home owners prior to sampling.

Water samples have been collected annually in the summer from 2001 to 2007. All sample collections followed established ISDA protocols (on file at ISDA main office) for handling, storage, and shipping. Testing of common ions was completed at the University of Idaho Analytical Sciences Laboratory (UIASL) in Moscow. Tests included nitrate, nitrite, ammonia, orthophosphorous, chloride, sulfate, bromide, and fluoride using EPA Methods 300.0 and 350.1. Duplicates and blank samples were collected and submitted as a part of the QAPP.

In 2001, 2004, and 2007 samples were sent to UIASL for pesticide analysis. Duplicates, blanks, and matrix spikes/ matrix spike duplicates were collected and submitted as a part of the QAPP. Due to a relatively high concentrations of atrazine and desethyl atrazine found at one well south of Lewiston, a localized project was initiated and monitoring of wells in the area is ongoing. More information on detections from this monitoring study can be found on the ISDA website at http://www.agri.idaho.gov/Categories/Environment/water/gwpesticides.php.

From 2002 through 2005, samples were collected from selected wells for nitrogen isotope analysis following ISDA protocols. Samples were frozen and shipped via Federal Express one-day service to North Carolina State University (NCSU) Stable Isotopes Laboratory in Raleigh, North Carolina and the University of Idaho Stable Isotopes Laboratory in Moscow, Idaho.

Description of Project Area

The regional monitoring project area includes portions of Idaho, Lewis, and Nez Perce County (Figure 1). The project covers approximately 950 square miles of agricultural lands that are bounded to the north and east by the Clearwater River and to the west and south by forested non-agricultural lands. Also included within the boundary of the study area is a large portion of the Nez Perce Indian Reservation. The reservation boundary encompasses the central and northern portions of the regional project boundary.

The dominant agricultural practice within the area is dry land farming. Major crops in the area include wheat, barley, beans, oats, peas, and alfalfa (Idaho Agricultural Statistics Service, 2006). Additionally, turfgrasses are grown for seed. Some small dairies and livestock operations also are located in the area. Nitrogen from commercial fertilizers, residue from legume crops, septic system effluent, and animal waste provide the greatest potential source of nitrate contamination to ground water in the study area.

Ground water underlying the area is primarily used for human consumption by municipalities and private farmsteads. The majority of wells evaluated within the regional ground water study draw ground water from interbeds of Columbia River basalts that underlie the area (Bentz, 1998). A few wells are located in localized alluvial aquifers, shallow springs, and granitic medium sources. Based on well drillers' reports from domestic wells in the project area, average static water levels range from 20 to 403 feet below land surface (Table 1).

Table 1. Well information.

Well Depth (feet)	Wells	Average Static Water Level (Feet)	Ranges of Static Water Levels (Feet)
< 100	8	20	+0 to 44
100 to < 200	14	45	+0 to 95
200 to < 300	13	131	51 to 196
300 to < 400	19	169	+0 to 300
400 to < 500	8	245	25 to 370
500 and above	9	403	12 to 580

Major sources of recharge to the underlying ground water system are precipitation and surface water leakage (Bentz, 1998). Ground water flow directions in the study area appear to be

variable and in general towards the larger streams and rivers in the region.

Results

The following section provides a summary of nitrate, pesticide, and stable isotope testing from 2001 through 2007. Other water quality data (e.g., sulfate, ammonia, chloride) not presented in this report is available on the ISDA website at http://www.agri.idaho.gov/Categories/Environment/water/gwinorganics.php.

Nitrate

Of the constituents being sampled, nitrate presents a concern because of potential adverse health effects. Although chronic, long term health risks of nitrate consumption are not fully understood; short term effects have been documented. Methemoglobinemia (blue baby syndrome), which is characterized by the reduced ability of the blood to carry oxygen in infants, can afflict infants consuming water with high levels of nitrate (Parliman, 2000). Consumption of large concentrations of nitrate also may be associated with non-Hodgkins lymphoma (Parliman, 2000).

Results of ground water sampling in the project area from 2001 to 2007 indicate nitrate problems in an area between the towns of Cottonwood and Nez Perce and to a lesser extent from Lewiston to east of Lapwai. Figure 2 illustrates nitrate concentrations found in ground water underlying the area in 2007. Based on evaluation of 67 wells consistently sampled over the seven-year period of ISDA testing, six to 10 percent of wells exceeded the EPA MCL of 10 mg/L for any given year (Table 2). Maximum concentrations per year ranged from 29 mg/L to 47 mg/L. These maximum concentrations occured consistently at a well approximately seven miles northeast of Cottonwood.

Evaluation of mean values from the 67 wells consecutively sampled from 2001 to 2007 and shown in Table 2 suggest that levels appear to be somewhat constant or slightly increasing (Figure 3). Mean concentrations ranged from a low of 3.1 mg/L in 2001 to 3.7 mg/L in both 2003 and 2006.

Median concentrations suggest no trend with a median of 1.3 mg/L calculated for five of the seven years of testing (Table 2). The highest median (1.9 mg/L) was calculated from monitoring data collected from the 2003 sampling event (Table 2).

In general, ground water quality with respect to nitrate appears to be degraded in two loosely defined areas. The first and apparently most degraded area occurs between the towns of Nez Perce and Cottonwood. Three detec-

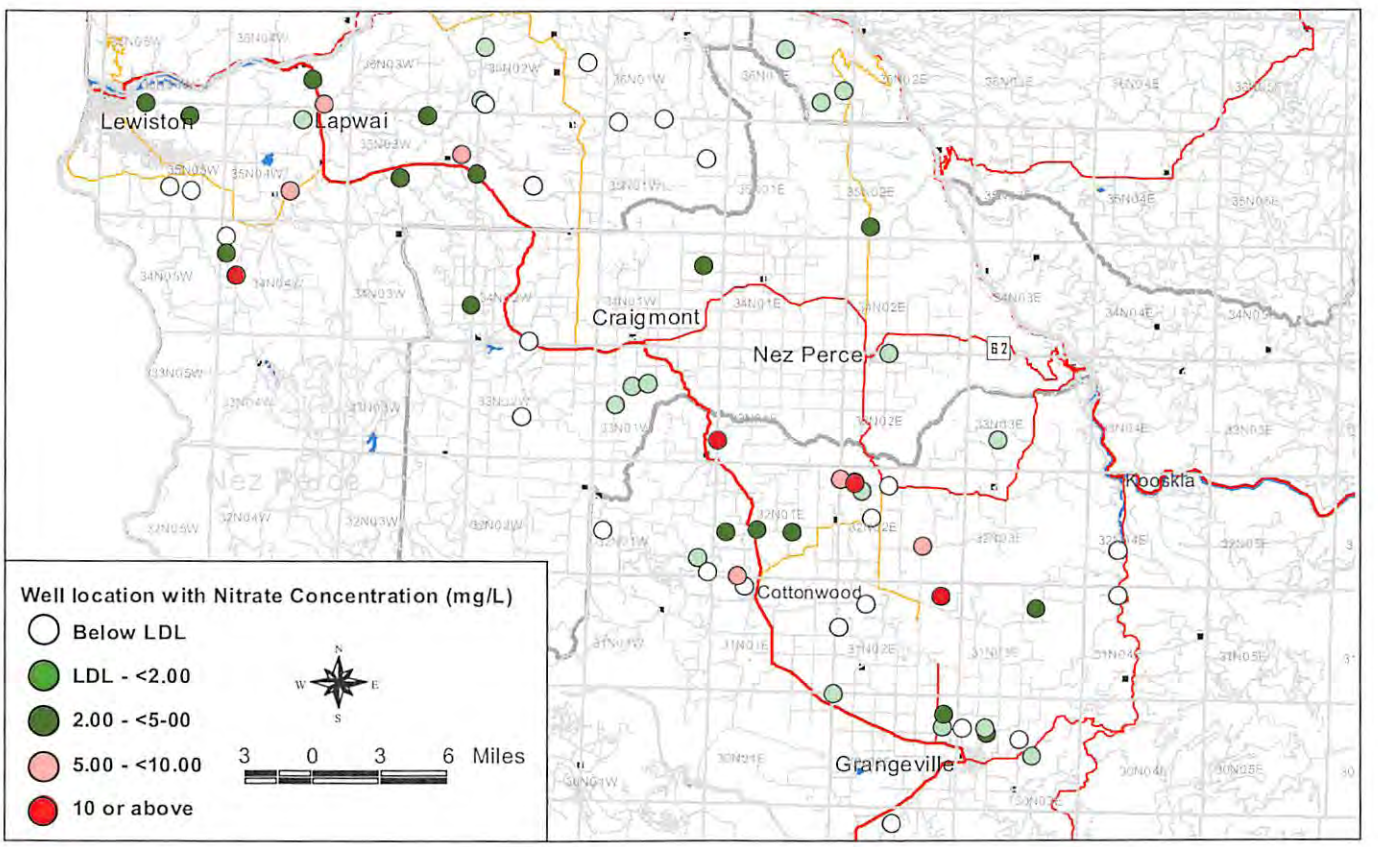


Figure 2. Map of wells locations and ground water nitrate concentration ranges from sampling in 2007.

Table 2. Statistical summary of nitrate detections in ground water from 67 domestic wells tested from 2001 through 2007.

Statistical category	2001	2002	2003	2004	2005	2006	2007
Number of Wells	67	67	67	67	67	67	67
<LDL* (0.05)	13 (19%)	18 (27%)	18 (27%)	15 (22%)	17 (25%)	14 (21%)	13 (19%)
LDL to <2.0	25 (37%)	19 (28%)	16 (24%)	22 (33%)	22 (33%)	22 (33%)	26 (39%)
2.0 to <5.0	19 (28%)	18 (27%)	17 (25%)	16 (24%)	17 (25%)	14 (21%)	12 (18%)
5.0 to <10	5 (7%)	7 (10%)	11 (16%)	8 (12%)	6 (9%)	10 (15%)	12 (18%)
>/=10	5 (7%)	5 (7%)	5 (7%)	6 (9%)	5 (7%)	7 (10%)	4 (6 %)
Mean Nitrate (mg/L)	3.1	3.2	3.7	3.3	3.4	3.7	3.3
Median Nitrate (mg/L)	1.3	1.5	1.9	1.3	1.3	1.3	1.3
High Nitrate (mg/L)	29	38	47	41	39	39	39

LDL - Laboratory detection limit.

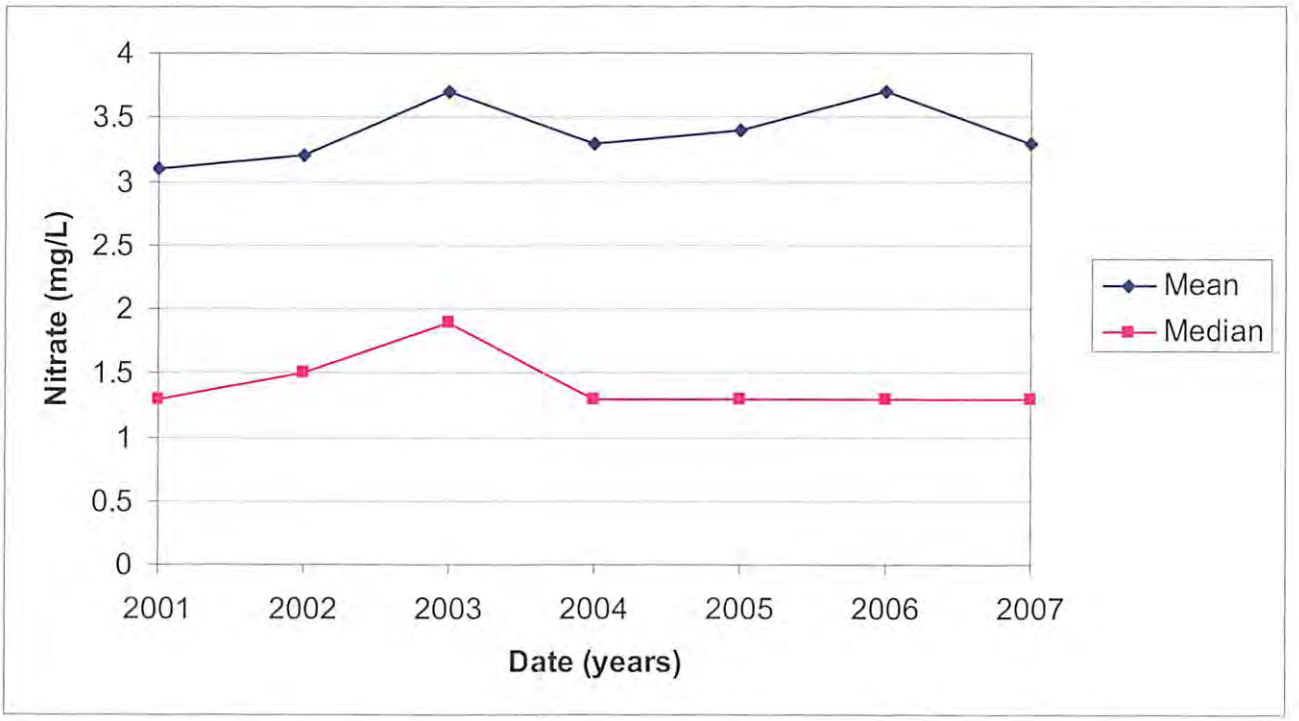


Figure 3. Plot of mean and median nitrate concentrations found in regional ground water based on 67 randomly selected wells tested consecutively from 2001 to 2007.

tions in 2007 exceeded the EPA MCL within this area (Figure 2). Elevated detections also occur within an area beginning approximately six miles south of Lewiston and extending northeast towards Lapwai. One detection exceeding the MCL south of Lewiston was detected in 2007 (Figure 2).

Pesticides

During 2001, 2004, and 2007, ISDA conducted pesticide sampling in all wells that were part of the project during that year. Additionally, ISDA has conducted one or more follow-up testing events at wells having a positive pesticide detection. Pesticide compounds detected include: atrazine, desthyl atrazine (DEA), deisopropyl atrazine (DIA), bromacil, dacthal, diuron, metribuzin, picloram, and triallate. ISDA plans to do another full round of pesticide testing in 2010 for all wells in the project.

Although there have been a number of locations with positive detections, only two sites have had detections with concentration levels that warrant concern (Figure 4). One well located approximately six miles south of Lewiston had detections of atrazine at 1.5 micrograms per liter (µg/L) and desethyl atrazine at 1.8 µg/L in 2001 (Figure 4a). These concentration levels are at 50 percent and 60 percent of the health standard of 3 µg/L used by

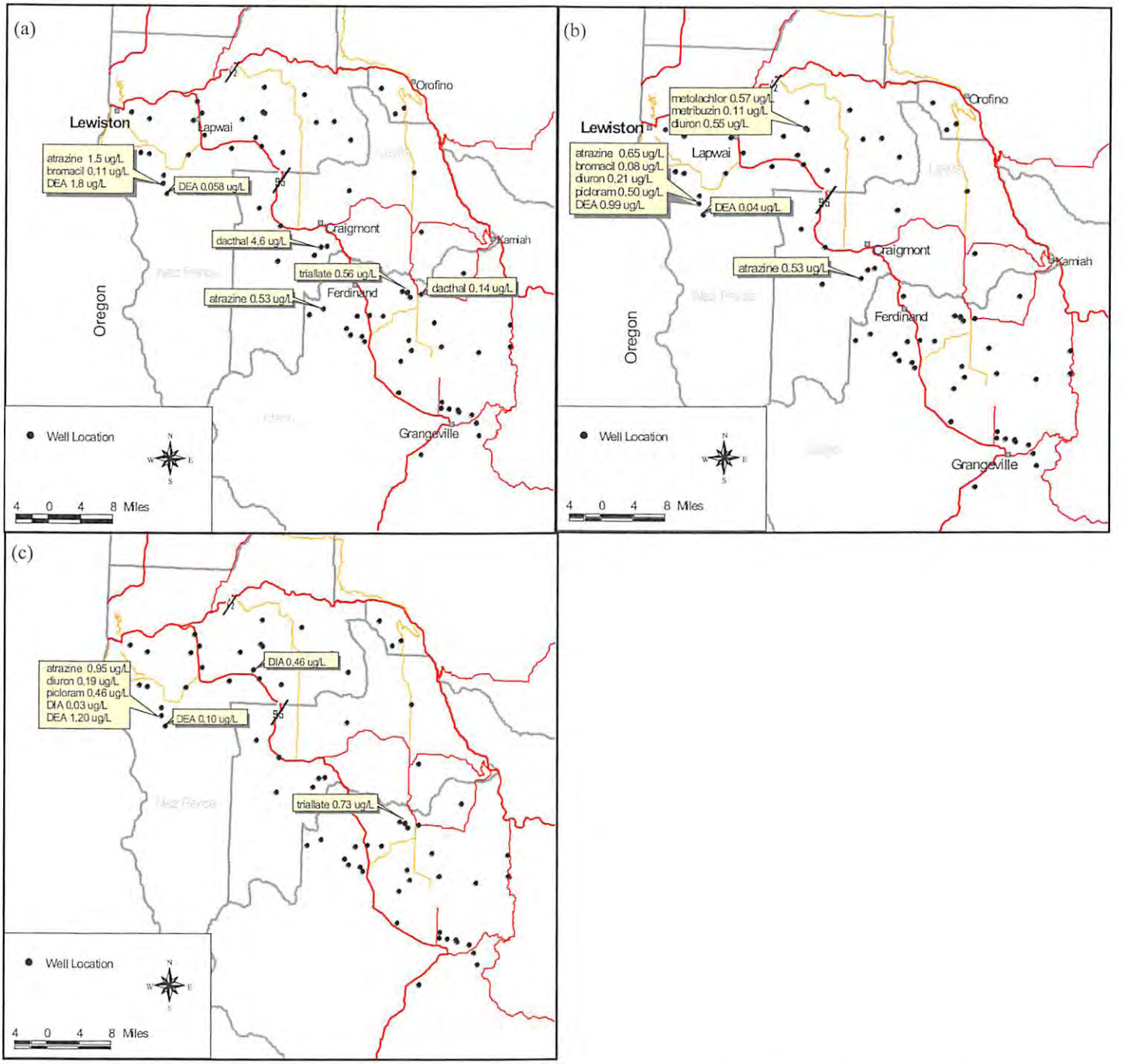


Figure 4. Maps showing well locations and pesticide detections from ISDA testing in (a) 2001, (b) 2004, and (c) 2007.

ISDA, respectively. The atrazine and DEA detections at this well also were elevated during the 2004 and 2007 sampling events. The other site is approximately six miles east of the town of Ferdinand. The well water at this site tested at 0.56 µg/L in 2001 and 0.73 µg/L for triallate in 2007 (Figures 4a and 4c). These concentration levels exceed the 0.45 µg/L health standard used by ISDA for this compound as well as the Federal Food Quality Protection Act. ISDA has increased monitoring and protection activities associated with these detections as prescribed by the Rules Governing Pesticide Management Plans for Ground Water Protection (IDAPA 02.03.01).

Nitrogen and Oxygen Isotopes

Overview

The ratio (denoted $\delta^{15}N$) of the common nitrogen isotope ^{14}N to its less abundant counterpart ^{15}N can be useful in determining sources of nitrate. Common sources of nitrate in ground water include applied commercial fertilizers, animal or human waste, pre-

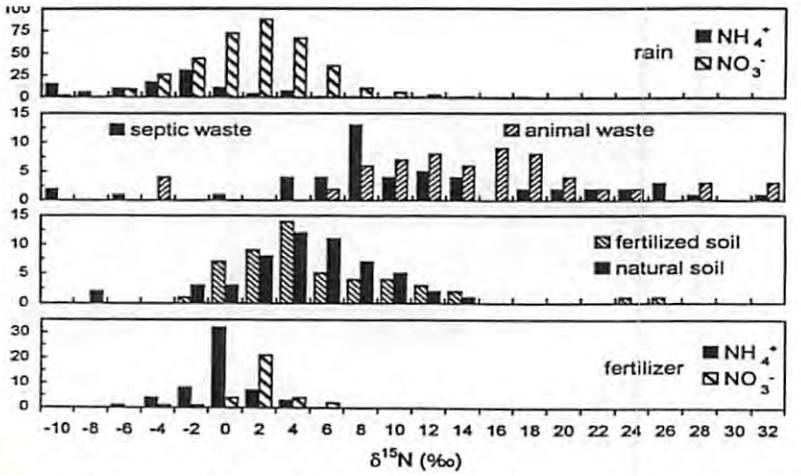


Figure 5. Ranges of $\delta^{15}N$ found in the hydrosphere based on a number of nitrogen isotope studies (after Kendall and McDonnell, 1998).

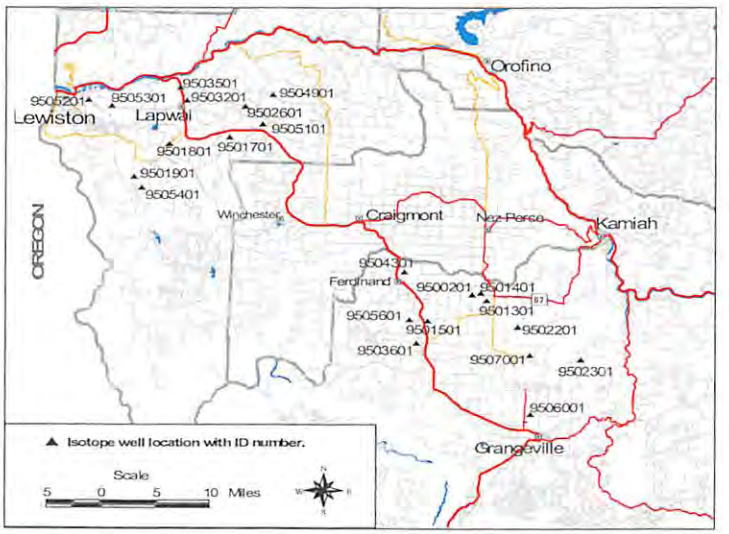


Figure 6. Location of wells tested for $\delta^{15}N$.

Table 3. Nitrogen isotope findings. Numbers expressed in per mil.

	2002	2003	2004	2005
9500201	7.020	5.31	nt	nt
9501301	nt	6.26	nt	4.45
9501401	7.923	13.91	nt	9.90
9501501	7.299	6.18	5.51	nt
9501701	6.821	nt	nt	nt
9501801	nt	9.21	5.18	nt
9501901	3.103	nt	nt	nt
9502201	nt	5.06	nt	4.87
9502301	12.209	9.25	nt	5.34
9502601	2.310	nt	nt	nt
9503201	2.263	4.80	3.75	4.05
9503501	nt	8.03	nt	6.17
9503601	18.318	16.22	13.95	10.67
9504301	2.386	5.67	4.66	5.48
9504901	nt	nt	6.64	3.66
9505101	10.660	9.22	7.02	6.86
9505201	7.813	10.29	6.95	9.55
9505301	3.444	nt	nt	6.19
9505401	5.024	2.72	-0.42	1.58
9505601	nt	nt	nt	4.74
9506001	2.975	nt	nt	nt
9507001	4.556	6.84	nt	5.12
nt = not tested				

cipitation, residues from legume crops, and other organic nitrogen sources within the soil. Each of these nitrate source categories has a nitrogen isotopic signature. Figure 5 illustrates ranges of $\delta^{15}N$ determined through numerous research studies. Typical $\delta^{15}N$ ranges for fertilizer and waste are -5 to +5 per mil ($^{0}/_{00}$) and greater than $10^{0}/_{00}$, respectively. Numbers between $5^{0}/_{00}$ and $10^{0}/_{00}$ generally are believed to indicate an organic or mixed source.

Use of nitrogen isotopes as the sole means to determine nitrate source should be done with great care. $\delta^{15}N$ values of fertilizer and animal waste in ground water can be complicated by several reactions (e.g., ammonia volatilization, nitrification, denitrification, ion exchange, and plant uptake) that can significantly modify the $\delta^{15}N$ values (Kendall and McDonnel, 1998). Furthermore, mixing of sources along shallow flowpaths makes determination of sources and extent of denitrification very difficult (Kendall and McDonnell, 1998).

Findings

ISDA Water Program staff implemented $\delta^{15}N$ testing in order to use it as a possible indicator of source(s) of nitrate in the ground water. Because of the cost of testing, only limited isotope testing was undertaken. Only select sites testing above 5 mg/L nitrate the previous year had samples collected the following year for stable isotope testing.

Results from testing from 2002 through 2005 showed that the majority of sites returned $\delta^{15}N$ consistent with fertilizer, organic, or mixed sources (Table 3 and Figure 6). Four sites that returned $\delta^{15}N$ greater than $10^{0}/_{00}$ one or more times through 2002 to 2005 may represent locations having potential animal or human waste impacts; sites 9501401, 9502301, 9503601, and 9505101 (Table 3 and Figure 6).

Conclusions

Results of ground water sampling in the Idaho, Lewis, and Nez Perce Counties area from 2001 to 2007 indicate nitrate problems in two distinct areas within the project boundary; a pronounced area between the towns of Cottonwood and Nez Perce and to a lesser extent from Lewiston to east of Lapwai. Over the entire study area, six to 11 percent of wells exceeded the EPA MCL of 10 mg/L for any given year (Table 2). Maximum concentrations per year ranged from 29 mg/L to 47 mg/L. Highest nitrate levels appear to occur consistently in an area between the towns of Cottonwood and Nez Perce

Evaluation of mean values from the 67 wells consecutively sampled from 2001 to 2007 suggest that levels appear to be somewhat constant. In general, ground water quality with respect to nitrate appears to be good in the northeastern portion and most southern regions of the study area.

Nitrogen isotope testing suggests that higher nitrate levels found at testing sites most commonly come from fertilizer, organic, or mixed sources. Results of nitrogen isotope testing suggest that four sites tested may specifically be impacted from a waste source, either animal or human.

Ground water samples returned positive pesticide detections from numerous sites during testing in 2001, 2004, and 2007. Of these detections, concentration levels found at two sites have warranted increased monitoring and protection activities. One well located approximately six miles south of Lewiston consistently returned atrazine and desthyl atrazine levels near or above 50 percent of the MCL of 3.0 µg/L. Another well location located approximately seven miles northeast of Cottonwood had a detection of 0.73 µg/L in 2007 for the pesticide compound triallate that exceeded the health standard used by ISDA as well as the U. S. Food Quality Protection Act. ISDA has increased monitoring and protection related activities in relationship to both of these sites.

Recommendations

ISDA recommends continued monitoring in the project area. ISDA further recommends that measures to reduce localized nitrate impacts and potential future pesticide impacts on ground water be addressed and implemented. ISDA recommends that:

- Pesticide applicators use the core Best Management Practices recommended by the ISDA Water Program, especially in the area near the elevated atrazine and desethyl atrazine and triallate detections.
- Growers and agrichemical professionals conduct nutrient and pesticide management evaluations.
- Producers follow the Idaho Agricultural Pollution Abatement Plan and Natural Resources Conservation Service (NRCS) Nutrient Management Standard.
- Pesticide applicators follow the NRCS Pesticide Management Standard.
- Producers and agrichemical dealers evaluate their storage, mixing, loading, rinsing, containment, and disposal practices.
- Homeowners assess lawn and garden practices, especially near wellheads with elevated nitrate or pesticide detections.
- Local residents assess animal waste management practices.
- State and local agencies assess impacts from private septic systems near impaired areas.
- Home and garden retail stores establish outreach programs to illustrate proper application and management of nutrients and pesticides.
- Responsible parties assess pesticide application practices to protect ground water.

Acknowledgments

The authors would like to thank the well owners in the study area. Without their participation and cooperation, this study would not be possible.

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An Evaluation of Septic Effluent Presence and Spatial Distribution in the Lindsay Creek Watershed



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Abbreviations, Acronyms, and Symbols

APHA	American Public Health Association
cfs	cubic feet per second
DEQ	Idaho Department of Environmental Quality
DWTP	drinking water treatment plant
E. coli	Escherichia coli
EPA	US Environmental Protection Agency
FDA	US Food and Drug Administration
FEP	fluorinated ethylene propylene
GIS	geographic information systems
GWMA	ground water management area
H_2SO_4	sulfuric acid
HDPE	high density polyethylene
HPLC	high pressure liquid chromatography
IDWR	Idaho Department of Water Resources
IDHW	Idaho Department of Health and Welfare
PH-INCD	Public Health – Idaho North Central District
IPDES	Idaho Pollution Discharge Elimination System
LOID	Lewiston Orchards Irrigation District
MBAS	methylene blue active substances
MSL	mean sea level
MS/MS	tandem mass spectrometer
NO_2	nitrite
NO_3	nitrate
NO_3+NO_2-N	nitrate plus nitrite nitrogen
NPA	nitrate priority area
PQL	practical quantitation limit
TMDL	total maximum daily load
WWTP	wastewater treatment plant

Executive Summary

Lindsay Creek is a tributary to the Clearwater River in Nez Perce County, Idaho. Its 22 square mile watershed has 72 percent agricultural land, increasing urban development, and elevated nitrate concentrations in surface water and in the shallow Saddle Mountains aquifer. Nitrate has contributed to nuisance algal growths in Lindsay Creek, exceeds concentrations associated with human health effects in some domestic wells, and some residents have stopped using shallow private wells as a drinking water source because of health concerns. Nearly 800 parcels in the watershed (~15% of parcels) have an individual on-site septic system, so individual on-site septic systems are one potential nitrate source. However, the presence and distribution of septic effluent in ground water and surface water, and its relationship to nitrate was not clear; previous efforts to test for septic inputs yielded inconclusive results. Septic systems, soil, fertilizers, livestock, and storm water discharges are all potential nitrate sources.

This study used artificial sweeteners and caffeine as markers of septic effluent in the Lindsay Creek Watershed. The Idaho Department of Environmental Quality (DEQ) tested for two artificial sweeteners and caffeine in ground water, surface water, and in one septic system. These septic indicator chemicals were used to evaluate the presence and spatial distribution of septic effluent, and its relationship to nitrate in the Lindsay Creek Watershed.

Artificial sweeteners acesulfame and sucralose, which are unique to human wastes and are not completely removed by septic systems, were detected at 4 of 5 stream sites; in 4 of 5 domestic wells; in 1 of 1 springs; and in 1 of 1 septic systems. Sweeteners were detected downstream of areas with high septic density, and not at locations with no suspected septic inputs. These patterns suggest acesulfame and sucralose are reliable indicators of septic effluent in the watershed, and indicate septic effluent is present in Lindsay Creek and the Saddle Mountains aquifer, including some domestic wells.

Caffeine was detected at two stream sites and one well drawing from the Saddle Mountains aquifer. Because caffeine is completely removed by most properly-functioning septic systems, caffeine detections indicate inputs from poorly-functioning septic systems at some locations. This conclusion is supported by local public health district records; caffeine was detected downstream of areas with a recent history of septic failures. Results suggest caffeine is a reliable marker for effluent from poorly-functioning septic systems in the Lindsay Creek watershed, and demonstrate such effluent has entered Lindsay Creek and the Saddle Mountains aquifer.

Nitrate concentrations were high (7.1-10.3 mg N/L) where septic indicators were detected, and much lower (< 1.14 mg N/L) where they were not. Patterns suggest septic effluent contributes to elevated nitrate concentrations observed in Lindsay Creek and in the Saddle Mountains aquifer. However, the relative (percent) contribution of septic effluent to nitrate contamination is beyond the scope of this study and merits further investigation.

1 Introduction

In rural areas of Idaho, many homes and buildings use on-site septic systems to treat wastewater. Septic systems treat wastewater generated from bathroom, laundry, kitchen, and cleaning activities. Septic systems typically include a one or two-chamber underground septic tank and a drainfield with underground piping that extends from the septic tank into soil. Wastewater enters the septic tank, where solids settle to the bottom and are digested by anaerobic bacteria. Accumulated sludge must be pumped out periodically. Effluent from the septic tank is further purified in the drainfield by bacteria, chemical adsorption to soil particles, and various chemical reactions. Properly designed, located, constructed, and maintained septic systems remove or greatly reduce concentrations of many chemicals by the time wastewater exits the drainfield.

By design, septic systems discharge treated wastewater to ground water, and therefore are a potential source of nutrients, bacteria, and other pollutants to ground water and surface water. If they are not properly designed, installed, or maintained, septic systems can discharge water with elevated concentrations of nutrients, bacteria, and other pollutants. In addition, as development and septic system density increases, the collective output from many properly functioning septic systems can become a significant source of pollutants to ground water or surface water.

Nitrate is one chemical of concern discharged by septic systems. Nitrate is a form of nitrogen, an element essential for plant and animal growth. When discharged into ground water, nitrate can enter wells people use as a drinking water source. Consuming water with nitrate-nitrogen concentrations greater than 10 mg N/L can increase health risks for infants, people of poor health, and the elderly. Infants younger than six months of age are especially sensitive to nitrate poisoning, which may result in serious illness or death. The illness occurs when nitrate (NO_3) is converted to nitrite (NO_2) in the body. Nitrite reduces the amount of oxygen in blood, causing shortness of breath and blueness of the skin (often called blue baby syndrome or methemoglobinemia). Adults in poor health and the elderly can also be susceptible to health problems from short-term nitrate exposure. In surface water, nitrate can also contribute to nuisance algal growths and affect aquatic life.

In addition to septic systems, nitrogen in soil, nitrogen-based fertilizers, waste from livestock and wildlife, and urban runoff are all common nonpoint sources of nitrate to ground water and surface water. Identifying the presence and relative contribution of different nitrate sources can help prioritize pollutant reduction efforts when limited resources are available. However, because there are many potential nitrate sources in most watersheds, identifying the presence or contribution of specific nitrate sources in ground water and surface water can be difficult.

2 Objectives

This study used artificial sweeteners and caffeine to evaluate the presence/absence, and spatial distribution of septic effluent in the Lindsay Creek Watershed, where nitrate concentrations are elevated in ground water and surface water, and septic systems are one of several potential nonpoint nitrate sources. This study had four objectives:

1. Test for the presence/absence of septic effluent in surface water and ground water in the Lindsay Creek watershed using artificial sweeteners acesulfame and sucralose.
2. Test for the presence/absence of effluent from poorly-functioning septic systems in surface water in the Lindsay Creek watershed using caffeine.
3. Use available information about septic system distribution and septic system repair permits issued by Public Health – Idaho North Central District to evaluate the reliability of acesulfame, sucralose, and caffeine as septic effluent markers in the Lindsay Creek watershed.
4. Document the spatial distribution of septic effluent and its relationship to NO_3+NO_2-N in surface water and ground water in the Lindsay Creek watershed.

3 Watershed Description

Lindsay Creek is a tributary to the Clearwater River in Nez Perce County, Idaho (Figure 1). The headwaters of Lindsay Creek begin within residential developments and farmland at approximately 1,800 feet above mean sea level (MSL). At its mouth (750 feet above MSL), Lindsay Creek flows through a tunnel drain in the Clearwater Levee and then into the Clearwater River. The main stem of Lindsay Creek is a third order stream with typical flows of 1-2 cubic feet per second (cfs) in summer and 5-7 cfs in spring at the mouth (Figure 2). Several first and second order tributary segments have lower flows and some tributary segments go dry during summer.

Water in Lindsay Creek comes from precipitation, ground water, and irrigation inputs. Average annual precipitation from 1981-2010 in Lewiston, ID was 12.31 inches (NOAA 2018). Precipitation occurs primarily during fall, winter, and spring, with very limited summer precipitation. Lindsay Creek receives ground water inputs from springs associated with basalt canyon wall rock fall and ground water seepage from basalt canyon walls. Ground water inputs are thought to be substantial, but percent ground water contribution to stream flow has not been quantified. A portion of the watershed also receives irrigation inputs. The Lewiston Orchards Irrigation District (LOID) conveys water from Sweetwater and Webb creeks into Mann Reservoir (also called ‘Reservoir A’, Figure 1). The water is delivered to the LOID service area through a pipe system; residents use it to water lawns, for winter livestock watering, and for fire protection. LOID water may enter ground water or surface water after being used within the LOID service area. Mann Reservoir does not discharge directly into Lindsay Creek, but a wetland near the reservoir outlet and Lindsay Creek headwaters suggests some limited under flow seepage may occur.

Land uses within the watershed include non-irrigated agriculture, small ranches and livestock operations, residential developments, and industrial businesses. Seventy-two percent of watershed area is non-irrigated agricultural land (USGS 2018). A 2002 watershed farming practices survey indicated crops included wheat, barley, legumes, alfalfa, and fallow (NPSWCD 2002). Approximately 18 percent of watershed area is developed, and 4 percent of the land surface is impervious material (USGS 2018). Portions of the City of Lewiston are served by the

city storm water system. Natural drainage ways in the Lewiston Orchards and within portions of the City of Lewiston convey ephemeral storm water into tributaries of Lindsay Creek. Most parcels within city boundaries are connected to the City of Lewiston sewer line system. Many city parcels in the Lewiston Orchards area and all parcels outside city boundaries use septic systems; approximately 800 parcels in the watershed (~15% of parcels) have septic systems. There are no known nitrate sources within the watershed that could be defined as a point source requiring an Idaho Pollution Discharge Elimination System (IPDES) discharge permit.

There are multiple aquifer systems below the Lindsay Creek watershed (Figure 3). The Saddle Mountains Aquifer spans 0-250 ft below the ground surface, and is composed of multiple layers of fractured basalt. The Saddle Mountains Aquifer is likely the primary source of springs discharging into Lindsay Creek. A sedimentary interbed called the Sweetwater formation sits below the Saddle Mountains Aquifer and separates it from a second lower fractured basalt aquifer, the Wanapum aquifer. The Saddle Mountains and Wanapum aquifers are perched aquifers thought to be recharged through precipitation and infiltration of water from the land surface (Neely 2018). The permeability of the Sweetewater formation and amount of downward hydrologic communication between the Saddle Mountains and Wanapum basalt aquifers is not clear (Daniel Sturgis, IDWR, personal communication, 11/14/18). At a depth greater than approximately 700 ft below the ground surface, there is a deep Grande Ronde regional aquifer within basalt flows of the Grande Ronde Formation (Ralston 2017). This aquifer is recharged primarily by the Snake River and Clearwater River and is the source of many regional municipal water supply wells (Ralston 2017).

The Saddle Mountains, Wanapum, and Grande Ronde aquifers are all used by Lindsay Creek watershed residents for drinking water and irrigation. Idaho Department of Water Resources (IDWR) documented declining water levels in wells drawing from the Saddle Mountains aquifer and subsequently designated the Lindsay Creek Ground Water Management Area (GWMA), which was later expanded and renamed the Lewiston Plateau GWMA. The GWMA requires that new wells be completed in the deep regional Grande Ronde aquifer, and requires well casing to seal off water from the Saddle Mountains and Wanapum aquifer (IDWR 2015, Daniel Sturgis IDWR, personal communication 1-14-2019). DEQ observed nitrate concentrations that exceed the U.S. Environmental Protection Agency's maximum contaminant level and Idaho ground water quality standard (10 mg N/L) for protection of human health in some wells completed in the Saddle Mountains aquifer (DEQ 2009). In response, DEQ established the Lindsay Creek Nitrate Priority Area (NPA) (DEQ 2008; DEQ 2014). NPAs are areas where additional monitoring and ground water quality improvement are needed to protect human health and the environment. DEQ uses ground water nitrate monitoring results to delineate and prioritize NPAs. Additional information about NPA delineation and ranking is available in the 2014 Nitrate Priority Area Delineation and Ranking Process document (DEQ 2014).

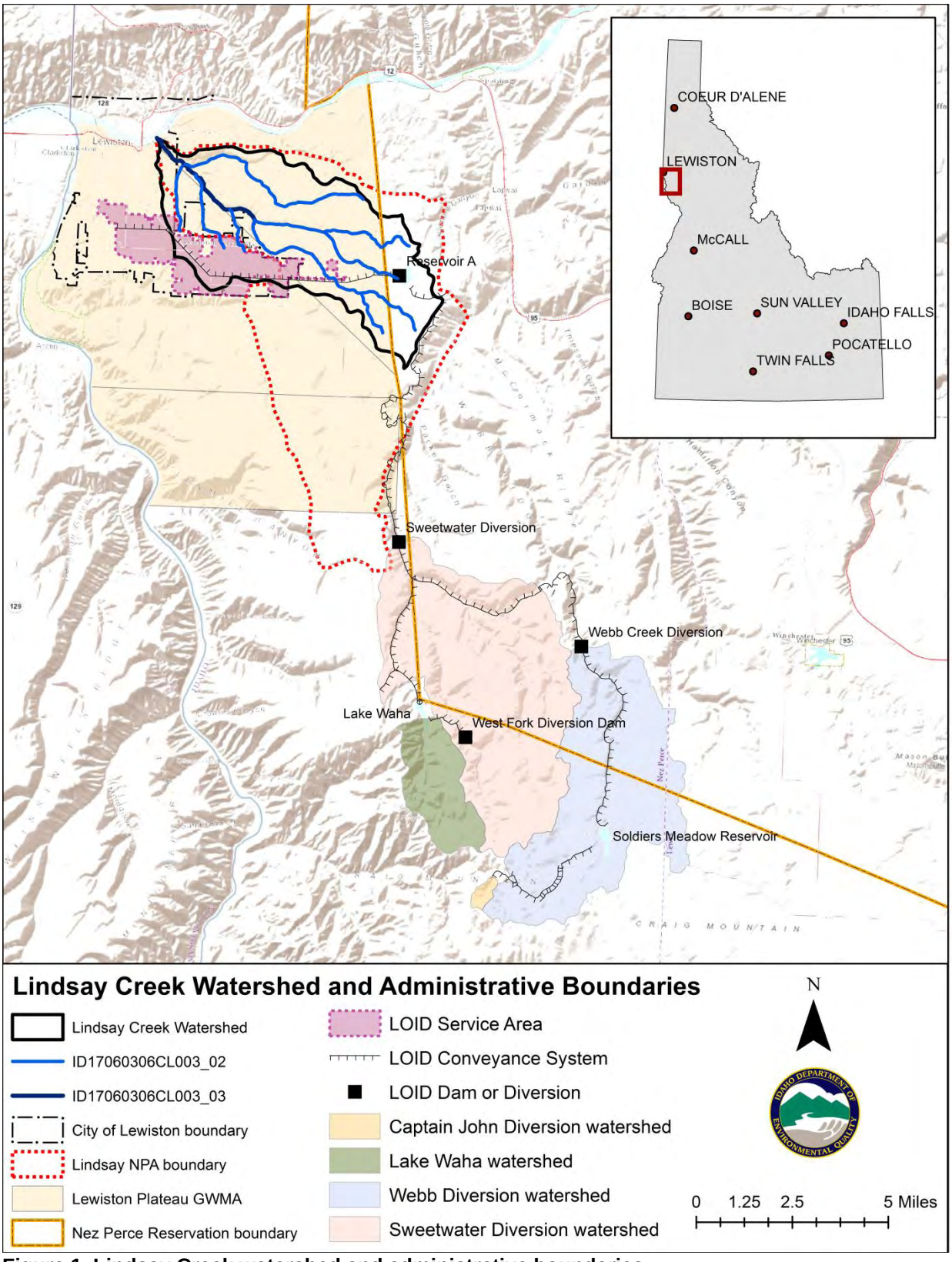


Figure 1. Lindsay Creek watershed and administrative boundaries.

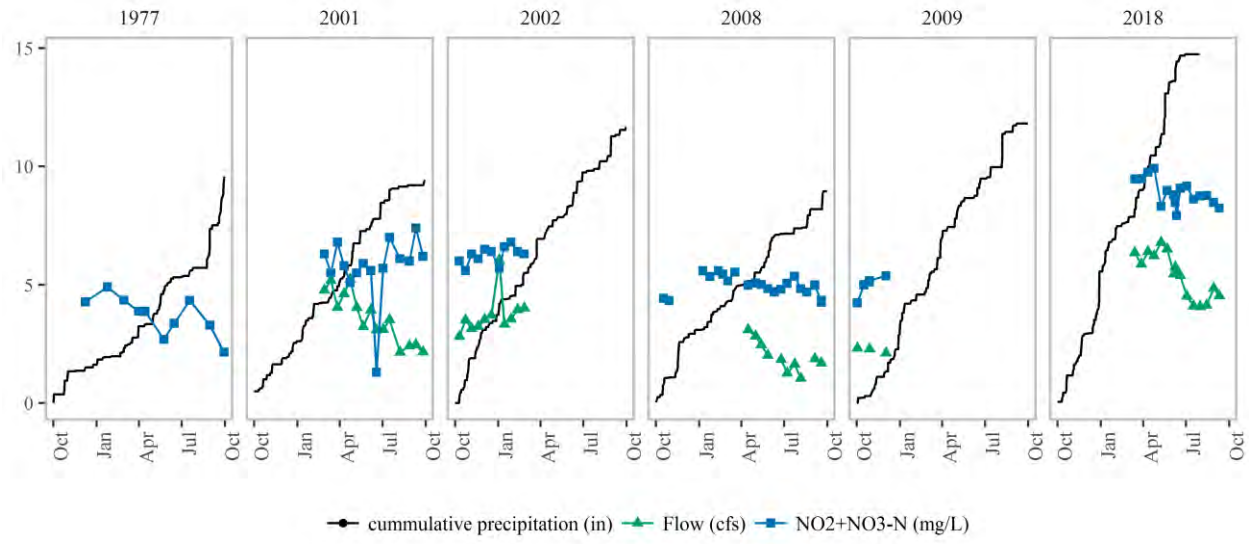


Figure 2. Water year stream flow and nitrate plus nitrite nitrogen concentrations at the Lindsay Creek mouth, and cumulative precipitation measured at the Lewiston Airport.

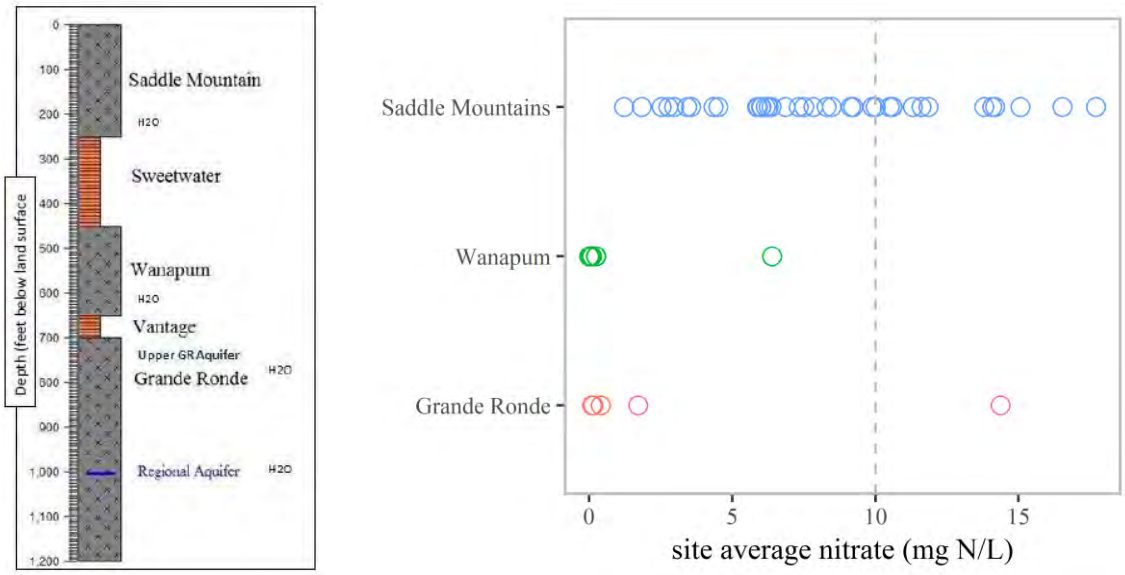


Figure 3. Geologic strata and average nitrate concentrations at wells and springs sampled by DEQ within the Lindsay Creek NPA and Lewiston plateau ground water management area (Figure 1). Geologic strata are from Neely 2018.

4 Nitrate Concerns

In 1978, the Idaho Department of Health and Welfare Division of Environmental Quality identified elevated nutrient concentrations in Lindsay Creek and observed associated nuisance algal growths (IDHW 1978). DEQ subsequently placed Lindsay Creek on Idaho's list of waters impaired under the Clean Water Act (Idaho's §303(d) list). In 2007, DEQ developed a Total Maximum Daily Load (TMDL) for nitrite plus nitrate nitrogen (NO_3+NO_2-N) in Lindsay Creek. A TMDL specifies maximum inputs of a pollutant from all sources that can occur while sill meeting state water quality standards. The Lindsay Creek TMDL attributed all loading to nonpoint sources and did not delineate contributions from different potential nonpoint sources (DEQ 2007). The TMDL stated "Elevated nutrient levels in Lindsay Creek appear to originate within the watershed and from ground water springs…" and that the TMDL was "developed to initiate protective ground water quality management actions…" (DEQ 2007).

In 2008, DEQ designated the Lindsay Creek Ground Water Nitrate Priority Area (NPA) (DEQ 2008; DEQ 2014) (Figure 1) to better characterize and address elevated nitrate in ground water. NPAs are areas where DEQ develops ground water quality improvement plans, conducts regular ground water nitrate monitoring, and water quality improvement is needed to protect human health and the environment (DEQ 2014). Since 2008, when DEQ designated Lindsay Creek NPA and began regular NPA monitoring, NO_3+NO_2-N concentrations ranged from 0.01-21 mg N/L and exceeded 10 mg N/L at least once in 15 out of 31 (48%) of wells sampled by DEQ. A draft ground water management plan for the Lindsay Creek NPA was developed in 2009; it recommended more public education about nitrate health risks and sources, as well as voluntary implementation of agricultural and residential best management practices to reduce nitrate inputs to ground water (DEQ 2009).

Several water quality improvement projects have been implemented in the watershed, but nitrate concentrations have remained high (Figure 2; Figure 3). An agricultural implementation plan detailing best management practices for reducing nutrient inputs from agriculture was developed in 2008 (NPSWCD 2008). Funds from two Clean Water Act Section 319 Nonpoint Source Management Program grants ($493,534 total) were used for nutrient reduction projects on several properties (PCEI 2012; NPSWCD 2016). In 2018, the City of Lewiston extended a sewer line into the eastern Lewiston Orchards area, and some residences previously served by individual on-site septic systems are now served by city sewer.

Potential nonpoint nitrate sources include organic nitrogen in soil, fertilizers, livestock, pets, wildlife, municipal storm water discharges, and septic systems. Septic systems have been cited as a potentially significant nitrate source. IDHW hypothesized septic systems were a source of stream nutrient contamination as far back as 1978 (IDHW 1978). In 2018, the City of Lewiston installed a sewer trunk line to extend sewer service into the eastern Lewiston Orchards, and cited elevated nitrate as one justification for the extension project (City of Lewiston URA 2017).

Previous DEQ efforts to evaluate septic contributions to surface water and ground water yielded inconclusive results. In 2005, DEQ tested for caffeine, methylene blue active substances (MBAS) and chlorine at several surface water sites; all three parameters can be used as indicators of septic inputs. Results were below the laboratory practical quantitation limit (PQL) (DEQ 2007). In 2017, DEQ again tested for the presence of caffeine in outflow of a culvert on Burrell Avenue draining the eastern Lewiston Orchards where septic systems are prevalent;

caffeine was detected (0.0346-0.0567 µg/L, PQL = 0.025 µg/L), suggesting potential septic inputs at this one site (DEQ 2017).

In 2005, DEQ also evaluated nitrogen stable isotope ratios (δ15N) in surface water. Some nitrate sources have distinct δ15N signatures that can assist source identification. However, δ15N did not clearly differentiate potential sources. Results indicated nitrate could derive from organic and inorganic nitrogen in soil, human waste, or animal waste (DEQ 2007). Considering the Lindsay Creek watershed includes ranches and livestock operations and nitrogen and oxygen isotopes are not able to differentiate human and animal waste sources (Xue et al. 2009; Fenech et al. 2012; Nikolenko et al. 2017), nitrogen and oxygen stable isotopes likely will not help delineate septic contributions.

5 Artificial Sweeteners and Caffeine as Septic Markers

Sucralose (brand name Splenda®) and acesulfame are artificial sweeteners used in some foods, beverages (diet sodas), and medicines. The US Food and Drug Administration (FDA) approved acesulfame for use as a non-nutritive sweetener in specific types of foods and beverages in 1988, and as a general purpose sweetener and flavor enhancer in 2003 (FDA 1988; FDA 2003). FDA does not allow acesulfame to be used as a sweetener in meat and poultry food products (21 CFR 172.800). USDA approved sucralose for use as a non-nutritive sweetener in 15 food categories in 1998 and as a general purpose sweetener in 1999 (FDA 1998, FDA 1999).

These sweeteners are frequently used as indicators of human wastewater inputs to surface water or ground water because they are unique to human waste sources and do not easily break down (Lange et al. 2012; Lim et al. 2017). Acesulfame and sucralose are not naturally-occurring and are unique to human waste. After being ingested, these compounds are not readily adsorbed or metabolized in the human body, and are excreted after little or no breakdown (Lange et al. 2012). Wastewater treatment plants and septic systems also do not completely remove acesulfame and sucralose from wastewater (Table 1). Water treatment typically removes less than 50% of sucralose in wastewater (Table 1). Reported acesulfame removal is consistently less than 100%, but is highly variable (Table 1). In some cases, sweeteners appear to accumulate in wastewater treatment plants or septic systems, yielding greater concentrations in effluent than influent (see negative removal efficiencies in Table 1). Because they are not completely removed by wastewater treatment, detection of these sweeteners in water samples strongly suggests wastewater or septic effluent is present. Sweeteners have been used in local (Robertson et al. 2016, Spolestra et al. 2017), state (Silvanima et al. 2018), and national (Bernot et al. 2016) assessments of wastewater inputs to ground water and surface water.

Caffeine is a stimulant present in many beverages (coffee, tea, sodas, energy drinks) foods (chocolate), and medicines. Properly-functioning septic systems remove caffeine very efficiently. Schaider et al. (2017) reviewed studies that reported caffeine concentrations in both septic systems (tank liquid or effluent) and downstream water (drainfield leachate or effluent from an alternative system) and calculated caffeine removal efficiencies (effluent concentration / influent concentration x 100). Median removal efficiencies were 99% for septic drainfields (N=15) and 93% for alternative systems (N=17). Other studies not included in Shaider et al. (2017) also reported 100% caffeine removal efficiencies (Yang et al. 2016; Yang et al. 2017a). Detection of

caffeine in water samples therefore suggests effluent from poorly functioning septic systems is present. Caffeine is widely used as a septic effluent marker in studies evaluating wastewater impacts on water quality (Buerge et al. 2003; Lim et al. 2012; Schaider et al. 2017).

Together, artificial sweeteners and caffeine can provide useful information about septic system inputs to ground water and surface water. Artificial sweeteners are markers of septic effluent and indicate where effluent inputs are present. Detection of caffeine further suggests inputs from one or more poorly-functioning septic systems.

Table 1. Sucralose, acesulfame, and caffeine removal efficiencies reported in the literature for wastewater treatment plants (WWTP), drinking water treatment plants (DWTP) and septic systems.

			Removal (%)		
Source	**Site Type**	**N**	**Sucralose**	**Acesulfame**	**Caffeine**
Subedi & Kannan (2014)	WWTP	2	1.6	-54	
Li et al. (2018)	WWTP	5	-3.0 to 30		
Castronovo et al. (2017)	WWTP	13		57-97	
Qi et al. (2015)	WWTP	5	6 to 31		91-100
Schaider et al. (2017)	WWTP	13			43-100
Ryu et al. (2014)	WWTP	1	24	4	
Thomas & Foster (2005)	WWTP	3			99-100
Scheurer et al. (2015)	WWTP	1		54	
Cardenas et al. (2016)	WWTP	1		92	100
Yang et al. (2017)	WWTP	9	< 0 to 50		> 90
Mawhinney et al. (2011)	DWTP	13	0 to 48		
Hoque et al. (2014)	aerated sewage lagoon	1	-330 to -83[b]		
Yang et al. (2016)	septic system	1	0		100
Yang et al. (2017a)	septic system	3	45-85		100
Schaider et al. (2017)	septic system	15			34-100
Robertson et al. (2016)[a]	septic system	5		-4 to 93	

[a]removal efficiencies calculated here using concentrations in tank liquid and in ground water below or downstream from infiltration beds from Table S1.
[b]values indicate range across seasons for one system
N indicates the number of sites where removal efficiencies were reported in the study.

6 Methods

6.1 Septic System Locations

Geographic information systems (GIS) records provided by Nez Perce County (Bill Reynolds, personal communication, April 3, 2018) were used to map locations of parcels with septic systems, and estimate the number of parcels with a septic system in the watershed. Nez Perce County indicated their GIS record accurately reflect septic system distribution within the Lewiston city boundaries, but may not be up to date for some areas outside city boundaries (Bill Reynolds, personal communication, April 5, 2018). It was not possible to map the exact location of each septic system; location data for each septic system are not available. County GIS data

were used to estimate the number of septic systems upstream from each stream sample point, assuming there is only one system per parcel.

Idaho North Central Public Health district (PH-INCD) provided addresses and parcel numbers for properties where PH-INCD issued a septic repair permit in the Lewiston area between 2011 and November 2018 DEQ (Ed Marugg, personal communication November 16, 2018). PH-INCD issues repair permits when PH-INCD determines a septic system is malfunctioning and needs repairs. DEQ mapped locations of these parcels to determine the number and location of parcels within Lindsay Creek watershed boundaries where PH-INCD confirmed septic failures (Figure 4). DEQ also evaluated if there is a history of septic failure upstream of where septic indicators were detected.

6.2 Septic Indicator Sampling

On September 10, 2018, septic indicator samples were collected at 5 stream sites, 5 domestic wells, 1 spring, and from the LOID irrigation water distribution system (Figure 4, Table 2). Samples were collected following procedures described in a project quality assurance project plan (DEQ 2018; DEQ 2018a; DEQ 2018b). Samples for acesulfame, sucralose, and caffeine were collected into 1 L glass amber bottles, placed on ice in the field, and delivered to the lab the same day. Stream water samples were grab samples collected from area within the stream channel that carries the greatest portion of flow (the thalweg). Well and spring samples were collected from a faucet, sample port, or spring as close to the source as possible before any treatment system. A portable water quality meter was used to measure pH, specific conductance, dissolved oxygen, and temperature at each sample location while allowing water to run for several minutes. Samples were collected after these parameters stabilized.

A one-compartment septic system that served a three bedroom residence in the eastern Lewiston Orchards was sampled on October 30, 2018. The goal of septic sampling was simply to confirm septic indicator compounds are present in septic systems within the watershed. The septic system had a 1000 gallon concrete tank, with 144 ft long, 3 ft wide drainfield. The system was installed in 2013 and the drainfield was repaired and expanded in 2014. The property owner hooked up their property to the Lewiston sewer line extension one week prior to DEQ sampling. DEQ obtained permission from the property owner and collected samples from the septic tank before it was pumped dry and decommissioned. Clean fluorinated ethylene propylene (FEP) tubing was lowered through the scum layer and a peristaltic pump was used to pump liquid from the septic tank through the FEP tubing and a short piece of silicone tubing into sample bottles.

Quality control samples included two field blanks and two field duplicates. A field blank was collected during surface water sampling by pouring deionized water into a sample container in the field. A septic field blank was collected by passing deionized water through sample tubing prior to pumping water for septic samples. A field duplicate was collected the spring site, and at the septic sampling site. A detailed summary of project data quality is provided in Appendix A.

6.3 Ground Water NO_3+NO_2-N and *Escherichia coli*

On September 10, 2018, ground water NO_3+NO_2-N samples were collected at each well and the spring site concurrently with septic indicator samples. Samples were collected using methods

described above (Section 6.2). In addition, NO_3+NO_2-N was sampled in one well (# 1225) and one spring (# 5000) twice per month March through September 2018 concurrently with surface water sampling (section 6.4) to compare seasonal NO_3+NO_2-N patterns in shallow ground water and surface water (Figure 4). Well and spring samples were collected as described above. All NO_3+NO_2-N samples were collected into clean high density polyethylene (HDPE) bottles, preserved with H_2SO_4, and placed on ice in the field. *Escherichia coli* (*E. coli*) samples were also collected from well and spring sites sampled 9/10/2018. *E. coli* samples were preserved with sodium thiosulfate in the field and analyzed at Anatek Labs within 24 hours of collection. Ground water data collected in 2018 were combined with older ground water NO_3+NO_2-N and NO_3-N data collected by DEQ (DEQ 2008; DEQ 2009; DEQ 2014) to plot aquifer nitrate patterns (Figure 3). NO_3+NO_2-N and NO_3-N were plotted together, because available data suggests nitrite (NO_2-N) is a very small fraction of NO_3+NO_2-N in ground water. IDWR staff helped identify the aquifer wells and springs with nitrate data draw water from (Daniel Sturgis, IDWR, December 26, 2018, personal communication).

6.4 Stream Discharge and NO_3+NO_2-N

On September 10, 2018, stream discharge was measured and NO_3+NO_2-N samples were collected concurrently with septic indicator samples at each stream site. In addition, discharge and NO_3+NO_2-N were measured twice per month from March through September 2018, at 6 stream sites, including the 5 stream sites where septic indicator samples were collected (Figure 4). Stream discharge was measured using a portable electromagnetic velocity meter and the velocity-area method. Water samples were grab samples collected from the thalweg. All NO_3+NO_2-N samples were collected into clean high density polyethylene (HDPE) bottles, preserved with H_2SO_4, and placed on ice in the field. Methods and results for 2018 stream discharge and NO_3+NO_2-N sampling are documented in detail elsewhere (DEQ 2018c). Stream data collected in 2018 were combined with stream discharge and NO_3+NO_2-N data previously collected by the Idaho Department of Environmental Quality (DEQ) (IDHW 1978, DEQ 2007) to plot inter-annual patterns (Figure 2).

6.5 Analytical Methods

All samples were analyzed at Anatek Labs in Moscow, ID. NO_3+NO_2-N was analyzed using colorimetric automated cadmium reduction (EPA 353.2) with a practical quantitation limit (PQL) of 0.1-1 mg N/L. *E. coli* was analyzed using American Public Health Association (APHA) method 9223B within 24 hours of collection; the PQL was 1 mpn/100 mL. For ground water and surface water samples, acesulfame, sucralose, and caffeine were analyzed using high pressure liquid chromatography (HPLC) coupled to a tandem mass spectrometer (MS/MS) by following a modified version of EPA 8321A. Samples were extracted following a procedure outlined by Kokotou et al (2013) in which samples are extracted using a solid phase cartridge (Waters Oasis HLB SPE) in order to reduce detection limits for the analytes of interest. Samples were extracted within seven days of sample collection and analyzed within 14 days. Isotopically labeled acesulfame, sucralose, and caffeine were used as internal standards to account for matrix effects. PQLs for acesulfame, sucralose, and caffeine were 0.04 µg/L, 1 µg/L and 0.01 µg/L, respectively. For septic liquid, samples were initially analyzed using a 10x dilution with no solid phase extraction because of difficulty passing septic liquid samples through the cartridges. Direct

injection analysis yielded PQLs of 5 µg/L for acesulfame, 10 µg/L for caffeine, and 100 µg/L for sucralose. Because sucralose was initially not detected in septic liquid with a PQL of 100 µg/L, samples were also subsequently analyzed for sucralose without dilution yielding a PQL of 25 µg/L.

7 Results

7.1 Septic System Locations

Nez Perce County Assessor GIS records indicated there were 780 parcels in the Lindsay Creek watershed with a septic system (15% of watershed parcels). Septic parcels were most dense in residential developments connected to Lapwai Road near North Fork Lindsay Creek and in the eastern Lewiston Orchards (Figure 4). PH-INCD issued 21 septic repair permits within the Lindsay Creek watershed between 2011 and November 2018. Four permits were issued during 2017-2018. Fourteen permits were issues for parcels in the Lewiston Orchards, and five were issued for parcels draining into NF Lindsay Creek (along Lapwai Road or in the Pheasant Trails and Viewpointe developments (Figure 4).

7.2 Septic Indicator Sampling

Artificial sweeteners were detected in septic liquid, ground water, and surface water. Aceslufame and sucralose were detected in septic liquid (Table 2). At least one sweetener was detected in 4 out of 5 domestic wells, 4 out of 5 locations in Lindsay Creek, and in the one spring sampled (Table 2, Figure 4). Acesulfame was detected in all sampled ground water sites drawing from Saddle Mountains aquifer (sites 5000, 1225, 1253, 2655, 533) (Table 2). Sucralose was also detected in one well drawing from the Saddle Mountains aquifer (site 2655) (Table 2). Sweeteners were not detected in a well drawing from the Grande Ronde aquifer (site 2022) or in LOID irrigation water. The acesulfame concentration in septic liquid was 40-1200 times greater than that observed in surface and ground water (Table 2). The sucralose concentration in septic liquid was 10-60 times greater than that observed in surface and ground water (Table 2).

Artificial sweeteners were detected at all 4 stream sites downstream of septic systems (Figure 4), and not at locations where septic inputs were not expected. Both acesulfame and sucralose were detected at the two stream sites with the highest upstream septic density (LC3, LC4; Table 2). Acesulfame and sucralose were not detected at a headwater stream segment (LC6). The headwaters segment is within a septic parcel (Figure 4), but the stream sample site was upstream of the septic system drainfield. Water at this stream site comes from a wetland with no known septic inputs. Sweeteners were also not detected in the LOID irrigation pipe system, which draws water from Mann Reservoir.

Caffeine was detected in septic liquid, one domestic well and at the two stream sites with the highest upstream septic density (LC3, LC4) (Table 2). These two stream sites also have a history of upstream septic failures based on PH-INCD records, including recently—PH-INCD issued two septic repair permits upstream of site LC3 in 2018, and two septic repair permits upstream of site LC4 in 2017 (Figure 4). The caffeine concentration in septic liquid was 6,000-9,000 times greater than that observed in surface water and ground water.

The total nitrogen concentration in septic liquid, calculated as the sum of NO_3+NO_2-N and total kjeldahl nitrogen (NH_3-N plus organic N) was 82.6 mg N/L. NO_3+NO_2-N in septic liquid was less than the laboratory practical quantitation limit (0.1 mg N/L). Low or non-detect NO_3+NO_2-N concentrations are common in septic liquid; nitrogen is typically present primarily as ammonia and organic nitrogen due to anaerobic (low oxygen) conditions in septic tanks. Ammonia is typically oxidized and converted to nitrate in septic drainfields.

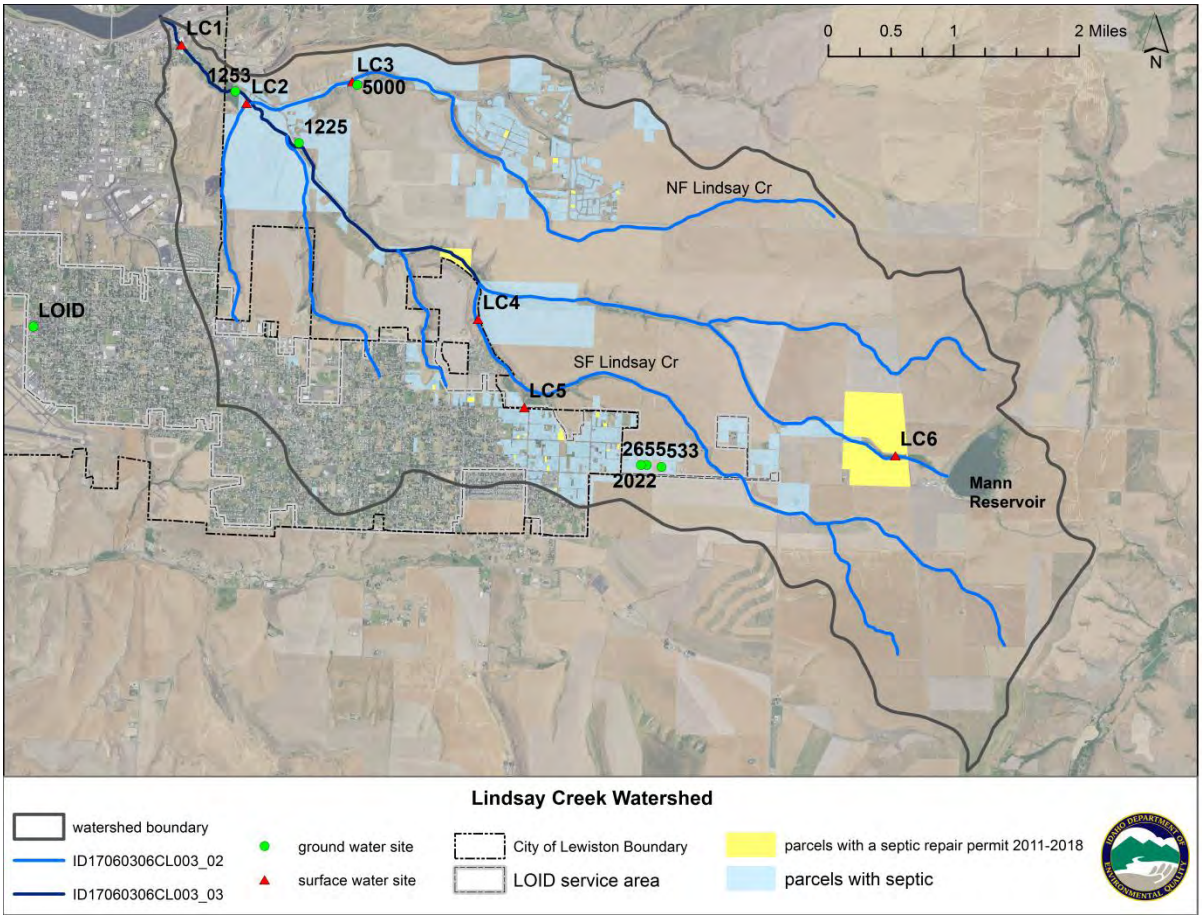


Figure 4. Sample sites, septic parcels, and parcels where PH-INCD issued a septic repair permit.

Table 2. Nitrate and septic indicator results from 9-10-2018 sampling.

Site	Upstream Septics (#, density mi^2)	Depth (ft)	NO_3+NO_2-N (mg N/L)	Caffeine (µg/L)	Sucralose (µg/L)	Acesulfame (µg/L)
Surface Water						
LC1 (mouth)	780, 3.6	--	8.24	ND	ND	0.141
LC2 (Gun Club Creek)	5, 4.3	--	8.92	ND	ND	0.0535
LC3 (NF Lindsay Creek)	271, 69	--	9.8	0.0167	1.32	0.265
LC4 (SF Lindsay Creek)	360, 70	--	10	0.0132	7.56	0.0644
LC5 (Burrell Ave culvert)	--	--	--	--	--	--
LC6 (headwaters)	0	--	1.14	ND	ND	ND
LOID distribution system	0	--	0.185	ND	ND	ND
Ground Water						
5000 (spring)	--	0	9.26	ND	ND	0.506
1225 (well)	--	16	7.15	ND	ND	0.404
1253 (well)	--	56	10.3	0.0189	ND	0.0857
2655 (well)	--	200	10.2	ND	1.15	1.22
533 (well)	--	225	9.88	ND	ND	0.202
2022 (well)	--	950	ND	ND	ND	ND
Septic System	--	--	ND*	119	80	51.3

Notes: LC5 was dry on 9-10-2018. All wells except 2022 are completed in the Saddle Mountains aquifer. ND indicates results less than the practical quantitation limit (0.1 mg N/l for nitrate, 0.04 µg/L for acesulfame, 1 µg/L for sucralose, and 0.01 µg/L for caffeine).
*The total nitrogen concentration in septic liquid, calculated as NO_3+NO_2-N + total kjeldahl nitrogen (TKN) was 82.6 mg N/L.

7.3 Ground Water NO_3+NO_2-N and *Escherichia coli*

During September 2018 sampling, NO_3+NO_2-N concentrations ranged from 7.17-10.3 mg N/L at ground water sites drawing from the Saddle Mountains aquifer and was below the reporting limit at the one sampled site drawing from the Grande Ronde aquifer (Table 2). Based on data collected by DEQ in the Lewiston basin between 1988-2018, nitrate nitrogen concentrations are generally much greater in the Saddle Mountains aquifer than in the Wanapum or Grand Ronde aquifers, although a limited number of sites drawing from the Wanapum and Grande Ronde aquifers have been sampled (Figure 3). From March through September 2018, NO_3+NO_2-N concentrations and seasonal patterns at one spring and one shallow well drawing from the Saddle Mountains aquifer were similar to those observed in Lindsay Creek (Figure 5). *E. coli* was not detected at any of the ground water sites sampled in 2018.

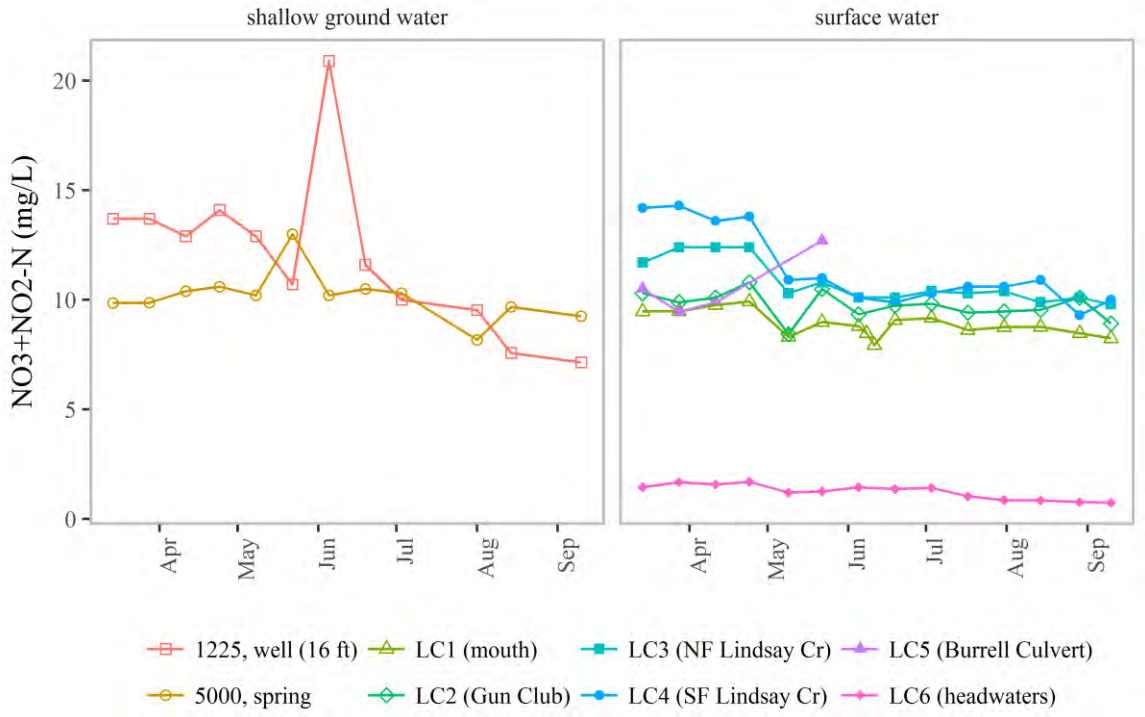


Figure 5. 2018 NO_3+NO_2-N concentrations at shallow ground water and surface water monitoring sites. See figure 4 for sample locations.

7.4 Stream Discharge and NO_3+NO_2-N

Between March and September 2018, stream discharge ranged from 4.1 to 6.8 cubic feet per second (cfs) at the Lindsay Creek mouth (LC1), and was ≤ 1 cfs at all monitored tributary sites. Discharge was greatest in May and decreased through September. In 2018, stream NO_3+NO_2-N ranged from 7.93 to 9.92 at the mouth (Figure 2), and 0.75 to 14.3 mg N/L across all monitoring sites.

Across years, stream NO_3+NO_2-N ranged from 1.3-9.92 mg N/L at the mouth. Stream discharge and NO_3+NO_2-N were substantially higher in 2018 than in previous years (Figure 2). Inter-annual variation in precipitation appears to affect stream NO_3+NO_2-N. At the mouth, discharge and NO_3+NO_2-N were greater in water years with greater winter precipitation and stream flow (Figure 2). Greater than normal winter precipitation in 2018, combined with greater than normal precipitation in water year 2017 likely contributed to higher than normal NO_2+NO_3-N in 2018 than previous years.

In 2018, NO_3+NO_2-N concentrations were elevated at sites where one or more septic indicators were detected, and were much lower or not detected at locations where septic indicators were not detected (Table 2). NO_3+NO_2-N concentrations were consistently high March-September 2018 at stream sites LC3 and LC4, where all three septic indicators were detected (Table 2, Figure 4, and Figure 5).

8 Conclusions

Septic Effluent is Present in Lindsay Creek and the Saddle Mountains Aquifer

Acesulfame and sucralose are useful indicators of human wastewater because they are unique to human waste sources and do not completely break down in human digestive systems, wastewater treatment plants, or septic systems (Lange et al. 2012). Individual on-site septic systems are likely the primary source of these compounds in the Lindsay Creek watershed. Other potential significant sources, such as landfills or effluent from wastewater treatment plants are not present. Within the Lindsay Creek watershed, acesulfame and sucralose were detected in a septic system, at surface water locations downstream from septic systems, and in shallow ground water within areas served by septic systems (Table 2, Figure 4). Sweeteners were not detected at three locations where septic inputs would not be expected: at headwaters stream site, in irrigation water, and in deep ground water (Table 2, Figure 4). These patterns suggest acesulfame and sucralose are reliable indicators of septic effluent in the watershed, and that indicate septic effluent is present in Lindsay Creek and in ground water collected from domestic wells.

It is not surprising that septic effluent is present in ground water and surface water. Septic systems are designed to discharge effluent to subsurface soils and therefore are a source of water to the shallow Saddle Mountains aquifer in the Lindsay Creek watershed. The Saddle Mountains aquifer is also a source of ground water inputs to Lindsay Creek through springs and the hyporheic zone of gaining stream segments, so septic effluent would be expected to enter Lindsay Creek. This study confirmed that septic effluent is present in Lindsay Creek and the Saddle Mountains Aquifer and documented its spatial distribution.

Effluent From Poorly-functioning Septic Systems is Present in Lindsay Creek and the Saddle Mountains Aquifer

Because properly-functioning septic systems remove caffeine very efficiently (Section 5), caffeine results (Table 2, Figure 4) suggest effluent from one or more poorly functioning septic systems has entered Lindsay Creek and the Saddle Mountains Aquifer. Caffeine was detected in

septic liquid, at two stream sites, and in one shallow well (Table 2). The two stream sites (LC3, LC4) are both downstream of areas with high septic density (~70 septics/square mile) and a recent history of septic failure based on PH-INCD records (Figure 4). In 2017, caffeine was also detected in outflow of a culvert draining the Lewiston Orchards (LC5) (0.0346-0.0567 µg/L, PQL = 0.025 µg/L), where septic density is high and PH-INCD has issued septic repair permits (DEQ 2017). Caffeine was not detected at other surface water and ground water locations, including those where septic inputs would not be expected and where there are no records of upstream septic failures (LC6, LOID water, a well drawing from Grande Ronde aquifer). These results suggest caffeine is a reliable marker for effluent from poorly-functioning septic systems in the Lindsay Creek watershed, and demonstrate such effluent has entered Lindsay Creek and the Saddle Mountains aquifer.

Nitrate Concentrations Are High Where Septic Effluent is Present, and Low Where it Is Not

In surface water, NO_3+NO_2-N concentrations were 8-10 mg N/L at stream sites where one or more artificial sweeteners were detected, and were < 0.8 mg N/L at sites where sweeteners were not detected (Table 2). Throughout 2018, NO_3+NO_2-N concentrations were consistently highest at the two stream sites (LC3, LC4) where all three septic indicators were detected (Figure 5). In ground water, NO_3+NO_2-N concentrations were 7.15-10.3 mg N/L at sites where one or more sweeteners were detected, and were below detection in a well drawing from the Grande Ronde aquifer where sweeteners were not detected (Table 2). These patterns suggest septic effluent contributes to elevated NO_3+NO_2-N concentrations observed in Lindsay Creek and in the Saddle Mountains aquifer.

The Relative Contribution of Septic Effluent to Nitrate Contamination is Not Clear and Merits Further Investigation

It is not possible to estimate the percent of NO_3+NO_2-N in ground water or surface water that comes from septic effluent using data collected in this study. Other studies have tested for correlations between NO_3+NO_2-N and sweeteners to assess if septic effluent is a primary factor controlling NO_3+NO_2-N concentrations (Spolestra et al. 2017). Here, NO_3+NO_2-N concentrations were not correlated with acesulfame concentrations, but the sample size (12 sites) was too small to robustly test for a correlation. It was not possible to test for a correlation between sucralose and NO_3+NO_2-N because sucralose was only detected at 3 sample sites. Collecting additional sweetener and NO_3+NO_2-N data would help test for correlations more robustly. However, estimating the percent of NO_3+NO_2-N in ground water or surface water that comes from septic effluent would likely require ground water flow and watershed modeling.

It is also not possible to reliably estimate the percent of ground water or surface water that comes from septic effluent using data collected in this study. Some studies have divided artificial sweetener concentrations in water samples by average local concentrations in septic liquid or septic effluent to estimate the percent septic effluent in ground water or surface water (Spolestra et al. 2017). In this study, only one septic system was sampled; many more would need to be

sampled to estimate average acesulfame and sucralose concentrations within the watershed. Sweetener concentrations in septic systems vary based on the diet and household products used by residents. Percent sweetener removal achieved by septic systems is also variable (Table 1), and is likely affected by system design, location, construction, and maintenance. Sweetener concentrations reported in the literature could be used for these calculations, but may not be representative of those in the Lindsay Creek area due to regional differences in diet, use of household products, local geology, or other factors.

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Appendix A. Quality Assurance/ Quality Control

Background and Purpose

Before sampling, DEQ developed separate Quality Assurance Project Plans (QAPPs) for surface water monitoring (DEQ 2018), ground water nitrate monitoring (DEQ 2018a) and septic indicator sampling DEQ (2018b). The QAPPs specified data quality objectives and criteria were specified for data accuracy, precision, measurement range, representativeness, comparability, and completeness. Quality assurance data associated with surface water nitrate data is described in the *Lindsay Creek Surface Water Quality Monitoring Report: 2018* (DEQ 2018c). This appendix reviews quality assurance data associated with septic indicator sampling (DEQ 2018b).

Project Parameters

The project QAPP (DEQ 2018b) stated that project ground water, surface water, and septic liquid would be analyzed for acesulfame, sucralose, and NO_3+NO_2-N. Several additional parameters were added during the course of the project. When samples were submitted to the lab, Anatek offered to analyze samples for caffeine in all samples in addition to acesulfame and sucralose; sample holding times, preservation requirements, and analytical methods were identical for caffeine, which Anatek could easily report from mass spectrometer results without additional work. In addition, DEQ requested Anatek analyze septic liquid samples for NH_3-N (APHA 4500NH3G) and total Kjeldahl nitrogen (TKN) (APHA 4500NORGC) after initial NO_3+NO_2-N results were below detection. The QAPP did not specify quality assurance requirements for caffeine, TKN, and NH_3, but quality assurance procedures used are described below.

Precision

Precision is a measure of agreement between two measurements of the same parameter under prescribed conditions. The relative percent difference (RPD) between original and field duplicate samples can be used as a measure of precision. Field duplicates are two samples collected from the same location, representing the same sampling event, and carried through all assessment and analytical procedures in an identical manner.

The project QAPP (DEW 2018c) required that DEQ collect one surface water field duplicate and one septic liquid field duplicate for analysis of septic indicator parameters. This requirement was met (Table A1). The QAPP also defined a RPD goal of +/- 50% for results < 5 times the practical quantitation limit (pql), and +/- 25% for results > 5x the pql. These requirements were also met (Table A1).

Table A1. Field duplicate results.

Sample Date	Media	Parameter	Original Result	Duplicate Result	RPD (%)	PQL	Lab Report
9-10-18	Ground water	Acesulfame (µg/L)	0.506	0.503	0.6	0.04	180911049_REG2
9-10-18	Ground water	Sucralose (µg/L)	ND	ND	0	1	180911049_REG2
9-10-18	Ground water	Caffeine (µg/L)	ND	ND	0	0.01	180911049_REG2
10-30-2018	Septic liquid	NO_3+NO_2-N (mg N/L)	ND	ND	0	0.1	180131009_REG2_ADDON

10-30-2018	Septic liquid	NH_3-N (mg N/L)	72.6	72.3	0.4	0.5	180131009_REG2_ADDON
10-30-2018	Septic liquid	TKN (mg N/L)	73.1	82.6	-12.2	5	180131009_REG2_ADDON
10-30-2018	Septic liquid	Acesulfame (µg/L)	51.3	60.3	-16.1	5	180131009_REG2_ADDON
10-30-2018	Septic liquid	Sucralose (µg/L)	85.9	80.0	7.1	25	180131009_REG2_ADDON
10-30-2018	Septic liquid	Caffeine (µg/L)	119	117	1.7	10	180131009_REG2_ADDON

Accuracy

Accuracy is a measure of agreement between a "true" or reference value and the associated measured value. The QAPP required collection and analysis of one surface water field blank and one septic liquid field blank to evaluate accuracy. Field blanks are samples of a blank matrix, typically distilled water, prepared in the field under the same conditions, processed the same, and included for analysis as a regular sample. Results of all field blanks were below detection, and met QAPP requirements (Table A2).

Table A2. Field blank results.

Sample Date	Media	Parameter	Field Blank Result	PQL	Lab Report
9-10-18	Surface water	NO_3+NO_2-N (mg N/L)	ND	0.1	180911049_REG2
9-10-18	Surface water	Acesulfame (µg/L)	ND	0.04	180911049_REG2
9-10-18	Surface water	Sucralose (µg/L)	ND	1	180911049_REG2
9-10-18	Surface water	Caffeine (µg/L)	ND	0.01	180911049_REG2
10-30-18	Septic liquid	NO_3+NO_2-N (mg n/L)	ND	0.1	180131009_REG2_ADDON
10-30-18	Septic liquid	NH_3-N (mg N/L)	ND	0.05	180131009_REG2_ADDON
10-30-18	Septic liquid	TKN (mg N/L)	ND	0.5	180131009_REG2_ADDON
10-30-18	Septic liquid	Acesulfame (µg/L)	ND	5	180131009_REG2_ADDON
10-30-18	Septic liquid	Sucralose (µg/L)	ND	25	180131009_REG2_ADDON
10-30-18	Septic liquid	Caffeine (µg/L)	ND	10	180131009_REG2_ADDON

Sample Holding and Preservation Requirements

Sample holding times and preservation requirements were met for all ground water and surface water samples. Samples analyzed for acesulfame, sucralose, and caffeine were extracted within 7 days and analyzed within 14 days. The QAPP specified a 7 day holding time prior to extraction. Anatek did not flag any samples as having sample holding or preservation issues.

Sample holding and preservation requirements were also met for septic liquid samples analyzed for acesulfame, sucralose, and caffeine. DEQ requested Antaek re-analyze sucralose in septic liquid samples (including the field blank and field duplicate) after Antatek initially reported sucralose was below detection with a pql of 100 µg/L. Anatek re-analyzed an acidified aliquot of each sample on 12/5/18, 36 days after the sample was collected. Anatek staff reported they

expected the acidified aliquot to be stable (Mark Ritari, personal communication, 11/27/2018), and did not assign any qualifier to revised results.

Sample holding times were not met for septic liquid TKN and NH_3-N analyses. Anatek reported septic liquid results to DEQ on 11-26-2018. Because NO_3+NO_2-N results were below detection, DEQ requested Anatek also analyze TKN and NH_3-N using remaining septic liquid sample. Anatek analyzed NH_3-N on 11-28-2018, and TKN on 12-3-2018; both analyses exceeded the 28-day holding time. Samples were acidified in the field with H_2SO_4 prior to analysis. Because holding times were not met, NH_3 and TKN results may not accurately reflect nitrogen speciation in septic liquid samples. In this report, TKN results were only used to calculate total nitrogen in septic liquid by summing TKN and NO_3+NO_2-N results.

Data Representativeness

Data representativeness is the degree to which the sample data accurately and precisely represent site conditions. The project QAPP did not provide specific representativeness criteria. Field sampling and laboratory analysis followed standard procedures, samples were collected at representative locations, accuracy and precision requirements were met. DEQ does not believe sucralose, TKN and NH_3-N holding time issues described above significantly affects data representativeness. All project data therefore are considered adequately representative for purposes of this project.

Data Comparability

Comparability is the confidence with which one data set can be compared to another data set. The project QAPP did not specify comparability criteria. Because standard sampling and laboratory procedures were followed, procedures were consistent with those used in other similar studies, and no issues were identified during project data verification and validation, all data are considered adequately comparable.

Data Completeness

Data completeness is the percentage of valid data relative to the total possible data points. Because no sample results were rejected, project data completeness is 100%.

Conclusion

DEQ requires several internal quality assurance procedures. These include consultation with the DEQ quality assurance manager, registration of the project in a tracking spreadsheet, completion of three standardized quality assurance checklists, and review of all quality assurance data points. Project quality assurance goals were met. DEQ therefore considers all project data adequate for use in this report.

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Lindsay Creek Monitoring Report

Water Years 2021-2023



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Abbreviations, Acronyms, and Symbols

µs	microsiemens
cfs	cubic feet per second
cm	centimeter
DEQ	Idaho Department of Environmental Quality
FNU	formazin nephelometric unit
HDPE	high-density polyethylene
L	liter
lb	pound
LOADEST	US Geological Survey pollutant load estimator software
LRO	Lewiston Regional Office
MDL	maximum detection level
mg	milligram
mL	milliliter
N	nitrogen
NO_3+NO_2-N	nitrate plus nitrite nitrogen
PQL	practical quantitation limit
QA	quality assurance
QAPP	quality assurance project plan
QC	quality control
RPD	relative percent difference
TKN	total Kjeldahl nitrogen
TMDL	total maximum daily load
TN	total nitrogen
TSS	total suspended solids
USGS	US Geological Survey
UV	ultraviolet
WAG	watershed advisory group

Executive Summary

Lindsay Creek is a tributary to the Clearwater River in Nez Perce County, Idaho. Lindsay Creek is listed as impaired under the Clean Water Act by nitrate plus nitrite nitrogen (NO_3+NO_2-N), suspended sediment (measured as total suspended solids [TSS]), and bacteria (*Escherichia coli*). In August 2020, the Idaho Department of Environmental Quality (DEQ) established a long-term stream monitoring program in response to information gaps identified by local stakeholders and technical experts in the Lindsay Creek Watershed Advisory Group. This report documents methods and results associated with all DEQ monitoring across water years 2021-2023 (October 2020-September 2023). A previous DEQ report also documented water year 2021 monitoring.

Monitoring objectives were to (1) measure daily average flow in Lindsay Creek, (2) estimate daily (pounds [lbs]/day) and water year annual (lbs/year) TSS, NO_3+NO_2-N, total kjehldahl nitrogen (TKN), and total nitrogen (TN) loads in Lindsay Creek, and (3) implement a pilot continuous monitoring program for nitrate and turbidity.

A stream gage was established to estimate streamflow at 15-minute intervals and calculate daily average streamflow. Streamflow estimated from the stream gage ranged from 1.7-12.2 cubic feet per second (cfs) across water years 2021-2023, and daily average flow ranged from 2.3-7.0 cfs across water years.

During water years 2021-2023, Lindsay Creek exported 66,976-76,364 pounds of nitrogen per water year (lbs N/yr) (average: 72,157 lbs N/yr) to the Clearwater River. DEQ has high confidence in nitrogen annual load estimates. The average stream N load represents enough N to fertilize 600 acres of wheat cropland, or roughly 10% of wheat cropland area (assuming a fertilizer N application rate of 120 lbs N/acre). The average stream N load is also 2.5 times greater than the total annual nitrogen load discharged from septic systems into ground water (27,912 lbs N/yr, assuming each of the 814 septic systems discharges 250 gallons/day at 45 mg N/L, based on septic system design flows for 3-bedroom single-family dwellings in IDAPA 58.01.03.08, and the default concentration from DEQ guidance for Nutrient-Pathogen Evaluations). Approximately 90% of exported N (87-89%) was in the form of NO_3+NO_2-N. NO_3+NO_2-N concentrations ranged from 6.3-9.5 mg N/L and all samples exceeded the 2 mg N/L target established in the Lindsay Creek total maximum daily load (TMDL).

During water years 2021-2023, Lindsay Creek exported at least 250,000 lbs of TSS to the Clearwater River. Annual load estimates ranged from 229,865-267,598 lbs/yr, but these are underestimates. Load estimation methods used do not adequately capture sub-daily TSS concentration peaks associated with rain events. A pilot continuous turbidity monitoring program was implemented starting in 2022 to address this issue and shows potential for improving accuracy of TSS load estimates in future years. TSS concentrations in laboratory-analyzed samples ranged from 8.2-353 mg/L and exceeded TMDL targets (80 mg/L daily average, 50 mg/L monthly average) on several occasions. TSS concentrations estimated based on continuous turbidity monitoring also showed numerous turbidity spikes exceeding 100 mg/L TSS associated with rain events.

1 Introduction

Lindsay Creek is a tributary to the Clearwater River in Nez Perce County, Idaho (Figure 1). The Idaho Department of Environmental Quality (DEQ) identified Lindsay Creek as impaired under the Clean Water Act by nitrate plus nitrite nitrogen (NO_3+NO_2-N), suspended sediment (measured as total suspended solids [TSS]), and bacteria (*Escherichia coli*). In 2007, DEQ developed a water quality improvement plan required under the Clean Water Act, the *Lindsay Creek Watershed Assessment and Total Maximum Daily Loads* (TMDLs) (DEQ 2007). In 2019, DEQ completed a periodic review of these TMDLs required by Idaho Code § 39-3615 (DEQ 2019). As required by Idaho Code § 39-3611(8), DEQ developed the TMDLs and TMDL review in consultation with the Lindsay Creek Watershed Advisory Group (WAG), which includes local watershed stakeholders representing diverse interests.

In 2019, the Lindsay Creek WAG recommended DEQ form a technical working group composed of WAG members and other technical experts to identify information needed to select and prioritize water quality improvement actions. DEQ hosted several technical working group meetings in December 2019. The group recommended DEQ (1) conduct additional sediment monitoring to better characterize current stream TSS patterns, (2) develop a budget of watershed nitrogen inputs and outputs, and (3) further pinpoint *Escherichia coli* sources.

In 2020, DEQ started a long-term stream monitoring program in response to these recommendations. The monitoring program is designed to measure daily (pounds [lbs]/day) and annual (lbs/year) sediment and nitrogen loads near the Lindsay Creek mouth. This report documents methods and results for monitoring conducted from October 2020 through September 2023 (water years 2021-2023).

This monitoring program addresses several information needs identified by the technical working group. It addresses the recommendation for additional sediment monitoring by monitoring TSS and measuring turbidity at 15-minute intervals using a water quality sonde. The monitoring program will also help DEQ develop a watershed nitrogen inputs/outputs budget. In a separate project, DEQ will use annual stream nitrogen load estimates generated through this monitoring program to estimate stream nitrogen outputs for an inputs/outputs budget. DEQ is also addressing the workgroup recommendations to better document *Escherichia coli* sources and their relative contribution through a separate project.

2 Objectives

Monitoring program objectives were:

- Measure daily average flow in Lindsay Creek (Figure 1).
- Estimate daily (lbs/day) and water year annual (lbs/year) TSS, NO_3+NO_2-N, Kjeldahl nitrogen, and total nitrogen (TN) in Lindsay Creek.
- Establish continuous measurement of nitrate and turbidity in Lindsay Creek.

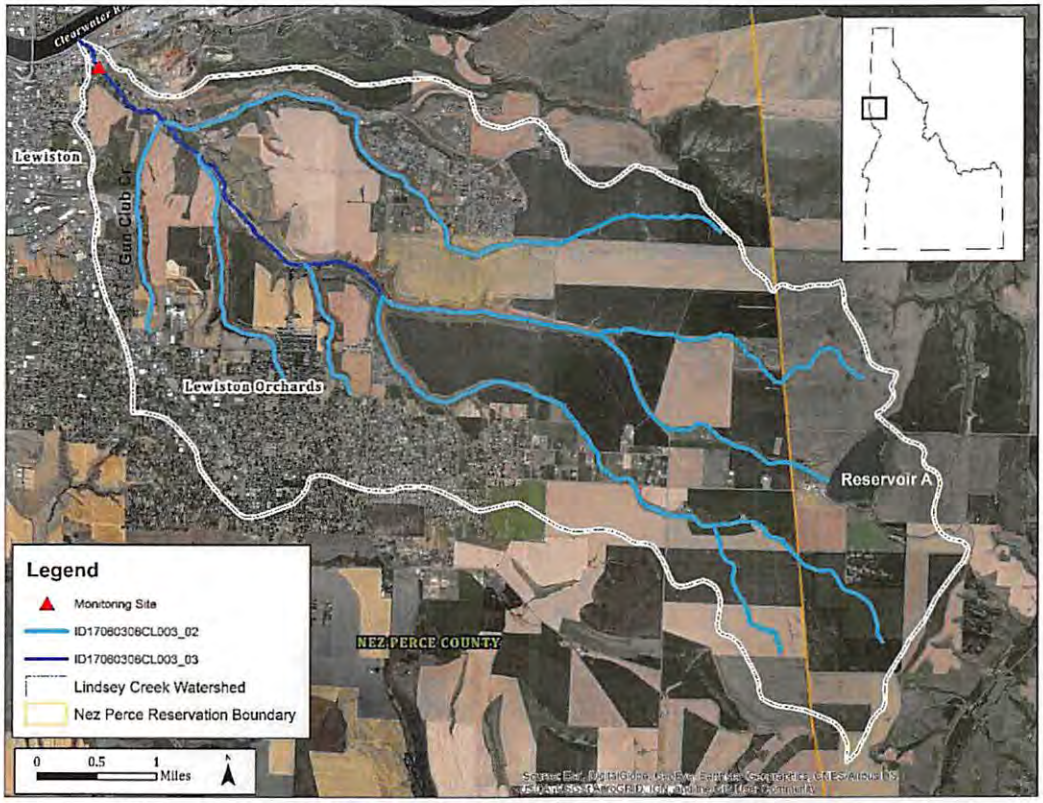


Figure 1. Lindsay Creek watershed, monitoring site, and stream assessment units used for Clean Water Act reporting purposes.

3 Methods

All monitoring occurred near the mouth of Lindsay Creek at Odom Park (Figure 1). The property owner provided DEQ written permission to access the site and collect water quality data. DEQ established a stream gage to measure water level every 15 minutes and collected at least paired streamflow and water quality samples each year following procedures described below. Before sampling, DEQ documented planned laboratory methodology, quality assurance/quality control (QA/QC) procedures, and data quality objectives in a quality assurance project plan and field sampling plan (FSP). QA/QC data collected during the project and compliance with project data quality objectives and criteria are documented in a separate report for water year 2021 (DEQ 2021), and in Appendix A and Appendix B for water year 2022 and 2023.

3.1 Streamflow

3.1.1 Discrete Streamflow

DEQ measured streamflow each time a water quality sample was collected and as needed to develop a streamflow rating curve for the site (> 20 times per year). Streamflow was measured using a portable electromagnetic velocity meter (Hach FH950) and the velocity-area method. A stream transect was established perpendicular to streamflow. The transect was divided into

0.5-foot-wide cells, and water depth and velocity were measured in the center of each cell. Velocity was measured at 60% of maximum depth within each cell. Discreate streamflow was calculated by summing the product of velocity and area measurements calculated from each cell.

3.1.2 Continuous Streamflow

Continuous streamflow was estimated using a rating curve approach. A vented pressure transducer (Onset Hobo MX-2001) was deployed in a polyvinyl chloride stilling well secured within the stream channel on October 5, 2020. The gage was adjusted and reinstalled on October 8, 2021. The pressure transducer recorded water depth every 30 minutes from 10-5-2020 to 10-7-2021 and every 15 minutes starting 10-8-2021. Paired water depth and instantaneous streamflow measurements were used to develop rating curves predicting flow from water level using methods described in detail in Appendix C. Rating curves were used to estimate streamflow at 30-minute intervals for 10-5-2020 to 10-7-2020 and 15-minute intervals for 10-8-2021 through 9-30-2023.



Figure 2. Lindsay Creek instream monitoring station, equipped with data logging pressure transducer.

3.1.3 Precipitation

A rain gauge (Texas Electronics TR-525-USW 8-inch tipping bucket gage) deployed at Sunset Park in Lewiston by DEQ's air quality program measured precipitation amount at 15-minute intervals. Sunset Park is located slightly outside the Lindsay Creek watershed.

3.2 Water Chemistry

3.2.1 Discrete Samples

Discrete grab water samples (Table 1) were collected from the stream thalweg by submerging a sample bottle below the stream surface. Water samples were analyzed at Anatek Labs in Moscow, Idaho. At least one field duplicate and one field blank sample were collected for every 20 regular samples. TN was calculated as the sum of NO_3+NO_2-N and TKN.

Table 1. Analytical method, container, holding time, and reporting limit for parameters analyzed by Anatek Labs.

Parameter	Method	Units	Preservative	Container	Hold Time	PQL
TSS	APHA 2540-D	mg/L	4 °C	1 L plastic	7 days	1
NO_3+NO_2-N	APHA 4500-NO3(F)	mg N/L	H_2SO_4, to pH < 2, 4 °C	250 mL HDPE	28 days	0.05-1
TKN	APHA 4500-N(ORG) C	mg N/L	H_2SO_4, to pH < 2, 4 °C	250 ml HDPE	28 days	0.5

3.2.2 Discrete Sonde Measurements

A YSI EXO 1 multiparameter sonde was used to measure discrete turbidity (FNU), temperature (°C), conductivity (µS/cm), and specific conductivity (µS/cm) in the field each time a grab sample was collected. The EXO1 sonde and associated sensors were calibrated following manufacturer protocols within 24 hours before each sample event. Field replicate sonde measurements were collected periodically and are documented in a separate report for water year 2021 (DEQ 2021) and in Appendix B and Appendix C for water years 2022-2023.

3.2.3 Continuous Sonde Measurements

Beginning in spring 2022, a YSI EXO2 multiparameter sonde was deployed in Lindsay Creek to log water quality data on a continuous basis (15-minute interval). The sonde measures nitrate concentrations and is equipped with an EXO NitraLED ultraviolet (UV) Nitrate Sensor. Over the course of deployment, the sonde's operation has been subject to continuous refinement, which is discussed in Appendix D.

The nitrate sensor requires co-deployment of an EXO Turbidity Smart Sensor and an EXO Conductivity & Temperature Smart Sensor. Continuous data collection using these sensors requires an EXO Central Wiper to keep sensor faces clear of debris and fouling. These additional devices have been obtained for dedicated co-deployment with the EXO2 sonde.

3.2.4 Continuous TSS Estimates

Continuous turbidity data measured by the EXO2 sonde were used to predict continuous TSS (mg/L). Paired field turbidity measurements and TSS lab results were used to develop a linear regression predicting TSS from turbidity (Figure 3). Separate regressions were developed using EXO1 discrete and EXO2 continuous turbidity data. The linear regression equation developed

based on EXO1 discrete data (TSS = 3.05423*turbidity + 9.24134, r^2 = 0.9282) was applied to EXO2 continuous data to predict continuous TSS. The regression based on EXO1 data was used because the relationship between turbidity and TSS was very similar for both EXO1 and EXO2 turbidity measurements, and the paired EXO1 turbidity and TSS dataset included more data and a larger turbidity range (Figure 3). When the regression equation was applied to EXO2 turbidity data to predict TSS, predicted TSS performed relatively well. Comparing regression-predicted and lab-measured TSS, average bias (predicted – observed) was 0 mg/L TSS (median -1.14 mg/L, range -31 to 78 mg/L). A figure comparing predicted and lab-measured TSS is included in the results section.

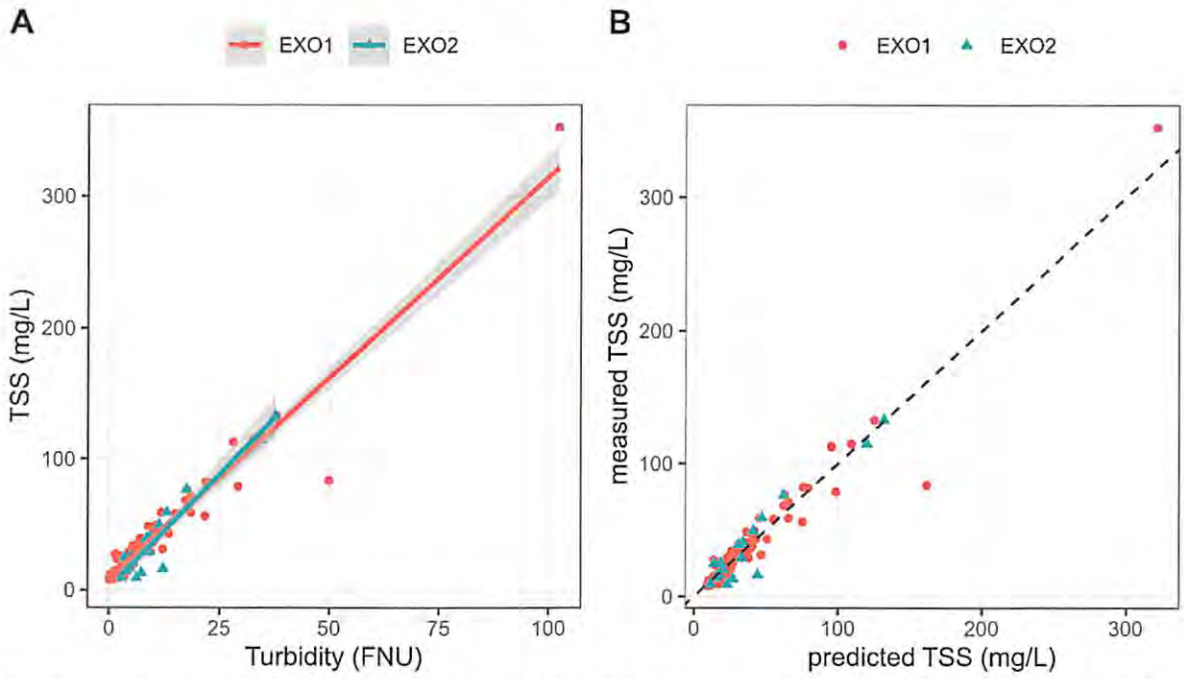


Figure 3. Relationship between turbidity and TSS (A) and comparison of measured TSS and TSS predicted based on turbidity using linear regression. In A, grey shaded areas are regression line 95% confidence intervals. In B, the dashed line is the line of perfect fit.

3.3 Baseflow Estimates

Baseflow is the component of streamflow from groundwater and long-term subsurface drainage (Brooks et al. 2013). It reflects water that infiltrates the soil and percolates down to become part of long-term subsurface storage. In contrast, 'quickflow' is the streamflow component from precipitation that quickly enters a stream through surface or shallow subsurface pathways. The baseflow component of streamflow was estimated at a daily time step using US Geological Survey (USGS) Hydrologic Toolbox version 1.0 (Barlow et al. 2022). The Hydrologic Toolbox applies six different hydrograph separation methods to estimate baseflow amount (cubic feet per second [cfs]) and baseflow percentage (%) on a daily time step using each method.

These hydrograph separation methods have several assumptions that may not be met for Lindsay Creek. The assumptions are (1) all groundwater recharge either discharges to the stream or is lost through riparian evapotranspiration, (2) there is no loss of groundwater to underlying regional aquifers or to groundwater withdrawals, and (3) groundwater recharge is relatively uniformly distributed over the watershed, rather than focused on specific areas (Barlow et al. 2015). Hydrograph separation methods may have reduced accuracy where groundwater pumping, stream diversions, or irrigation inputs are a substantial component of low flow conditions. In the Lindsay Creek watershed, groundwater pumping, irrigation inputs, and loss to underlying aquifers occur, but the magnitude of these processes is not known, so their effect on baseflow estimate accuracy is not clear. Baseflow estimates for Lindsay Creek should be interpreted cautiously.

3.4 Pollutant Load Estimates

Daily (lbs/day) and water year annual (lbs/year) TSS, NO_3+NO_2-N, TKN, and TN loads were estimated using USGS load estimator (LOADEST) software (Runkel et al. 2004). Paired instantaneous streamflow and concentration data were used with LOADEST to develop pollutant-specific adjusted maximum likelihood regression equations predicting daily loads from daily average flow. All paired measurements collected October 2020–September 2023 were used to develop regression equations. The best-fit regression equation for each pollutant was selected by LOADEST software based on Akaike Information Criteria (AIC) values.

Pollutant-specific regression models developed were then used to estimate daily loads from stream gage daily average flows. Because of a stream gage battery failure, daily average flow data were not available for 10/1/2022 through 10/27/2022. Daily average flow was estimated during this period using a linear regression model predicting daily average flow based on the daily precipitation total and the prior day's daily average flow (daily average flow = 0.061059 + (0.977231*prior day daily average flow) + (0.942946*daily precipitation total, $r^2 = 0.98$).

LOADEST outputs included estimated daily loads, average daily loads for each month, and upper and lower 95% confidence intervals for average daily loads for each month (Runkel et al. 2004). Total water year loads were calculated as $\sum(L_{month} * D_{month})$, where L_{month} is the mean daily load for the month, and D_{month} is the number of days during the month. Water year upper and lower bound estimates were calculated using upper and lower bound 95% confidence interval daily average loads for the associated month. Annual loads were calculated for water years 2021-2023. LOADEST input and output files are included in online supporting materials (*https://doi.org/10.17605/OSF.IO/GRPVK*).

4 Results

4.1 Streamflow

Discrete streamflow ranged from 2.2 to 7.2 cfs across years (Figure 4). Continuous streamflow predicted by the site rating curve ranged from 1.7 to 12.2 cfs. Rating predicted streamflow generally agreed well with measured flow (Appendix C). Daily average streamflow estimates ranged from 2.3 to 7.0 cfs across years.

The highest rating-predicted streamflow was 12.2 cfs on June 9, 2023. This occurred during a large brief flow peak (Figure 4) associated with a 50-year flash flood event. DEQ's rain gage at Sunset Park in Lewiston recorded 0.73 inches of precipitation during a 15 minute period. In Lewiston, the event caused localized flooding that damaged roads and other infrastructure and prompted the City of Lewiston to declare a local emergency.

No rating-predicted instantaneous or daily average streamflow data are available 10/1/2022 through 10/27/2022 due to an equipment failure. Pressure transducer batteries died sometime during this period and water level data were lost.

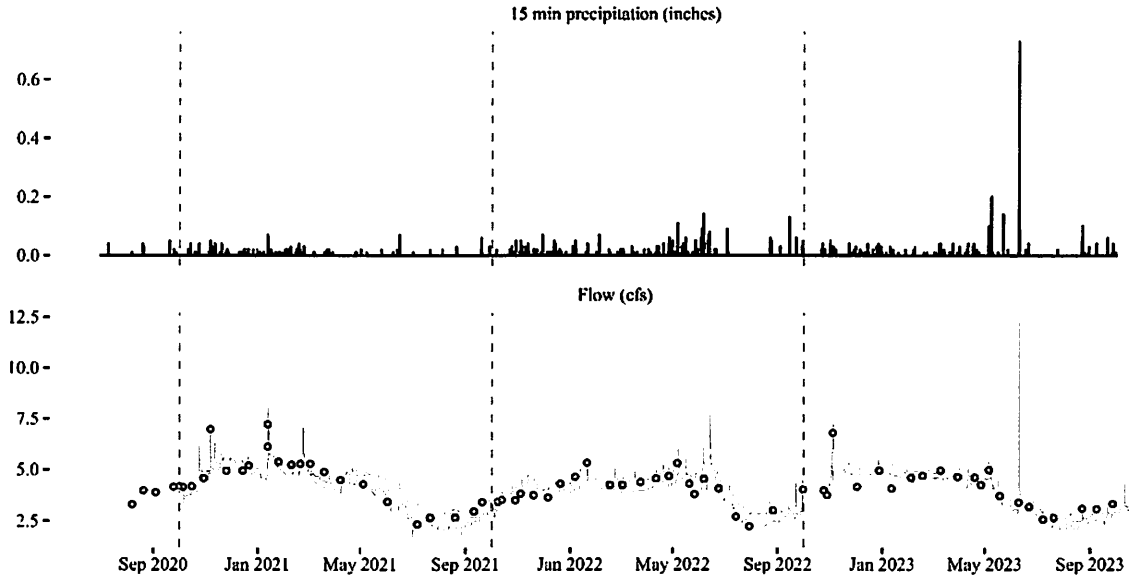


Figure 4. Precipitation (top) and stream flow (bottom) patterns. For flow, circles are measured instantaneous flow and the grey line is gage-predicted flow. Dashed vertical lines indicate start/end of a water year.

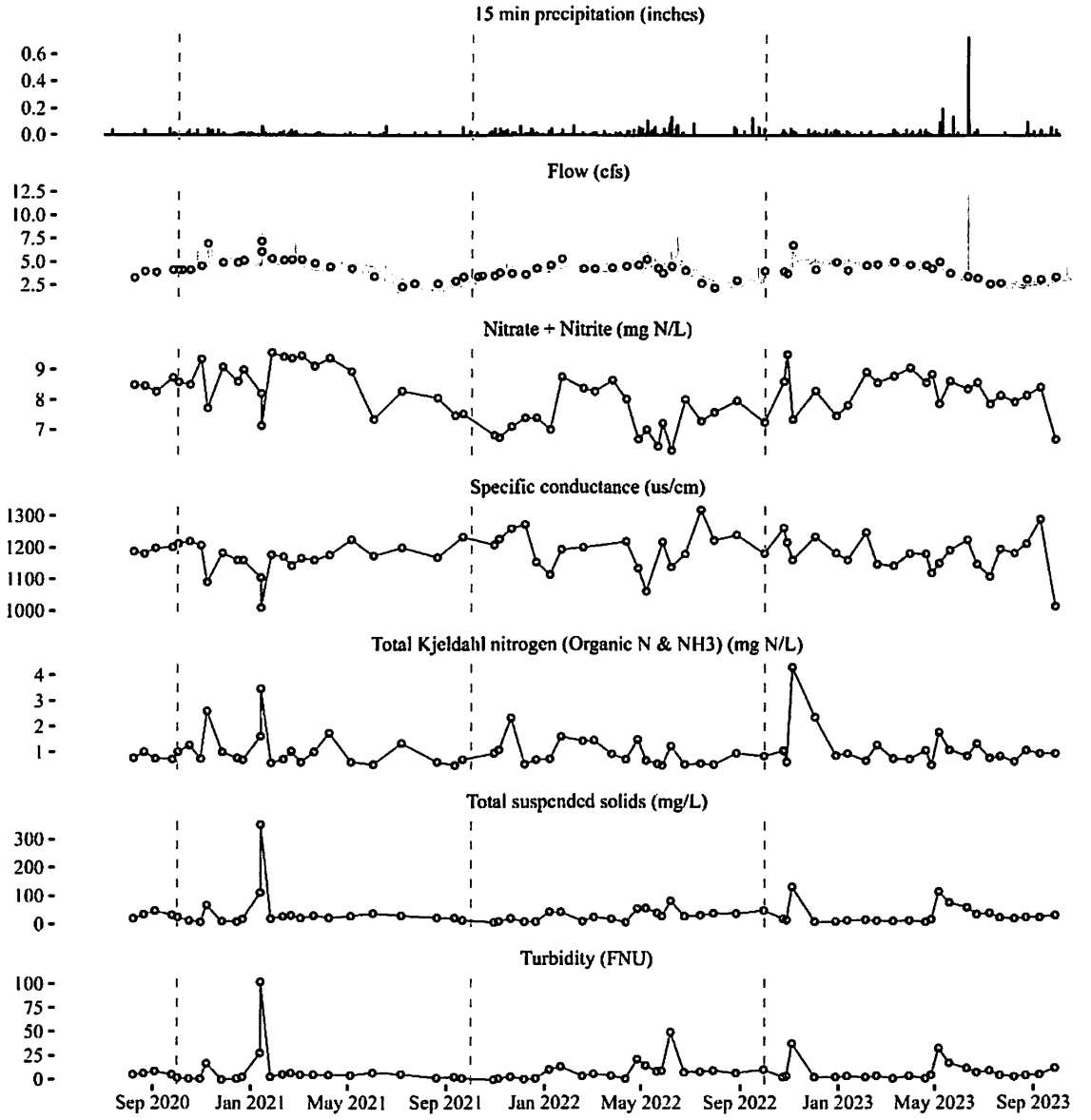


Figure 5. Streamflow and discrete sample water quality patterns July 2020–September 2023. For flow, points are measurements and the line is gage-predicted instantaneous flow. Dashed vertical lines indicate the beginning of a new water year.

4.2 Water Chemistry

4.2.1 Discrete Measurements

Discrete water chemistry measurements, including both grab samples sent for laboratory analysis and EXO1 sonde measurements, are shown in Figure 5 and summarized in Table 2.

Table 2. Instantaneous water chemistry.

Parameter	Statistic	Water Year 2021	Water Year 2022	Water Year 2023
NO_3+NO_2-N (mg N/L)	N	21	21	22
	Minimum	7.2	6.3	6.6
	Maximum	9.6	8.8	9.5
	Mean	8.6	7.5	8.3
	Median	8.6	7.5	8.3
TKN (mg N/L)	N	21	21	22
	Minimum	< 0.5	< 0.5	< 0.5
	Maximum	3.49	2.35	4.3
	Mean	1.1	1.0	1.2
	Median	1.2	1.0	1.2
TSS (mg/L)	N	21	21	22
	Minimum	8.8	8.2	8.6
	Maximum	353	83.8	133
	Mean	45.2	32.0	33.3
	Median	45.2	32.0	33.3
Turbidity (FNU)	N	21	21	22
	Minimum	0.3	0.03	1.2
	Maximum	102	50	38.0
	Mean	10.2	9.2	8.2
	Median	10.2	9.2	8.2
Specific conductance (µS/cm)	N	20	18	22
	Minimum	1,011	1,063	1,014
	Maximum	1,233	1,319	1,288
	Mean	1,168	1,197	1,179
	Median	1,168	1,197	1,179

4.2.2 Continuous Sonde Measurements

Continuous nitrate and turbidity data from the EXO2 sonde collected are summarized in in Table 3 and presented in Figure 6 and Figure 7. The continuous sonde was not in operation for WY2021 and part of WY2022 (Appendix D).

Table 3. Continuous water chemistry.

Parameter	Statistic	Water Year 2021	Water Year 2022	Water Year 2023
NO_3 (mg N/L)	N	-	7,779	26,200
	Minimum	-	4.1	4.0
	Maximum	-	15.4	15.9
	Mean	-	8.8	8.8
	Median	-	8.4	8.8
Turbidity (FNU)	N	-	9,760	26,200
	Minimum	-	3.6	0.9
	Maximum	-	150.1	199.3
	Mean	-	9.0	6.1
	Median	-	10.1	9.0

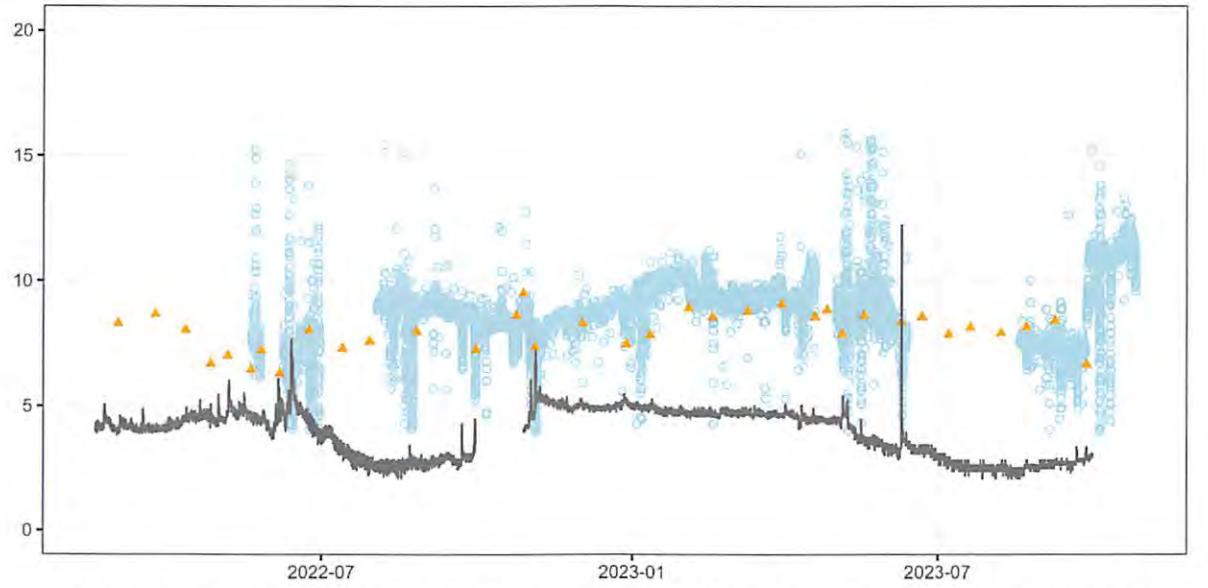


Figure 6. Patterns of nitrate-nitrogen (mg N/L) measured at 15-minute intervals using an EXO2 sonde (blue circles), laboratory-measured nitrate plus nitrite (mg N/L) from discrete water samples (orange triangles), and stream gage instantaneous streamflow (cfs) (grey line).

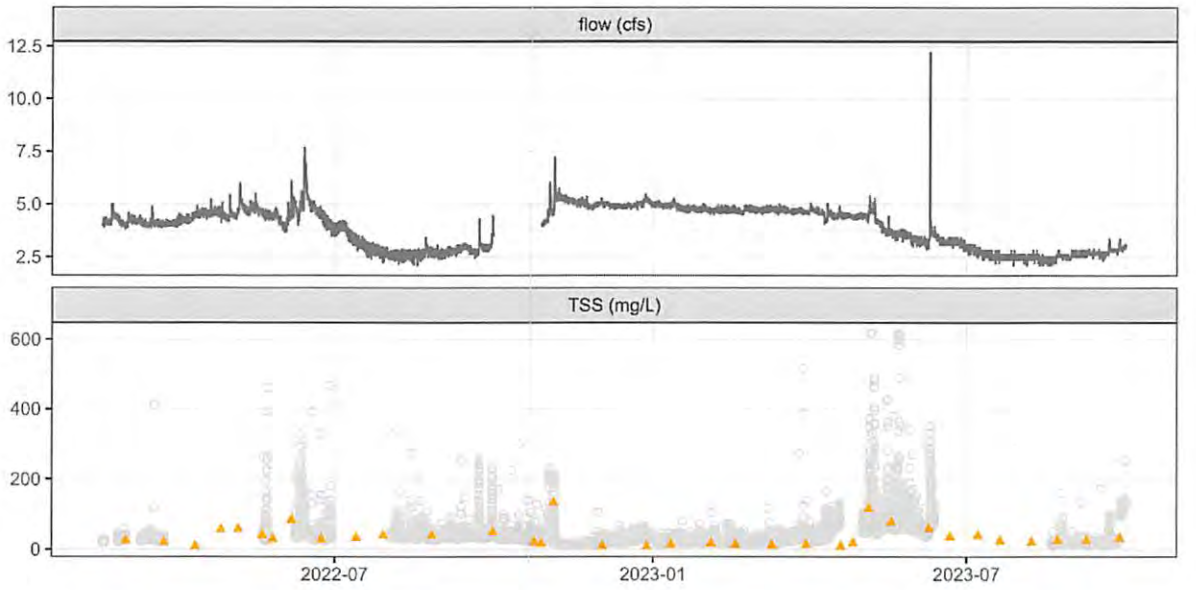


Figure 7. Patterns of gage-predicted streamflow (top), TSS concentrations predicted at 15-minute intervals based on continuous EXO2 turbidity measurements (grey circles), and laboratory-measured TSS from discrete water samples (orange triangles) (bottom).

4.3 Baseflow Estimates

Daily baseflow percentage ranged from 50% to 100%, with mean baseflow percentage ranging from 80.3% to 99.4% (Figure 8 and Table 4).

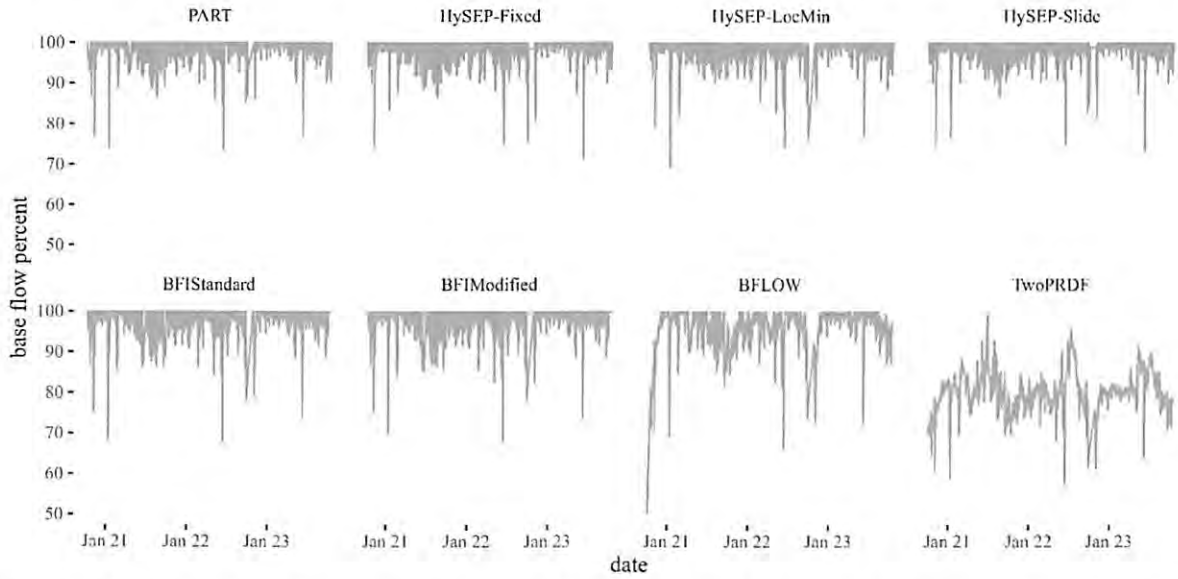


Figure 8. Daily baseflow percentage estimated using different hydrograph separation methods available in USGS Groundwater Toolbox Software.

Table 4. Daily baseflow percentage summary statistics for water years 2021–2023 based on USGS Groundwater Toolbox Software outputs.

Method	Minimum	Maximum	Mean	Median
BFI modified	68.3	100	97.2	98.4
BFI standard	68.3	100	97.2	98.4
BFLOW	50	100	95.7	97.7
HySEP-Fixed	71.6	100	98.3	99.3
HySEP-LocMin	69.5	100	97.9	99.1
HySEP-Slide	73.5	100	98.3	99.1
PART	73.8	100	98.2	99.4
TwoPRDF	57.5	100	80.3	80.3

4.4 Pollutant Load Estimates

Pollutant-specific annual loads estimated using LOADEST are presented in Table 5. LOADEST model performance statistics and regression model parameter estimates are included in Table 6 and Table 7, respectively. Daily load estimates are plotted in Figure 9 and Figure 10.

During water years 2021-2023, the LOADEST TN model predicted Lindsay Creek exported 66,976-76,364 lbs of N per water year (average: 72,157 lbs N/yr) (Table 5). Approximately 90% of exported N (87-89%) was in the form of NO_3+NO_2-N each water year.

During water years 2021-2023, LOADEST predicted Lindsay Creek exported 229,865-267,598 lbs of TSS per water year (average: 247,500 lbs of TSS per water year). LOADEST predictions likely underestimate annual loads because discrete sampling and the LOADEST model do not adequately capture TSS peaks that occur during rain events (Figure 7).

Water year 2021 LOADEST regression equations and load estimates presented here are slightly different than those reported in the water year 2021 annual report (DEQ 2021) because this analysis used all available paired measurements (October 2020–September 2023) to develop regression models, whereas previously only water year 2021 data were used. In addition, daily average flows for water year 2021 were updated after updating the water year rating curve (see Appendix C).

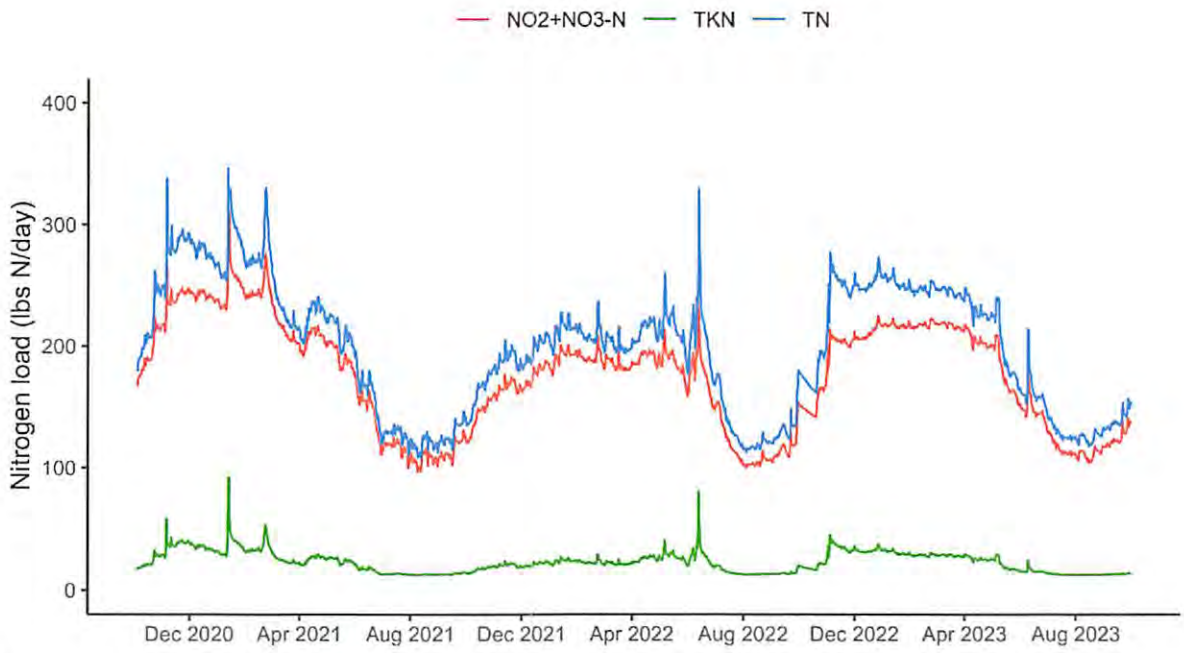


Figure 9. Daily NO_3+NO_2-N, TKN, and TN load estimates October 2020–September 2022.

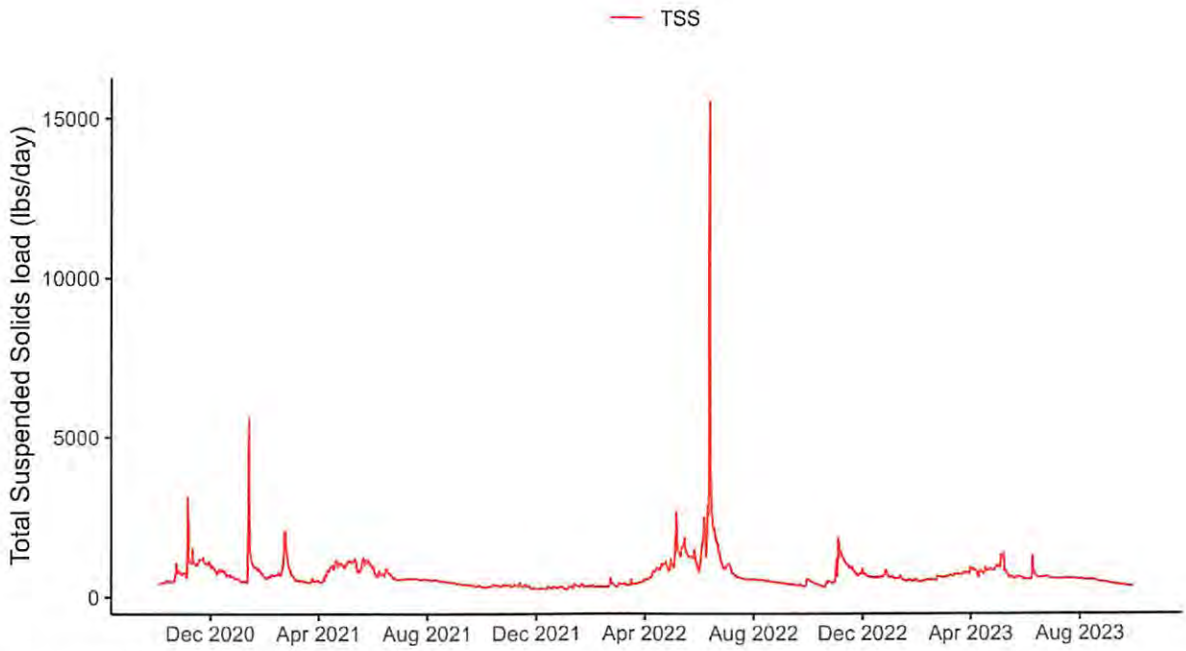


Figure 10. Daily total suspended solids (TSS) load estimates October 2020–September 2022.

Table 5. Water year load estimates.

Parameter	Water Year 2021 (lbs)			Water Year 2022 Load (lbs)			Water Year 2023 (lbs)		
	Load	Lower	Upper	Load	Lower	Upper	Load	Lower	Upper
NO_2+NO_3-N	68,250	64,522	72,136	59,370	56,043	62,841	63,853	60,143	67,732
TKN	8,974	7,253	10,986	7,601	6,180	9,254	8,318	6,718	10,195
TN	76,364	72,017	80,904	66,976	63,025	71,111	73,131	68,691	77,785
TSS	267,598	183,823	376,928	245,038	159,176	362,750	229,865	158,374	323,116

Table 6. LOADEST model performance statistics.

Parameter	r^2	Load Bias (%)[a]	Partial Load Ratio[b]	E[c]
NO_2+NO_3-N	94.94	-2.758	0.972	0.650
TKN	60.94	-1.874	0.981	0.731
TN	93.11	0.018	1.000	0.928
TSS	64.29	-7.249	0.928	0.439

a. Load bias (%) is the average % difference between observed and estimated loads.
b. Partial load ratio is the sum of estimated loads divided by the sum of observed loads.
c. E = Nash Sutcliffe Efficiency Index; E ranges from negative infinitive to 1.0; E=1 is perfect fit, E=0 indicates the model is as accurate as the mean of observed data; E<0 indicates the observed mean is a better estimate than model estimates.

Table 7. LOADEST regression models and coefficients.

Parameter	Model	a0	a1	a2	a3	a4	a5	a6
NO_2+NO_3-N	9[a]	4.3278	0.8253	-0.1198	0.0077	0.0976	-0.0323	0.0760
TKN	2[b]	2.1745	1.8347	1.6252	—	—	—	—
TN	9[a]	4.4485	1.0549	0.2123	-0.0081	0.0595	-0.0130	0.059
TSS	6[c]	5.3411	3.3465	4.2047	0.4072	-0.5978	—	—

a. Ln(Load) = a0 + a1 LnQ + a2 LnQ^2 + a3 Sin(2 pi dtime) + a4 Cos(2 pi dtime)+ a5 dtime + a6 dtime^2
b: Ln(Load) = a0 + a1 + LnQ + a2 LnQ^2
c: Ln(Load) = a0 + a1 LnQ + a2 LnQ^2 + a3 Sin(2 pi dtime) + a4 Cos(2 pi dtime)
Note: LnQ = Ln(Q) - center of Ln(Q) (1.3803), and dtime = decimal time - center of decimal time (2021.629).

5 Comparison to Historic Data

Although DEQ's long term monitoring program began in 2020, some comparable data collected before 2020 are also available. Paired discrete flow and water chemistry grab samples were collected by the Idaho Association of Soil and Water Conservation Districts during water years 2001-2002 (IASCD 2002) for development of the TMDL (DEQ 2008), by DEQ during water years 2008-2009, and by DEQ during 2018 (DEQ 2018). Data collection followed comparable or the same field and laboratory methods to those described here. For these historic datasets, only discrete stream flow was measured; a stream gauge was not installed so continuous flow data are not available.

Water year 2020-2023 NO_3+NO_2-N concentrations were similar to those measured during water year 2018, but were consistently higher than those measured during water years 2001-2002 and 2008-2009 (Figure 11). Streamflow and NO_3+NO_2-N concentrations show a slight decreasing trend since 2018, but most results since 2018 were higher than in water years 2001-2002 and 2008-2009.

Concentration and streamflow patterns in Figure 11 may be partly driven by inter-annual precipitation amount and trend direction in preceding years. Figure 13 shows annual water year precipitation totals measured at the Lewiston airport. Low flow and NO_3+NO_2-N for water years 2008-2009 occurred at the tail end of two consecutive years of low precipitation and following a decreasing precipitation trend across preceding years. High flows and concentrations in 2018 occurred after two consecutive years of relatively high precipitation and an increasing trend across preceding years. A slight decrease in flows and concentrations in water year 2022 occurred following low precipitation water year 2021. In general, the direction of inter-annual flow and NO_3+NO_2-N concentration patterns appear to follow the same general pattern as inter-annual precipitation patterns, but with a time lag. It is common for stream nitrogen concentration and load patterns to be affected by precipitation and water table levels or trends in preceding years (called antecedent hydrologic conditions) (Davis et al. 2014, Murphy et al. 2014; Baeumler and Gupta 2020), and this may be the case in Lindsay Creek. The precipitation amount in preceding years may affect water table levels, and thereby the volume of stored subsurface soil N with an active subsurface transport pathway to a stream channel. However,

significant land use changes have also occurred since 2000, including increased urbanization, addition of hundreds of new septic systems, changes to farming practices, and other changes. The relative contribution of climate patterns and land use changes to Figure 11 patterns is not fully clear. Continuing long-term monitoring will likely help clarify trend drivers.

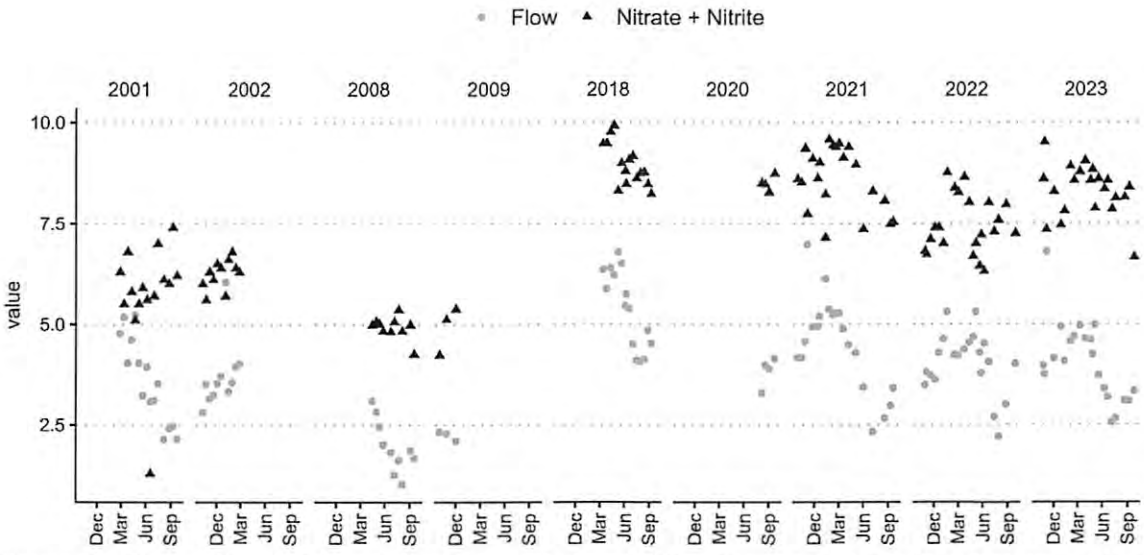


Figure 11. Stream flow (cfs) and nitrate + nitrite (mg N/L) patterns at the Lindsay Creek mouth by water year, across all data 2001-2023.

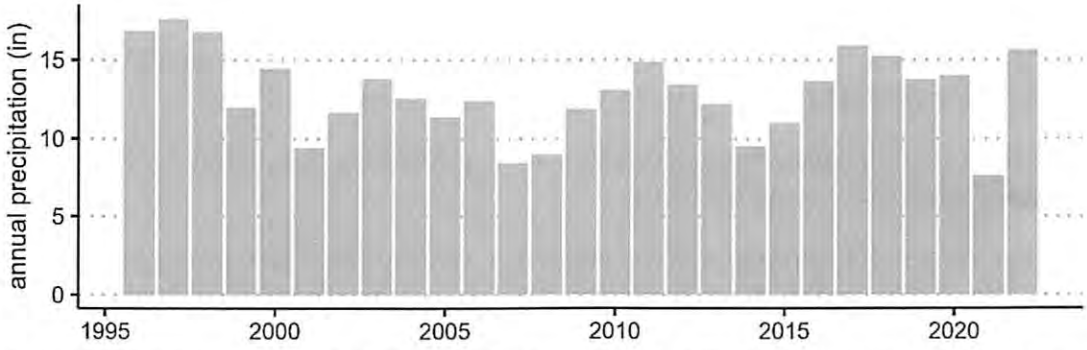


Figure 12. Total annual precipitation (inches) measured at the Lewiston airport by water year, 1996-2022.

6 Data Availability

Discrete water chemistry and streamflow data are publicly available through the *Water Quality Portal*, a national public water quality data repository. Data are attached to site IDEQ_WQX-2018LEWLC1. Download site data by clicking this link:

https://www.waterqualitydata.us/data/Result/search?siteid=IDEQ_WQX-2018LEWLC1&mimeType=csv&zip=yes&dataProfile=resultPhysChem&providers=NWIS&providers=STEWARDS&providers=STORET. Data and R code used for analyses described in this report are publicly available at *https://doi.org/10.17605/OSF.IO/GRPVK*.

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Appendix A. Water Year 2022 Quality Assurance/Quality Control

A1 Background and Purpose

The Idaho Department of Environmental Quality (DEQ) documented planned laboratory methodology, quality assurance/quality control (QA/QC) procedures, and data quality objectives in a quality assurance project plan (QAPP) (DEQ 2019) and field sampling plan (FSP) (DEQ 2022) before sampling.

Data quality objectives and criteria were defined for data precision, accuracy, measurement range, representativeness, comparability, and completeness. This appendix reviews QA/QC data collected during the project and evaluates if data quality objectives and criteria in the QAPP and FSP were met.

A2 Precision

Precision is a measure of agreement between two measurements of the same parameter under prescribed conditions. Field duplicates were used to evaluate precision for water quality parameters evaluated at the analytical laboratory (nitrate plus nitrite nitrogen [NO_2+NO_3-N], total Kjeldahl nitrogen [TKN], and total suspended solids [TSS]). The project QAPP defined precision data quality objectives based on the relative percent difference (RPD) of field duplicates (Equation A-1):

$$RPD = \frac{(C_1 - C_2)}{(C_1 - C_2)/2} \times 100$$

Equation A-1. Relative percent difference (RPD).

Where:

C_1 = concentration in first sample

C_2 = concentration in the second or duplicate sample

If one or both C_1 and C_2 are < 5 times the method detection limit (MDL), the results will be considered within control limits provided C_1 and C_2 are ± MDL. The laboratory results compiled during this water year were reported with a Practical Quantitation Limit (PQL), equivalent to an MDL.

The QAPP set a RPD goal of ±25% for low-level concentrations (< 20 × minimum detection limit) and ± 10% for high level concentrations (> 20 × minimum detection limit), with a maximum allowable RPD of +/-50%. These goals were achieved for all field duplicate samples (Table A-1). No data were qualified or rejected based on RPD results.

Table A-1. Field duplicate results.

Sample Date	Parameter	Location	Original Result	Duplicate Result	PQL	RPD (%)	Lab Report
1-20-2022	NO_3+NO_2-N (mg/L)	LC1	8.76	8.43	0.05	3.84	MCA0478
1-20-2022	TKN (mg/L)	LC1	1.61	1.42	0.5	12.54	MCA0478
1-20-2022	TSS (mg/L)	LC1	43.2	44.7	1	-3.41	MCA0478

For laboratory samples, the FSP requires field duplicates to be 5% of samples collected. A total of 21 regular samples were submitted to the laboratory, and one set of field duplicate samples was collected (4.8% field duplicate frequency).

The 2021–2022 FSP established a 10% field duplicate requirement for field measured parameters (flow, turbidity, specific conductivity, and temperature). These measurements are subject only to duplication as blank testing (e.g., zero flow) is not readily achievable under field conditions.

Field duplicates for flow, measured with a Hach FH950 Flowmeter, were collected three times, 13% of the 23 times that flow was measured at the site (two flow measurements are included from gage maintenance events, in addition to the 21 monitoring events). Two of these duplicates were collected for the same sampling event by different operators, with different devices. RPDs for these field duplicate measurements were < 25% (Table A-2).

Table A-2. Relative percent difference results for flow measurements.

Date	Parameter	Device (Serial Number)	Operator	Original Result	Duplicate Result	RPD (%)
4-11-21	Flow (cfs)	Hach FH950 (160701003311)	JW	4.298	4.34	-0.97
5-6-22	Flow (cfs)	Hach FH950 (160701003311)	JW	5.31	5.15	3.06
5-6-22	Flow (cfs)	Hach FH950 (120581001008)	DM	5.31	5.144	3.18

Field duplicate water quality observations were collected with a YSI EXO1 multiparameter sonde during two sampling events (9.5% of the 21 sampling events where the sonde was used). RPD results for these field duplicate measurements were < 25% (Table A-3).

Table A-3. Relative percent difference results for field parameters measured with a YSI EXO multiparameter sonde.

Date	Parameter	Original Result	Duplicate Result	RPD (%)
11-4-21	Turbidity (FNU)	0.95	0.91	4.3
	Specific Conductance (µS/cm)	1219.7	1219.8	-0.01
	Temperature (°C)	8.318	8.316	0.02
6-6-22	Turbidity (FNU)	50.01	49.9	0.22
	Specific Conductance (µS/cm)	1139	1139	0.00
	Temperature (°C)	13.361	13.361	0.00

A3 Accuracy

Accuracy is a measure of the agreement between a known *true* reference value and the associated measured value. Accuracy of parameters analyzed at the laboratory was evaluated based on laboratory quality control samples and field blanks.

Field blanks were used to check for possible contamination of samples (analyte gain) during sample collection and processing for NO_2+NO_3-N, TKN, and TSS. The FSP requires 5% of samples to be field blanks. One set of field blank samples was collected for 21 regular laboratory samples (4.8% field blank frequency). All field blank results were below the laboratory PQL (Table A-4) and met project data quality objectives.

Table A-4. Sample and field blank laboratory results.

Sample Date	Parameter	Sample result	Field blank result
3-24-22	NO_3+NO_2-N (mg/L)	8.65	Not detected
3-24-22	TKN (mg/L)	0.941	Not detected
3-24-22	TSS (mg/L)	19.8	Not detected

Analytical methods used by Anatek to quantify NO_2+NO_3-N (APHA 4500-NO3(F)) and TKN (APHA 4500-N(ORG) C) require multiple laboratory quality control measures including laboratory control and laboratory matrix spike samples. The analytical method for TSS (SM 2540 D) is subject to duplicate laboratory analysis. If results from these samples do not meet method or laboratory data quality goals, Anatek notes this in their reports by assigning laboratory qualifiers.

For this monitoring period, Anatek provided the following qualifications on their QC data (Table A-5). For TSS QC, seven laboratory duplicate results over the course of the monitoring period failed to meet the prescribed method acceptance RPD limit limit of 5%. For nitrate QC, two matrix spikes returned lower than acceptable recovery due to a suspected matrix effect. Anatek advises that none of the internal QC processes were performed on DEQ samples. No qualification was assigned to actual reported results for these analytes. DEQ has not rejected any results based on the QC qualifications listed in Table A-5.

Table A-5. Anatek QC qualifications.

Date	Analyte	Qualifier Description
11-4-21	TSS Duplicate 1	R1: RPD/RSD exceeded the method acceptance limit
	TSS Duplicate 2	R1: RPD/RSD exceeded the method acceptance limit
	TSS Duplicate 3	R1: RPD/RSD exceeded the method acceptance limit
12-6-21	TSS Duplicate 3	R1: RPD/RSD exceeded the method acceptance limit
12-20-21	TSS Duplicate 1	R1: RPD/RSD exceeded the method acceptance limit
3-24-22	TSS Duplicate 1	R1: RPD/RSD exceeded the method acceptance limit
	TSS Duplicate 2	R1: RPD/RSD exceeded the method acceptance limit
9-30-22	Total Nitrate/Nitrite Matrix Spike	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.

Date	Analyte	Qualifier Description
	Total Nitrate/Nitrite Matrix Spike 2	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.

A3.1 Revised Laboratory Data

An initial laboratory report (MCA0119-01) for a water quality sample collected on 01-19-2022 returned a TSS result of 1,110 mg/L. This value exceeded previous maximum TSS values for the site by approximately a factor of 10. Jason Williams (DEQ) sought confirmation of this result from Anatek and was informed that this value was erroneous. The report was revised and reissued by Anatek with a TSS result of 43.7 mg/L. DEQ accepted this updated result. No other parameters were affected.

A4 Measurement Range

The QAPP states "appropriate measurement range is determined by comparing the results of the laboratory reporting levels or MDLs. Reporting requirements are determined prior to sampling through review of historical data for the analytes and region of interest..." (DEQ 2019). For all parameters analyzed at the laboratory, laboratory PQLs are below typical observed concentrations and are adequate for this project. The only recorded sample result below PQL was for the sample collected on 5-26-2022, for which TKN was reported as "Not Detected" by the laboratory (where PQL was 0.500 mg/L). For this project, TKN is an additional analyte that indicates the contribution of other, non-nitrate/nitrite sources of N to the water body.

A5 Representativeness

Data representativeness is the degree to which the sample data accurately and precisely represent site conditions. The project QAPP and FSP do not provide specific representativeness criteria; however, the QAPP did provide guidelines for evaluating representativeness (DEQ 2019). Because field sampling and laboratory analysis followed standard procedures, procedures were consistent with those during previous sampling, laboratory accuracy and precision requirements were met, and there were only minor issues with laboratory quality assurance review. All project data satisfy representativeness requirements.

A6 Comparability

Comparability is the confidence with which one data set can be compared to another data set. The project QAPP does not provide specific comparability criteria, but it does provide general guidelines for ensuring data comparability (DEQ 2019). Because standard sampling and laboratory procedures were followed, procedures were consistent with those used for previous sampling efforts, and no issues were identified during project data verification and validation. All project data satisfy representativeness requirements.

A7 Sample Handling and Holding Time

Chain-of-custody forms were used to document sample custody and transfer when submitting samples to the laboratory. The laboratory did not note any sample condition or preservation concerns in laboratory reports. The project QAPP specified sample holding time requirements based on parameter-specific holding time requirement information provided by the analytical laboratory. For two TSS samples, holding times specified by the laboratory were not met. One sample was received by the laboratory outside of the required holding time. A second was not analyzed by the laboratory within the required holding time (Table A-6).

Table A-6. Sample holding times violations.

Analyte	Method	Required Holding Time	Sample Collection Date	Sample Transfer Date	Analysis Date	Actual Hold Time	Laboratory Qualifier
TSS	APHA 2540-D	7 days	11-19-21	11-29-21	12-6-21	17 days	H3 Sample was received past holding time.
TSS	APHA 2540-D	7 days	09-30-22	10-03-22	10-11-22	11 days	H1 Sample analysis performed past holding time

DEQ did not qualify or reject these results based on holding time exceedances. APHA 2540-D has a 7-day holding time because it was originally designed for wastewater analyses, specifically for samples collected after a settling step at a wastewater treatment facility (Glysson et al. 2000). However, Lindsay Creek does not receive discharges from a wastewater treatment facility and suspended sediment is presumably primarily inorganic material for which holding time is not a concern. Similar sample methods designed specifically for natural waters rather than wastewater, such as ASTM 3977-97, have no holding time requirements. In addition, Oudyn et al. (2012) reported that there was not a significant difference in TSS results for samples stored at approximately 4 °C in the dark for up to 105 days. DEQ stored samples at approximately 4 °C in the dark in a refrigerator until custody transfer to the laboratory, which stored samples the same way until analysis.

A8 Completeness

Data completeness is the percentage of valid data relative to the total possible data points. The project QAPP defined a completeness objective of 80%. In the FSP twice-monthly monitoring over 12 months was planned. Twenty-one sampling events were conducted resulting in an acceptable project data completeness of 87.5%.

A9 Conclusion

DEQ requires several internal QA procedures. These procedures include consultation with DEQ's QA manager, registration of the project in a tracking spreadsheet, completion of three standardized QA checklists, and review of all QA data points. Project goals for data accuracy, precision, holding and preservation, representativeness, comparability, and completeness were

met. DEQ considers all project data adequate for documenting Lindsay Creek water quality status and trends, and for use in future total maximum daily load-related applications.

A10 References

DEQ (Idaho Department of Environmental Quality). 2019. *Quality Assurance Project Plan: Multi-Parameter Region Wide Monitoring QAPP for the Lewiston Regional Office*. Version 2.0. #2018AKL369.

DEQ (Idaho Department of Environmental Quality). 2022. *Field Sampling Plan: 2021-2022 Lindsay Creek Monitoring*. Version 2.0. #2020AKL81[v2].

Glysson et al. 2000. *Comparability of Suspended-Sediment Concentration and Total Suspended Solids Data*. USGS Water Resources Investigations Report 00-4191. https://water.usgs.gov/osw/pubs/WRIR00-4191.pdf.

Oudyn et al. 2012. "Appropriate Maximum Holding Times for Analysis of Total Suspended Solids Concentration in Water Samples Taken from Open-Channel Waterways." *Water Science & Technology* 66(6): 1310-5. doi: 10.2166/wst.2012.316.

Appendix B. Water Year 2023 Quality Assurance/Quality Control

B1 Background and Purpose

The Idaho Department of Environmental Quality (DEQ) documented planned laboratory methodology, quality assurance/quality control (QA/QC) procedures, and data quality objectives in a quality assurance project plan (QAPP) (DEQ 2019) and field sampling plan (FSP) (DEQ 2022) before sampling.

Data quality objectives and criteria were defined for data precision, accuracy, measurement range, representativeness, comparability, and completeness. This appendix reviews QA/QC data collected during the project and evaluates if data quality objectives and criteria in the QAPP and FSP were met.

B2 Precision

Precision is a measure of agreement between two measurements of the same parameter under prescribed conditions. Field duplicates were used to evaluate precision for water quality parameters evaluated at the analytical laboratory (nitrate plus nitrite nitrogen [NO_2+NO_3-N], total Kjeldahl nitrogen [TKN], and total suspended solids [TSS]).

The FSP required field duplicates to be at least 5% of regular laboratory samples collected. This requirement was met. Twenty-two regular samples were submitted to the laboratory and 2 field duplicate samples were collected (Table A-1, 9% field duplicate frequency).

Table B-1. Field duplicate results.

Sample Date	Parameter	Location	Original Result	Duplicate Result	PQL	RPD (%)	Lab Report
10-24-2022	NO_3+NO_2-N (mg/L)	LC1	8.61 J	9.12 J	1.0	-5.8%	MCJ0828
10-24-2022	TKN (mg/L)	LC1	1.07	1.21	0.5	-12%	MCJ0828
10-24-2022	TSS (mg/L)	LC1	20.5	19.8	1.0	3.5%	MCJ0828
3-30-2023	NO_3+NO_2-N (mg/L)	LC1	9.05	9.22	1.0	-1.8%	MDC1013
3-30-2023	TKN (mg/L)	LC1	2.79 R	0.726	0.5	117%	MDC1013
3-30-2023	TSS (mg/L)	LC1	13.5	13.8	1.0	-2%	MDC1013

R = rejected result, J = result qualified as an estimate

The project QAPP defined precision data quality objectives based on the relative percent difference (RPD) of field duplicates (Equation A-1):

$$RPD = \frac{(C_1 - C_2)}{(C_1 - C_2)/2} \times 100$$

Equation A-1. Relative percent difference (RPD).

Where:

C_1 = concentration in first sample
C_2 = concentration in the second or duplicate sample

The QAPP set a RPD goal of ±25% for results < 20 × minimum detection limit and ± 10% for results > 20 × minimum detection limit, with a maximum allowable RPD of +/-50%. In addition, if one or both C_1 and C_2 are < 5 times the laboratory-reported practical quantitation limit (PQL), the QAPP states RPD goals will be achieved if the absolute difference between C_1 and C_2 is ≤ PQL.

For field duplicate samples collected 10-24-2022, RPD goals were achieved for TKN, TSS, and NO_3+NO_2-N results (Table B-1). However, the NO_3+NO_2-N RPD was calculated based on adjusted results reported by the laboratory. In report MCJ0828, Anatek reported a detect for a NO_3+NO_2-N field blank submitted along with the duplicate. In a subsequent e-mail, Anatek stated "it appears that the Spokane lab may have had issues with carryover between samples" that led to the field blank detect and inflated values for the NO_3+NO_2-N original and duplicate sample (Gene Soloman, Anatek QA Officer, e-mail to David McIntyre, 1-16-2023). In an e-mail, Anatek stated the concentrations of the original and duplicate samples before laboratory dilutions that likely introduced carryover were 8.61 and 9.12 mg N/L, which would correspond to an RPD of -5.8% (Gene Soloman, Anatek QA Officer, e-mail to David McIntyre, 1-16-2023). DEQ used these values rather than the values reported in lab report MCJ0828 (original: 8.83 mg N/L, field duplicate 11.6 mg N/L, RPD -27%) as results and for RPD calculations in Table A-1. Anatek did not reanalyze the samples because by the time Anatek reported the MCJ0828 to DEQ and DEQ inquired about potential QAQC issues, the sample was past holding time. DEQ flagged the original and duplicate results used as estimates using a 'J' qualifier.

For field duplicate samples collected 3-30-2023, RPD goals were achieved for NO_3+NO_2-N and TSS, but not for TKN (Table B-1). DEQ inquired with Anatek about the large difference between the original and field duplicate TKN results. In a 11/8/2023 from Anatek QA Officer Gene Solomon to Jason Williams, Anatek stated:

> As you note, the TKN results for sample LC1/MDC1013-01 (2.79 mg/L) are quite different from your field duplicate sample LC1-B/MDC1013-03 (0.726 mg/L), although other measurements for the two samples (Nitrate+Nitrite, TSS) are very similar.
>
> We have reviewed the data for these analyses, and there is nothing in the documentary record to question either result (no dilutions, carryover issues, etc.).
>
> MS/MSD analysis for analytical batch BDD0202 was performed using MDC1013-01 as the field sample. The results for the MS & MSD samples showed a low recovery (55.4 and 57.8%), and were tagged as M2-Potential Matrix Effect.
>
> Surface water samples are not always homogeneous. It is possible that the sample aliquot used for the TKN analysis of MDC1013-1 (LC1) might have had some small bit of organic matter (a floaty) that wasn't present in the MS or MSD samples, and skewed the LC1 result high relative to the MS/MSD and LC1-B samples (the organic matter wouldn't have affected the N+N or TSS values much, if at all).

For 2023, average MS/MSD recoveries for TKN have been around 93%. If we imagined that the MS/MSD samples had 93% recovery on top of some 'non-floaty' TKN value, those 'non-floaty' values would be around 0.80 and 0.93, which are much closer to the LC1-B value of 0.726 mg/L. Higher MS recovery would put the values even closer.

As noted above, there is nothing in our documentary record to invalidate the reported result for LC1/MDC1013-01, but if your procedure allows for it, you might consider using the result of the field duplicate (LC1-B/MDC1013-03), based upon the similarities between LC1-B and the MS/MSD samples.

Based on this information, DEQ chose to reject the 2.79 mg/L TKN result and use 0.726 mg/L as the TKN result for data analysis and summary purposes. The DEQ project QA officer agreed with this approach.

The FSP established a 10% field duplicate requirement for field measured parameters (flow, turbidity, specific conductivity, and temperature). This requirement was met for parameters measured with the YSI EXO1 sonde (turbidity, specific conductivity, and temperature) because 22 regular and 3 field duplicate measurements were collected (13% field duplicate rate). This requirement was met for flow after rounding because 21 regular and one field duplicate flow measurements were collected (4.7% field duplicate rate).

The FSP and QAPP did not establish RPD goals for field-measured parameters. However, field measurement RPD results are calculated and shown in Table A-2.

Table B-2. Relative percent difference results for field-measured parameters.

Date	Parameter	Original Result	Duplicate Result	RPD (%)
10/24/2022	Turbidity (FNU)	2.84	2.92	-2.8%
	Specific Conductance (µS/cm)	1261.9	1259.4	0.2%
	Temperature (°C)	9.68	9.678	0.02%
11/4/2022	Turbidity (FNU)	38.03	37.39	1.7%
	Specific Conductance (µS/cm)	1161.4	1161.2	0.01%
	Temperature (°C)	9.147	9.144	0.03%
9/27/2023	Flow (cfs)	3.333	3.365	-1.0%
	Turbidity (FNU)	12.22	12.0	1.8%
	Specific Conductance (µS/cm)	1014.4	1014.0	0.04%
	Temperature (°C)	13.15	13.146	0.03%

B3 Accuracy

Accuracy is a measure of the agreement between a known *true* reference value and the associated measured value. Accuracy of parameters analyzed at the laboratory was evaluated based on laboratory quality control samples and field blanks.

Field blanks were used to check for possible contamination of samples (analyte gain) during sample collection and processing for NO_2+NO_3-N, TKN, and TSS. The FSP requires 5% of samples

to be field blanks. This requirement was met. For NO_2+NO_3-N and TKN, 22 regular samples and 4 field blanks were collected (18% field blanks). For TSS, 22 regular samples and 3 field blanks were collected (13% field blanks). All field blank results were below the laboratory PQL, except for the 10-24-2022 sample NO_2+NO_3-N result (Table A-3), which DEQ rejected because the laboratory reported sample carry-over during laboratory analysis caused the detect as described above.

Table B-3. Sample and field blank laboratory results.

Sample Date	Parameter	Sample result	Field blank result
10-24-2022	NO_3+NO_2-N (mg/L)	8.61	0.388 R
	TKN (mg/L)	1.07	not detected
	TSS (mg/L)	20.5	not detected
1-11-2023	NO_3+NO_2-N (mg/L)	7.87	not detected
	TKN (mg/L)	0.947	not detected
	TSS (mg/L)	14.1	not detected
3-30-2023	NO_3+NO_2-N (mg/L)	9.05	not detected
	TKN (mg/L)	0.726	not detected
	TSS (mg/L)	13.5	not detected
8-7-2023	NO_3+NO_2-N (mg/L)	7.92	not detected
	TKN (mg/L)	0.628	not detected

Accuracy was also assessed by evaluating result qualifiers assigned by the laboratory. Analytical methods used by Anatek to quantify NO_2+NO_3-N (APHA 4500-NO3(F)) and TKN (APHA 4500-N(ORG) C) require multiple laboratory quality control measures including laboratory control and laboratory matrix spike samples. The analytical method for TSS (SM 2540 D) is subject to duplicate laboratory analysis. If results from TSS laboratory duplicates do not meet method or laboratory data quality goals, Anatek notes this in their reports by assigning laboratory qualifiers.

For this monitoring period, Anatek did not assign laboratory qualifiers to any DEQ sample results. In some laboratory reports, Anatek did assign laboratory qualifiers to laboratory blank or matrix spike results (Table A-4). DEQ evaluated those qualifiers to determine if they may affect interpretation of DEQ sample results.

Anatek assigned a M2 qualifier indicating low matrix spike or matrix spike duplicate recovery in several result reports. In cases where Anatek assigned a M2 qualifier based on matrix spike or matrix spike duplicate performed on a non-DEQ sample within the analytical batch, DEQ did not take any action. Matrix effects in an outside water sample may not be representative of those in Lindsay Creek stream water. Anatek assigned M2 qualifiers to TKN matrix spikes conducted on DEQ samples collected 11-4-2022 and 3-30-2023. DEQ did not qualify or reject the 11-4-2022 TKN result (4.32 mg/L). While this result was the highest TKN concentration since sampling began in 2020 by over 1 mg/L, the sample was collected during high flow (6.8 cfs) associated with a rain where TSS concentrations were very high (133 mg/L) and stream water was chocolate brown. In the past, TKN concentrations have been elevated and the highest

observed TKN concentrations have occurred when samples are collected during rain events. Elevated TKN would be expected with high suspended sediment due to organic nitrogen compounds within or sorbed to suspended particles. Anatek also assigned a B-10 qualifier and R1 qualifier in two cases, but DEQ did not qualify or reject any samples as a result.

Table B-4. Anatek QC qualifications.

Sample Date	Analyte	Qualifier Description
10-24-22	TKN	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
10-28-22	TKN	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
11-4-22	TKN	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect. ***Matrix spike on Lindsay Creek sample***
12-28-22	TKN	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
1-11-2023	NO_2+NO_3-N	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
2-3-2023	NO_2+NO_3-N	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
	TKN	B10: Target analyte detected in method blank at or above the method detection limit, but below the method reporting limit
	TKN	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
3-30-2023	TKN	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect. ***Matrix spike on Lindsay Creek sample***
6-9-2023	TKN	B10: Target analyte detected in method blank at or above the method detection limit, but below the method reporting limit M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
7-7-2023	TKN	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
7-20-2023	NO_2+NO_3-N	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
8-7-2023	NO_2+NO_3-N	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
8-22-2023	NO_2+NO_3-N	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
9-8-2023	NO_2+NO_3-N	M2: Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect.
	TSS	R1: RPD/RSD exceeded the method acceptance limit (RPD 17.8%, RPD limit 10%)

B3.1 Revised Laboratory Data

Anatek revised two laboratory result reports after DEQ reviewed results and inquired about potential issues. Anatek revised the NO_2+NO_3-N result for a sample collected 5-5-2023 (MDE0257) from 0.787 to 7.87 mg N/L because the laboratory analyst reported "forgot to factor in the multiplier" (Justin Doty, Anatek, e-mail to Jason Williams 6/2/2023).

In addition, Anatek issued a revised results report for the TKN result samples collected 6-9-2023 (MDF0425). The revised result report stated:

> Sample MDF0425-01 was initially analyzed for TKN on 6/23/2023, with a result of 9.59 mg/L. When a matrix spike/matrix spike duplicate sample was run on this sample (with an laboratory spike of 5.0 mg/L), results were 6.17 mg/ L (MS) and 6.32 mg/L (MSD). These negative-recovery MS/MSD samples suggest something may have been incorrect with the initial analysis.
>
> Upon review, it was determined that MDF0425-01 was analyzed after a very concentrated sample, and it is possible that carryover on the instrument impacted the 6/23/2023 result.
>
> Sample MDF0425-01 was re-prepared and analyzed on 7/6/2023, and a result of 0.852 mg/ L was obtained. Assuming a native concentration of 0.852 mg/L, the MS/MSD recoveries would have been 106% (MS) and 109% (MSD).
>
> We believe the reanalysis value of 0.852 mg/L is an accurate reflection of the concentration of sample MDF0425-01.

DEQ used the revised results for data analysis purposes.

B4 Measurement Range

The QAPP states "appropriate measurement range is determined by comparing the results of the laboratory reporting levels or MDLs. Reporting requirements are determined prior to sampling through review of historical data for the analytes and region of interest..." (DEQ 2019). Laboratory PQLs were 0.05-1 mg N/L for NO_2+NO_3-N, 0.5 mg N/L for TKN, and 1 mg/L for TSS. One TKN sample collected 4/26/2023 was below the PQL. All other regular sample results were above the PQL. Considering typical observed concentrations exceeded the PQL, the laboratory measurement range was considered adequate for this project.

B5 Sample Handling and Holding Time

Chain-of-custody forms were used to document sample custody and transfer when submitting samples to the laboratory. The laboratory did not note any sample condition or preservation concerns in laboratory reports. The project QAPP specified sample holding time requirements based on parameter-specific holding time requirement information provided by the analytical laboratory. Holding time requirements were 7 days for TSS, and 28 days for NO_2+NO_3-N and TKN. Holding time requirements were met. One NO_2+NO_3-N result was analyzed 28 days after it was collected. All other analyses were completed faster than the maximum allowed holding time.

B6 Representativeness

Data representativeness is the degree to which the sample data accurately and precisely represent site conditions. The project QAPP and FSP do not provide specific representativeness criteria; however, the QAPP did provide guidelines for evaluating representativeness (DEQ

2019). Because field sampling and laboratory analysis followed standard procedures, procedures were consistent with those during previous sampling, laboratory accuracy and precision requirements were met, and there were only minor issues with laboratory quality assurance review. All project data satisfy representativeness requirements.

B7 Comparability

Comparability is the confidence with which one data set can be compared to another data set. The project QAPP does not provide specific comparability criteria, but it does provide general guidelines for ensuring data comparability (DEQ 2019). Because standard sampling and laboratory procedures were followed, procedures were consistent with those used for previous sampling efforts, and no issues were identified during project data verification and validation. All project data satisfy representativeness requirements.

B8 Completeness

Data completeness is the percentage of valid data relative to the total possible data points. The project QAPP defined a completeness objective of 80%. The FSP planned for approximately 24 sample events. There were 22 sample events during the monitoring period, corresponding to 92% sample event completeness (22/24 = 92%). One TKN result and one NO_2+NO_3-N result were rejected. Therefore, for each parameter 21 of 22 possible results were valid and result-level completeness was 95%.

B9 References

DEQ 2019. Quality Assurance Project Plan: Multi Parameter Region Wide Monitoring QAPP for the Lewiston Regional Office. Version 2. May 16, 2019. #2018AKL369.

DEQ 2022. Field Sampling Plan 2021-2022 Lindsay Creek Monitoring. Version 2. January 21, 2022. Re-authorized by project quality assurance officer 5-5-2023. #2020AKL81.

Appendix C. Streamflow Rating Curves

C1 Stream Gauge

Starting October 5, 2020, a vented pressure transducer (Onset Hobo MX-2001) was deployed in a polyvinyl chloride stilling well. The transducer water level sensor was 0.5 feet from the streambed and recorded water level every 30 minutes from 10-5-2020 to 10-7-2021. On 10-8-2021, the pressure transducer and stilling well were reinstalled. After reinstallation, the transducer water level sensor was 0.3 feet from the streambed and recorded water level every 15 minutes.

C2 Field Measurements

Paired measurements of stream flow and water level were taken > 20 times per year. During each sampling event, stream flow was measured using an electromagnetic velocity meter (Hach FH850) and the velocity-area method. A stream transect was established perpendicular to streamflow. The transect was divided into 0.5-food wide cells, and water depth and velocity were measured in the center of each cell. Velocity was measured at 60% of maximum depth within each cell. Instantaneous streamflow was calculated by summing the product of velocity and area measurements calculated from each cell. In addition, pressure transducer water depth and staff gauge water depth were recorded, and pictures of the gauge staff plate and stream were during each sample event. During most sample events, the distance between the water level sensor and the streambed was also measured to verify it did not change.

C3 Rating Curve Development

Rating curves were developed using Equation B-1 (Hamilton et al. 2019):

$$Q = V * A = C_2C_3^{(0.67)}*C_4(H-e)^{(0.67+b)}$$ **Equation B-1. Flow rating curve.**

Where:
Q = streamflow (cfs)
V = water velocity (ft/s)
A = wetted channel area (ft^2)
C_2 = coefficient indicating net flow resistance (varies around 1) (ft/s)
C_3 = coefficient used for calculating hydraulic radius ($R = C_3(H-e)$) (generally 0.5-1) (unitless)
C_4 = scaling coefficient related to channel width (unitless)
H = stage (ft)
e = effective zero flow water depth (ft), an offset that converts stage to depth of water
b = channel shape coefficient (generally should vary from 1-2) (unitless)

Coefficients in equation B-1 were estimated iteratively using R scripts and the R 'nls' function for fitting nonlinear least squares regression. The goal of the coefficient estimation process was to maximize curve performance (i.e. low bias and error, high r^2) while also keeping coefficients in a realistic range based on channel geometry and field observations, if possible. Curve performance was prioritized over desired coefficient value ranges.

Multiple rating curves were developed. One rating curve was developed for the initial stream gauge deployment (10-5-2020 to 10-7-2021). Several separate rating curves were developed for 10-8-2022 and later data. Professional judgement was used to determine the number of rating curves required and is described in more detail below.

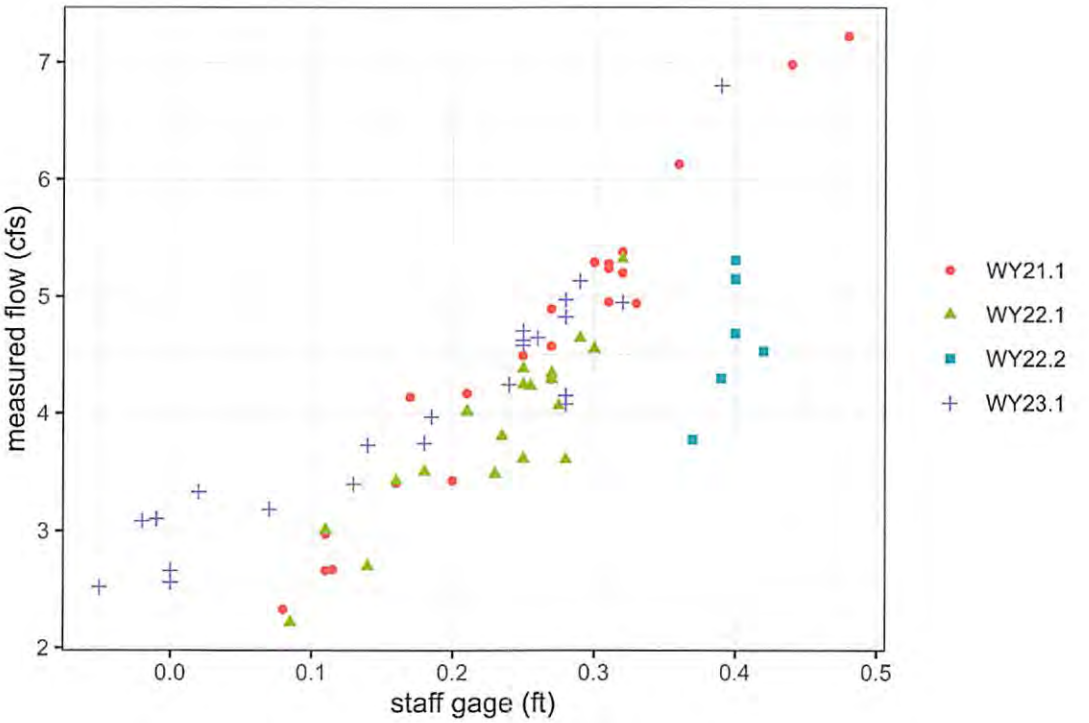


Figure C-1. Relationship between staff plate water depth (ft) and measured flow (cfs) for each rating curve developed.

Table C-1. Rating curves.

Rating Curve	Period	C_2	C_3	C_4	e	b	r^2
WY 21.1	10-5-2020 through 10/8/2021 10:45 am	0.91916	1.21139	6.85421	-0.5453	1.4566	0.94
WY 22.1	10-8-2021 through 4-25-2022, 6-7-2022 through 9-30-2022	0.89625	0.9527	6.0003	-0.6263	1.2469	0.77
WY 22.2	4-26-2022 through 6-6-2022	0.77443	0.9527	6.003	-0.6263	1.2469	0.38
WY 23.1	10-24-2022 through 9-30-2023	0.90967	0.882	5.4217	-0.755	1.09248	0.87

Water Year 2021 (WY21.1)

One rating curve was developed for the initial stream gauge deployment (10-5-2020 to 10-7-2021) (Figure C-1, Table C-1).

Water Year 2022 (WY22.1 & WY 22.2)

On 10-8-2022, the pressure transducer and stilling well at the site were reinstalled, which changed the distance from the pressure transducer to the streambed from 0.5 to 0.3 feet and required developing a new rating curve for 10-8-2022 forward. Two separate rating curves were developed for water year 2022 (Figure C-1, Table C-1). During 4-26-2022 to 6-6-2022, measured water levels resulted in lower measured flows than expected based on water level-flow relationships for the rest of the water year. Visual observations and field photos (Figure C-2) suggest riparian vegetation, in-stream vegetation, and large in-stream periphyton mats likely increased flow resistance during this period, causing measured velocities to be lower than for similar water levels in the absence of vegetation. Separate rating curves were developed for the period with highest flow resistance (4-26-22 to 6-6-2022) (WY22.1) and for the rest of the water year (WY 22.2).



Figure C-2. Lindsay Creek looking upstream on 1-20-2022 and 5-6-2022.

Water Year 2023 (WY23.1)

A separate rating curve was developed for water year 2023 because the 2023 water level-flow relationship appeared distinct from curve WY22.1, especially at lower water levels (Figure C-1). The reason for this is not fully clear, but could include stream channel changes or minor adjustments to the pressure transducer reference water level setting made during periodic gage maintenance.

C4 Rating Curve Performance

For each rating curve, performance was documented using plots of rating-predicted and measured flow, and by calculating several statistics comparing measured and rating curve-predicted flow, including bias (predicted-observed), error (|predicted – observed|), percent difference ([(predicted-observed) / observed)] * 100), and r^2 of the linear regression between predicted and observed flow.

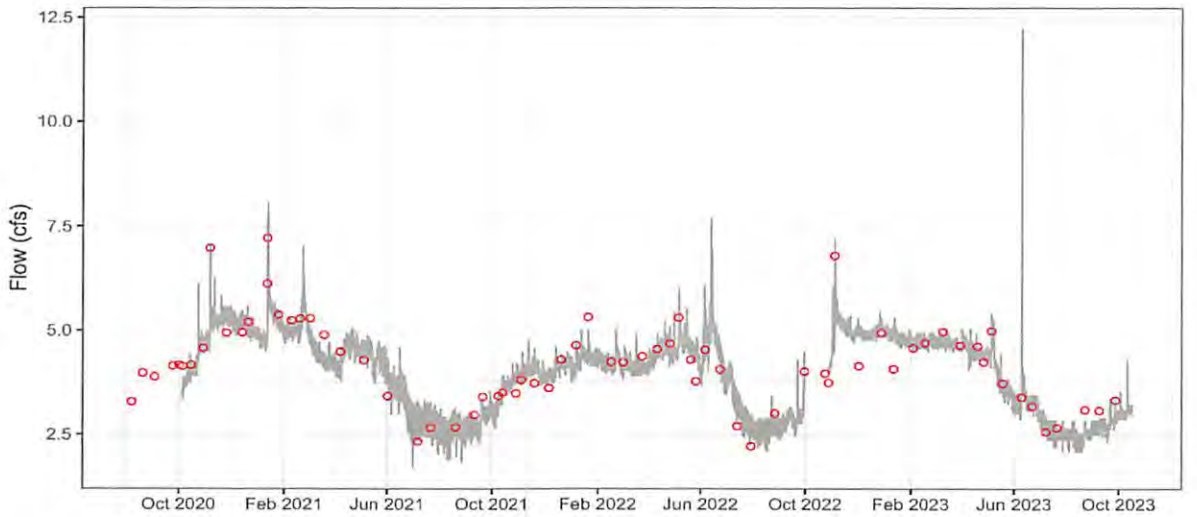


Figure C-3. Comparison of rating-predicted (grey lines) and measured (red circles) flow.

Table C-2. Rating curve performance statistics. Percent difference = (predicted-observed) / observed * 100.

Curve ID	Statistic	Units	Minimum	Maximum	Mean	Median
WY 21.1	Bias (predicted-observed)	cfs	-0.58	0.49	-0.03	-0.04
	Error |predicted-observed|	cfs	0.00	0.59	0.26	0.25
	% difference	%	-14	14	0.1	-1
WY 22.1	Bias (predicted-observed)	cfs	-0.64	0.69	0.01	-0.05
	Error |predicted-observed|	cfs	0.01	0.69	0.27	0.21
	% difference	%	-12.4	19.2	1.3	-1.2
WY 22.2	Bias (predicted-observed)	cfs	-0.5	0.78	-0.02	-0.05
	Error |predicted-observed|	cfs	0.00	1.04	0.27	0.21
	% difference	%	-15.3	19.2	0.20	-1.2
WY 23.1	Bias (predicted-observed)	cfs	-1.04	0.78	-0.06	-0.06
	Error |predicted-observed|	cfs	0.00	1.04	0.23	0.13
	% difference	%	-15.3	19.1	-1.2	-2.3
Across years	Bias (predicted-observed)	cfs	-1.0	0.78	-0.02	-0.05
	Error |predicted-observed|	cfs	0.00	1.04	0.27	0.21
	% difference	%	-15.3	19.2	0.2	-1.12

C5 References

Hamilton, S., Watson, M., Pike. R. 2019. The role of the hydrographer in rating curve development. *Confluence* 3(1). http://doi.org/10.22230/jwsm.2019v3n1a11

Appendix D. Continuous Sonde Operation

D1 Sensor Configuration

An EXO2 Multiparameter sonde has been acquired by DEQ Lewistion Regional Office for dedicated use as a continuous sonde. The EXO2 can accommodate the EXO Central Wiper, which is required for continuous deployments to keep sensor faces clear of fouling and debris. An EXO1 sonde lacks the capacity for central wiper.

An EXO Nitrate Smart Sensor was obtained by DEQ to record continuous nitrate in Lindsay Creek. The nitrate sensor requires co-deployment of an EXO Turbidity Smart Sensor and an EXO Conductivity & Temperature Smart Sensor. Continuous turbidity can also be used as an analog for TSS.

Supply chain issues throughout 2021 and 2022 delayed the arrival of the EXO2 sonde and sensors. The EXO2 sonde was initially deployed on February 2, 2022, before the nitrate sensor was received. The initial deployment included a dedicated EXO Turbidity Smart Sensor and an EXO Conductivity & Temperature Smart Sensor borrowed from the Lewiston Regional Office's (LRO's) EXO1 sonde, normally used for instantaneous measurements. This deployment ended March 24, 2022, and was used to develop initial calibration, maintenance, and data collection processes for the EXO2 sonde.

The EXO NitraLED UV Nitrate Sensor was received in May 2022 and first deployed on May 20, 2022. From June 8, 2022, the conductivity/temperature sensor was returned to service on LRO's EXO1 sonde and the sonde was deployed with only a turbidity sensor and the UV nitrate sensor. A dedicated EXO Conductivity & Temperature Smart Sensor was obtained by LRO and has been included in the sensor complement from 3/10/2023. The sensor complement history of the EXO2 sonde is summarized in Table D-1.

Table D-1 EXO2 sonde sensor configuration summary

Sensor	Serial number	Deployment start	Deployment end
EXO Central Wiper	22A100888	02/16/2022	ongoing
EXO Conductivity & Temperature Smart Sensor	18A102145	02/16/2022	05/25/2022
EXO Turbidity Smart Sensor	21M102404	02/16/2022	ongoing
EXO NitraLED UV Nitrate Sensor	22D106628	05/20/2022	ongoing
EXO Conductivity & Temperature Smart Sensor	23A101181	03/10/2023	ongoing

D2 Sonde Casing

The EXO2 sonde is deployed in a casing constructed from 4-inch diameter polyvinyl chloride pipe, cut to size, and secured with a padlocked well cap (Figure D-1). The casing design was based on recommendations provided by YSI for a vertical deployment tube in the manual for the EXO sonde series (Xylem 2020) (Figure D-2).



Figure D-1. EXO2 casing.

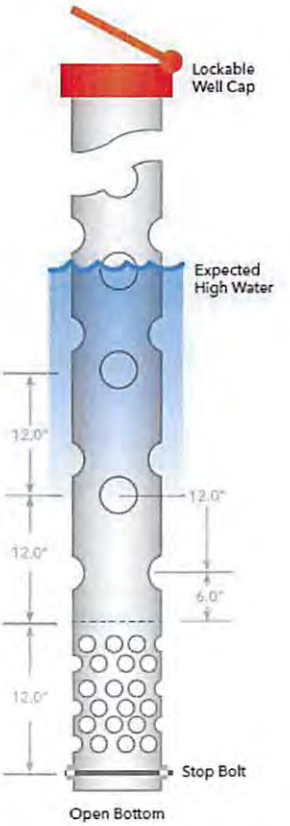


Figure D-2. EXO2 vertical deployment tube (reproduced from Xylem 2020).

A second casing was constructed to ensure that one is always available during maintenance and cleaning of the deployed casing. The EXO2 sonde was suspended from a metal crossbar at the top of the casing, which allows quick removal when the well cap is unlocked and open.

Using a combination of nylon zip ties and metal fasteners, the casing was attached to a t-post sunk into the substrate below the thalweg of Lindsay Creek (Figure D-3), downstream from the monitoring station that houses the pressure transducer.



Figure D-3. EXO2 casing deployed in Lindsay Creek.

During each field visit to Lindsay Creek, the EXO2 sonde and its casing were examined and cleared of debris. Additional weekly casing checks were commenced in fall of 2023 to further minimize debris buildup.

Seasonal adjustments of the casing were made to ensure the sonde remained both submerged and clear of sediment in the bottom of the channel. Before each deployment and once a month during deployment, the EXO2 sonde was extracted from its casing in Lindsay Creek and returned to LRO for cleaning and recalibration of its sensors. Calibration was performed using standards of known value, and calibration records are stored digitally at LRO.

D3 Calibration and Maintenance

Calibration is performed through Bluetooth connection using a laptop computer equipped with YSI's Kor software. Calibration of all mounted sensors is conducted in accordance with Xylem, 2020. These functions can also be performed via a wired connection using the EXO Handheld device.

Calibration occurs prior to each project deployment and on a nominal monthly basis during deployment. Mid-deplopyment calibration is conducted when the sonde has been extracted from the creek and cleaned at LRO facilities.

Calibration results are recorded in KorEXO for later export per project specific data management practices.

D3 Deployment

A field deployment template has been developed to record the sensor payload (including serial numbers), calibration status, deployment location, observation interval, sonde memory capacity and estimated battery life.

D4 QA/QC

During preliminary deployment of the EXO2 sonde, data were subject to QC measures to identify and evaluate the following before deciding whether to include or exclude them from the dataset:

- Unrealistic values above or below upper or lower limits (e.g., nitrate values below zero)
- Known mechanical issues (e.g., failure of wiper)

Over time, the QC measures have been refined to the identification of the following suspect data points that are individually reviewed for inclusion or exclusion from the dataset:

- Gross values comprising measurements which are not practically feasible.
- Unrealistic spikes, where values suddenly vary without an attributable cause.
- Suspect rates of change (greater than 3 standard deviations over 25 hours (12 hours forward, 12 hours back).
- Flat line (a steady state of unchanging observations that would not be expected in normal operation of the sensor).

The refinement of these QC measures remains an ongoing effort.

D5 References

Xylem. 2020. *EXO User Manual*. Revision K. Yellow Springs, OH.

O'Sullivan Legal PLLC

PO Box 8027
3120 S Grand Blvd
Spokane, 99203

PHONE: 5094344547

INVOICE

INVOICE NUMBER: 453
INVOICE DATE: NOVEMBER 03, 2025

City of Lewiston URA
215 D Street
Lewiston, ID 83501

DATE	PROJECT	DESCRIPTION	HOURS	RATE	AMOUNT
OCT-14-25	General Legal	Prepare for and attend meeting	1.50	$295.00	$442.50
OCT-27-25	General Legal	Telephone call with other counsel; legal analysis	0.50	$295.00	$147.50
OCT-29-25	General Legal	Review correspondence	0.10	$295.00	$29.50
		Total amount of this invoice			$619.50

ACCOUNT INFORMATION	
Prior account balance as of OCT-01-2025	$708.00
Payment OCT-17-2025 - Check 1575	($708.00)
Invoice 453 NOV-03-2025	$619.50
Current account balance	$619.50

AMOUNT DUE: $619.50

Invoice # 11052503

TO: Lewiston Urban Renewal Agency FOR: East Orchards Sewer Ph III

Description	Amount
Merrick Invoice Inv-102388599_7_4 FY25 Expense Revenue Acct: 09-220-000-43100	$55,600.00
TOTAL:	$55,600

Make all checks payable to City of Lewiston

Remit to:
City of Lewiston
Attn: Finance
PO Box 617
Lewiston, ID 83501

Payment is due within 30 days.
If you have any questions concerning this invoice, contact Public Works, 208-746-1316, publicworks@cityoflewiston.org

Ecopy: Claire Blewett, Finance

PO 22500665
Proj WW061 EOS PHASE 3
09-220-222-91180-Design

MERRICK

RECEIVED
By Jill Tolman at 6:42 am, Oct 13, 2025

INVOICE

CLIENT'S PROJECT TITLE
East Orchard Sewer Phase 3

City of Lewiston
P.O. Box 617
Lewiston, ID 83501

APPROVED BY: _____

DATE: _____

Attn:AP-ap@cityoflewiston.org; Joe Kaufman-joekaufman@cityoflewiston.org; PW-publicworks@cityoflewiston.orp

BILLING PERIOD	TERMS	Merrick Federal Tax ID
Thru 9/30/2025	NET 30	84-0499702

INVOICE DATE	INVOICE #	JOB NUMBER
10/10/25	INV-10238859_7_4	150055

East Orchard Sewer-Bidding

Contract Value	Percent Complete This Period	Amt This Period
$5,720.00	**81.64%**	**$4,670.00**

East Orchard Sewer-Construction Management

Contract Value	Percent Complete This Period	Amt This Period
$32,030.00	**100.00%**	**$32,030.00**

East Orchard Sewer-RPR

Labor Classification	Hours/Unit	Rate	Amt This Period
Project Manager	2.00	$210.00	$420.00
Construction Observer I	4.00	$140.00	$560.00
Construction Observer III	128.00	$140.00	$17,920.00
Labor Total	**134.00**		**$18,900.00**

TOTAL AMOUNT DUE THIS INVOICE: **$55,600.00**

8051 E. Maplewood Ave., Suite 300
Greenwood Village, CO 80111

Tel: +1 303-751-0741

hello@merrick.com
www.merrick.com

PRESNELL GAGE, PLLC
ACCOUNTING AND CONSULTING

October 23, 2025

Board of Commissioners
Urban Renewal Agency of the City of Lewiston
Lewiston, ID 83501

We are pleased to confirm our understanding of the services we are to provide the Urban Renewal Agency of the City of Lewiston for the year ended September 30, 2025.

Audit Scope and Objectives

We will audit the financial statements of the governmental activities, the major fund, and the disclosures, which collectively comprise the basic financial statements of the Urban Renewal Agency of the City of Lewiston as of and for the year ended September 30, 2025.

Accounting standards generally accepted in the United States of America (GAAP) provide for certain required supplementary information (RSI), such as the Management's Discussion and Analysis (MD&A), to supplement the Urban Renewal Agency of the City of Lewiston's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to the Urban Renewal Agency of the City of Lewiston's RSI in accordance with auditing standards generally accepted in the United States of America (GAAS). These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient appropriate evidence to express an opinion or provide any assurance. The following RSI is required by GAAS and will be subjected to certain limited procedures, but will not be audited:

1. Budgetary Comparison Schedules for Major Funds

We have also been engaged to report on supplementary information other than RSI that accompanies the Urban Renewal Agency of the City of Lewiston's financial statements. We will subject the following supplementary information to the auditing procedures applied in our audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with GAAS, and we will provide an opinion on it in relation to the financial statements as a whole, in a report combined with our auditor's report on the financial statements]:

1. Schedule of Revenues, Expenditures, and Changes in Fund Balances – Government Funds

The objectives of our audit are to obtain reasonable assurance as to whether the financial statements as a whole are free from material misstatement, whether due to fraud or error; issue an auditor's report that includes our opinion about whether your financial statements are fairly presented, in all material respects, in conformity with GAAP; and report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. Reasonable assurance is a high level of assurance but is not absolute assurance and, therefore, is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. Misstatements, including omissions, can arise from fraud or error and are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment of a reasonable user made based on the financial statements.

The objectives also include reporting on internal control over financial reporting and compliance with provisions of laws, regulations, contracts, and award agreements, noncompliance with which could have a material effect on the financial statements in accordance with *Government Auditing Standards*.

Auditor's Responsibilities for the Audit of the Financial Statements

We will conduct our audit in accordance with GAAS and the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, and will include tests of the accounting records of the Urban Renewal Agency of the City of Lewiston and other procedures we consider necessary to enable us to express such opinions. As part of an audit in accordance with GAAS and *Government Auditing Standards*, we exercise professional judgment and maintain professional skepticism throughout the audit.

We will evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management. We will also evaluate the overall presentation of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation. We will plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the government or to acts by management or employees acting on behalf of the government. Because the determination of waste and abuse is subjective, *Government Auditing Standards* do not expect auditors to perform specific procedures to detect waste or abuse in financial audits nor do they expect auditors to provide reasonable assurance of detecting waste or abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is an unavoidable risk that some material misstatements may not be detected by us, even though the audit is properly planned and performed in accordance with GAAS and *Government Auditing Standards*. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. However, we will inform the appropriate level of management of any material errors, fraudulent financial reporting, or misappropriation of assets that comes to our attention. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

We will also conclude, based on the audit evidence obtained, whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Agency's ability to continue as a going concern for a reasonable period of time.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, tests of the physical existence of inventories, and direct confirmation of receivables and certain assets and liabilities by correspondence with selected customers, creditors, and financial institutions. We will also request written representations from your attorneys as part of the engagement.

We have identified the following significant risk(s) of material misstatement as part of our audit planning:

- Management override of controls
- Revenue recognition
- Misappropriation of assets due to fraud
- Timing/cutoff of expenditures

Our audit of the financial statements does not relieve you of your responsibilities.

Audit Procedures—Internal Control

We will obtain an understanding of the Agency and its environment, including the system of internal control, sufficient to identify and assess the risks of material misstatement of the financial statements, whether due to error or fraud, and to design and perform audit procedures responsive to those risks and obtain evidence that is sufficient and appropriate to provide a basis for our opinions. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentation, or the override of internal control. An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. Accordingly, we will express no such opinion. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards and *Government Auditing Standards*.

Audit Procedures—Compliance

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the Urban Renewal Agency of the City of Lewiston's compliance with the provisions of applicable laws, regulations, contracts, agreements, and grants. However, the objective of our audit will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

Responsibilities of Management for the Financial Statements

Our audit will be conducted on the basis that you acknowledge and understand your responsibility for designing, implementing, establishing, and maintaining effective internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, and for evaluating and monitoring ongoing activities to help ensure that appropriate goals and objectives are met; following laws and regulations; and ensuring that management and financial information is reliable and properly reported. Management is also responsible for implementing systems designed to achieve compliance with applicable laws, regulations, contracts, and grant agreements. You are also responsible for the selection and application of accounting principles, for the preparation and fair presentation of the financial statements and all accompanying information in conformity with accounting principles generally accepted in the United States of America, and for compliance with applicable laws and regulations and the provisions of contracts and grant agreements.

Management is responsible for making drafts of financial statements, all financial records, and related information available to us for the accuracy and completeness of that information (including information from outside of the general and subsidiary ledgers); and for the evaluation of whether there are any conditions or events, considered in the aggregate, that raise substantial doubt about the government's ability to continue as a going concern for the 12 months after the financial statements date or shortly thereafter (for example, within an additional three months if currently known). You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, such as records, documentation, identification of all related parties and all related-party relationships and transactions, and other matters; (2) additional information that we may request for the purpose of the audit; and (3) unrestricted access to persons within the Agency from whom we determine it necessary to obtain audit evidence. At the conclusion of our audit, we will require certain written representations from you about your responsibilities for the financial statements; compliance with laws, regulations, contracts, and grant agreements; and other responsibilities required by GAAS and *Government Auditing Standards*.

Your responsibilities include adjusting the financial statements to correct material misstatements and for confirming to us in the written representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements of each opinion unit taken as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the Agency involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the Agency received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring that the Agency complies with applicable laws, regulations, contracts, agreements, and grants and for taking timely and appropriate steps to remedy fraud and noncompliance with provisions of laws, regulations, or contracts or grant agreements that we report.

You are responsible for the preparation of the supplementary information, which we have been engaged to report on, in conformity with GAAP. You agree to include our report on the supplementary information in any document that contains, and indicates that we have reported on, the supplementary information. You also agree to include the audited financial statements with any presentation of the supplementary information that includes our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the supplementary information in accordance with GAAP; (2) you believe the supplementary information, including its form and content, is fairly presented in accordance with GAAP; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying and providing report copies of previous financial audits, attestation engagements, performance audits or other studies related to the objectives discussed in the Audit Scope and Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or other studies. You are also responsible for providing management’s views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

Other Services

We will also assist in preparing the financial statements and related notes of the Urban Renewal Agency of the City of Lewiston in conformity with accounting principles generally accepted in the United States of America based on information provided by you. These nonaudit services do not constitute an audit under *Government Auditing Standards* and such services will not be conducted in accordance with *Government Auditing Standards*. We will perform the services in accordance with applicable professional standards. The other services are limited to the financial statement services previously defined. We, in our sole professional judgment, reserve the right to refuse to perform any procedure or take any action that could be construed as assuming management responsibilities.

You agree to assume all management responsibilities relating to the financial statements and related notes and any other nonaudit services we provide. You will be required to acknowledge in the management representation letter our assistance with preparation of the financial statements and related notes and that you have reviewed and approved the financial statements and related notes prior to their issuance and have accepted responsibility for them. Further, you agree to oversee the nonaudit services by designating an individual, preferably from senior management, with suitable skill, knowledge, or experience; evaluate the adequacy and results of those services; and accept responsibility for them.

Engagement Administration, Fees, and Other

We understand that your employees will prepare all cash, accounts receivable, or other confirmations we request and will locate any documents selected by us for testing.

We will provide copies of our reports to the Agency; however, management is responsible for distribution of the reports and the financial statements. Unless restricted by law or regulation, or containing privileged and confidential information, copies of our reports are to be made available for public inspection.

The audit documentation for this engagement is the property of Presnell Gage, PLLC, and constitutes confidential information. However, subject to applicable laws and regulations, audit documentation and appropriate individuals will be made available upon request and in a timely manner to an Oversight Agency or its designee, a federal agency providing direct or indirect funding, or the U.S. Government Accountability Office for purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of Presnell Gage, PLLC, personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

The audit documentation for this engagement will be retained for a minimum of five years after the report release date or for any additional period requested by the Oversight Agency. If we are aware that a federal awarding agency or auditee is contesting an audit finding, we will contact the parties contesting the audit finding for guidance prior to destroying the audit documentation.

Dawn Aliverti, CPA, is the engagement partner and is responsible for supervising the engagement and signing the reports or authorizing another individual to sign them. We expect to begin our audit on approximately November 9, 2025 and to issue our reports no later than January 31, 2025.

Our fee for these services will be $5,600 The fee is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the audit. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs.

Our most recent peer review report is available upon request.

Reporting

We will issue a written report upon completion of our audit of the Urban Renewal Agency of the City of Lewiston's financial statements. Our report will be addressed to the Board of Commissioners of the Urban Renewal Agency of the City of Lewiston. Circumstances may arise in which our report may differ from its expected form and content based on the results of our audit. Depending on the nature of these circumstances, it may be necessary for us to modify our opinions, add a separate section, or add an emphasis-of-matter or other-matter paragraph to our auditor's report, or if necessary, withdraw from this engagement. If our opinions are other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or issue reports, or we may withdraw from this engagement.

We will also provide a report (that does not include an opinion) on internal control related to the financial statements and compliance with the provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a material effect on the financial statements as required by *Government Auditing Standards*. The report on internal control and on compliance and other matters will state (1) that the purpose of the report is solely to describe the scope of testing of internal control and compliance, and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control on compliance, and (2) that the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. The report will also state that the report is not suitable for any other purpose.

If during our audit we become aware that the Urban Renewal Agency of the City of Lewiston is subject to an audit requirement that is not encompassed in the terms of this engagement, we will communicate to management and those charged with governance that an audit in accordance with U.S. generally accepted auditing standards and the standards for financial audits contained in *Government Auditing Standards* may not satisfy the relevant legal, regulatory, or contractual requirements.

We appreciate the opportunity to be of service to the Urban Renewal Agency of the City of Lewiston and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign the enclosed copy and return it to us.

Presnell Gage, PLLC

PRESNELL GAGE, PLLC

RESPONSE:

This letter correctly sets forth the understanding of the Urban Renewal Agency of the City of Lewiston.

_____ _____

Signature Title

Memo

To: **URBAN RENEWAL AGENCY**

From: **Katie Hollingshead, URA DIRECTOR**

Date: **November 5, 2025**

Re: **Downtown Revenue Allocation Area**

In 2021 Lewiston City Council adopted Ordinance 4814 approving the Urban Renewal Plan for Revenue Allocation Area #7 Downtown/Normal Hill.

The East Orchards Sewer Plan establishes a base assessment roll as of January 1, 2021 and its term ends 2041.

Revenues generated through the term of RAA #7 will be used for water mains throughout the district; pedestrian staircases; wayfinding; parking lots and streets; flood control and sanitary sewer and other projects described in the "Downtown Master Plan" and authorized by statute.

The original estimate for increment over the life of the district was $10.2 million but changes in the legislative taxing method between commercial and residential properties have since occurred. Current estimate for increment over the life of the district is $5.2 million.

Included in the packet, following this memo, is a map of the district, updated increment estimate, and the Downtown/Normal Hill RAA #7 Ordinance and plan.

(Above space for Recorder's use)

CITY ORDINANCE NO. 4814

AN ORDINANCE OF THE CITY OF LEWISTON MAKING THE FINDINGS REQUIRED BY IDAHO CODE § 50-2008 TO APPROVE AN URBAN RENEWAL PLAN AND URBAN RENEWAL PROJECTS; APPROVING THE "URBAN RENEWAL PLAN FOR REVENUE ALLOCATION AREA #7 DOWNTOWN/NORMAL HILL AREA"; CREATING A REVENUE ALLOCATION AREA AS PART OF SUCH URBAN RENEWAL PLAN; DESCRIBING THE REQUIREMENT FOR HOW THE NEZ PERCE COUNTY COMMISSIONERS ARE TO LEVY TAXES BY OR FOR EACH TAXING DISTRICT IN WHICH REVENUE ALLOCATION AREA #7 IS LOCATED; DIRECTING THE CITY CLERK TO TRANSMIT A COPY OF THIS ORDINANCE AND OTHER REQUIRED INFORMATION TO THE NEZ PERCE COUNTY AUDITOR AND TAX ASSESSOR, THE AFFECTED TAXING DISTRICTS, AND THE STATE TAX COMMISSION; PROVIDING A LIMITATION ON ACTIONS AGAINST SUCH URBAN RENEWAL PLAN; PROVIDING A SAVINGS AND SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Urban Renewal Agency of the City of Lewiston, Idaho ("Agency") was established on October 18, 1999 through Resolution No. 99-75 of the City of Lewiston, Idaho ("City");

WHEREAS, the City, through Resolution 2021-4, determined certain property to be deteriorated or deteriorating areas and designated such property as appropriate for urban renewal projects, thereby creating an urban renewal area ("Urban Renewal Area") in accordance with Idaho Code §§ 50-2008(a) and 50-2018(11);

WHEREAS, the City and the Agency want to carry out urban renewal projects within the Urban Renewal Area, including installing and replacing water mains; reconstructing staircases; providing for wayfinding; and building streets, parking lots, and wastewater lines;

WHEREAS, in order to move forward with urban renewal projects within the Urban Renewal Area, the Agency prepared an urban renewal plan, titled "Urban Renewal Plan for Revenue

Allocation Area #7 Downtown/Normal Hill Area" ("Downtown/Normal Hill Plan"), which plan sets forth urban renewal projects to be completed within the Urban Renewal Area;

WHEREAS, on December 8, 2020, the Agency met to consider the Downtown/Normal Hill Plan and, on February 9, 2021, through Resolution 2021-1, approved the Downtown/Normal Hill Plan;

WHEREAS, on April 5, 2021, the Downtown/Normal Hill Plan was submitted to the City of Lewiston Planning and Zoning Commission ("Planning and Zoning Commission"), in accordance with Idaho Code § 50-2008(b);

WHEREAS, on April 14, 2021, the Planning and Zoning Commission reviewed the Downtown/Normal Hill Plan and unanimously determined that the Downtown/Normal Hill Plan is in conformity with the City of Lewiston's Comprehensive Plan, and the Planning and Zoning Commission's written recommendation with respect to the Downtown/Normal Hill Plan was submitted to the Lewiston City Council on April 15, 2021, in accordance with Idaho Code § 50-2008(b);

WHEREAS, on June 8, 2021, the Agency vacated Resolution 2021-1 and recalled the Downtown/Normal Hill Plan, through Resolution 2021-2, due to adoption of the American Rescue Plan and developer interest in the Twin City Foods property, both of which caused the Agency to consider changes to the Downtown/Normal Hill Plan;

WHEREAS, on July 13, 2021, the Agency met to consider a revised version of the Downtown/Normal Hill Plan and, through Resolution 2021-3, approved said revised version of the Downtown/Normal Hill Plan;

WHEREAS, on July 14, 2021, the Downtown/Normal Hill Plan was submitted to the Planning and Zoning Commission, in accordance with Idaho Code § 50-2008(b);

WHEREAS, on July 16, 2021, the City transmitted a notice of public hearing regarding the

Downtown/Normal Hill Plan, a copy of the Downtown/Normal Hill Plan, and the recommendation of the Agency to the governing body of each taxing district that levies taxes upon any taxable property within proposed revenue allocation area #7, in accordance with Idaho Code § 50-2906(3);

WHEREAS, on July 17, 2021, a notice of a public hearing regarding the Downtown/Normal Hill Plan was published in the Lewiston Tribune, in accordance with Idaho Code §§ 50-2008(c) and 50-2906(3);

WHEREAS, on July 28, 2021, the Planning and Zoning Commission reviewed the Downtown/Normal Hill Plan and unanimously determined that the Downtown/Normal Hill Plan is in conformity with the City of Lewiston's Comprehensive Plan, and the Planning and Zoning Commission's written recommendation with respect to the Downtown/Normal Hill Plan was submitted to the Lewiston City Council on July 29, 2021, in accordance with Idaho Code § 50-2008(b);

WHEREAS, on August 16, 2021, the City Council held a public hearing on the proposed Downtown/Normal Hill Plan;

WHEREAS, because the Downtown/Normal Hill Plan contains a revenue allocation financing provision, the Downtown/Normal Hill Plan includes the following items, as required by Idaho Code §§ 50-2008(h) and 50-2905:

(1) A statement describing the total assessed valuation of the base assessment roll of revenue allocation area #7 and the total assessed valuation of all taxable property within the City;

(2) A statement listing the kind, number, and location of all proposed public works or improvements within revenue allocation area #7;

(3) An economic feasibility study;

(4) A detailed list of estimated project costs;

(5) A fiscal impact statement showing the impact of revenue allocation area #7, both until and after the bonds are repaid, upon all taxing districts levying taxes upon property in revenue allocation area #7;

(6) A description of the methods of financing all estimated project costs and the time

when related costs or monetary obligations are to be incurred;

(7) A termination date for the Downtown/Normal Hill Plan and revenue allocation area #7; and

(8) A description of the disposition or retention of any assets of the Agency upon the termination date; and

WHEREAS, it is in the best interest of the City to adopt the Downtown/Normal Hill Plan and form revenue allocation area #7 because tax increment financing will: (a) help fund the urban renewal projects to be completed in accordance with the Downtown/Normal Hill Plan, which projects will encourage private development and investment in the project area, and such development would not be possible without sufficient water and wastewater utilities, streets, and parking lots; (b) prevent and arrest decay of the project area due to the inability of existing financing methods to provide needed public improvements; and (c) encourage taxing districts to cooperate in the allocation of future tax revenues arising in the project area in order to facilitate the long-term growth of their common tax base.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF LEWISTON, IDAHO:

SECTION 1: In accordance with Idaho Code § 50-2008(d), it is hereby found that:

(a) No families or persons are expected to be displaced from the Urban Renewal Area as a result of the urban renewal projects set forth in the Downtown/Normal Hill Plan.

(b) The Downtown/Normal Hill Plan conforms to the City of Lewiston's Comprehensive Plan.

(c) The Downtown/Normal Hill Plan gives due consideration to the provision of adequate park and recreational areas and facilities that may be desirable for neighborhood improvement, with special consideration for the health, safety, and welfare of children residing in the general vicinity of the site covered by the Downtown/Normal Hill Plan.

(d) The Downtown/Normal Hill Plan will afford maximum opportunity, consistent with the sound needs of the City of Lewiston, for the rehabilitation or redevelopment of the Urban Renewal Area by private enterprise.

(e) The Urban Renewal Area does not consist of an area of open land to be acquired by the Agency.

SECTION 2: The Downtown/Normal Hill Plan is hereby approved, a copy of which is attached hereto and incorporated herein as Exhibit A.

SECTION 3: As part of the Downtown/Normal Hill Plan, revenue allocation area #7 is hereby created, the legal description for which is attached hereto and incorporated herein as Exhibit B.

SECTION 4: The Downtown/Normal Hill Plan establishes a base assessment roll as of January 1, 2021, as it may be adjusted, in revenue allocation area #7.

SECTION 5: In accordance with Idaho Code § 50-2908(1), for purposes of calculating the rate at which taxes shall be levied by or for each taxing district in which revenue allocation area #7 is located, the Nez Perce County Commissioners shall, with respect to the taxable property located in revenue allocation area #7, use the equalized assessed value of such taxable property as shown on the base assessment roll rather than on the current equalized assessed valuation of such taxable property.

SECTION 6: In accordance with Idaho Code §§ 50-2907 and 63-215, the City Clerk shall transmit a copy of this Ordinance No. 4814, including a copy of the legal description and a map of the boundaries of revenue allocation area #7, attached hereto and incorporated herein as Exhibits B and C, to the Nez Perce County Auditor and Tax Assessor; the affected taxing districts, consisting of the City of Lewiston, Nez Perce County, Lewiston Independent School District No. 1, and the Port of Lewiston; and the Idaho State Tax Commission within thirty (30) days following the effective date of this Ordinance No. 4814.

SECTION 7: In accordance with Idaho Code §§ 50-2027 and 50-2911, no direct or collateral action attacking the Downtown/Normal Hill Plan shall be brought prior to the effective date of this ordinance or after the elapse of thirty (30) days from the effective date of this ordinance.

SECTION 8: The provisions and parts of this ordinance are intended to be severable. If any section, sentence, clause, or phrase of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause, or phrase of this ordinance.

SECTION 9: This ordinance shall take effect and be in full force from and after its passage and publication.

PASSED this _____ day of _____ 2021.

CITY OF LEWISTON

By: _____
Michael G. Collins, Mayor

ATTEST:

_____
Kari J. Ravencroft, City Clerk

STATE OF IDAHO)
) ss.
County of Nez Perce)

On this _____ day of _____ 2021, before me, a Notary Public, personally appeared Michael G. Collins and Kari J. Ravencroft, known or identified to me as the Mayor and City Clerk, respectively, of the City of Lewiston, and stated that they have the authority to execute this instrument on behalf of the City of Lewiston, and did execute this instrument on behalf of the City of Lewiston.

_____
Notary Public for the State of Idaho
Commission Expires _____

EXHIBIT A
TO ORDINANCE NO. 4814

URBAN RENEWAL PLAN

FOR

REVENUE ALLOCATION AREA #7

Downtown/Normal Hill Area

THE CITY OF LEWISTON

URBAN RENEWAL AGENCY

Prepared by

Urban Renewal Agency of the City of Lewiston

Joe Hulett, Chairman

Jo Ann Cole-Hansen, Vice-Chairman

Dan Marsh, Secretary

A.L. “Butch” Alford

Don Beck

Bob Blakey

Mary Hasenoehrl

July 13, 2021

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EXECUTIVE SUMMARY

The Lewiston City Council has formed an Urban Renewal Agency (URA) to promote economic development, create jobs and improve the tax base. This is done in part by strategically targeting public investments to create these benefits, promote development of under-utilized properties, eliminate blighted conditions, improve public safety and beautify the built environment.

Revenues available to finance this URA project come from a Revenue Allocation Area (RAA), which the URA recommends be established by the City of Lewiston. The base year for this area is 2021. Increases in the valuation resulting from new growth or appreciation over the base year, multiplied by current levies of the four taxing districts, generates the revenues for URA investment.

Revenues generated through the term of the RAA, (12/31/41), will be used for water mains throughout the district; pedestrian staircases; wayfinding; parking lots and streets; flood control and sanitary sewer and other projects described in the “Downtown Master Plan” and authorized by statute. The Urban Renewal Agency intends to implement the projects described in this plan and then terminate Revenue Allocation Area #7 without delay.

INTRODUCTION

The Urban Renewal Agency provides financing options to pay for improvements that will eliminate blight and enhance development, job creation or private investment. In so doing, the assessed value of the area is increased. The City of Lewiston has established an Urban Renewal Agency (URA) to help develop blighted areas, build roads and infrastructure, enhance the climate for private investment and put vacant properties to work for the community. By returning formerly vacant or underused properties to the tax rolls, at an increased value, the URA creates new sources of revenue. These revenues can be used for improvements in the RAA without raising taxes in the community. The Agency's investments in these areas are repaid through new jobs and improved, productive properties that become permanent revenue generators because of increased assessed value.

Private investors are not likely to locate within a city that cannot provide adequate infrastructure or within areas that are considered blighted or under used. There are a few areas in Lewiston that meet these descriptions. If an area is designated a Revenue Allocation Area (RAA) the Agency can utilize Tax Increment Financing (TIF) to improve and extend infrastructure, improve the ability of properties to develop, eliminate blight, assemble parcels and a full range of other powers and activities as provided by law.

URA's were originally developed in the 1950's to help cities with their economic development efforts. Many cities use URA's and TIF as a tool to attract businesses into the community using the incremental tax increase to fund infrastructure and other improvements. When improvements are made that directly facilitate a specific business interest, the program should require commensurate improvements or job commitments from the business/property owner. The amount of negotiated assistance can be based upon specific criteria, for example:

- The projected increase in the assessed valuation of the property.
- The number and quality of new jobs created or retained.
- The amount of other revenue generated for the Community by the project.
- The financial strength of the applicant.
- The ability of the applicant to further the Community's development and economic goals.

The City of Lewiston Urban Renewal Agency was originally formed in 1999 but lay dormant until 2005 when an Urban Renewal Plan was adopted along with three revenue allocation areas. In 2014, Urban Renewal Plan 2 was adopted adding a project to RAA #1 (18th Street North), clarifying the cost of Nez Perce Drive Extension (RAA #2), and adding a potential list of projects to RAA #3. This plan is separate and distinct from Urban

Renewal Plan #2 that is now retired and all three districts closed. The purpose of this plan is to scope and implement projects in a new RAA #7 (Downtown/Normal Hill). This area has been deemed suitable for an Urban Renewal project by the City Council through Resolution 2021-4 adopted January 11, 2021.

The Agency does not anticipate long-term ownership of any assets at this time. Public improvements will be dedicated to or become the property of another governmental agency or public utility as selected by the Board. Should the Agency own any assets derived from tax revenues on the termination date, their disposition shall be negotiated by the Agency and local taxing districts.

PURPOSE

Idaho law gives cities and counties the authority to establish Urban Renewal Agencies, which are mechanisms for the rehabilitation, clearance and redevelopment of deteriorated and deteriorating areas in municipalities (Statute 50-2005). Open land can, under certain circumstances, constitute a deteriorated or deteriorating area. In addition, the law allows urban renewal activities for competitively disadvantaged border communities-- those within 25 miles of a state or international border (Statute 50-2903). When a community determines it is at a disadvantage in its ability to attract business, private investment or commercial development, it is allowed to form Revenue Allocation Areas and fund projects to remedy the situation.

The purposes of the law and the major goals of this plan are:

- Enlarging the economic base of the project areas and the community by installation of needed public improvements and facilities to stimulate new commercial expansion, employment, economic growth, residential growth and connectivity;
- Strengthening the tax base by encouraging and facilitating private investment, thus increasing the assessed valuation of properties in the project area and community-wide;
- Direct persons into the Downtown District, Normal Hill and the Levee system to enhance the visitor experience and improve market visibility;
- Elimination of public safety hazards in the project area, including among others inadequate capacity water flows, lack of sanitary sewer, and blighted buildings;
- Leverage funds of other local, state or federal agencies.

OBJECTIVES

Agency objectives are:

- Improve infrastructure to leverage, encourage, and support additional land development and/or job growth.
- Improve the local tax base and community aesthetics.

- Fund projects that solve community problems caused by a lack of infrastructure.
- Pay off debts early, when possible.

ORGANIZATION

The Agency is governed by a seven-member board appointed by the Lewiston City Council. Three of the four taxing districts operating within the plan area have a seat (Lewiston, Nez Perce County and Port of Lewiston). The City's Administrative Services Director, a representative of Valley Vision and two community members at-large complete the Board.

On the board:

- Chairman, Joe Hulett, Member-at-Large
- Vice-Chairman Jo Ann Cole-Hansen, Member-at-Large
- Secretary Dan Marsh, Administrative Services Director, City of Lewiston
- A.L."Butch" Alford, Jr., Valley Vision
- Don Beck, Nez Perce County Commissioner
- Bob Blakey, Lewiston City Council
- Mary Hasenoehrl, Port Commissioner

Administration of the Agency has been provided by Laura Von Tersch, Community Development Director, City of Lewiston.

POWERS

The Agency has broad powers with respect to any urban renewal plan, including the power to acquire property by purchase from a willing seller. Urban renewal agencies have the power to issue bonds to finance the undertaking of approved projects; however, the Agency does not have the power to levy taxes. Bonds and other obligations of a URA are paid by the tax increment collected from the revenue allocation areas. The bonds do not become a debt of any other political agency.

This plan provides the Agency with powers, duties and obligations to implement and further the program generally formulated in this plan for urban renewal, rehabilitation, revitalization of the areas within the boundaries of the Revenue Allocation Area.

Implementation of this plan will require public co-investment to help stimulate desired private investment. Typically, the Agency will fund enhanced public facilities like streets, sidewalks, parking facilities, parks, public buildings, plazas, infrastructure (utilities, storm drainage, and fiber) and streetscape that in turn create an attractive setting for adjacent private investment in office, retail, housing or other commercial facilities.

DUTIES

The URA is responsible for writing and administering the urban renewal plan adopted by the City Council and associated record keeping and retention. The URA shall have the same fiscal year as the City of Lewiston and shall be subject to the same audit requirements as a municipality. As required by the Law and the Act, the Agency will adopt more specific budgets annually. The Agency will report on its activities at least once per year to the City Council. This annual report will address all requirements in Statute including an accounting of the Agency's activities and financial position.

The Agency will comply with all statutory requirements including the Local Government Entity Registry and the State Tax Commission Reporting Repository for Urban Renewal Plans.

The URA Board shall meet regularly to discuss URA business. The URA will seek ways to increase the overall tax base with the goal of ultimately turning the tax revenues over to the local governmental taxing entities. The URA will dispose of all assets upon expiration of the Revenue Allocation Area on December 31, 2041 or sooner if applicable. A disposal plan will be developed in consultation with the other taxing entities closer to the termination date.

SOURCE OF AGENCY REVENUES

The Agency will contribute to financing the projects described in this plan using a revenue allocation area (RAA). The base year for this area is 2021. Increases in the valuation resulting from new growth or appreciation over the base year, multiplied by current levies of the four taxing districts[1], generates the revenues for URA investment. This revenue value is called the "increment". The City of Lewiston contributes most of the increment available to the Agency, and has the largest share of assessed valuation within the RAA boundaries.

See Exhibits 1 and 2.

It should be noted that Exhibit 2 reflects projected conditions with the adoption of this plan and RAA #4, RAA #5, RAA #6 are open.

FINANCING IMPROVEMENTS

The Agency may issue bonds that are special obligations payable from the tax increment as described earlier in this document or payable from any funds available to the authority in connection with any urban renewal project. The bonds are obligations of the Agency and are not an indebtedness of the City.

[1] Only a very small portion of the School District levy flows to the URA.

The Agency may fund projects with any revenues on-hand, or commit, in partnership with other private or public entities to fund projects over time as revenues materialize. The "pay as you go" method is ideal for small or phased projects and avoids costs associated with issuing bonds.

The time when related costs or monetary obligations are to be incurred is throughout the duration of the district, December 31, 2041.

The Agency anticipates entering into an agreement with the City of Lewiston regarding the funding of the urban renewal projects described in this Plan shortly after this Plan is approved by the City of Lewiston.

ELIGIBLE PROJECT ACTIVITIES

Idaho State Statutes establish the activities in which an urban renewal agency is allowed to engage. Project elements and activities include:

- Acquisition of deteriorated areas and real property;
- Management of any property acquired by the agency;
- Demolition and removal of buildings and improvements;
- Construction or reconstruction of streets, utilities (including sewer, water, storm drainage, fiber, electrical or natural gas distribution), parks, playgrounds, off-street parking facilities, some public facilities or buildings, walkways, and public open space.
- Disposition of any property at fair market value, except for disposition of property to another public body that can be at less than fair market value;
- Telecommunication infrastructure;
- Issuance of bonds, notes or other financial obligations from time to time; and
- All other actions as necessary or authorized under State law to accomplish this Plan.

EXHIBITS 1 & 2:

Exhibit 1.

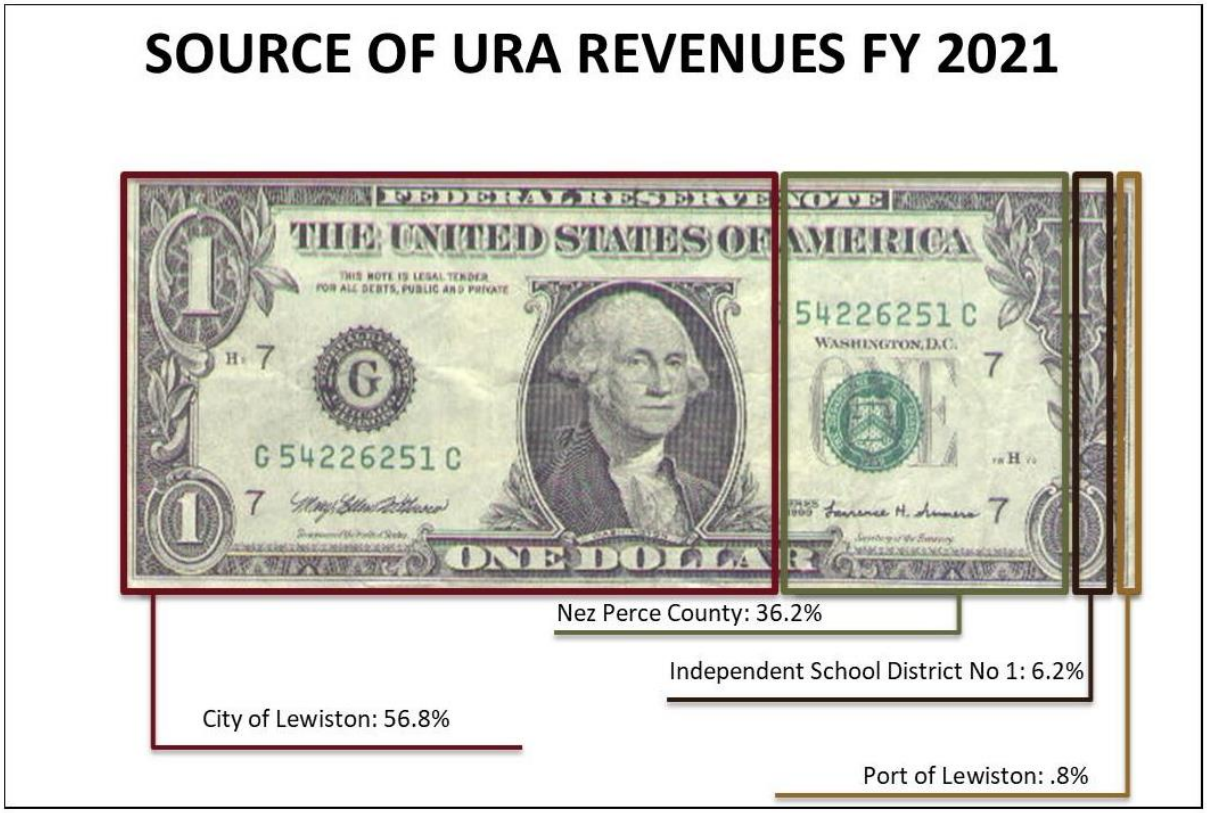
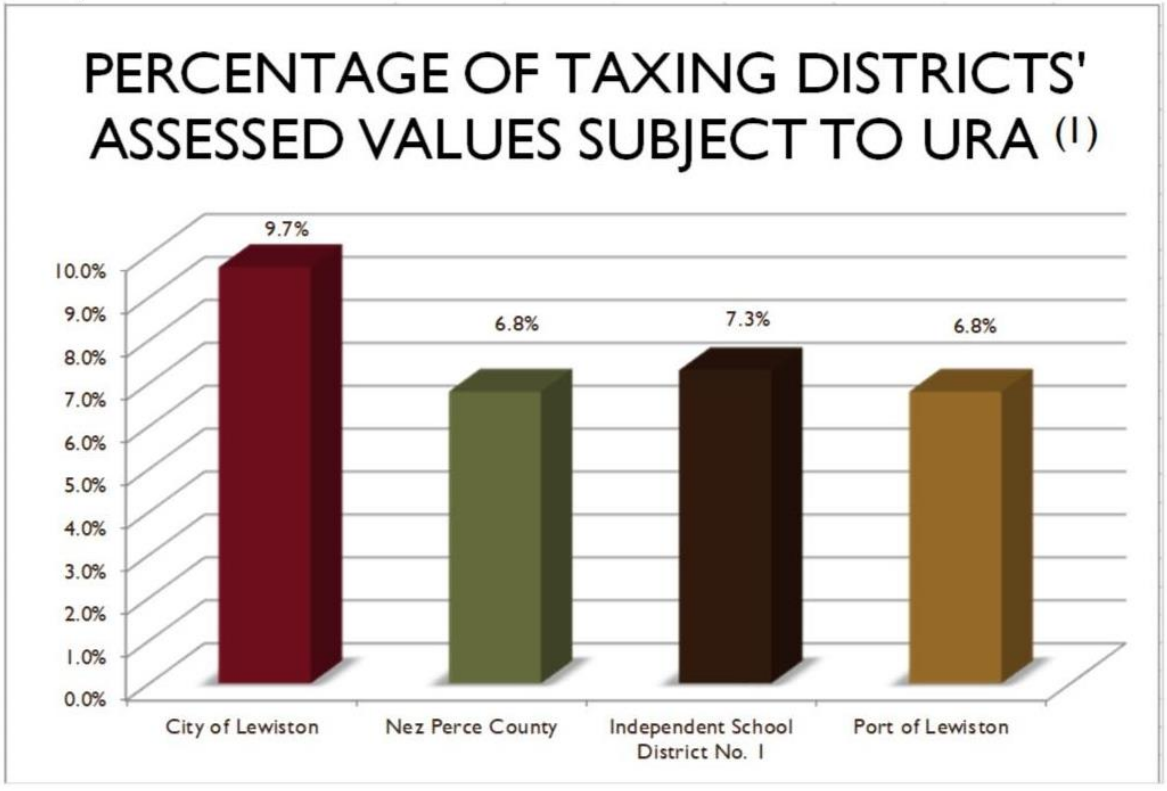
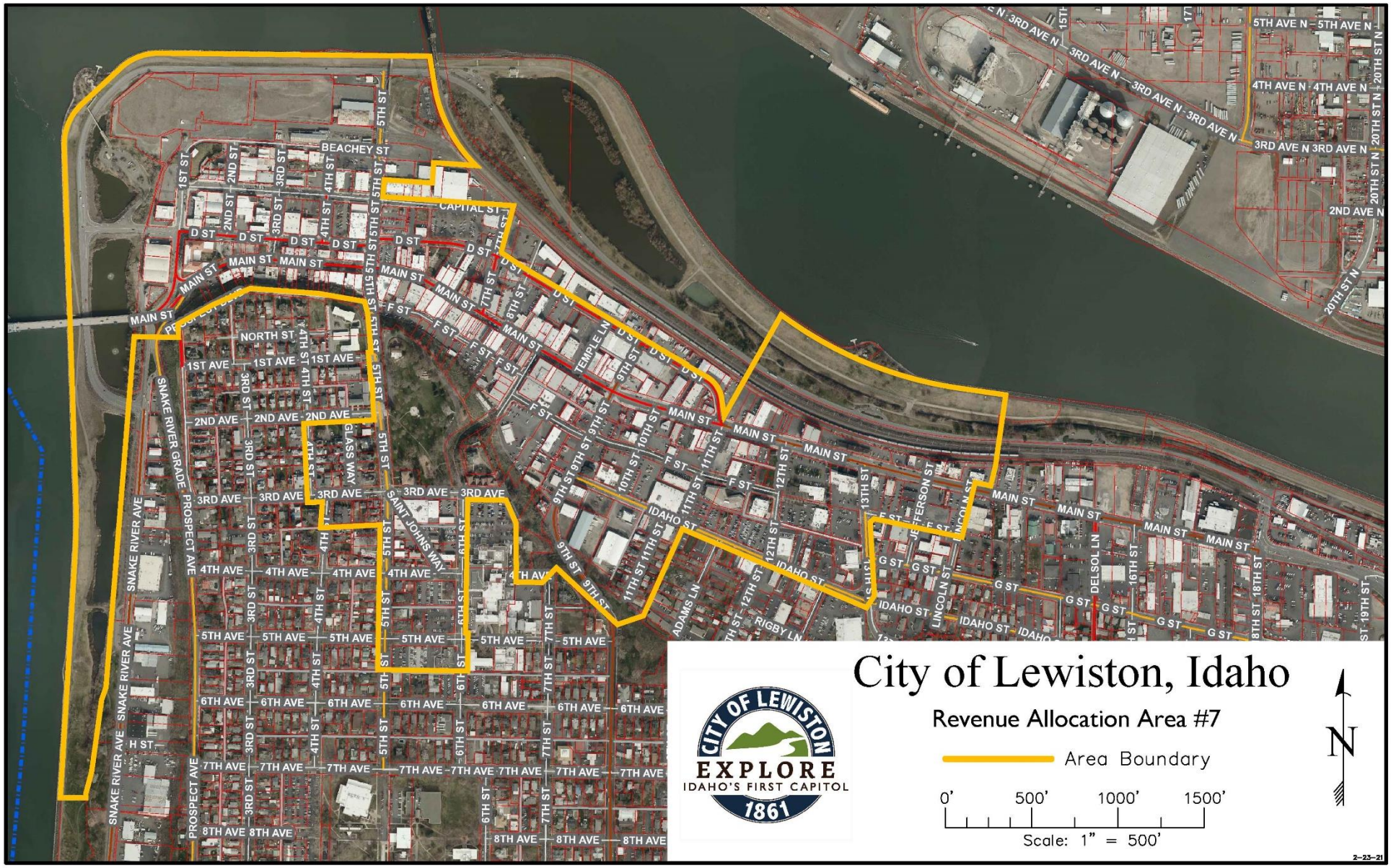


Exhibit 2.



(1) Taxable values from 2020 September Value Worksheet

EXHIBIT 3: MAP



COOPERATION BETWEEN THE CITY AND AGENCY

The Agency recommends that the City aid and cooperate with the Agency in carrying out this Plan and take all actions necessary to ensure the continued fulfillment of the purposes of this Plan and prevent the recurrence or spread in the area of conditions causing deterioration.

In addition to the above, by adoption of this plan, the City commits to take the following actions:

(a) Accept ownership and on-going maintenance of improvements made by the URA in the public domain (excepting improvements retained by a public utility for the Community's benefit, a special district or those dedicated to another taxing entity).

(b) Apply zoning, land development standards and business licensing strategies to further the objectives of this plan.

(c) Negotiate agreements with the Agency for administration, support services, funding sources, personnel, office space and the like.

(d) Negotiate the transfer and/or purchase of private land or easements necessary to implement the project.

(e) Undertake and complete any other proceedings necessary to carry out projects.

DETERMINATION OF DETERIORATED, DETERIORATING CONDITIONS

A deteriorated area is defined as "an area in which there is a predominance of buildings or improvements, whether residential or nonresidential, which by means of dilapidation, deterioration, age or obsolescence, inadequate provision for ventilation, light, air, sanitation or open spaces, high density of population and overcrowding, or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors is conducive to ill health, transmission of disease, infant mortality, juvenile delinquency or crime, and is detrimental to the public health, safety, morals or welfare". Deteriorating area has a similar definition but also includes issues relating to conditions of title, lot layout, ownership, street layout and other conditions that "substantially impairs or arrests the sound growth of municipality, retards the provision of housing accommodations or constitutes an economic or social liability and is a menace to the public health, safety, morals or welfare in its present condition or use".

The purpose of an urban renewal project is to address these issues and reduce or eliminate blight.

Demographics are a good place to start this analysis. One can compare the circumstances in the area against community or state averages to measure blight. A number of data sets have been used to compile this report. Depending on data source

and year compiled, there may be some variation in reported percentages. However, the conclusion is the same.

1. Infrastructure

According to the Downtown Master Plan, "Downtown Lewiston has the oldest water system in the city. Half of the pipes are six inches or less in diameter, and generally do not meet commercial fire flow requirements. This puts the city in the unfortunate position of requiring property investors to install more expensive fire suppression systems than would be required if the public water line provided sufficient fire flow".[2] According to Beautiful Downtown Lewiston, with adequate water pipe sizes, costs of private fire suppression installation is reduced by 20-50%.[3]

Replacement of the Main Street Transmission Main is the highest priority transmission project in the city's Water Capital Improvement Plan.[4] The justification for this project includes aging infrastructure, supply capacity and fire flow. Mains are also slated to be replaced on 5th Street from "F" to 3rd Avenue and 4th Avenue from 6th Street to Saint John's Way. The justification is aging infrastructure and fire flow.

The obsolescence of the water system in Downtown/Normal Hill endangers life and property by fire and impairs and arrests the sound growth of the area.

2. Fire Activity

There have been two devastating fires in the proposed district in the last year. The first fire was located at 858 Main Street where the building is a total loss. It has been declared a nuisance by the City. The second fire was at 615 3rd Avenue, a historic 1920 apartment building, where approximately 14 families were displaced. Forming a Revenue Allocation Area would provide additional fire suppression capacity.

3. Single-Family Residential Buildings

The median single-family home value in Nez Perce County (including cities) is $181,200.[5] In the census tract that covers much of Normal Hill north of Lewis-Clark State College (LCSC), the value drops to $175,000 for owner occupied units. In the proposed district, 42 houses (84%) are valued at less than median. The average value is $142,950 and the median value is $140,327 (78% of the county median).[6]

Lower than average single-family residential properties demonstrate that the buildings are deteriorated and are detrimental to the public health, safety and welfare.

[2] Downtown Master Plan, July 2019 page 36.

[3] Letter from BDL Board President to the URA dated June 23, 2020.

[4] Water System Facility Plan, City of Lewiston 2019, page ES-9.

[5] Census Report, Census Tract 9603 Nez Perce County, ID.

[6] Nez Perce County Assessor's Records.

4. Tenancy/Income

This proposed district has 50% more multi-family units than an average neighborhood in Nez Perce County. [4] And renters are 31% more likely than homeowners to earn 80% or less of the City's median income, meaning renters are more likely than homeowners to be of Low or Moderate Income.[7] These two facts are predictive of a high poverty rate, calculated by the Census Bureau as 25.7% versus the countywide rate of 14.6%. [4] What is surprising is that 48% of the proposed district's children (under 18) live in poverty. Poverty is a significant indicator in health outcomes. "Poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status". [8]

Other social determinants of health that can be linked to poverty include infant mortality and language arts test scores (reading proficiency entering grade 4). Nez Perce County's infant mortality rate is 7.9/1,000 births. Idaho is 6/1,000 births. Over 59% of children in Nez Perce County score "not proficient or worse" as compared to Idaho's 50.1% in reading ability.[9] "Low levels of reading proficiency are associated with delinquency". [9] "A consistent finding is that incarcerated youth are several years behind non-incarcerated youth in reading achievement. Close to 15 years of research in juvenile justice continue to show averages that incarcerated 15 and 16 year old youth read at the fourth or fifth grade level". [10]

The Downtown/Normal Hill area meets the statutory definition of deteriorated because of conditions conducive to ill health, infant mortality, juvenile delinquency, being detrimental to the public health, safety, morals and welfare.

5. Opportunity Zone.

The United States Treasury Department has approved the census tract in which the proposed district is located, as an "Opportunity Zone". [11] Created by the federal tax overhaul in 2017, Opportunity Zones are characterized by high rates of poverty and unemployment. It is thought that by providing tax breaks for investments in these areas, employment and housing opportunities will improve. This Opportunity Zone is the only one in the county of Nez Perce, Idaho.

DESCRIPTION OF PROJECTS

Downtown/Normal Hill

The Downtown/Normal Hill revenue allocation area is within the City of Lewiston and determined to be eligible for urban renewal. It is part of the area that the Urban Renewal

[7] City of Lewiston 2018-2022 Consolidated Plan, page 25.

[8] A Region-wide Community Needs and Opportunity Assessment. Innovia Foundation Appendix D.

[9] Inlandnorthwestinsights.org, Community Assessment Tool.

[10] Language: Critical Components in Readers with Criminal Referral History. Derrick E. Platt. 2009

[11] New Market Tax Credit Public Viewer.

Agency (URA) is authorized to work. In order to "activate" the Revenue Allocation Area (RAA), a plan has to be developed and adopted by the City Council. The base year of the plan will be the year in which the plan is adopted, 2021.

Tax increment revenues for Downtown/Normal Hill are projected at approximately 10.2 million dollars over the 20-year life of the district. See Appendix C.

The Board has discretion in prioritizing the projects, and may change the order of priority, as it determines to be necessary at that time. The Board may conclude that some projects should not or will not be funded, or should be removed from the Plan. The economic feasibility study and dollar values assigned to projects are best estimates, recognizing that inflationary factors or other project costs may impact the project, raising or lowering the costs of any given project.

Water Mains

The Water System Facility Plan, 2019, identifies 7,132' of transmission mains and other mains in need of replacement and/or upsizing within the proposed district. Collectively, these facilities are expected to cost $2 million. Justification for the work is aging infrastructure, supply capacity and fire flow. Most, if not all of these waterlines were installed in the early 1900's.

These waterline projects combine with others outside of the RAA to complete a large-diameter pipe loop in the downtown area (low service level) supplied by Low Reservoir in Sunset Park. While the City is making good progress, as evidenced by the FY'22 – FY'23 Capital Improvement Plan (see Exhibit F), more may need to be done to support multi-story development in the near term.

In particular, the distribution system has some bottlenecks where pipes are 8" or less. Lewiston has an engineering firm under contract to evaluate water supply in northwest downtown that is expected to produce a prioritized list of projects. Depending on the location and objective of the project, the URA could partner with a developer or the City to accomplish the work.

Pedestrian Staircases

Six sets of historic staircases link downtown with Normal Hill. Over time, they have become dilapidated (uneven, irregular treads) and unsafe (lack of lighting, overgrown vegetation, questionable handrails). A broad set of steps on the west side of 5th Street leading up to the former Vollmer Mansion are in the best shape of the group. The balance of the staircases are not inviting at this time, but could become a critical link between major employers on Normal Hill and Downtown.

An engineering firm hired by Lewiston identified the best means of reconstruction and

estimates costs of rebuilding the stairs linking Pioneer Park with New 6th Street at $1,030,000. This particular staircase was built in 1917, 14 years prior to the paving of the 5th Street Grade. Depending upon the outcome of that project, other staircases may be targeted for improvements.
The New 6th Street staircase could also be an alignment for a new waterline connecting the Normal Hill Bluff and Downtown. Ten inch pipes are located at New 6th Street and F Street, and 3rd Avenue and 6th Street. As a waterline project, it would qualify for American Rescue Plan funds.

Wayfinding
The Clearwater and Snake Rivers are a tremendous local asset and draw for tourists. Yet, there is not one sign downtown or surrounding environs directing people to the rivers, levee system or parks. This is a missing link to improve the visitor experience and grow our tourism industry. Wayfinding would also be useful for recreational vehicle (R.V.) parking and downtown more generally.

Streets/Parking Lots/Parking Garage
Urban Renewal Plan 2, 2014 Revisions, scoped a rebuild of Main and "D" Streets ($14.9 million in 2009 dollars), a surface parking lot at 5th Street and the levee bypass ($882,400, 2014 dollars) and complete street and utility rebuild at $1,656.20 per foot (2012 dollars).

The 5th Street parking lot could provide for recreational vehicle parking, outdoor entertainment space, support future development west of 5th Street and north of Capital Street. Similarly, rebuilding and widening Beachey Street would assist with development of the Twin City Foods Property. Widening Beachey would necessitate removal of a metal building on the north side of the right of way between the extensions of 3rd and 4th Streets. Any parking lots constructed should be fitted with recreational amenities to improve the livability of downtown. All street work must consider identified priorities in the ADA Transition Plan, 2020.

Over the long term, a parking garage should be evaluated. An optimum location would be on an existing surface parking lot. Historic buildings should not be torn down as a result. See Appendix F.

Flood Control
Flood control will be part of any complete street rebuild or contemplated as a stand-alone project. A specific project has not been identified. At this time, construction of a new courthouse at Main and D may drive other improvements. See Appendix F.

Wastewater Lines
Replacement of an existing pipeline in Main Street between 9th Street and 6th Street has been identified in the Lewiston Wastewater Master Plan, 2018. The cost is estimated at $304,000.

Removal of Blight
Downtown has many blighted properties including the Railroad property on Beachey Street, portions of LC Recyclers north of Capital Street between 2nd and 3rd Streets and 854 and 858 Main Street, to name a few. Blighted properties negatively impact surrounding property values and developer interest. The Agency should work with property owners to take down dilapidated structures. Cost of demolition could be covered by the Agency as a grant, or guaranteed by placing a lien on the property for the cost, due at the time of sale.

The Board has discretion to change project prioritization and goals. These are other priority projects that are unfunded at this time, which the Board may in its discretion, prioritize or implement in the future, as described in the "Downtown Master Plan", 2019 may be implemented as part of this plan. See Appendix F.

PROJECT SUMMARY ESTIMATED COSTS				
PROJECT	**URA COST**	**CITY COST (1)**	**OTHER**	**TOTAL**
Waterline Work	$2,000,000	$2,000,000	$1,000,000	$5,000,000
Pedestrian Staircase	400,000	400,000	200,000	$1,000,000
Wayfinding	50,000	0	0	$50,000
Roads/Parking lots	5,000,000	1,000,000	10,000,000	$16,000,000
ADA (2)	1,150,000	1,150,000	0	$2,300,000
Wastewater	152,000	152,000	0	$304,000
Removal of Blight	400,000	0	200,000	$600,000
Total	**$9,152,000**	**$4,702,000**	**$11,400,000**	**$25,254,000**

(1) A formal cost sharing agreement has not yet been approved.
(2) ADA costs include some improvements captured in the Road rebuild

ECONOMIC FEASIBILITY STUDY

Costs of projects described for Area #7 are within projected revenues. Timing however is an issue. It may be necessary for the Agency to find partners, such as the City, to complete work needed to support development. Increment would be used over time to

reimburse the partner(s).

As an alternative, if a significant development project is planned, the Agency could consider bonding what will become public improvements. See Appendix C for an economic feasibility analysis using increment projections. A 4% annual appreciation of properties was used; reflecting the actual appreciation rate downtown from 2005-2019.

FISCAL IMPACT TO OTHER TAXING ENTITIES

It is expected that the Agency will complete the projects described in this plan and scoped as part of their annual budget throughout the duration of this Plan and Revenue Allocation Area #7 (12/31/41).

Appendix C incorporates estimates of increment revenue flowing to the Agency. If the appreciation or overall levy rate is less than assumed, the Agency will receive less funds from revenue allocation. Market value changes and levy rates are influenced by many factors beyond the Agency's control, so the actual numbers may vary.

Revenue projections in Appendix C will give the other taxing entities a sense of the fiscal impact they might experience prior to the termination of the district, if all increment revenue materializes and is directed to the described capital projects. Revenue estimates are based on the Agency's present knowledge and expectations.

Using the 2020 Tax Year levies, an estimated $10.2 million will flow to the Agency over the life of the district. The allocation among each taxing district is as follows:

City of Lewiston: $5,788,343
County of Nez Perce: $3,685,214
Lewiston Independent School District No. #1: $628,012
Port of Lewiston: $80,006

These funds will be invested in Agency projects that will in turn improve property values.

The total base value contained in the RAA in 2020 is estimated at $72,653,956, 2.9% of the total assessed value in the municipality. The total assessed value of the City of Lewiston in 2020 is $2,488,147,569.

CONCLUSION AND RECOMMENDATION

The Urban Renewal Agency of the City of Lewiston, in cooperation with the City of Lewiston, believes exercising the powers provided by Statute will benefit all residents of the Community.

APPENDIX A:
SUMMARY STATEMENTS, LEGAL INSTRUMENTS

This is the Urban Renewal Plan (the "Plan") for Revenue Allocation Area #7, Downtown/Normal Hill for the City of Lewiston. The Plan consists of the text and all attachments thereto, including a map of the proposed revenue allocation area, a project description, revenue projections, tax impacts, and financing methods.

This Plan provides the agency with powers, duties and obligations to implement and further the program formulated in this Plan for the redevelopment and revitalization of the area within the boundaries of Tax Revenue Allocation Area #7 (RAA) as set forth in Exhibit 4 attached hereto. This Plan contains specific recommendations on ways the Agency can immediately remedy these deficiencies and encourage new private investment within the project areas.

On November 15, 1999, the Lewiston City Council adopted Resolution No. 99-85, creating the Urban Renewal Area. At that time the RAA boundaries were the Business and Technology Park in the Nez Perce Terrace Area. The Business and Technology Park was found to be a deteriorated area.

The Urban Renewal Agency of the City of Lewiston, Idaho (the "Agency") is an independent public body corporate and politic, authorized under the authority of the Idaho Urban Renewal Law of 1965, as amended, Title 50, Chapter 20 of the Idaho Code, as amended (the "Law"), and the Local Economic Development Act, Title 50, Chapter 29, as amended (the "Act"), and a duly created and existing urban renewal agency of the City of Lewiston, Idaho.

On September 26, 2005, pursuant to Resolution 2005-76 adopted by the City Council, the City determined that all real property within the corporate limits of the City and North of Eighth Avenue, East of 29th Street and the real property North of Stewart Avenue, west of Juniper Drive and East of Thain Grade; has deteriorated or deteriorating areas as provided in Idaho Code Sections 50-2018 and 50-2903 (8). The conditions are resulting in the economic underdevelopment of the area and arresting the sound economic growth of the City of Lewiston.

On January 11, 2021, pursuant to Resolution 2021-4 adopted by the City Council, the city determined that all properties generally a)south of the Clearwater River, b) west of Lincoln Street, c) East of the Snake River and d) along both sides of 5th Street to south of 5th Avenue were deteriorated.

The Plan allows financing of urban renewal projects with revenue allocation funds pursuant to the Act.

APPENDIX B:
DEFINITIONS

Act means collectively the Idaho Urban Renewal Law of 1965, Title 50, Chapter 20, Idaho Code, and the Local Economic Development Act, Title 50, Chapter 29, Idaho Code, as the same shall be amended from time to time.

Agency means the Urban Renewal Agency of the City of Lewiston, Idaho, a body politic and corporate created pursuant to the Act.

Assessment Roll means the assessment roll used in connection with the taxation of the properties in the RAA by the taxing agencies, as such roll is equalized as provided by the law of the State of Idaho.

Authorized Officer of the Agency shall mean the Chairman of the Board, or a representative designated by the Board.

Base Year means 2021

Board shall mean the Board of Commissioners of the Agency.

Bonds shall mean bonds issued by the Agency.

Cost of Acquisition and Construction, with respect to Projects, shall include together with any other proper item or cost not specifically mentioned therein, the cost of demolition, the cost of acquisition and construction of the Project and the financing thereof, the cost, whether incurred by the Agency or another, of field surveys and advance planning undertaken in connection with the Project, and the cost of acquisition of any land or interest therein required as the sites thereof or for use in connection therewith, the cost of preparation of the sites thereof and of any land to be used in connection therewith, the cost of any indemnity and surety bonds and insurance premiums, allocable administrative and general expenses of the Agency, allocable portions of inspection expenses, financing changes, legal fees, and fees and expenses of financial advisors and consultants in connection therewith, cost of audits, the cost of utilities, architectural services, design, plans, specifications and surveys, estimates of cost, the payment of any notes of the Agency (including any interest and redemption premiums) issued to temporarily finance the payment of any item or items of cost of the Project and payable from the proceeds of any bonds, and all other expenses necessary or incident to determining the feasibility or practicability of Projects, and such other expenses not specified herein as may be necessary or incident to the construction and acquisition of Projects, the financing thereof and the placing of the same in use and operation.

Cost(s) of Issuance shall mean printing, rating agency fees, legal fees, underwriting fees, fees and expenses of the Trustee, bond insurance premiums, if any, and all other fees, charges, and expenses with respect to or incurred in connection with the issuance, sale, and delivery of a series of Bonds.

Debt Service for any period shall mean, as of any date of calculation, an amount equal to the Principal Installment and interest accruing during such period on the Bonds. Such Debt Service on the Bonds shall be calculated on the assumption that no portion of the Bonds Outstanding at the date of calculation will cease to be Outstanding except by reason of the payment of the Principal Installment on the Bonds on the due date thereof.

District means Downtown/Normal Hill #7 designated by the City as a Revenue Allocation Area under the Act.

Fiscal Year shall mean the annual accounting period of the Agency, beginning October 1 in a year and ending September 30 of the following year.

Infrastructure shall mean without limitation above and below ground utilities such as water, sewer, storm drainage, telephone, cable, internet, fiber, electricity, gas, road, curb, gutter, sidewalk, bridges, tunnels, benches, bike racks, trash receptacles, pedestrian and bicycle paths; parking lots, signage, landscaping, place making and public art.

Investment Securities shall mean and include any securities that are legal investments under Section 67-1210, Idaho Code.

Operation and Maintenance Expenses with respect to the Project, shall mean all actual operation and maintenance expenses incurred by the Agency in any particular Fiscal Year or period to which said term is applicable or charges made therefore during such Fiscal Year or period.

Plan shall mean the Urban Renewal Plan for Revenue Allocation Area #7.

Project shall mean the infrastructure improvements further described in the text of the Plan.

Revenue Allocation Revenues means that incremental portion of Taxes exceeding the amount of Taxes collected in the Base Year, allocated to the Agency under the Plan and in accordance with the provisions of the Act.

Secretary means the Secretary of the Agency.

Taxes means all levies on ad valorem basis upon land, real property, personal property or any other property, tangible or intangible, included within the Districts.

Tax Increment Financing means a mechanism for financing local economic development projects in through taxes generated by increased property values.

RAA #7

Port & School

Appreciation Rate		1.04								
Tax Levy		0.000996624								
Year		1	2	3	4	5	6	7	8	9
RAA Value	$ 72,653,956	$ 75,560,114.24	$ 78,582,519	$ 81,725,820	$ 84,994,852	$ 88,394,646	$ 91,930,432	$ 95,607,650	$ 99,431,956	$ 103,409,234
Increment Value		$ 2,906,158	$ 5,928,563	$ 9,071,864	$ 12,340,896	$ 15,740,690	$ 19,276,476	$ 22,953,694	$ 26,778,000	$ 30,755,278
Tax Increment [2]		$ -	$ 2,896	$ 5,909	$ 9,041	$ 12,299	$ 15,688	$ 19,211	$ 22,876	$ 26,688
Tax Increment Running Total		$ -	$ 2,896	$ 8,805	$ 17,846	$ 30,145	$ 45,833	$ 65,044	$ 87,921	$ 114,608

City & County

Appreciation Rate		1.04								
Tax Levy		0.013335223								
Year		1	2	3	4	5	6	7	8	9
RAA Value	$ 72,653,956	$ 75,560,114	$ 78,582,519	$ 81,725,820	$ 84,994,852	$ 88,394,646	$ 91,930,432	$ 95,607,650	$ 99,431,956	$ 103,409,234
Increment Value		$ 2,906,158	$ 5,928,563	$ 9,071,864	$ 12,340,896	$ 15,740,690	$ 19,276,476	$ 22,953,694	$ 26,778,000	$ 30,755,278
Tax Increment [2]		$ -	$ 38,754	$ 79,059	$ 120,975	$ 164,569	$ 209,906	$ 257,056	$ 306,093	$ 357,091
Tax Increment Running Total		$ -	$ 38,754	$ 117,813	$ 238,788	$ 403,357	$ 613,263	$ 870,319	$ 1,176,411	$ 1,533,502

(1) Base is appreiated by 4%; average growth rate of downtown properties 2005-2019
(2) Tax Levy assumptions: no growth for School or Port, 0% increase County, 12% decrease City 2021 only
2022 through end of term, 0% Port and School, 3% City - County

APPENDIX C - REVENUE PROJECTION

10	11	12	13	14	15	16	17	18	19	20
$ 107,545,603	$ 111,847,427	$ 116,321,324	$ 120,974,177	$ 125,813,144	$ 130,845,670	$ 136,079,497	$ 141,522,677	$ 147,183,584	$ 153,070,927	$ 159,193,764
$ 34,891,647	$ 39,193,471	$ 43,667,368	$ 48,320,221	$ 53,159,188	$ 58,191,714	$ 63,425,541	$ 68,868,721	$ 74,529,628	$ 80,416,971	$ 86,539,808
$ 30,651	$ 34,774	$ 39,061	$ 43,520	$ 48,157	$ 52,980	$ 57,995	$ 63,211	$ 68,636	$ 74,278	$ 80,145
$ 145,260	$ 180,033	$ 219,095	$ 262,615	$ 310,772	$ 363,751	$ 421,747	$ 484,958	$ 553,594	$ 627,872	$ 708,018

10	11	12	13	14	15	16	17	18	19	20
$ 107,545,603	$ 111,847,427	$ 116,321,324	$ 120,974,177	$ 125,813,144	$ 130,845,670	$ 136,079,497	$ 141,522,677	$ 147,183,584	$ 153,070,927	$ 159,193,764
$ 34,891,647	$ 39,193,471	$ 43,667,368	$ 48,320,221	$ 53,159,188	$ 58,191,714	$ 63,425,541	$ 68,868,721	$ 74,529,628	$ 80,416,971	$ 86,539,808
$ 410,128	$ 465,288	$ 522,654	$ 582,314	$ 644,361	$ 708,890	$ 775,999	$ 845,794	$ 918,380	$ 993,869	$ 1,072,378
$ 1,943,630	$ 2,408,918	$ 2,931,572	$ 3,513,886	$ 4,158,247	$ 4,867,137	$ 5,643,136	$ 6,488,930	$ 7,407,310	$ 8,401,179	$ 9,473,557

APPENDIX D:
IDAHO STATUES 50-2018 AND 50-2905

TITLE 50
MUNICIPAL CORPORATIONS
CHAPTER 20
URBAN RENEWAL LAW

50-2018. DEFINITIONS. The following terms wherever used or referred to in this chapter, shall have the following meanings, unless a different meaning is clearly indicated by the context:

(1) "Agency" or "urban renewal agency" shall mean a public agency created by section 50-2006, Idaho Code.
(2) "Municipality" shall mean any incorporated city or town, or county in the state.
(3) "Public body" shall mean the state or any municipality, township, board, commission, authority, district, or any other subdivision or public body of the state.
(4) "Local governing body" shall mean the council or other legislative body charged with governing the municipality.
(5) "Mayor" shall mean the mayor of a municipality or other officer or body having the duties customarily imposed upon the executive head of a municipality.
(6) "Clerk" shall mean the clerk or other official of the municipality who is the custodian of the official records of such municipality.
(7) "Federal government" shall include the United States of America or any agency or instrumentality, corporate or otherwise, of the United States of America.
(8) "Deteriorated area" shall mean an area in which there is a predominance of buildings or improvements, whether residential or nonresidential, which by reason of dilapidation, deterioration, age or obsolescence, inadequate provision for ventilation, light, air, sanitation, or open spaces, high density of population and overcrowding, or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors is conducive to ill health, transmission of disease, infant mortality, juvenile delinquency, or crime, and is detrimental to the public health, safety, morals or welfare. Provided however, this definition shall not apply to any agricultural operation, as defined in section 22-4502(2), Idaho Code, absent the consent of the owner of the agricultural operation or to any forest land as defined in section 63-1701(4), Idaho Code, absent the consent of the forest landowner, as defined in section 63-1701(5), Idaho Code, except for an agricultural operation or forest land that has not been used for three (3) consecutive years.
(9) "Deteriorating area" shall mean an area which by reason of the presence of a substantial number of deteriorated or deteriorating structures, predominance of defective or inadequate street layout, faulty lot layout in relation to size, adequacy, accessibility or usefulness, insanitary or unsafe conditions, deterioration of site or

other improvements, diversity of ownership, tax or special assessment delinquency exceeding the fair value of the land, defective or unusual conditions of title, or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors, substantially impairs or arrests the sound growth of a municipality, retards the provision of housing accommodations or constitutes an economic or social liability and is a menace to the public health, safety, morals or welfare in its present condition and use; provided, that if such deteriorating area consists of open land the conditions contained in the proviso in section 50-2008(d), Idaho Code, shall apply; and provided further, that any disaster area referred to in section 50-2008(g), Idaho Code, shall constitute a deteriorating area. Provided however, this definition shall not apply to any agricultural operation, as defined in section 22-4502(2), Idaho Code, absent the consent of the owner of the agricultural operation or to any forest land as defined in section 63-1701(4), Idaho Code, absent the consent of the forest landowner, as defined in section 63-1701(5), Idaho Code, except for an agricultural operation or forest land that has not been used for three (3) consecutive years.

(10) "Urban renewal project" may include undertakings and activities of a municipality in an urban renewal area for the elimination of deteriorated or deteriorating areas and for the prevention of the development or spread of slums and blight, and may involve slum clearance and redevelopment in an urban renewal area, or rehabilitation or conservation in an urban renewal area, or any combination or part thereof in accordance with an urban renewal plan. Such undertakings and activities may include:

(a) Acquisition of a deteriorated area or a deteriorating area or portion thereof;

(b) Demolition and removal of buildings and improvements;

(c) Installation, construction, or reconstruction of streets, utilities, parks, playgrounds, off-street parking facilities, public facilities or buildings and other improvements necessary for carrying out in the urban renewal area the urban renewal objectives of this chapter in accordance with the urban renewal plan;

(d) Disposition of any property acquired in the urban renewal area, including sale, initial leasing or retention by the agency itself, at its fair value for uses in accordance with the urban renewal plan except for disposition of property to another public body;

(e) Carrying out plans for a program of voluntary or compulsory repair and rehabilitation of buildings or other improvements in accordance with the urban renewal plan;

(f) Acquisition of real property in the urban renewal area which, under the urban renewal plan, is to be repaired or rehabilitated for dwelling use or related facilities, repair or rehabilitation of the structures for guidance purposes, and resale of the property;

(g) Acquisition of any other real property in the urban renewal area where necessary to eliminate unhealthful, insanitary or unsafe conditions, lessen density, eliminate obsolete or other uses detrimental to the public welfare, or otherwise to remove or to prevent the spread of blight or deterioration, or to provide land for needed public facilities;

(h) Lending or investing federal funds; and

(i) Construction of foundations, platforms and other like structural forms.

(11) "Urban renewal area" means a deteriorated area or a deteriorating area or a combination thereof which the local governing body designates as appropriate for an urban renewal project.

(12) "Urban renewal plan" means a plan, as it exists from time to time, for an urban renewal project, which plan:

(a) Shall conform to the general plan for the municipality as a whole except as provided in section 50-2008(g), Idaho Code; and

(b) Shall be sufficiently complete to indicate such land acquisition, demolition and removal of structures, redevelopment, improvements, and rehabilitation as may be proposed to be carried out in the urban renewal area, zoning and planning changes, if any, land uses, maximum densities, building requirements, and any method or methods of financing such plan, which methods may include revenue allocation financing provisions.

(13) "Related activities" shall mean:

(a) Planning work for the preparation or completion of a community-wide plan or program pursuant to section 50-2009, Idaho Code; and

(b) The functions related to the acquisition and disposal of real property pursuant to section 50-2007(d), Idaho Code.

(14) "Real property" shall include all lands, including improvements and fixtures thereon, and property of any nature appurtenant thereto, or used in connection therewith, and every estate, interest, right and use, legal or equitable, therein, including terms for years and liens by way of judgment, mortgage or otherwise.

(15) "Bonds" shall mean any bonds, including refunding bonds, notes, interim certificates, certificates of indebtedness, debentures or other obligations.

(16) "Obligee" shall include any bondholder, agents or trustees for any bondholders, or lessor demising to the municipality property used in connection with urban renewal, or any assignee or assignees of such lessor's interest or any part thereof, and the federal government when it is a party to any contract with the municipality.

(17) "Person" shall mean any individual, firm, partnership, corporation, company, association, joint stock association, or body politic; and shall include any trustee, receiver, assignee, or other person acting in a similar representative capacity.

(18) "Area of operation" shall mean the area within the corporate limits of the municipality and the area within five (5) miles of such limits, except that it shall not include any area which lies within the territorial boundaries of another incorporated city or town or within the unincorporated area of the county unless a resolution

shall have been adopted by the governing body of such other city, town or county declaring a need therefor.

(19) "Board" or "commission" shall mean a board, commission, department, division, office, body or other unit of the municipality.

(20) "Public officer" shall mean any officer who is in charge of any department or branch of the government of the municipality relating to health, fire, building regulations, or to other activities concerning dwellings in the municipality.

History:

[50-2018, added 1965, ch. 246, sec. 18, p. 600; am. 1970, ch. 103, sec. 1, p. 256; am. 1987, ch. 258, sec. 1, p. 525; am. 1987, ch. 259, sec. 4, p. 542; am. 1990, ch. 430, sec. 2, p. 1186; am. 2003, ch. 146, sec. 1, p. 420; am. 2006, ch. 310, sec. 1, p. 953; am. 2011, ch. 229, sec. 6, p. 625; am. 2011, ch. 317, sec. 4, p. 916.]

TITLE 50
MUNICIPAL CORPORATIONS
CHAPTER 29
LOCAL ECONOMIC DEVELOPMENT ACT

50-2905. Recommendation of Urban Renewal Agency. In order to implement the provisions of this chapter, the urban renewal agency of the municipality shall prepare and adopt a plan for each revenue allocation area and submit the plan and recommendation for approval thereof to the local governing body. The plan shall include with specificity:

(1) A statement describing the total assessed valuation of the base assessment roll of the revenue allocation area and the total assessed valuation of all taxable property within the municipality;

(2) A statement listing the kind, number, and location of all proposed public works or improvements within the revenue allocation area;

(3) An economic feasibility study

(4) A detailed list of estimated project costs;

(5) A fiscal impact statement showing the impact of the revenue allocation area, both until and after the bonds are repaid, upon all taxing district levying taxes upon property on the revenue allocation area;

(6) A description of the methods of financing all estimated project costs and the time when related costs or monetary obligations are to be incurred;

(7) A termination date for the plan and the revenue allocation area as provided for in section 50-2903(20), Idaho Code. In determining the termination date, the plan shall recognize that the agency shall receive allocation of revenues in the calendar year following the last year of the revenue allocation provision described in the urban renewal plan;

(8) A description of the disposition or retention of any assets of the agency upon the termination date. Provided however, nothing herein shall prevent the agency from retaining assets or revenues generated from such assets as long as the agency shall have resources other than revenue allocation funds to operate and manage such assets; and
(9) Any changes to an urban renewal plan as provided in subsections (2) and (6) of this section shall be noticed and shall be completed in an open public meeting.

History: [50-2905, added 1988, c.210, sec. 5, p. 397; am. 2002, ch. 143, sec. 4, p. 401; am. 2011, ch.317, sec. 8, p. 923; am. 2016, ch. 349, sec. 5, p. 1022.]

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AMENDED 09/29/20

LEWISTON CITY COUNCIL
WORK SESSION AGENDA
MONDAY, OCTOBER 5, 2020 – 3:00 PM
Lewiston City Hall Back Conference Room "or" Virtual, 1134 "F" Street

Due to social distancing regulations and COVID 19, members of the public attending in person will be limited. Seating will be available on a first come, first served basis. All others wishing to observe the meeting may do so by visiting the city's Facebook Page or the city's website at cityoflewiston.org.

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. CITIZEN COMMENTS

Provides an opportunity for citizens to address the Council on agenda items or other items they wish to bring to the attention of the Council. Citizens are encouraged to discuss operational issues in advance with the City Manager. In consideration of others wishing to speak, please limit your remarks to three minutes. Citizen comments can also be provided by calling 208-746-3676 and leaving your message. Your comments will then be forwarded to the City Council.

IV. WORK SESSION ITEMS

A. ***AIRPORT UPDATE***: *Presentation by Gary Peters*

B. ***HOMELESSNESS***: *Update on the Police Homeless Project* (Hurd)

C. ***UTILITY RATE STUDY***: *Discussion on the Utility Rate Study performed by the FCS Group* (D. Johnson)

D. ***RESOLUTION 2020-23***: *In response to the Utility Rate Study, a discussion regarding establishing the City's policies for setting City utility rates* (D. Johnson)

E. ***DOWNTOWN REVENUE ALLOCATION AREA***: *Discussion regarding forming a new Revenue Allocation Area downtown and potential Council direction to prepare a Resolution for future consideration which would find that the area is blighted* – Action Item (Von Tersch)

V. UNFINISHED AND NEW BUSINESS

A. ***CITY COUNCILOR COMMENTS***

B. ***CITY MANAGER COMMENTS***

C. ***ADVISORY BOARD OR COMMISSION APPOINTMENT***

D. PROPOSED WORK SESSION TOPICS

VI. **EXECUTIVE SESSION RE: PENDING LITIGATION AND PERSONNEL**: *Idaho Code § 74-206(1)(f), to communicate with legal counsel for the public agency to discuss the legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated; and Idaho Code § 74-206(1)(b), to consider the evaluation, dismissal or disciplining of, or to hear complaints or charges brought against, a public officer, employee, staff member or individual agent, or public school student*

VII. **ADJOURNMENT**

The City of Lewiston is committed to providing access and reasonable accommodation in its services, programs, and activities and encourages qualified persons with disabilities to participate. If you anticipate needing any type of accommodation or have questions about the physical access provided at this meeting, please contact City Clerk Kari Ravencroft at least forty-eight (48) hours in advance of the meeting at (208) 746-3671 x 6203.

Memo

To: MAYOR AND CITY COUNCIL

From: LAURA VON TERSCH, COMMUNITY DEVELOPMENT DIRECTOR LVT

Date: OCTOBER 5, 2020

Re: NEW REVENUE ALLOCATION AREA DOWNTOWN

Please find attached a memo prepared for the Urban Renewal Agency Board concerning forming a new Revenue Allocation Area downtown. At their 9/8/20 meeting, the Board approved forwarding this conceptual framework to the City Council. The Board believes these 13 blocks are blighted, as documented by above average poverty, unemployment, median home value, tenancy, reading proficiency, infant mortality and substandard water infrastructure.

The Board did not recommend any changes to the geographic boundary, but did add to the list of proposed projects to include: water system, normal hill staircases, wayfinding, parking lots/streets, flood control and sewer where needed. Twin City Foods was discussed as a long-term project, but exactly how to incentivize development could not be immediately identified.

If Council is supportive of forming a RAA downtown, next steps include the Board and Council finding that the area is blighted by Resolution, and the Board preparing and approving a plan.

V

Memo

To: URBAN RENEWAL AGENCY

From: LAURA VON TERSCH, COMMUNITY DEVELOPMENT DIRECTOR

Date: SEPTEMBER 8, 2020

Re: POTENTIAL DOWNTOWN NORMAL HILL RAA

In response to the Board's interest in forming a Revenue Allocation Area downtown and around the Normal Hill staircases, I have pulled some valuation data. Attached you will find two exhibits, depicting the former Downtown District and an extension of the district up to Saint Joseph Regional Medical Center (SJRMC). Each block on the extension is numbered and the valuation is as follows:

Former RAA #3	$41,000,000
Block #1	977,002
Block #2	3,555,537
Block #3	944,144
Block #4	1,286,356
Block #5	3,764,358
Block #6	850,923
Block #7	2,582,459
Block #8	2,521,360
Block #9	3,484,904
	$60,967,043

Block #10	$2,128,440
Block #11	$1,603,093
Block #12	$1,509,492
Block #13	$2,650,172
	$7,891,197

A total of $73,000,000 can be included in the Revenue Allocation Area. The first nine extension blocks were chosen to encircle Pioneer Park and likely new hospital construction. The main hospital building is excluded as its assessed value is over 64 million dollars. Including Pioneer Park would allow the URA to fund construction/reconstruction of the New Sixth Street staircase discussed in both the Downtown Master Plan and ADA Transition Plan. Extending the RAA to properties south of Idaho Street, blocks ten through 13, will pick up the Ninth Street staircase. These staircases will be instrumental in creating a pedestrian corridor between two major employers (SJRMC, Lewis Clark State College) and downtown, benefitting downtown merchants and health conscience employees.

Memo

Census data substantiates that the area is blighted based on income and poverty rates. All properties north of Seventh Avenue north to City limits are also in an US Treasury designated Opportunity Zone. Development is incentivized in the zone through tax benefits. A Determination that Downtown and a portion of Normal Hill are Deteriorated and Deteriorating is attached.

A Water System Facility Plan, adopted in 2019, identifies the recommended Capital Improvement Plan and project costs for the City's water system. The highest priority transmission project is the water main in Main Street (1.11m). In the operational group, improvements on 4th Avenue north of SJRMC (633k) and Fifth Street, Third Avenue to "F" (255k) are prioritized. All three of these projects would be located within the proposed RAA.

Staircase rehabilitation/renovation has been addressed as a critical need in both the Downtown Master Plan (2019) and draft ADA Transition Plan (2020). Lewiston is currently negotiating a scope of work with a local engineering firm to conduct a feasibility study and provide a high level cost estimate to rebuild the New Sixth Street staircase.

The proposed revenue allocation area has very similar boundaries to the newly created Business Improvement District (BID). An excerpt from the ordinance creating the district is attached, including a map and description of allowed activities. It would be beneficial to both the BID and URA to be able to cooperatively work on projects.

Some projects scoped in the 2014 URA Plan 2 have not yet been completed, such as rebuilding Beachey Street as a parking street or building a parking lot at Fifth and the Levy By-Pass. Widening Beachey would require removal of a metal building at Beachey and Fifth owned by the railroad. Although dilapidated, the building is currently leased. A parking lot on 5th could incorporate recreational amenities (such as a basketball court) to support downtown residents. And finally, wayfinding signs would be helpful in directing people to the waterfront and downtown.

If the Board is supportive of this general framework for a new revenue allocation area, I will request review by the City Council at an upcoming work session.

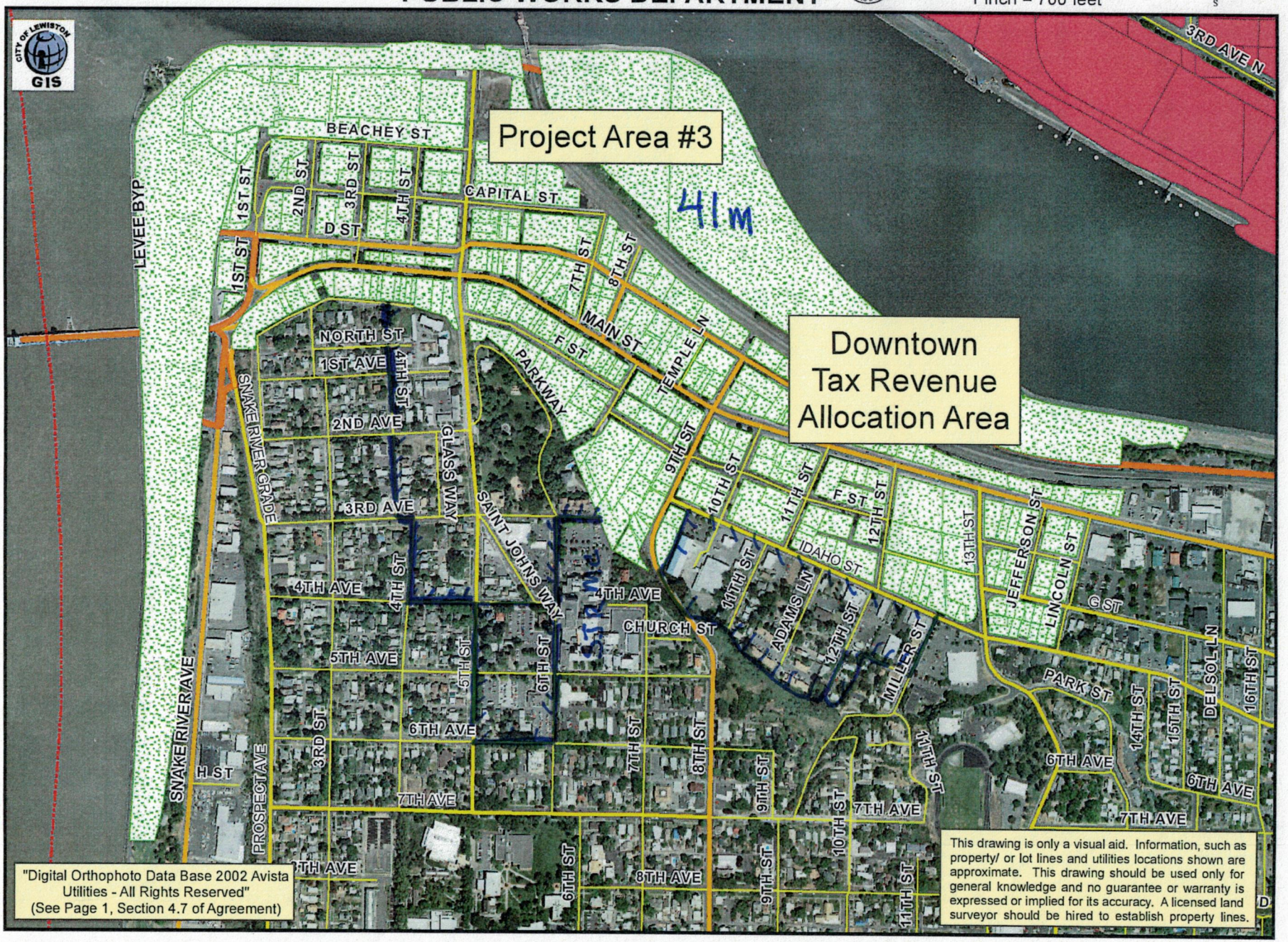
215 D Street • PO Box 617 • Lewiston, ID 83501-1930 • Ph.208.746.1318 • Fx.208.746.5595 • www.cityoflewiston.org

EXHIBIT 5

LLLL Addition to Downtown District

CITY OF LEWISTON
PUBLIC WORKS DEPARTMENT

1 inch = 700 feet



City of Lewiston
PUBLIC WORKS DEPARTMENT



This drawing is only a visual aid. Information, such as property / or lot lines and utility locations shown are approximate. This drawing should be used only for general knowledge and no guarantee or warranty is expressed or implied for its accuracy.

City of Lewiston General Map

Find address or place



2,306,364.777 1,734,676.616 Feet

DETERMINATION THAT THE RECONSTITUTED DOWNTOWN/NORMAL HILL AREA IS DETERIORATED AND DETERIORATING AS REQUIRED BY IDAHO STAUTES 50-2018 (8) and (9)

A deteriorated area is defined as "an area in which there is a predominance of buildings or improvements, whether residential or nonresidential, which by means of dilapidation, deterioration, age or obsolescence, inadequate provision for ventilation, light, air, sanitation or open spaces, high density of population and overcrowding, or the existence of conditions which endanger life or property by fire and other causes, or any combination of such factors is conducive to ill health, transmission of disease, infant mortality, juvenile delinquency or crime, and is detrimental to the public health, safety, morals or welfare". Deteriorating area has a similar definition but also includes issues relating to conditions of title, lot layout, ownership, street layout and other conditions that "substantially impairs or arrests the sound growth of a municipality, retards the provision of housing accommodations or constitutes an economic or social liability and is a menace to the public health, safety, morals or welfare in its present condition or use"..

The purpose of an urban renewal project is to address these issues and reduce or eliminate blight.

Demographics are a good place to start this analysis. One can compare the circumstances in the area against community or state averages to measure blight. A number of data sets have been used to compile this report. Depending on data source and year compiled, there may be some variation in reported percentages. But the story does not change.

Single-Family Residential Buildings

The median single-family home value in Nez Perce County (including cities) is $181,200 (1). In the census tract that covers much of Normal Hill north of LCSC, the value drops to $175,000 for owner occupied units. In the proposed district, 42 houses (84%) are valued at less than median. The average value is $142,950 and the median value is $140,327 (78% of the county median). (2)

Tenancy/Income

This proposed district has 50% more multi-family units than an average neighborhood in Nez Perce County. (1) And renters are 31% more likely than home owners to earn 80% or less of the City's median income, meaning renters are more likely than homeowners to be of Low or Moderate Income. (3) These two facts are predictive of a high poverty rate, calculated by the Census Bureau as 25.7% versus the county-wide rate of 14.6% (1). What is surprising is that 48% of the proposed district's children (under 18) live in poverty. Poverty is a significant indicator in health outcomes. "Poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status". (4)

Other social determinants of health that can be linked to poverty include infant mortality and language arts test scores (reading proficiency entering grade 4). Nez Perce County's infant mortality rate is 7.9/1,000 births. Idaho is 6/1,000 births. Over 59% of children in Nez Perce County score "not proficient or worse" as compared to Idaho's 50.1% in reading ability. (5) "Low levels of reading proficiency are

associated with delinquency". (6) "A consistent finding is that incarcerated youth are several years behind non-incarcerated youth in reading achievement. Close to 15 years of research in juvenile justice continue to show averages that incarcerated 15 and 16 year old youth read at the fourth or fifth grade level" (6)

Fire Activity

There have been two devastating fires in the proposed district in the last 8 months. The first fire was located at 858 Main Street where the building is a total loss. It has been declared a nuisance by the City. The second fire was at 615 Third Avenue, a historic 1920 apartment building. It is too soon to determine the building's fate, but approximately 14 families were displaced. Forming a Revenue Allocation Area would provide the means to purchase, repair or renovate these properties.

Infrastructure

According to the Downtown Master Plan, "Downtown Lewiston has the oldest water system in the city. Half of the pipes are six inches or less in diameter, and generally do not meet commercial fire flow requirements. This puts the city in the unfortunate position of requiring property investors to install more expensive fire suppression systems than would be required if the public water line provided sufficient fire flow". (6) According to Beautiful Downtown Lewiston, with adequate water pipe sizes, costs of private fire suppression installation is reduced by 20-50%. (7)

Replacement of the Main Street Transmission Main replacement is the highest priority transmission project in the city's Water Capital Improvement Plan. (8) The justification for this project includes aging infrastructure, supply capacity and fire flow. Mains are also slated to be replaced on Fifth Street from "F" to Third Avenue and Fourth Avenue from Sixth Street to Saint John's Way. The justification is aging infrastructure and fire flow.

Opportunity Zone

The United States Treasury Department has approved the census tract in which the proposed district is located, as an "Opportunity Zone". (9) Created by the federal tax overhaul in 2017, Opportunity Zones are characterized by high rates of poverty and unemployment. It is thought that by providing tax breaks for investments in these areas, employment and housing opportunities will improve. This Opportunity Zone is the only one in the county of Nez Perce.

(1) Census Reporter, Census Tract 9603 Nez Perce County, ID.

(2) Nez Perce County Assessor's Records.

(3) City of Lewiston 2018-2022 Consolidated Plan page 25.

(4) A Region-wide Community Needs and Opportunity Assessment. Innovia Foundation Appendix D.

(5) Inlandnorthwestinsights.org Community Assessment Tool.

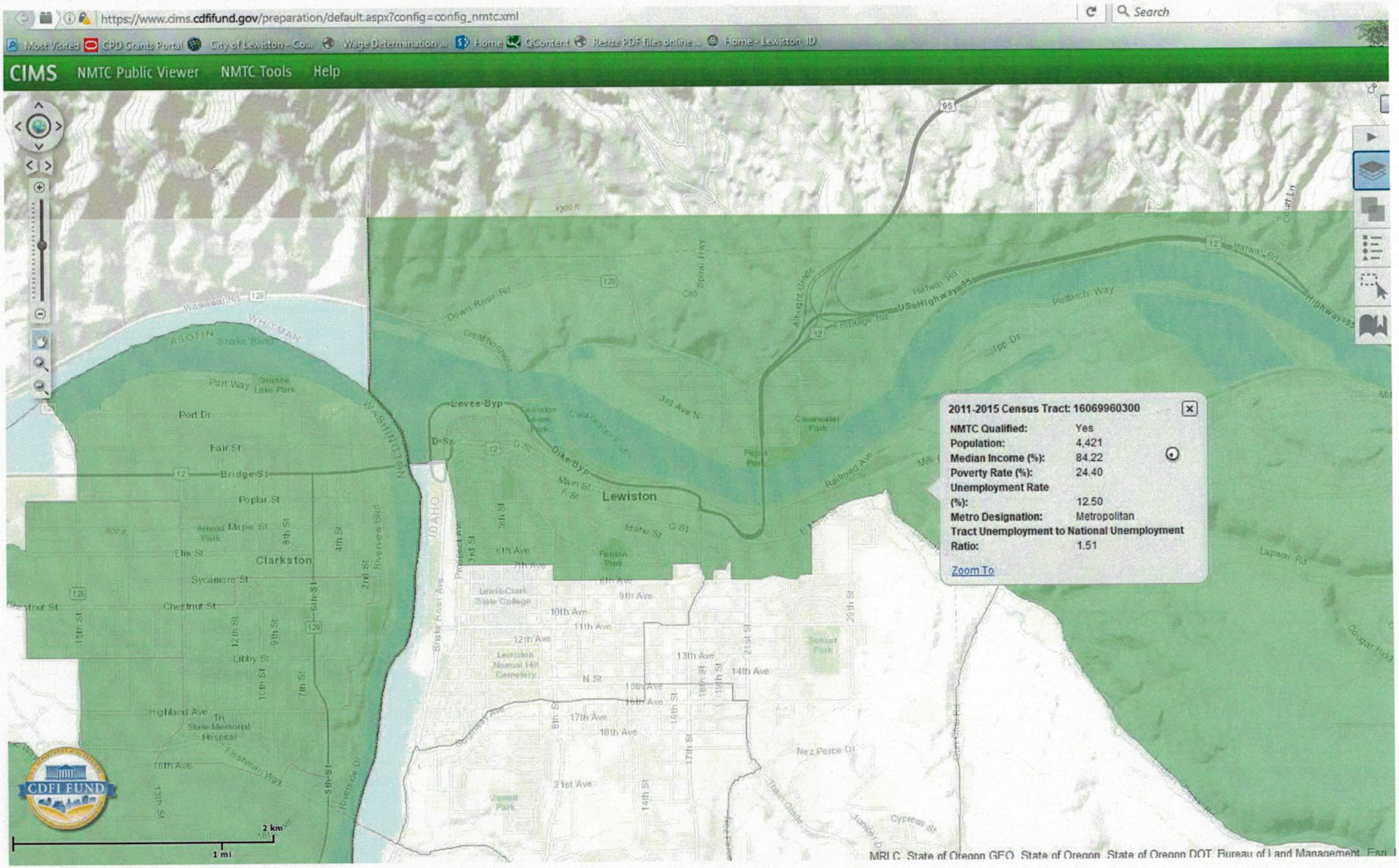
(6) Language: Critical Components in Readers with Criminal Referral History. Derrick E. Platt. 2009

(7) Downtown Master Plan, July, 2019 page 36.

(8) Letter from BDL Board President to the URA dated June 2, 2020.

(9) Water System Facility Plan, City of Lewiston 2019 page ES-9.

(10) New Market Tax Credit Public Viewer.



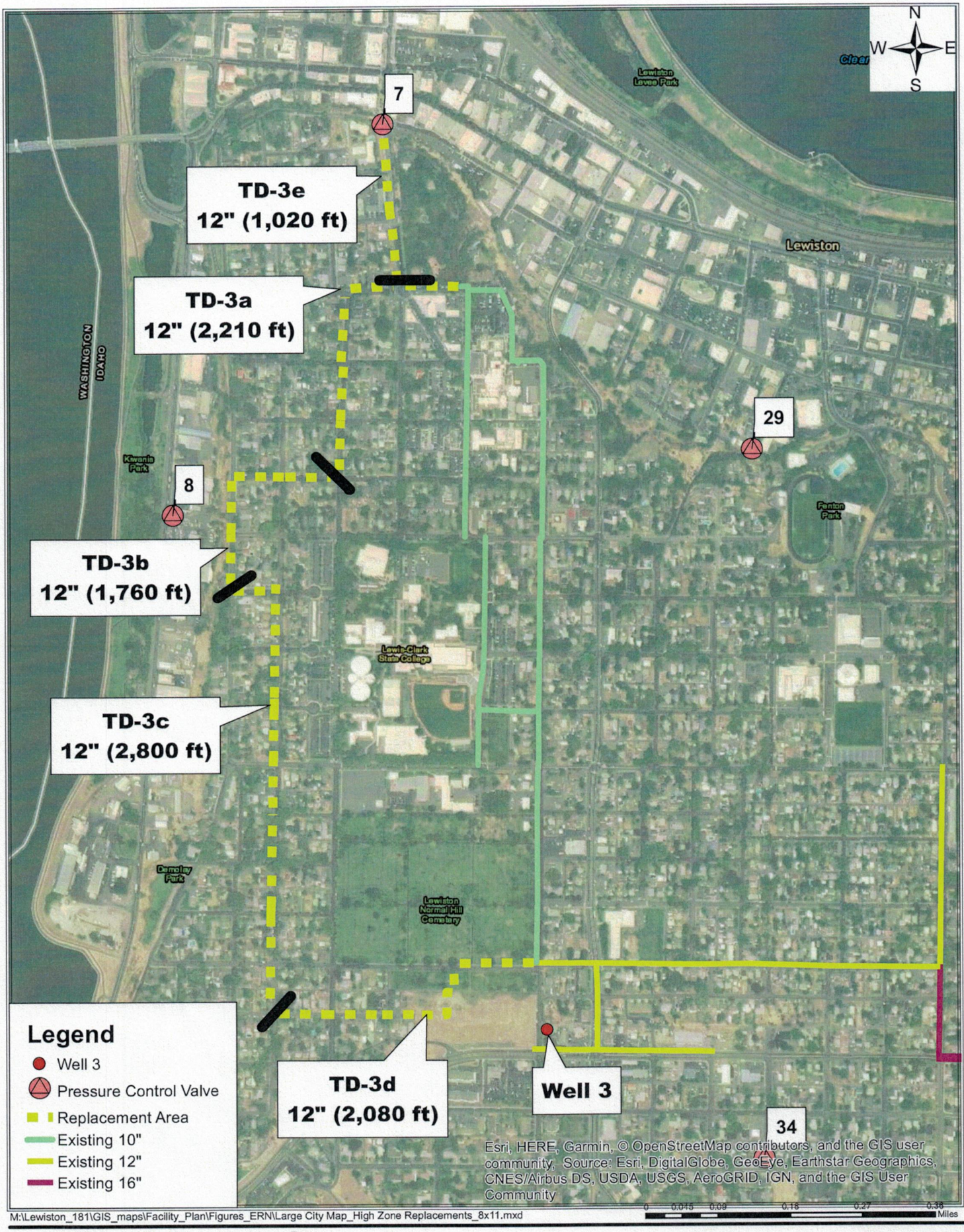
CENSUS TRACT: 9603; NMTC QUALIFIED: YES; POPULATION: 4,421; MEDIAN INCOME (%): 84.22; POVERTY RATE (%): 24.40; UNEMPLOYMENT RATE (%): 12.50

Capital Improvement Plan

Table ES-1: CIP Priority Projects

Operational Group	Project	Need/Justification	Cost (x $1,000)
	Source of Supply (SS)		
SS-1c	Retrofit Existing Treatment Plant with 10-MGD Membrane Filtration	Aging Infrastructure, Supply Capacity	$28,450
SS-1e	Retrofit and Upgrade Existing Primary Permanent Surface Water Intake (Site C)		$3,190
SS-2	New 2-MGD Groundwater Well in South High Service Level (Well No. 7)	Accommodate Growth	$6,000
SS-3	Well No. 6 Pumping and Backup Power Modifications	Reliability, Increase Service Life	$518
SS-4	Upgrade Well No. 3 for PWS Utilization in High Service Level	Supply Capacity, Redundancy	$400
SS-5	Upgrade Well No. 2 for PWS Use in Low Service Level	Redundancy	$186
SS-6	Low to High System Intertie Located at WTP Clearwell	Supply Capacity	$60
	Booster Pumping (BP)		
BP-1a	21st Street Booster Station Upgrades	Aging Infrastructure, Reliability	$325
BP-2	21st Street Booster Suction Transmission Main Modifications	Pumping Capacity, Regulatory	$30
BP-3	Southport No. 1 Booster Intertie	Supply Capacity, Redundancy	$120
	Water Storage (WS)		
WS-1	New 1.8 MG Standpipe or 1.6-MG Ground Level Reservoir in Southeast Service Level	Fire Flow, Accommodate Growth	$3,250
WS-3	2-MG North Lewiston Reservoir Recoating	Aging Infrastructure	$350
WS-4	2-MG South High Reservoir Recoating	Aging Infrastructure	$350
	Transmission and Distribution (TD)		
TD-1	Main Street Transmission Main Replacement	Aging Infrastructure, Supply Capacity, Fire Flow	$1,110
TD-2a	16-inch Replacement Main, 8th Avenue	Aging Infrastructure, Supply Capacity, Fire Flow **Total TD-2 (Low System) Group: $2,000**	$429
TD-2b	16-inch Replacement Main, 8th Avenue, 20th, 7th Streets		$743
TD-2c	16-inch Replacement Main, 8th Avenue, 20th, 7th Streets		$577
TD-2d	16-inch Replacement Main, 16th and G Streets from Idaho to 13th Streets		$251

Operational Group	Project	Need/Justification	Cost (x $1,000)
TD-3a	12-inch Replacement Main, 4th Street (from 6th Avenue to 3rd Avenue) and 3rd Avenue (from 4th Street to 6th Street)	Aging Infrastructure, Fire Flow **Total TD-3 (High System) Group: $2,840**	$633
TD-3b	12-inch Replacement Main, 6th Avenue (from Prospect Avenue to 4th Street) and Prospect Avenue (from 8th Avenue to 6th Avenue)		$532
TD-3c	12-inch Replacement Main, 3rd Street (from 16th Avenue to 8th Avenue) and 8th Avenue (from 3rd Street to Prospect Avenue)		$895
TD-3d	12-inch Replacement Main, 16th Avenue (from 3rd Street to 6th Street and north to 15th Avenue, in the vicinity of the Normal Hill Cemetery) and 15th Avenue (to 7th Street.)		$525
TD-3e	12-inch Replacement Main, 5th Street (from 3rd Avenue to F Street)		$255
TD-5	21st Street Booster Station Automated Return Bypass	Redundancy	$60
TD-6	Southwest Booster Station Automated Return Bypass	Redundancy	$60
Annual Rate-Supported Capital (ARSC)			
ARSC-1	New and Aging Underground Distribution Infrastructure	Aging Infrastructure	$1,000
ARSC-2	Short-Lived Asset Replacement	Aging Infrastructure	$2,000
ARSC-3	Rolling Stock Replacement	Vehicle/Large Equipment	$93



M:\Lewiston_181\GIS_maps\Facility_Plan\Figures_ERN\Large City Map_High Zone Replacements_8x11.mxd

Mountain WATERWORKS

Figure 7-18
TD-3: High Service Level Distribution Main Replacements

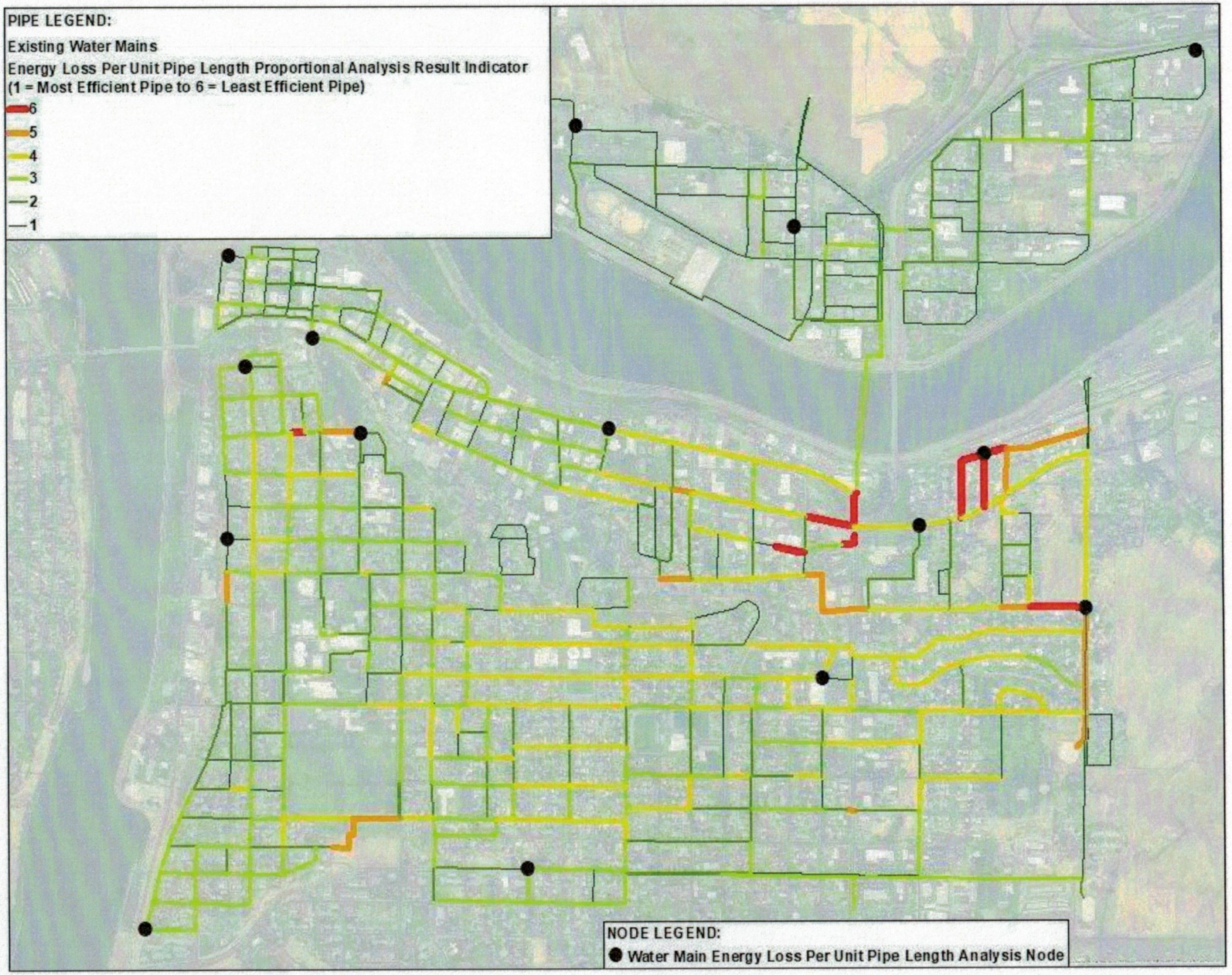


Figure 7-15
Distribution System Hydraulic Efficiency

EXHIBIT A

SCOPE OF SERVICES

STAIRCASE FEASIBILITY STUDY

The City of Lewiston owns a staircase connecting Normal Hill and Downtown. This staircase is not inviting at this time, but could become a critical link between major employers and downtown. Lewiston wants to hire an Engineering firm to review and recommend alternative methods for pedestrian access at the New 6th Street location and include some conceptual cost estimates. Conceptual costs should consider safety upgrades, lighting, site clearance/maintenance, ADA upgrades, and an ADA compliant viewing area just south of the end of New 6th Street's pavement. A comparable ADA route would also need to be evaluated as described in the attached documents. Attached is a map showing the available right of way and excerpts from the Downtown Plan and draft ADA Plan to further guide the work.

This project will be funded with federal monies and is subject to federal terms and conditions. Please be advised that the selected firm may be barred from working on future phases of this project.

City of Lewiston



5. Special Considerations

There were three unique topics that emerged in discussions with the public, city staff, and the Disability Advisory Commission pertaining to how to achieve ADA compliance under special circumstances. These special circumstances are included in this chapter with references pertaining to how to address them and comply with ADA requirements.

Public Stairways

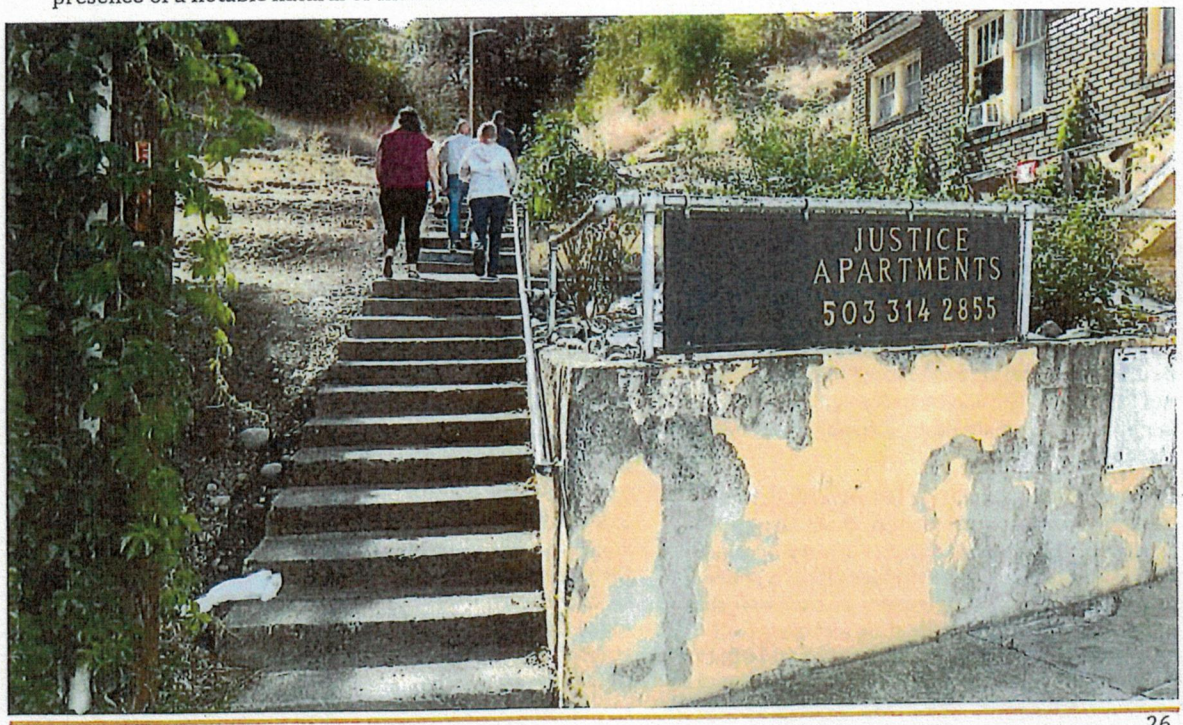
The City desires to upgrade existing public stairways but feared ADA requirements would necessitate constructing a series of switchbacks to meet grade and slope requirements for a walkway. Constructing such a route would be infrastructure intensive and cost prohibitive. The Transition Plan consultant sought advice from the Access Board on how to upgrade the stairs while also designating a comparable on-street route to be upgraded to meet ADA requirements simultaneous to stairway reconstruction.

Normal Hill Stairways

Like many cities with terrain that grew rapidly in the late 1800s and early 1900s, Lewiston has public stairways that connect downtown to one of its oldest neighborhoods, Normal Hill.

PROWAG section *R202.3.1 Existing Physical Constraints* stateds:

- "Where existing physical constraints make it impracticable for altered elements, spaces, or facilities to fully comply with the requirements for new construction, compliance is required to the extent practicable within the scope of the project. Existing physical constraints include, but are not limited to, underlying terrain, right-of-way availability, underground structures, adjacent developed facilities, drainage, or the presence of a notable natural or historic feature."



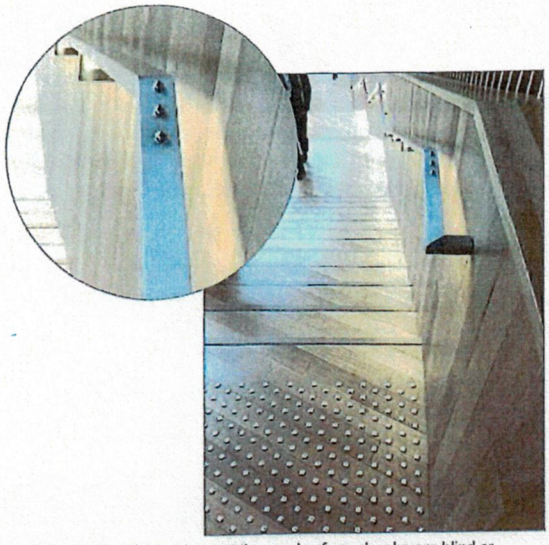
Several elements of R202.3.1 apply in the setting of the two stairways connecting Normal Hill to downtown Lewiston.

The recommended action steps to upgrade these stairways along with corresponding on-street routes is as follows:

1. Work with the Disability Advisory Commission (DAC) to inform the design of the reconstructed stairs and involve them in the process.
2. Approach the DAC with plans to both upgrade the stairs while simultaneously identifying the most suitable on-street accessible routes to reach the same destination.
3. Program construction and upgrades of stairs and on-street accessible routes simultaneously.
4. At the top of the stairs, provide signage identifying number of stairs. Also provide signage and a map showing the accessible route that can be taken in lieu of the stairs. (top and bottom of stairs and nearby ingress/egress points to the Park and downtown streets)
5. Upgrade stairs with railing and landings that provide detectable warnings for people who are blind or visually-impaired.
6. Consider constructing a ramp up to the first terrace near Justice Apartments for wheelchair users to provide a comparable experience in this setting (views to the north from this location).
7. Obtain official action from the DAC at decision points within the process and document that process. This will help guard against future claims about the stairs not being upgrade to full compliance.
8. Document the process and design through the Accessibility Exceptions Certification form.

The stairway connecting Pioneer Park to downtown at New 6th Street has a corresponding on-street route that provides access to downtown via 3rd Avenue and 5th Street. This on-street route would require additional curb ramps and sidewalk repair along 3rd Avenue and 5th Street. The walkway through the park is another option and would require ramps and a crossing at 2nd Avenue.

The stairway connecting 4th Avenue at St. Joseph's Medical Center to 9th Street is more challenging at 9th Street where the stairs end abruptly into a travel lane. Safe usage of the stairs would require either a pedestrian crossing to reach the sidewalks on the other side of 9th or a walkway atop the existing retaining wall until it could be tied into the grade level at 224 9th Street. The corresponding on-street route that provides comparable access would follow 5th or 6th Avenue to 9th Street. 6th Avenue appears more suitable from a safety perspective due to sight distance issues at 5th and 9th. Curb ramp upgrades and sidewalk repairs would be needed, along with either a Rectangular Rapid Flashing Beacon or Pedestrian Hybrid Beacon for pedestrians crossing 9th Street.



Upgrading stairways to meet the needs of people who are blind or vision-impaired could include tactile warnings on both the stairway landings and railings (as shown above in an interior setting) to provide cues to users as to when they are approaching a new series of stairs.

Scoping efforts and funding pursuits for the stairway upgrades should include the on-street routes and construction programmed simultaneously, even if funded via different sources.

8th Street & 13th Avenue Stairway

The short stairway on the southeast corner of this intersection was discussed in meetings with City staff and the Disability Action Center. This route provides access to nearby neighborhoods, a grocery store, an elementary school, and nearby Lewis Clark State College. 8th Street also provides through connectivity between downtown and 16th Avenue.

The sidewalks and stairway on the southeast corner are located in front of a historic home. Reconstructing the sidewalks to tie into a compliant ramp at this corner would require altering the grade of the existing sidewalks and construction of a substantial retaining wall. Figure 5-1 (next page) shows three options for the City to provide an accessible route both within the block and on the west side of 8th Street that would make the route ADA compliant but not require substantial reconstruction of the stairway and impacts to the adjacent property.

Instrument # 879078
NEZ PERCE COUNTY
8-12-2020 04:20:52 PM No. of Pages: 7
Recorded for : CITY OF LEWISTON
PATTY WEEKS Fee: 0.00
Ex-Officio Recorder Deputy Cindy Quampo
Index to: ORDINANCE

CITY ORDINANCE NO. 4778

AN ORDINANCE OF THE CITY OF LEWISTON ESTABLISHING THE "DOWNTOWN LEWISTON BUSINESS IMPROVEMENT DISTRICT" PURSUANT TO CHAPTER 26, TITLE 50, IDAHO CODE; SETTING FORTH THE NUMBER, DATE, AND TITLE OF THE RESOLUTION OF INTENTION PURSUANT TO WHICH SUCH DISTRICT IS BEING ESTABLISHED; LISTING THE TIME AND PLACE OF THE PUBLIC HEARING HELD CONCERNING THE ESTABLISHMENT OF SUCH DISTRICT; DESCRIBING THE BOUNDARIES OF SUCH DISTRICT; LISTING THE USES TO WHICH SUCH DISTRICT'S SPECIAL ASSESSMENT REVENUES SHALL BE PUT; SETTING FORTH DEFINITIONS THAT APPLY TO THIS ORDINANCE; ESTABLISHING THE RATES OF LEVY FOR SPECIAL ASSESSMENTS BY SUCH DISTRICT; ESTABLISHING THE TERM OF SUCH DISTRICT; IDENTIFYING PROPERTIES THAT ARE EXEMPT FROM SPECIAL ASSESSMENTS BY SUCH DISTRICT; ESTABLISHING MINIMUM AND MAXIMUM SPECIAL ASSESSMENTS BY SUCH DISTRICT; ESTABLISHING REGULATIONS CONCERNING BILLING AND COLLECTION OF SPECIAL ASSESSMENTS; REQUIRING SEGREGATION OF SPECIAL ASSESSMENT REVENUES; AUTHORIZING CHANGES TO SPECIAL ASSESSMENT RATES; ESTABLISHING AN APPEAL PROCESS; AUTHORIZING THE CITY COUNCIL TO CONTRACT WITH A BUSINESS ASSOCIATION TO ADMINISTER THE OPERATION OF SUCH DISTRICT; AUTHORIZING THE CITY COUNCIL TO CREATE AN ADVISORY COMMISSION; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Chapter 26, Title 50, Idaho Code authorizes the organization of a business improvement district by an incorporated city;

WHEREAS, pursuant to Idaho Code § 50-2603, a petition to initiate the establishment of a business improvement district must contain the signatures of business property owners in the proposed district that would pay fifty percent (50%) of the proposed special assessments;

WHEREAS, Beautiful Downtown Lewiston Revitalization Corporation submitted a valid initiation petition to the City of Lewiston requesting establishment of a business improvement district in downtown Lewiston;

WHEREAS, pursuant to Idaho Code § 50-2604, the Lewiston City Council passed Resolution 2020-22 declaring the City's intent to establish a business improvement district;

WHEREAS, pursuant to Idaho Code § 50-2606, a public hearing was conducted by the Lewiston City Council regarding the proposed establishment of a business improvement district;

WHEREAS, pursuant to Idaho Code § 50-2605, notice of such public hearing was published in a newspaper of general circulation in the City and a complete copy of Resolution 2020-22 was mailed to each business within the proposed district at least ten (10) days prior to such public hearing; and

WHEREAS, the City has not received protests from business property owners in the proposed district that would pay a majority of the proposed special assessments.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF LEWISTON, IDAHO:

SECTION 1: **Resolution of Intention.** The City Council of the City of Lewiston, Idaho adopted Resolution 2020-22 on July 13, 2020, which resolution was titled as follows:

> A RESOLUTION DECLARING THE INTENTION OF THE CITY OF LEWISTON, IDAHO TO ESTABLISH A BUSINESS IMPROVEMENT DISTRICT PURSUANT TO TITLE 50, CHAPTER 26 OF THE IDAHO CODE FOR THE GENERAL PURPOSES ALLOWED THEREIN; STATING THE TIME AND PLACE OF A HEARING TO BE HELD BEFORE THE CITY COUNCIL TO CONSIDER ESTABLISHMENT OF SAID DISTRICT; AND RESTATING ALL THE INFORMATION CONTAINED IN THE INITIATION PETITION REGARDING BOUNDARIES, PROJECTS AND USES, AND ESTIMATED RATES OF ASSESSMENT.

SECTION 2: **Public Hearing.** The City Council of the City of Lewiston, Idaho held a public hearing regarding the proposed establishment of a downtown business improvement district on July 27, 2020 at 6:00 p.m. at the Lewiston City Library located at 411 D Street, Lewiston, Idaho.

SECTION 3: **Establishment of District.** There is hereby established a business improvement district pursuant to the provisions of Chapter 26, Title 50, Idaho Code, to be called the "Downtown Lewiston Business Improvement District" (hereinafter, "District").

SECTION 4: **District Boundaries.** The District boundaries shall be as set forth in Exhibit A to this Ordinance No. 4778, attached hereto and incorporated herein.

SECTION 5: **Use of Special Assessment Revenues.** Pursuant to Idaho Code § 50-2601, special assessment revenues collected pursuant to this Ordinance No. 4778, and accrued interest thereon, shall be used only for the following purposes:

A. The acquisition, construction, or maintenance of parking facilities for the benefit of the District, subject to the additional requirements set forth in Idaho Code § 50-2609;

B. Physical improvements and decoration of any public space in the District;

C. Promotion of public events that are to take place on or in public places in the District;

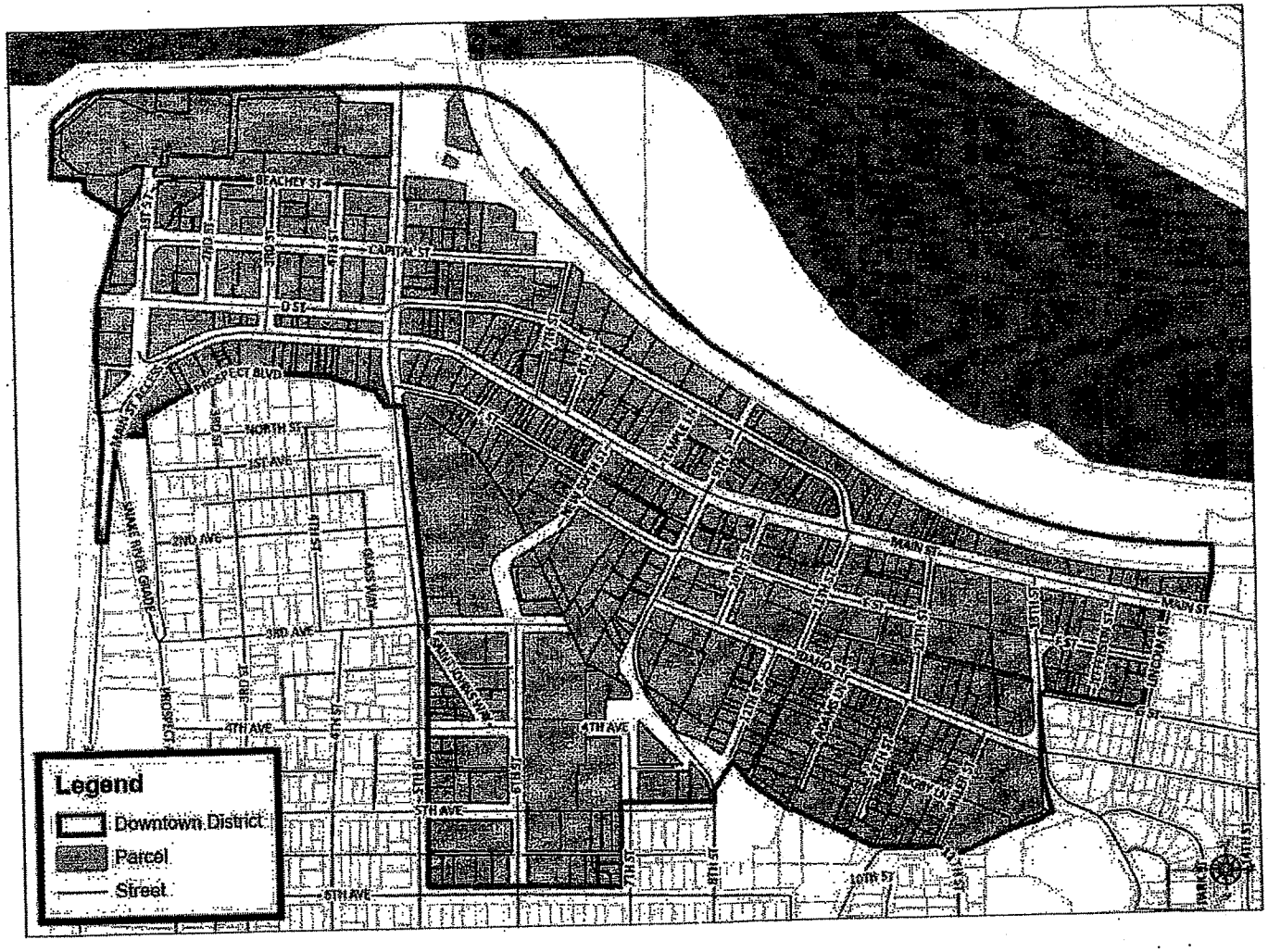
D. The acquisition and operation of transportation services to promote retail trade activities within the District;

E. The general promotion of retail trade activities in the District; and

F. Operational costs to manage, develop, and promote the District.

EXHIBIT A

Downtown Lewiston Business Improvement District Boundaries

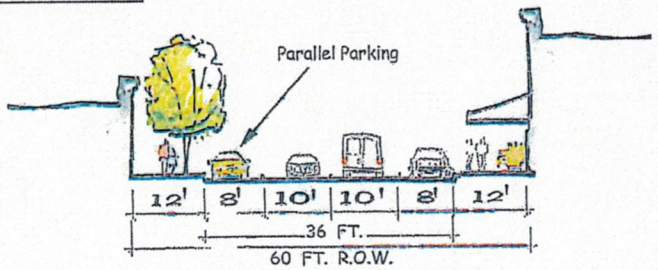


7/7

Lewiston-Clarkston Downtown Circulation Plan

Recommended Street Configurations

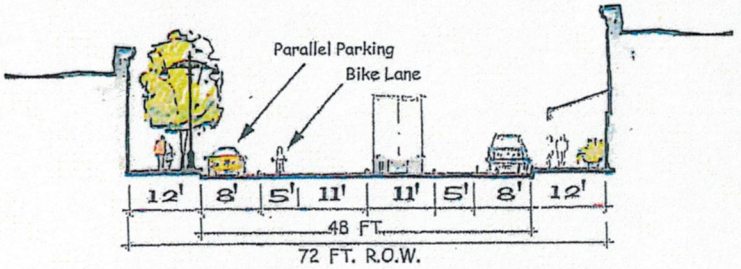
The following general street configurations are recommended as guidelines for design. Example locations are given, but configurations could apply in other locations as well. Actual street widths will vary depending on site conditions, turn lane needs, parking needs, and available right-of-way.



2-LANE LOCAL STREET

WITH PARALLEL PARKING

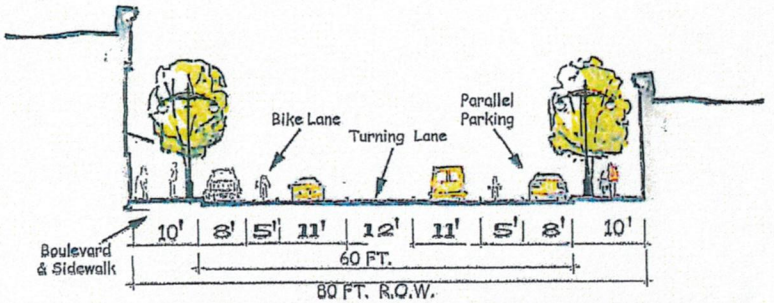
Various Locations



2-LANE COLLECTOR or MINOR ARTERIAL

WITH BIKE LANES & PARKING

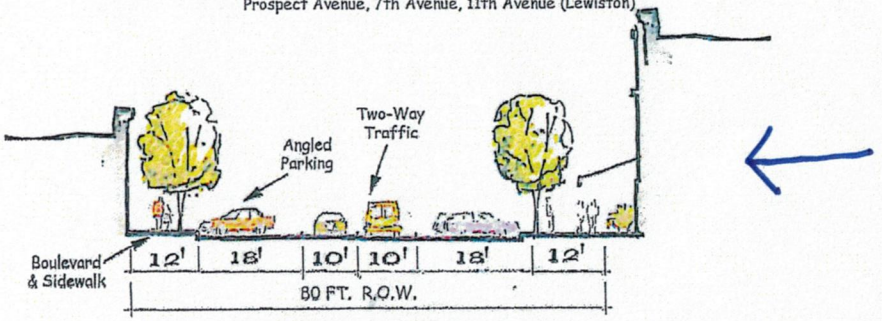
Example Locations: 13th Street, Elm Street, Chestnut Street (Clarkston)
Prospect Avenue, 7th Avenue, 11th Avenue (Lewiston)



3-LANE COLLECTOR OR MINOR ARTERIAL

WITH BIKE LANES AND PARKING

Example Locations: 5th/6th Street, 15th Street, Port Drive (Clarkston)
5th Street, 9th Street, 18th Street (Lewiston)



PARKING STREET

ANGLED PARKING ON BOTH SIDES

Example Locations: 5th Street, 7th Street (Downtown Clarkston)
3rd Street, Beachey Street (Lewiston)

7/14/2014
Page 239 of 343
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Memo

To: URBAN RENEWAL AGENCY

From: LAURA VON TERSCH, COMMUNITY DEVELOPMENT DIRECTOR

Date: JULY 14, 2020, UPDATED 9/8/2020

Re: CALCULATING 10% CAP

Idaho Statutes limits the value within a Revenue Allocation Area(s) to 10% of a City's taxable value. What follows are preliminary numbers provided by Nez Perce County for the City's budget.

Total Base:	2,380,000,000
New Construction:	17,000,000
RAA #3	41,000,000
	2,438,000,000
10%	243,800,000
Less #4	63,661,812
Less #5	52,364,731
Less #6	54,270,325
Total Available:	73,503,132

215 D Street • PO Box 617 • Lewiston, ID 83501-1930 • Ph.208.746.1318 • Fx.208.746.5595 • www.cityoflewiston.org

October 5, 2020

THE CITY COUNCIL OF THE CITY OF LEWISTON, IDAHO, met in a Work Session on Monday, October 5, 2020, in a virtual setting and Lewiston City Hall Back Conference Room, 1134 "F" Street. Mayor Collins called the meeting to order at 3:01 p.m.

COUNCIL MEMBERS PRESENT: Mayor Collins; Mayor Pro Tem Schroeder; Councilor Kelly; Councilor Bradbury; Councilor Miller; Councilor Pernsteiner; Councilor Blakey (3:06)

STAFF MEMBERS PRESENT: Alan Nygaard; Chris Davies; Budd Hurd; Jana Gómez; Kayla Hermann; Laura Von Tersch; Travis Myklebust; Dan Marsh; Tim Barker; Lynn Johnson; Nikki Province; Carol Maurer; Aimee Gordon; Brittnie Purington; Aaron Butler; Wendy LaVoie; Gaylon Waits

I. PLEDGE OF ALLEGIANCE

Mayor Collins led the Pledge of Allegiance.

III. CITIZEN COMMENTS

Provides an opportunity for citizens to address the Council on agenda items or other items they wish to bring to the attention of the Council. Citizens are encouraged to discuss operational issues in advance with the City Manager. In consideration of others wishing to speak, please limit your remarks to three minutes. Citizen comments can also be provided by calling 208-746-3676 and leaving your message. Your comments will then be forwarded to the City Council.

Steven Martin of Lewiston provided some statistics regarding homelessness populations in accordance to race and mental illness. He said Gospel Mission of Spokane knows how to deal with homelessness and the City should let them run their business. He continued by stating that the Gospel Mission's goal is to rehabilitate the homeless and they do not need a City Ordinance to tell them how to run their business.

IV. WORK SESSION ITEMS

A. AIRPORT UPDATE: *Presentation by Gary Peters*

Airport Manager Isaacs recapped a letter that was sent to Mayor Collins in regards to an email sent to the FAA by City Manager Nygaard. He stated he would like to request that the City Manager take complaints or issues to the Airport Authority Board prior to sending them to the FAA. He said there is a really good relationship that is being built between the Airport and the FAA. The airport is in compliance with both the FAA and TSA. Mr. Isaacs said that it is imperative for all parties to work together and be on the same page.

Airport Authority Board Chairman Peters added that there has been open communication with the FAA and the letter sent by Mr. Nygaard to the FAA did not help to build relations. He said that if there are questions that need answered, the sponsors should contact the airport directly. City Manager Nygaard stated that he was asked by the Council if the City had been copied on a letter sent by the FAA in regards to the Airport. He said that he was not aware of the subject matter in the letter, but wanted to be sure the letter had not been misplaced or overlooked by City staff. Mr. Peters stated that all the Airport is asking is to be kept in the loop in the future. Finally, he commended Airport Authority Board member Seekins, noting that she is a great asset and has gotten up to speed very quickly.

Councilor Bradbury stated that if the Airport would have been copied on the email sent to the FAA, this issue could have been avoided. Mr. Nygaard stated that there was no ill will meant by the email that was sent and he was not aware that any complaints had been made against the Airport. Mayor Collins stated that he takes full responsibility for any part he may have taken in this matter and plans to communicate better in the future.

Mayor Collins stated that there is some COVID-19 funding in the City's budget and asked if the Airport had an update on the projects underway that could be covered by this money. Mr. Isaacs replied that the contracts have been approved and the bid award should take place the end of October. He stated that the deadline for submitting invoices is December 11th, and the airport should have their invoices ready by November. Mr. Nygaard clarified that the funding has to be spent by the deadline and any invoices that can be submitted should be sent to the City for processing.

Mayor Schroeder stated that she was disappointed that the Airport did not bring anything positive to report at today's meeting.

B. ***HOMELESSNESS***: *Update on the Police Homeless Project* (Hurd)

Lieutenant Mundell provided an update on the Police Homeless Project. He stated that this project began in May 2019 and the first step was implementing the Mike and Mike bicycle patrol program. He noted the downtown businesses felt the impact and were grateful to have the extra presence. Lieutenant Mundell said Lewiston does have some homeless people in the area, but there have been many steps taken to diminish the numbers.

Officer Rigney provided an overview of the homelessness issue within the City and the steps being taken to help people in that situation. He said the program has had really good success by establishing rules and setting up resources for those in need. The Corps of Engineers has been a great help to control the issue on the river's edge and

First Step for Life is a great resource for providing assistance. He stated that the homeless population has decreased since this program launched and provided the Council with some examples of people that have been assisted.

Councilor Bradbury stated that he would be interested in knowing what access is available for those with mental health issues. Officer Rigney mentioned the hospital and First Step for Life as a couple of resources.

Councilor Blakey said that he feels one of the bigger problem areas within the City is under the Interstate Bridge and asked if this is a problem area. Officer Rigney replied that the Corps of Engineers has done a great job of going into that area and cleaning when they can, as well as trespassing people from the area when needed. Lt. Mundell stated that the area in question also seems to attract people that are not homeless. Councilor Blakey asked if the City receives the statistics from the school district of the homeless families in the area. Lt. Mundell stated that he is aware that the school district tracks that information, but this program does not receive the numbers. Councilor Bradbury asked if there was a way to provide bathroom facilities for the people in the areas of impact to help keep the areas cleaner. Lieutenant Mundell stated that the Interstate Bridge is within 300ft of a restroom and there are bathrooms and port-a-potty's within most parks. Councilor Blakey stated that First Step for Life stepped up and provided a warming shelter last winter and asked if there was a plan in place for this winter. A representative from First Step for Life stated the organization does not plan on opening a warming shelter this winter noting that funding and COVID-19 guidelines are an issue. Councilor Blakey suggested the potential use of funding under the CARES Act. Community Development Director Von Tersch stated that there is no CBDG funding allocated to First Steps for Life this year.

Mayor Pro Tem Schroeder thanked Officers Rigney and Gunter for the job they are doing and the efforts being made with the homeless. She said she feels that their presence in various areas has made a positive impact.

Lieutenant Aycock with the Salvation Army stated that warming shelters do come down to funding. Funding ensures proper staffing and consistent standards especially with the pandemic. She said and that they are working towards a plan and hope to keep the channels of communication open.

Councilor Pernsteiner stated that everyone involved has done a fantastic job on this project and asked how much funding the Salvation Army would need for the warming shelter. Mrs. Aycock replied that the organization is looking to fund raise approximately $175,000 in order to run at full capacity.

Chief Hurd stated he is on the advisory board for the Youth Resource Center that handles the school district issue for the homeless population and will distribute the numbers as they come available.

C. ***UTILITY RATE STUDY***: *Discussion on the Utility Rate Study performed by the FCS Group* (D. Johnson)

City Engineer Johnson introduced Andy Baker with FCS for an updated presentation on the utility rate study. Mr. Baker recapped the overall objectives for the study, project timeline, key findings and recommendations. He provided an overview of the rate study components and noted the study adoption does not enact changes to the rate structure without Council input and future action. The guiding principle for this study was to plan and act now to avoid rate shocks in the future and long-term costs of providing utility services. Mr. Baker covered the recommendations for the key policies to the Council and continued recapping the findings of each utility. He noted that over 50 percent of the City's water mains are due for replacement and the recommended increase for water is 5.25 percent per year. The wastewater collection system has 12 percent of the pipes that do not meet standards and the recommended increase for wastewater is 2 percent in 2021 and 3 percent per each year after. He continued stating that the recommended increase for sanitation is 3 percent per year.

Councilor Bradbury asked Mr. Baker if he was aware that only half of the ratepayers within the City support the water system. Mr. Baker confirmed. Mr. Bradbury asked if FCS looked at any other possible methods that would have all ratepayers within the City participate in the water line replacement. Mr. Baker replied that the study that was completed only focused on the rate payers of the system. Mr. Bradbury asked if there were any aspects of the costs that are not directly related to providing water. Mr. Baker replied that the process of the study goes through the detail of the capital needs, as well as the full operating costs that are supported by the rates. He explained that in that process the study looks at what costs specifically support each function of service. Councilor Bradbury clarified his question asking Mr. Baker if he was aware that there was approximately $300,000 that was charged to the water utility for the repair of streets. Mr. Baker confirmed. He explained that street impacts from utility cuts and repairs are common to include in the cost of utilities. He continued by explaining that the study refers to an overall group of customers, such as residential, commercial and industrial, not as individual consumers. Mr. Bradbury provided an example of water being provided at no cost to a golf course. He stated that the ratepayers are paying for the water and asked if that would be a fair assessment of a cost to the consumer. Mr. Baker replied the total cost to operate the utility as a whole is distributed amongst the water utility ratepayers.

Councilor Pernsteiner asked if the solid waste study revenues projected were part of the rate structure. Mr. Baker confirmed. Mr. Pernsteiner asked if the City is

above, below or neutral average in regards to the infrastructure replacement and the amount of distribution lines needing replaced. Mr. Baker stated that the wastewater infrastructure is slightly above average and the master plan outlines that information. He said that the water distribution system is double the national standard of water that is being lost.

Administrative Services Director Marsh clarified that the interest from the two different loans within the City is revenue, but the loans themselves are not. He stated the loans are an asset and callable. He asked Mr. Baker if the loan was included in the reserve calculation since the loan is a liquid asset. Mr. Baker replied that he would look into it and provide and answer.

D. ***RESOLUTION 2020-23***: *In response to the Utility Rate Study, a discussion regarding establishing the City's policies for setting City utility rates* (D. Johnson)

City Engineer Johnson stated Resolution 2020-23 is a follow-up to the study that was just discussed. Andy Baker with FCS stated that this Resolution is an outline of recommended policies for utility rate setting. He noted that the Resolution lays out the reserve policies, basis for ongoing reinvestment into the system, recommendations for capital fund balance and debt service coverage targets, as well as recommended rate increases.

City Manager Nygaard explained that the cash on hand referenced in Section 1 is specifically for maintenance and operation. The two times debt service coverage will reduce the cash on hand as time goes on in order to have the coverage needed for the systems.

Councilor Pernsteiner asked if the City had cash on hand resolutions for other departments within the City. Mr. Nygaard stated that there are not resolutions in place at this time. Mr. Pernsteiner asked if this would be creating more liability by passing this Resolution. Mr. Nygaard stated that resolutions set policy and the budgetary process is adopted by ordinance. He explained that the rates would still be included in the budget and the budgetary ordinance would override the Resolution.

Councilor Bradbury asked how the number of days of reserves would affect the ratepayers. Mr. Nygaard stated that 5.25 percent is what the ratepayer is slated to pay for future years to establish the reserve.

E. ***DOWNTOWN REVENUE ALLOCATION AREA***: *Discussion regarding forming a new Revenue Allocation Area downtown and potential Council direction to prepare a Resolution for future consideration which would find that the area is blighted* – Action Item (Von Tersch)

Community Development Director Von Tersch discussed forming a new downtown Revenue Allocation Area (RAA) and what it encompasses. She noted the Urban Renewal Agency (URA) Board believes that 13 blocks are blighted as documented by above average poverty, unemployment, median home value, tenancy, reading proficiency, infant mortality and substandard water infrastructure. The Board did not recommend any changes to the geographic boundary, but did add to the list of proposed projects to include: water system, normal hill staircases, wayfinding, parking lots/streets, flood control and sewer where needed. Twin City Foods was discussed as a long-term project, but exactly how to incentivize development could not be immediately identified. If Council is supportive of forming a RAA downtown, next steps include the Board and Council finding that the area is blighted by Resolution, and the Board preparing and approving a plan. Ms. Von Tersch noted the revenue projection would be $10 million dollars over 20 years and could be viewed as a savings for capital projects that would be described in future plans.

Mayor Pro Tem Schroeder commended Ms. Von Tersch on her work and said she is excited to see where the project goes.

Mayor Collins asked if the 9th Street area was included in the new revenue area. Ms. Von Tersch replied that the way the current plan is drafted, the 9th Street right-of-way is captured, but some lines would need to be moved if adjoining properties were to be included.

Councilor Bradbury stated that it is his understanding that the constitutionality of the City authorizing this type of project is before the Idaho Supreme Court and asked if the URA was familiar with the litigation. Ms. Von Tersch stated that she was not and legal counsel had not brought that to her attention.

Urban Renewal Chairman Hulett stated that if the Council does not approve of the current plan, then the group will need to take a different approach.

Councilor Pernsteiner asked what the timeline would be for the new projects. Ms. Von Tersch explained that this will come before the Council within the next month to adopt a resolution to develop a district. The plan would likely come to the Council in 2021.

There was a consensus of the Council to continue with this project.

V. UNFINISHED AND NEW BUSINESS

A. CITY COUNCILOR COMMENTS

Mayor Pro Tem Schroeder stated she attended the Historical Preservation Committee meeting and the group will be releasing a pamphlet of information. They are keeping very busy and continue to make progress. She also met with the Riverboat Steering Committee representative regarding the boat tours and explained how her family participated with the tours.

B. CITY MANAGER COMMENTS

City Manager Nygaard stated that the Stormwater Permit has been received and will be brought before the Council for discussion. He explained that he is looking for feedback from the Council in regards to possibly offering small business grants. The City is hoping to be able to help local businesses and local non-profit organizations with COVID related items. He noted that businesses such as daycares and restaurants were discussed as possible recipients. Mr. Nygaard said the amount being requested is $200,000-$250,000. Mayor Pro Tem Schroeder and Councilor Bradbury both expressed their support of this idea. Councilor Miller said she is also in support and feels that daycares are a great business to assist.

Councilor Pernsteiner asked how businesses would apply for potential reimbursement. Mr. Nygaard explained that it would depend on the business and the amount of funds being requested. The information is submitted to the State of Idaho for review to qualify for reimbursement for the City.

C. ADVISORY BOARD OR COMMISSION APPOINTMENT

Mayor Collins stated that the Airport Authority Board application deadline was yesterday and City Clerk Ravencroft is compiling a list of applicants to send to the Council.

D. PROPOSED WORK SESSION TOPICS

There were no proposed work session topics.

At 4:53 p.m., Mayor Pro Tem Schroeder moved to go into Executive Session to discuss items pertaining to Pending Litigation and Personnel. The motion was seconded by Councilor Pernsteiner. *ROLL CALL VOTE: VOTING AYE: Collins; Schroeder; Bradbury; Pernsteiner; Blakey; Kelly; Miller. VOTING NAY: None.*

VI. **EXECUTIVE SESSION RE: PENDING LITIGATION AND PERSONNEL**: *Idaho Code § 74-206(1)(f), to communicate with legal counsel for the public agency to discuss the legal ramifications of and legal options for pending litigation, or controversies not yet being litigated but imminently likely to be litigated; and Idaho Code § 74-206(1)(b), to consider the evaluation, dismissal or disciplining of, or to hear complaints or charges brought against, a public officer, employee, staff member or individual agent, or public school student*

Following a short recess, the Council met to discuss the item noted above. Councilors Pernsteiner and Kelly moved and seconded to retire from Executive Session. There were no objections.

VII. **ADJOURNMENT**

There being no further business to come before the Lewiston City Council, Mayor Collins adjourned the October 5, 2020, Work Session at 5:04 p.m.

The City of Lewiston is committed to providing access and reasonable accommodation in its services, programs, and activities and encourages qualified persons with disabilities to participate. If you anticipate needing any type of accommodation or have questions about the physical access provided at this meeting, please contact City Clerk Kari Ravencroft at least forty-eight (48) hours in advance of the meeting at (208) 746-3671 x 6203.

COMMUNITY DEVELOPMENT

CITY COUNCIL MEETING
AGENDA ITEM HISTORY/COMMENTARY

ITEM TITLE RESOLUTION NO. 2021-4	AGENDA NO._____ AGENDA DATE _1/11/21__ CONSENT: ☐ ACTIVE: ☐	1ST READING_____ 2ND READING_____ 3RD/ADOPTION_____
ORIGINATING SOURCE Community Development Director Date: _____	FUNDING CERTIFICATION (IF APPLICABLE) Date: _____	
DIVISION MANAGER REVIEW (If applicable) Date: _____	DEPARTMENT MANAGER REVIEW (If applicable) Date: 1/11/21	
RECOMMENDED FOR COUNCIL ACTION	CITY MANAGER Date: _____	

ITEM HISTORY (PREVIOUS COUNCIL REVIEWS, ACTION RELATED TO THIS ITEM, OTHER PERTINENT HISTORY)

October 5, 2020—City Council approved preparing a Resolution finding that the Downtown/Normal Hill Area is deteriorated and deteriorating as described in state law.

ITEM COMMENTARY (BACKGROUND, DISCUSSION, KEY POINTS, RECOMMENDATIONS, ETC.) Please identify any or all impacts this proposed action would have on the City budget and/or personnel resources.

The Downtown/Normal Hill Area is deteriorated and deteriorating as a result of an inadequate water distribution system, lack of fire flows, high rates of poverty, unemployment and other factors. Approving this Resolution is the first step in preparing an Urban Renewal Plan and Revenue Allocation Area to fund the projects necessary to ameliorate these blighting conditions. The Urban Renewal Agency will prepare the plan and submit for City Council approval within the year.

ACTION PROPOSED:

Approve Resolution No. 2021-4

RESOLUTION 2021-4

A RESOLUTION CREATING THE DOWNTOWN/NORMAL HILL URBAN RENEWAL AREA

WHEREAS, pursuant to Resolution 99-75, the City of Lewiston created the Urban Renewal Agency of the City of Lewiston;

WHEREAS, pursuant to Resolution 99-85, the City of Lewiston created the Nez Perce Terrace Urban Renewal Area #1;

WHEREAS, pursuant to Resolution 2005-76, the City of Lewiston expanded the boundaries of the Nez Perce Terrace Urban Renewal Area #1;

WHEREAS, pursuant to Resolution 2017-20, the City of Lewiston created the East Orchards Urban Renewal Area;

WHEREAS, pursuant to Resolution 2018-29, the City of Lewiston created the Bryden Avenue Urban Renewal Area; and

WHEREAS, the City of Lewiston now desires to create another urban renewal area within its area of operation, in accordance with the Idaho Urban Renewal Act, I.C. §§ 50-2001 *et seq.*, and the Local Economic Development Act, I.C. §§ 50-2901 *et seq.*

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF LEWISTON, IDAHO:

SECTION 1: The real property described and illustrated in Exhibit A, attached hereto and incorporated herein, is hereby declared to be a deteriorated or deteriorating area, as defined by Idaho Code §§ 50-2018(8), 50-2018(9), and 50-2903(8), due to the following reasons:

(a) This area has the oldest water system in the City of Lewiston. The water pipes are deteriorated and inadequate. Half of the pipes are six inches (6") or less in diameter and generally do not meet commercial fire flow requirements. The presence of such conditions substantially impairs or arrests the sound growth of the City of Lewiston and constitutes an economic or social liability and is a menace to the public health, safety, morals, or welfare.

(b) The housing stock in this area is the oldest in the City of Lewiston. The median single-family home value is One Hundred Forty Thousand Three Hundred Twenty-Seven Dollars ($140,327)—22% less than the median single-family home value in all of Nez Perce County—which speaks to the presence of a substantial number of deteriorated or deteriorating buildings in this area. Additionally, the shortage of affordable rental housing provides no incentives to landlords to upgrade their buildings. The presence of such conditions substantially impairs or arrests the sound growth of the City of Lewiston and retards the provision of housing accommodations.

(c) This area has 50% more multi-family units than an average neighborhood in Nez Perce County. Renters are 31% more likely than homeowners to earn 80% or less of the City of Lewiston's median income—meaning renters are more likely than homeowners to be of low or moderate income. Additionally, this area has a high poverty rate of 25.7% compared to Nez Perce County's poverty rate of 14.6%, as calculated by the United States Census Bureau. The presence of such conditions is conducive to ill health, infant mortality, and juvenile delinquency, and is detrimental to the public health, safety, morals, or welfare.

(d) The United States Treasury Department has approved the census tract in which this area is located as an "Opportunity Zone" characterized by high rates of poverty and unemployment.

SECTION 2: The real property described and illustrated in Exhibit A is hereby designated as an urban renewal area, in accordance with the Idaho Urban Renewal Act, I.C. §§ 50-2001 *et seq.*, and the Local Economic Development Act, I.C. §§ 50-2901 *et seq.* Such urban renewal area is to be known as the "Downtown/Normal Hill Urban Renewal Area."

SECTION 3: The Downtown/Normal Hill Urban Renewal Area is hereby designated as appropriate for one or more urban renewal projects. Accordingly, the Urban Renewal Agency of the City of Lewiston is hereby directed to develop an urban renewal plan for the Downtown/Normal Hill Urban Renewal Area. Such urban renewal plan shall then be returned to the City Council, with recommendations from the Urban Renewal Agency of the City of Lewiston, for public hearing.

SECTION 4: This resolution shall become effective upon its passage.

Signature page to follow

PASSED this 11th day of January 2021.

CITY OF LEWISTON

By: _____, Mayor

CITY OF LEWISTON SEAL STATE OF IDAHO

ATTEST:

Kari J. Ravencroft, City Clerk

EXHIBIT A
TO RESOLUTION 2021-4

A portion of section 31, Township 36 N., Range 5 W., and section 36, Township 36 N., Range 6 W., Boise Meridian, in the City of Lewiston, County of Nez Perce, Idaho and being more particularly described as follows:

Commencing at True's Monument No. 11, also know as Monument No. 12-10 of said City of Lewiston records, said point being on the centerline of Main Street; thence along the centerline of Main Street N 77°40'05" W a distance of 134.19 feet to the true point of beginning; thence continuing along the centerline of Main Street N 77° 40' 05" W a distance of 104.45 feet to the intersection of Main and Lincoln Streets; thence along the centerline of Lincoln Street S 13° 17' 17" a distance of 514.79 feet to the intersection of Lincoln and G Streets; thence along the centerline of G Street N 77° 58' 54" W a distance of 14.44 feet to the offset centerline of Lincoln and G Streets; thence continuing along the centerline of Lincoln Street S 11° 47' 02" W a distance of 244.80 feet to the intersection of Lincoln and Idaho Streets; thence along the centerline of Idaho Street N 78° 13' 31" W a distance of 235.15 feet; thence continuing along the centerline of Idaho Street N 81° 53' 29" W a distance of 159.04 feet to the intersection of Idaho and 13th Streets; thence along the centerline of 13th Street S 03° 16' 40" E a distance of 7.96 feet to the offset centerline of Idaho and 13th Streets; thence continuing along the centerline of Idaho Street N 66° 43' 31" W a distance of 1775.69 feet to a point that is S 66° 43' 31" E a distance of 123.45 feet from the intersection of Idaho and 9th Streets; thence S 24° 11' 10" W a distance of 30.00 feet to a point on the south right-of-way line of Idaho Street and to the northeast corner of Lot 1 of the Subdivision of Lot 13 Block 30 Plat of the City of Lewiston, recorded by Instrument No. 8190 of said county records; thence along the east line of Lot 1, Lot 2, Lot 3, Lot 4, Lot 5 and Lot 6 of said subdivision S 24° 11' 10" W a distance of 343.12 feet to a point on the east line of Lot 6 and the northeasterly right-of-way line of 9th Street; thence S 78° 50' 45" W a distance of 67.08 feet to the southwesterly right-of-way line of 9th Street; thence N 59° 58' 50" W a distance of 31.37 feet to the southeast corner of Lot A of said subdivision; thence along the south lines of Lot A, Lot 18, Lot 19 and Lot 20 N 59° 58' 50" W a distance of 196.49 feet to the southwest corner of Lot 20 of said subdivision; thence N 75° 49'29" W a distance of 10.40 feet to the southeast corner of Lot 12 Block 30 Plat of the City of Lewiston; thence along the south line of said Block 30 N 23° 09' 48" W a distance of 732.64 feet; thence N 27° 08' 50" W a distance of 44.24 feet; thence N 32° 33' 05" W a distance of 315.30 feet; thence N 50° 05' 05" W a distance of 286.00 feet; thence leaving the south line of said Block 30 S 31° 44' 18" W a distance of 31.60 feet; thence S 88° 42' 06" W a distance of 113.32 feet to a point on the centerline of 5th Street; thence along the centerline of 5th Street N 05° 01' 15" W a distance of 65.10 feet; thence S 84° 47' 15" W a distance of 38.80 feet to a point on the south line of Lot 1 Block 29 of said Plat of the City of Lewiston; thence along the south line of Lot 1, Lot2 and Lot 3 Block 29 of said Plat N 33° 49' 47" W a distance of 88.02 feet, N 73° 02' 39" W a distance of 192.39 feet to the terminus of the centerline of Prospect Blvd; thence along the centerline of Prospect Blvd N 82° 10' 11" W a distance

of 41.79 feet; thence N 85° 45' 16" W a distance of 402.79 feet; thence S 66° 17' 21" W a distance of 222.01 feet; thence S 60° 57' 51" W a distance of 226.95 feet; thence S 02° 50' 10" E a distance of 77.53 feet; thence N 89° 10' 57" W a distance of 173.97 feet to a point on the centerline of Snake River Avenue; thence along the centerline of Snake River Avenue N 04° 36' 34" E a distance of 122.81 feet to the intersection of Snake River Avenue and the Highway 12(Interstate Bridge); thence S 85° 46' 16" W a distance of 383.60 feet to a point on the centerline of Highway 12(Dike Bypass) as monumented by the Idaho Transportation Department and shown on the right-of-way plans for Federal Aid Project No. TQM-MG-7064(004) dated June, 1977; thence along the centerline of said Highway 12(Dike Bypass) and along a non-tangent curve to the right having a radius of 5729.58 feet a central angle of 02° 30' 51" and an arc length of 251.41 feet; thence N 01° 53' 17" W a distance of 280.90 feet to the end of said Federal Aid Project and to the intersection of Highway 12(Dike Bypass) and D Street and the beginning of right-of-way plans as monumented by the Idaho Transportation Department Federal Aid Project No. TQM-7064(001) dated April, 1977; thence along the centerline of said Federal Aid Project N 01° 40' 17" W a distance of 373.55 feet; thence along a curve to the right having a radius of 573.55 feet a central angle of 47° 17' 47" and an arc length of 473.00 feet; thence N 45° 37' 30" E a distance of 83.27 feet; thence along a curve to the right having a radius of 301.60 feet a central angle of 45° 07' 07" and an arc length of 237.50 feet; thence S 89° 15' 23" E a distance of 1510.39 feet; thence along a curve to the right having a radius of 573.00 feet a central angle of 56° 23' 01" and an arc length of 563.88 feet; thence S 32° 52' 22" E 536.87 feet, thence along a curve to the left having a radius of 1909.90 feet a central angle of 22° 41' 08" and an arc length of 756.20 feet; thence S 55° 33' 30" E a distance of 756.98 feet; thence along a curve to the left having a radius of 2644.40 feet a central angle of 30° 53' 02" and an arc length of 1425.40 feet; thence S 86° 26' 32" E 143.37 feet; thence leaving said centerline S 16° 37' 24" W a distance of 130.72 feet to the northwest corner of a parcel of land recorded by Instrument No. 656744 of said county records; thence along the west line of said parcel S 16° 37' 24" W a distance of 142.11 feet to the southwest corner thereof and the north right-of-way line of Main Street; thence continuing S 16° 37' 24" W a distance of 40.11 feet to the centerline of Main Street and the true point of beginning, said area containing 162.31 acres more or less.

[This Area Intentionally Left Blank]

And adding thereto - the following described properties:

Beginning at the southeast corner of the intersection of "F" Street and 5th Street, thence south along the west side of the 5th Street right of way to the intersection with 2nd Avenue, thence westerly along the north right of way of 2nd Avenue to its intersection with 4th Street, thence southerly along the west right of way of 4th Street to its intersection with Third Avenue, thence continuing south along the west right of way of 4th Street to its intersection with an unnamed alley running west to east between 4th Street and 5th Street, continuing easterly along the south right of way line of the unnamed alley to its intersection with 5th Street, thence south along the west right of way line of 5th Street to its intersection with 5th Avenue, continuing south along the west right of way of 5th Street to its intersection with an unnamed alley that runs west to east between 5th Street and 6th Street, thence easterly along said unnamed alley to the east right of way of Sixth Street, thence northerly along the east right of way of 6th Street to its intersection with the south right of way of Third Avenue, thence easterly along the south right of way of Third Avenue to the northeast property corner of RPL151000201AA, thence continuing southerly along the easterly property line of RPL151000201AA to its intersection with the south right of way line of 4th Avenue, thence easterly along the south right of way line of 4th Avenue, to its intersection with the west right of way line of 7th Street, thence southerly along the west right of way line of 7th Street to the south right of way of an unnamed alley located north of 5th Avenue, thence easterly along the south right of way of the unnamed alley and unnamed alley extended to the westerly property line of RPL083100000A0 thence northerly along the west property line of RPL083100000A0 to its intersection with the southerly right of way of 9th Street grade, thence continuing south easterly along the west right of way of 9th Street grade to its intersection with the north right of way line of 5th Avenue, thence continuing east across the 9th Street grade right of way to the east right of way of 9th Street grade, thence north and east along the east right of way of 11th Street extended to a point along RPL18500010100, thence south and east along the southerly property line of RPL18500010100 and RPL18500010100 extended to its intersection with an unnamed alley that runs south westerly to north easterly along the eastern property lines of properties in the 400 block of 11th Street and fronting on 11th Street, thence northerly along said unnamed alley to its intersection with Idaho Street.

And excluding there from the following described properties:

Beginning at the intersection of Main and "D" Streets, thence continuing north westerly along the north right of way of "D" Street to its intersection with the east right of way of 8th Street, thence northerly along the east right of way of 8th Street to its intersection with the north right of way line of Capital Street, thence westerly along the north right of way line of Capital Street to its intersection with the east right of way line of 5th Street, thence north along the east right of way line of 5th Street said point also being the south west property corner of RPL0360009008A, thence northerly along the west property line of RPL0360009008A to its northwest property corner, thence continuing east along the north property lines of RPL0360009008A, RPL074000C0060, RPL074000C0050, and RPL074000C0040 to the west property line of RPL074000D001A, thence northerly along the west property line of RPL074000D001A to the north west corner of RPL074000D001A thence easterly along the northerly property lines of RPL074000D001A and

RPL074000D003A, thence continuing along the northern property line of RPL074000D003A in an easterly direction approximately 85', said point also being railroad right of way, thence northwesterly along the railroad right of way approximately 88', thence north westerly along the westerly side of the railroad right of way to the intersection with the Clearwater River.

Downtown/Normal Hill Urban Renewal Area

BEACHEY ST
1ST ST
2ND ST
3RD ST
4TH ST
CAPITAL ST
D ST
MAIN ST ACCESS
MAIN ST ACCESS
PROSPECT BLVD
F ST
7TH ST
8TH ST
3RD ST
NORTH ST
1ST AVE
TEMPLE LN
NEW SIXTH ST
9TH ST
10TH ST
11TH ST
MAIN ST
15TH ST
3RD AVE N
SNAKE RIVER GRADE
2ND AVE
3RD ST
4TH ST
GLASS WAY
3RD AVE
SAINT JOHNS WAY
F ST
12TH ST
IDAHO ST
JEFFERSON ST
LINCOLN ST
MAIN ST
F ST
PROSPECT AVE
4TH AVE
4TH ST
4TH AVE
11TH ST
ADAMS LN
13TH ST
G ST
SNAKE RIVER AVE
7TH ST
12TH ST
RIGBY LN
MILLER ST
DELSOL LN
16TH ST
5TH AVE
5TH ST
6TH ST
15TH ST
6TH AVE
8TH ST
11TH ST
H ST
9TH ST
10TH ST
7TH AVE
6TH ST
9TH ST

N
W
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Legend

- Downtown/Normal HIll Urban Renewal Area
- Street
- Water Regional

Notice for publication 1/24/2021

PUBLIC NOTICE

The Urban Renewal Agency of the City of Lewiston, Idaho will hold a public hearing 2/9/2021 at 12:00 noon, 1134 "F" Street, City Hall, West Conference Room, to discuss and potentially adopt an Urban Renewal Plan for RAA#7, Downtown/Normal Hill. Due to current health precautions associated with the coronavirus, public hearings are being conducted via Zoom video conference. Persons allowed to physically attend this meeting will be limited to a maximum of 10 or a lesser number based upon room capacity for 6-foot social distancing. Seating will be available on a first come first serve basis. Members of the public also have the option to submit written comment and/or watch the hearing via Livestream livestream.com/Lewiston/events instead of testifying live.

This plan incorporates a revenue allocation area generally consisting of properties a) Downtown west of Lincoln Street, b) south of the Clearwater River c) east of the Snake River, d) north of the Normal Hill Bluff, e) on both sides of 5th Street between 4th Avenue, 3rd Avenue and Fourth Street and f) between 5th Street and Sixth Street between 3rd Avenue and the alley south of 5th Avenue.

A Revenue Allocation Area will cause property taxes resulting from any increase in equalized assessed valuation as shown on the base assessment roll to be allocated to the Urban Renewal Agency for urban renewal projects. The projects being considered are water main replacement in Main Street and Third Avenue; Pedestrian Corridor between Downtown and Normal Hill; Pedestrian and Vehicular Wayfinding, streets, parking areas and other utility needs.

Copies of the draft plan can be obtained or viewed on-line at https://www.cityoflewiston.org/443/Urban-Renewal-Agency, at the Community Development Department (215 "D" Street), the City Library (411 "D" Street) and from the City Clerk, (City Hall, 1134 "F" Street). Comments on the plan are welcome and may be submitted in writing to URA, P.O. Box 617, Lewiston, Idaho 83501; by email to lvontersch@cityoflewiston.org; or at the public hearing.

Please note the content of this notice was accurate at the time of preparation. The draft plan may be continually revised until its adoption by the City Council. Please check the website for the most current version.

URBAN RENEWAL AGENCY BOARD
MEETING AGENDA
Tuesday, February 9, 2021 – 12:00 p.m.
City of Lewiston – City Hall Conference Room
1134 "F" Street, Lewiston, Idaho

AS A MATTER OF GOVERNMENTAL TRANSPARENCY, THIS MEETING MAY BE RECORDED, STREAMED LIVE AND/OR ACCESSED AT A LATER TIME. NOTE THAT THIS MAY INCLUDE VIDEO AND AUDIO OF ALL PERSONS PRESENT IN THE ROOM.

Due to COVID-19 and the Governor's Stage 2 Order limiting gatherings to ten people or less, persons allowed to physically attend this meeting will be limited to a maximum of 10 or a lesser number based upon room capacity for 6-foot social distancing. Seating will be available on a first come first serve basis. Citizens attending in person must wear a face covering.

Citizens interested in observing this meeting may do so online at the City of Lewiston's Livestream Platform: https://livestream.com/lewiston/events or the City of Lewiston's Facebook page: https://www.facebook.com/CityofLewistonIdaho

Citizens are strongly encouraged to provide comments by e-mailing Tanya Brocke at tbrocke@cityoflewiston.org or by calling (208) 798-2570 and leaving a message. Your comments will then be forwarded or read to the Urban Renewal Agency Board.

I. CALL TO ORDER

II. CITIZEN COMMENTS – An opportunity for citizens to address the Agency. Citizens are asked to limit their time to three (3) minutes each. Comments and questions can be submitted in the following ways:

- ✔ Submit comments and questions via email prior to the start of the meeting to lvontersch@cityoflewiston.org or tbrocke@cityoflewiston.org
- ✔ Submit written comments by mail prior to the start of the meeting to Laura Von Tersch, PO Box 617, Lewiston ID 83501
- ✔ Call 208-798-2570 and leave your message. Your comments will then be forwarded to the Urban Renewal Agency Board.

III. PUBLIC HEARING

A. Accepting Public Testimony On Urban Renewal Plan, RAA #7, Downtown/Normal Hill

IV. CONSENT AGENDA (ACTION ITEMS)

A. Approval of January 12, 2021 Meeting Minutes

B. Approval of Invoices

1. Jennifer Douglass, $xxx

The City of Lewiston is committed to providing access and reasonable accommodation in its services, programs, and activities and encourages persons with disabilities to participate. If you anticipate needing any type of accommodation or have questions about the physical access provided at this meeting, please contact the meeting coordinator at least forty-eight (48) hours in advance of the meeting at 208-746-1318.

2. Elam & Burke, $90
3. City of Lewiston, $50

V. ADOPT RESOLUTION NO. 2021-1 APPROVING URBAN RENEWAL PLAN, RAA#7 DOWNTOWN/NORMAL HILL (ACTION ITEM)

VI. REVIEW DRAFT 2020 ANNUAL REPORT (DISCUSSION ITEM)

VII. UNFINISHED AND NEW BUSINESS
1. Board Member Comments
2. Staff Comments

VIII. ADJOURN

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To: **URBAN RENEWAL AGENCY**

From: **LAURA VON TERSCH, COMMUNITY DEVELOPMENT DIRECTOR**

Date: **FEBRUARY 9, 2021**

Re: **REVIEW OF DOWNTOWN/NORMAL HILL URBAN RENEWAL PLAN**

An Urban Renewal Plan identifies projects that are proposed to be implemented to eliminate deteriorated or deteriorating conditions in a specific area. Under review at this time, is the proposed Urban Renewal Plan for Downtown/Normal Hill. Factors contributing to the findings of deterioration include:

Inadequate water to support new development and fire flows. Water lines are the oldest in the city and often 6" or less in size;

Oldest housing stock in the city. The median value is 22% lower than the median value county-wide indicating a high number of deteriorating housing units;

A neighborhood with 50% more renter households than the average neighborhood in Nez Perce County. Renters are statistically more likely than homeowners to be of low or moderate income; and

Higher poverty and unemployment rates than the community wide average.

These conditions will be addressed with construction of a new and upsized water main in Main Street west of Lincoln to Fifth Street, a waterline in Third Avenue, reconstruction of a historic staircase at New Sixth to Normal Hill, wayfinding to the Downtown District and levee system, new sewer lines, street improvements, parking and other utilities that may be needed over time.

Staff recommends the Urban Renewal Agency adopt the Downtown/Normal Hill Urban Renewal Plan, Revenue Allocation Area #7 and forward to the Lewiston City Council for consideration.

RESOLUTION NO. 2021-1

A RESOLUTION OF THE URBAN RENEWAL AGENCY OF THE CITY OF LEWISTON APPROVING THE URBAN RENEWAL AGENCY'S PLAN FOR REVENUE ALLOCATION AREA #7, DOWNTOWN/NORMAL HILL AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, as the Urban Renewal Agency has considered in a public hearing held February 9, 2021, an Urban Renewal Plan for Revenue Allocation Area #7, Downtown/Normal Hill, which is attached hereto;

NOW THEREFORE BE IT RESOLVED by the Board of Commissioner of the Urban Renewal Agency, that:

1) The Urban Renewal Plan for Revenue Allocation Area #7, Downtown/Normal Hill shall be and is hereby approved as attached hereto as Exhibit 1.
2) The Urban Renewal Agency upon approval of this Resolution hereby submits Revenue Allocation Area #7, Downtown/Normal Hill, to the City pursuant to I.C. § 50-2008 for the approval of the Plan.
3) This Resolution shall be in full force and effect upon its passage and approval.

DATED this 10th day of February 2021.

BOARD OF COMMISSIONERS:

By: Joe Hulett
Joe Hulett, Chairman

ATTEST:
Daniel J. Marsh
Dan Marsh, Secretary

Notice for publication 3/28/2021

PUBLIC NOTICE

The Planning and Zoning Commission of the City of Lewiston, Idaho will hold a public hearing 4/14/2021 at 5:30 p.m., 411 "D" Street, City Library, Second Floor Conference Room, to discuss and determine whether the Urban Renewal Plan for RAA#7, Downtown/Normal Hill is consistent with the Comprehensive Plan.

Due to current health precautions associated with the coronavirus, public hearings are being conducted via Zoom video conference. Persons allowed to physically attend this meeting will be limited to a maximum of 50 or a lesser number based upon room capacity for 6-foot social distancing. Seating will be available on a first come first serve basis. Members of the public also have the option to submit written comment and/or watch the hearing on their own device via Livestream livestream.com/Lewiston/events instead of testifying live.

This plan incorporates a revenue allocation area generally consisting of properties a) Downtown west of Lincoln Street, b) south of the Clearwater River c) east of the Snake River, d) north of the Normal Hill Bluff, e) on both sides of 5th Street between 4th Avenue, 3rd Avenue and Fourth Street and f) between 5th Street and Sixth Street between 3rd Avenue and the alley south of 5th Avenue.

A Revenue Allocation Area will cause property taxes resulting from any increase in equalized assessed valuation as shown on the base assessment roll to be allocated to the Urban Renewal Agency for urban renewal projects. The projects being considered are water main replacement in Main Street and Third Avenue; Pedestrian Corridor between Downtown and Normal Hill; Pedestrian and Vehicular Wayfinding, streets, parking areas and other utility needs.

Copies of the draft plan can be obtained or viewed on-line at https://www.cityoflewiston.org/443/Urban-Renewal-Agency, at the Community Development Department (215 "D" Street), the City Library (411 "D" Street) and from the City Clerk, (City Hall, 1134 "F" Street). Comments on the plan are welcome and may be submitted in writing to URA, P.O. Box 617, Lewiston, Idaho 83501; by email to lvontersch@cityoflewiston.org; or at the public hearing.

Please note the content of this notice was accurate at the time of preparation. The draft plan may be continually revised until its adoption by the City Council. Please check the website for the most current version.

MEETING AGENDA

APRIL 14, 2021 AT 5:30 P.M.

LEWISTON PLANNING AND ZONING COMMISSION

ZOOM MEETING AND LEWISTON CITY LIBRARY, 2ND FLOOR, 411 D STREET LEWISTON, ID 83501

Due to COVID-19 and the Governor's Stage 3 Order (issued February 2, 2021), the number of persons allowed to physically attend this meeting will be limited to a maximum of 50 or a lesser number based upon room capacity for 6-foot social distancing. Seating will be available on a first come first serve basis. Persons attending this meeting are strongly encouraged to wear a face covering.

People interested in observing this meeting may watch and listen to the livestream on their own device(s) online at the City of Lewiston's Livestream Platform: https://livestream.com/lewiston/events/7428184 or the City of Lewiston's Facebook page: https://www.facebook.com/CityofLewistonIdaho

Citizen comments and testimony for public hearings may be made: in-person, by emailing Tanya Brocke at tbrocke@cityoflewiston.org, or by calling (208)798-2570 and leaving a message. Citizen comments and testimony for public hearings submitted by email or phone will be forwarded to the Planning & Zoning Commission. If you would like your citizen comment to be read out loud during the meeting, please so indicate in your message. Testimony for public hearings that was submitted by email or phone and unable to be forwarded to the Planning & Zoning Commission prior to the meeting will be read out loud during the public hearing. Members of the public who wish to provide in-person comment or testimony, but who are unable to secure a seat in the designated meeting space and/or overflow room(s) due to occupancy or gathering limits, will be rotated in and out of the designated meeting space in order to provide comment. While not in the designated meeting space, such persons may watch and listen to the livestream of the meeting on their own devices by visiting the City of Lewiston's Facebook page or the City's website at cityoflewiston.org

COMMISSION MEMBERS: Chair, Hannah Liedkie; Vice Chair, Rick Tousley; Richard Kremer; Joan Hunter; Michael Busch; Corey Sandstrom; Michael Menegas

AS A MATTER OF PUBLIC SERVICE AND GOVERNMENTAL TRANSPARENCY, THIS MEETING MAY BE RECORDED, STREAMED LIVE AND/OR ACCESSED AT A LATER TIME. NOTE THAT THIS MAY INCLUDE VIDEO AND AUDIO OF ALL PERSONS PRESENT.

I. **CALL TO ORDER**

II. **CITIZENS COMMENTS** – An opportunity for citizens to address the Commission with comments and/or questions about Planning and Zoning Commission-related matters that are not a public hearing action item on this agenda. Citizens are asked to limit

their time to three minutes each. *Citizen comments can be provided by calling (208) 798-2570 and leaving your message or by emailing tbrocke@cityoflewiston.org.* Your comments will then be forwarded to the Planning and Zoning Commission.

III. **APPROVAL OF MARCH 24, 2021 MEETING MINUTES (ACTION ITEM)**

IV. **APPROVAL OF REASONED STATEMENT (WRITTEN DECISION) FOR REZONE PROPOSAL, ZNC21-000003, KARL RUNSVOLD, 704 LAPWAI ROAD (ACTION ITEM- HOLLINGSHEAD):** A request to rezone a 5.95 parcel of land, also known as 704 Lapwai Road, from the F2 Agricultural Transitional Zone to the R1 Suburban Residential Zone.

V. **PUBLIC HEARING- CONSIDERATION OF A NEW URBAN RENEWAL PLAN REVENUE ALLOCATION AREA #7, DOWNTOWN/NORMAL HILL AREA (ACTION ITEM- VON TERSCH):** The Urban Renewal Agency Board conducted a public hearing on this matter on February 8, 2021 and after deliberation, passed Resolution 2021-1 to proceed with its adoption. Pursuant to Idaho Code 50-2008(b), the Planning and Zoning Commission shall make its recommendation to the City Council as to the conformity of the proposal to the Comprehensive Plan.

VI. **CONSIDERATION OF A PRELIMINARY SUBDIVISION PLAT SUB20-000013, THE ESTATES AT CANYON CREST, PHASES IIIB-2, IIIC-1, AND IIIC-2 (WEIGAND):** The applicant, RPL Development, LLC, proposes to plat approximately 8.77 acres of property located within the Canyon Crest Planned Unit Development's Phase III planning area, into 32 lots. The Planning and Zoning Commission shall make a recommendation to City Council to approve or deny the preliminary plat.

VII. **STAFF-COMMISSION COMMUNICATIONS**

A. Query of Commissioners to attend the regularly scheduled meeting of 4/28/21.

B. Other

VIII. **ADJOURN**

The City of Lewiston is committed to providing access and reasonable accommodation in its services, programs, and activities and encourages persons with disabilities to participate. If you anticipate needing any type of accommodation or have questions about the physical access to the facility within which this meeting is being held, please contact City Planner, Joel D. Plaskon at least forty eight hours in advance of the meeting at (208) 746-1318 extension 7202 or jplaskon@cityoflewiston.org.

Memo

To: PLANNING AND ZONING COMMISSION

From: LAURA VON TERSCH, COMMUNITY DEVELOPMENT DIRECTOR

Date: MARCH 10, 2021

Re: REVIEW OF DOWNTOWN/NORMAL HILL URBAN RENEWAL PLAN

An Urban Renewal Plan identifies projects that are proposed to be implemented to eliminate deteriorated or deteriorating conditions in a specific area. Under review at this time, is the proposed Urban Renewal Plan for Downtown/Normal Hill. Factors contributing to the findings of deterioration include:

Inadequate water to support new development and fire flows. Water lines are the oldest in the city and often 6" or less;
Oldest housing stock in the city. The median value is 22% lower than the median value county-wide indicating a high number of deteriorating housing units;
A neighborhood with 50% more renter households than the average neighborhood in Nez Perce County. Renters are statistically more likely than homeowners to be of low or moderate income; and
Higher poverty and unemployment rates than the community wide average.

These conditions will be addressed with construction of a new and upsized water main in Main Street west of Lincoln to Fifth Street, reconstruction of a historic staircase at New Sixth to Normal Hill, wayfinding to the Downtown District and levee system, new sewer lines, street improvements, parking and other utilities that may be needed over time.

Statute requires that a proposed Urban Renewal Plan be reviewed by the Planning and Zoning Commission as to its conformance with the adopted Comprehensive Plan. Attached is a list of applicable comprehensive plan policies, and excerpts from the Downtown Plan describing needed infrastructure upgrades. In short, the proposed plan complies with the Comprehensive

Memo

Plan because it promotes economic development in the central business district, includes an active recreational amenity, rebuilds a historic staircase, implements the highest priority water distribution element of the Water Master Plan, includes way-finding and upgrades infrastructure in a blighted area.

Staff recommends the Planning and Zoning Commission finds the Downtown/Normal Hill Urban Renewal Plan conforms with the City of Lewiston Comprehensive Plan.

215 D Street • PO Box 617 • Lewiston, ID 83501-1930 • Ph.208.746.1318 • Fx.208.746.5595 • www.cityoflewiston.org

Downtown/ Normal Hill, Revenue Allocation Area #7 (RAA)

Summary of Comprehensive Plan Goals and Objectives Applicable to RAA #7 and Finding RAA #7 Projects are Consistent with the Comprehensive Plan

Chapter 1. A Vision for Lewiston in 2020

Third, economic development will have diversified our economy, adding living wage jobs keyed to the future so our children can graduate from high school and college and find quality jobs at home. These new business opportunities will be centrally located in the community so workers will have multiple ways of accessing the job opportunities created.

Fifth, we have a superior transportation system, serving the needs of all segments of our community, from walkers to drivers, bicyclists and joggers.

Goal (LU-3.0): Create the organizational and programmatic structure necessary to facilitate the vitality and visibility of the Central Business District.

LU-3.1: Assist in the rejuvenation of the Downtown Business Partnership, and its efforts to establish and promote a healthy CBD.

Goal (LU-5.0): Establish and promote a vision of the CBD's identity.

LU-5.2: Provide functional elements of the CBD consistent with this identity. These functional elements may include:

Adequate parking, public spaces, pedestrian activity

LU-5.3: Promote design elements in the CBD consistent with this identity. These design elements may include:

Entry-way design elements, signage

Goal (LU-7.0): Facilitate the funding of a Downtown Plan.

LU-7.1: Investigate funding options for CBD projects. Options may include . . . federal grants, a Business Improvement District, (or) tax-increment financing.

Goal (LU-10.0): To the extent that the demand for commercial land can be accommodated, encourage the concentration of new and existing commercial uses in existing commercial areas.

LU-10.1: Commercial areas should be concentrated in the following established commercial areas: Downtown ..

Goal (LU16.0): Provide passive and active recreational opportunities in each neighborhood.

Goal (LU-18.0): Provide and maintain public services, utilities and associated infrastructure in a cost-effective manner, by encouraging compact and contiguous growth.

LU-18.3: Implement the Water System Master Plan.

LU-18.4: Implement the Sewer System Master Plan.

Desired Futures for Neighborhood Number 2 – Normal Hill:

8. The Central Business District is a major entry to the State of Idaho and must present the best face of our community:

a) There is great potential in this area for redevelopment of the many fine buildings in the downtown core, for use as tourist oriented businesses, as business incubator spaces and as second floor residences for those wishing to live in a unique environment.

14 b. Reconstruction of historic stairways and construction of new staircases should be implemented to provide the pedestrian connection to the downtown area and the parks along the Snake River.

16. Portions of this neighborhood, generally located south of Idaho Street and north of 8th Avenue are deteriorated, with public infrastructure poorly maintained and residences needing repair:

a. Seek funding to upgrade infrastructure within this deteriorated area, bringing it to current standards, installing curb, gutter and sidewalks, improve surface drainage and upgrade street surfacing;

Attached is an excerpt from the "Downtown Master Plan" adopted by the City Council in 2019 that speak to infrastructure, circulation and the pedestrian staircases highlighted in the proposed plan for RAA #7.

April 14, 2021

The LEWISTON PLANNING AND ZONING COMMISSION met in a hybrid meeting in person and remotely via the Zoom Meeting (video conferencing) Service (app). Chair Liedkie called the meeting to order at 5:30 p.m.

Planning & Zoning meetings are recorded live. To view the full video, go to https://livestream.com/accounts/11220190 and select Planning & Zoning.

I. CALL TO ORDER

COMMISSIONERS PRESENT: Hannah Liedkie, Chair; Rick Tousley, Vice Chair; Michael Busch; Joan Hunter; Michael Menegas;

COMMISSIONERS EXCUSED: Richard Kremer; Corey Sandstrom

STAFF MEMBERS PRESENT: Laura Von Tersch, Community Development Director; Joel Plaskon, Planner – Local Initiatives; Katie Hollingshead, Assistant Planner; Tanya Brocke, Community Development Specialist; Aaron Butler, IT; Kayla Hermann, Assistant City Attorney; Mark Weigand, City Surveyor

II. CITIZEN COMMENTS

No public attended and no comments were received.

III. APPROVAL OF MARCH 24, 2021 MEETING MINUTES

Commissioners Hunter and Menegas moved and seconded, respectively, approval of the March 10, 2021 meeting minutes. Upon roll call, the vote was as follows:

Commissioner Menegas	Aye
Commissioner Busch	Aye
Commissioner Tousley	Aye
Commissioner Hunter	Aye
Chair Liedkie	Aye

The motion carried 5-0.

IV. APPROVAL OF REASONED STATEMENT (WRITTEN DECISION) FOR REZONE PROPOSAL, ZNC21-000003, KARL RUNSVOLD, 704 LAPWAI ROAD– A request to rezone a 5.95 parcel of land, also known as 704 Lapwai Road, from the F2 Agricultural Transitional Zone to the R1 Suburban Residential Zone

Commissioners Menegas and Hunter moved and seconded, respectively, approval of the reasoned statement for ZNC21-000003. Upon roll call, the votes were as follows:

Commissioner Menegas	Aye
Commissioner Busch	Aye
Commissioner Tousley	Aye
Commissioner Hunter	Aye
Chair Liedkie	Aye

The motion carried 5-0.

V. PUBLIC HEARING – CONSIDERATION OF A NEW URBAN RENEWAL PLAN REVENUE ALLOCATION AREA # 7, DOWNTOWN/NORMAL HILL AREA – The Urban Renewal Agency Board conducted a public hearing on this matter on February 8, 2021 and after deliberation, passed Resolution 2021-1 to proceed with its adoption. Pursuant to Idaho Code 50-2008(b), the Planning and Zoning Commission shall make its recommendation to the City Council as to the conformity of the proposal to the Comprehensive Plan

Chair Liedkie explained the public hearing process, opened the public hearing and asked for staff report.

Community Development Director Laura Von Tersch provided the Commission with a summary of the plan. Ms. Von Tersch recommended the Planning and Zoning Commission find the Downtown/Normal Hill Urban Renewal Plan conforms with the City of Lewiston's Comprehensive Plan.

There being no public comment received or public in attendance, Chair Liedkie closed the public hearing for Commissioner's discussion.

Commissioner Hunter expressed concern with the liability of some of the traffic circulation described in the plan.

Commissioner Tousley expressed excitement with the plan and questioned if other Commissioners found the "fly in the ointment" or potential problems.

Commissioner Menegas agreed with Commissioner Tousley and questioned what other studies or information gathering have been done. Ms. Von Tersch informed them that everything has been well vetted.

Commissioner Tousley questioned if there was anything addressing flooding issues in the downtown area. Ms. Von Tersch noted the major work on flooding was addressed with the rebuild on 12th/21st Intersection.

Chair Liedkie commented that she would like to make sure the ADA concerns were addressed. Ms. Von Tersch noted that the ADA Transition Plan inventories projects that were completed and there would be a report provided.

Commissioners Menegas and Tousley moved and seconded, respectively, with the finding that the Urban Renewal Plan for the Downtown/Normal Hill Area conforms with the Comprehensive Plan and authorizing the Chair to sign a letter with such recommendation to the City Council. Upon roll call, the votes were as follows:

Commissioner Hunter	Aye
Commissioner Menegas	Aye
Commissioner Tousley	Aye
Commissioner Busch	Aye
Chair Liedkie	Aye

The motion carried 5-0.

VI. CONSIDERATION OF A PRELIMINARY SUBDIVISION PLAT SUB20-00013, THE ESTATES AT CANYON CREST, PHASES IIIB-2, IIIC-1 AND IIIC-2 – The applicant, RPL Development, LLC proposes to plat approximately 8.77 acres of property located within the Canyon Crest Planned Unit Development's Phase III planning area, into 32 lots. The Planning and Zoning Commission shall make a recommendation to City Council to approve or deny the preliminary plat.

City Surveyor Mark Weigand provided a summary of his report to the Commission and recommended that the Lewiston Planning and Zoning Commission recommend to the Lewiston City Council approval of the Estates at Canyon Crest Phase IIIB-2, IIIC-1, and IIIC-2 preliminary plat as presented.

There being no questions from Commissioners. Commissioners Menegas and Hunter moved and seconded, respectively, to recommend approval of the preliminary plat to the City Council. Upon roll call, the votes were as follows:

Commissioner Menegas	Aye
Commissioner Busch	Aye
Commissioner Tousley	Aye
Commissioner Hunter	Aye
Chair Liedkie	Aye

The motion carried 5-0.

VII. STAFF-COMMISSION COMMUNICATIONS:

A. Query of Commissioners to attend the regularly scheduled meeting of 4/28/21.
Chair Liedkie noted she would not be present. Commissioner Menegas indicated he was not sure. All other Commissioners planned to attend.

B. Other

VIII. ADJOURN

There being no further business, Commissioners Tousley and Liedkie moved and seconded, respectively to adjourn. The motion carried 5-0 and the Planning and Zoning Commission adjourned at approximately 6:00 p.m.

RESPECTFULLY SUBMITTED,

_____	_____
Tanya M. Brocke	Chairperson or Acting Chairperson
Recording Secretary	Planning and Zoning Commission

Approved this _____ day of _____, 2021.

Memo

To: MANAGER NYGAARD

From: PLANNING AND ZONING COMMISSION

Date: APRIL 15, 2021

Re: URBAN RENEWAL PLAN DOWNTOWN/NORMAL HILL

The Planning and Zoning Commission held a public hearing April 14, 2021 to take public comments on the Urban Renewal Plan, RAA #7, Downtown/Normal Hill Area. The Planning and Zoning Commission found that the Plan complies with and is in conformance with the Comprehensive Plan.

Chair, or Vice-Chair Signature: H Liedkie

Name: Hannah Liedkie

215 D Street • PO Box 617 • Lewiston, ID 83501-1930 • Ph.208.746.1318 • Fx.208.746.5595 • www.cityoflewiston.org

Notice for publication 6/27/2021

PUBLIC NOTICE

The Urban Renewal Agency of the City of Lewiston, Idaho will hold a public hearing 7/13/2021 at 12:00 noon, 1134 "F" Street, City Hall, West Conference Room, to discuss and potentially adopt an Urban Renewal Plan for RAA#7, Downtown/Normal Hill.

Due to COVID-19 and Governor Little's Stage 4 Order (issued May 11, 2021), the number of people allowed to attend this meeting in-person will be based upon room capacity for 6-foot physical distancing. Seating will be available on a first-come, first-served basis. All others who wish to observe this meeting may watch and listen to the livestream on their own device(s) by visiting the City of Lewiston's Facebook page or the City's website at cityoflewiston.org. Persons attending this meeting are strongly encouraged to wear a face covering.

This plan incorporates a revenue allocation area generally consisting of properties a) Downtown west of Lincoln Street, b) south of the Clearwater River c) east of the Snake River, d) north of the Normal Hill Bluff, e) on both sides of 5th Street between 4th Avenue, 3rd Avenue and Fourth Street and f) between 5th Street and Sixth Street between 3rd Avenue and the alley south of 5th Avenue.

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Copies of the draft plan can be obtained or viewed on-line at https://www.cityoflewiston.org/443/Urban-Renewal-Agency, at the Community Development Department (215 "D" Street), the City Library (411 "D" Street) and from the City Clerk, (City Hall, 1134 "F" Street). Comments on the plan are welcome and may be submitted in writing to URA, P.O. Box 617, Lewiston, Idaho 83501; by email to lvontersch@cityoflewiston.org; or at the public hearing.

Please note the content of this notice was accurate at the time of preparation. The draft plan may be continually revised until its adoption by the City Council. Please check the website for the most current version.

URBAN RENEWAL AGENCY BOARD
MEETING AGENDA
Tuesday, July 13, 2021 – 12:00 p.m.
City of Lewiston – City Hall Conference Room
1134 "F" Street, Lewiston, Idaho

AS A MATTER OF GOVERNMENTAL TRANSPARENCY, THIS MEETING MAY BE RECORDED, STREAMED LIVE AND/OR ACCESSED AT A LATER TIME. NOTE THAT THIS MAY INCLUDE VIDEO AND AUDIO OF ALL PERSONS PRESENT IN THE ROOM.

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I. CALL TO ORDER

II. CITIZEN COMMENTS – An opportunity for citizens to address the Agency. Citizens are asked to limit their time to three (3) minutes each. Comments and questions may be made by:

- ✓ Attending in-person
- ✓ Emailing comments and questions prior to the start of the meeting to lvontersch@cityoflewiston.org or tbrocke@cityoflewiston.org
- ✓ Mailing written comments prior to the start of the meeting to Laura Von Tersch, PO Box 617, Lewiston ID 83501
- ✓ Calling 208-746-1318 x 7265 and leave a message. Your comments will then be forwarded to the Urban Renewal Agency Board.

III. PUBLIC HEARING

A. Accepting Public Testimony on Urban Renewal Plan, RAA #7, Downtown/Normal Hill

IV. CONSENT AGENDA (ACTION ITEMS)

A. Approval of Minutes June 8, 2021
B. Approval of Invoices
1. Jennifer Douglass, $492.00

V. APPROVAL OF INVOICE, LEWISTON MORNING TRIBUNE, $68.64 (ACTION ITEM)

VI. ADOPT RESOLUTION NO. 2021-3 APPROVING URBAN RENEWAL PLAN, RAA #7 DOWNTOWN/NORMAL HILL (ACTION ITEM)

VII. REVIEW DRAFT BUDGETS

A. PROPOSED REVISED FY'21-22 BUDGET

B. PROPOSED FY'22-23 BUDGET

VIII. UNFINISHED AND NEW BUSINESS

1. **Board Member Comments**
2. **Staff Comments**

IX. ADJOURN

The City of Lewiston is committed to providing access and reasonable accommodation in its services, programs, and activities and encourages persons with disabilities to participate. If you anticipate needing any type of accommodation or have questions about the physical access provided at this meeting, please contact the meeting coordinator at least forty-eight (48) hours in advance of the meeting at 208-746-1318.

THE URBAN RENEWAL AGENCY BOARD OF THE CITY OF LEWISTON, IDAHO, met in a regular meeting Tuesday, July 13, 2021, at Lewiston City Hall. Chair Joe Hulett called the meeting to order at 12:00 p.m.

I. CALL TO ORDER

BOARD MEMBERS PRESENT: Chair, Joe Hulett; Vice Chair, JoAnn Cole-Hansen; A.L. "Butch" Alford; Bob Blakey; Mary Hasenoehrl; Dan Marsh.

BOARD MEMBERS EXCUSED: Don Beck.

STAFF MEMBERS PRESENT: Laura Von Tersch, Community Development Director; Jennifer Douglass, URA Attorney; Tanya Brocke, Community Development Specialist; Dustin Johnson, Public Works Director

II. CITIZEN COMMENTS

None.

III. PUBLIC HEARING

A. ACCEPTING PUBLIC TESTIMONY ON URBAN RENEWAL PLAN, RAA #7, DOWNTOWN/NORMAL HILL

Stating it was the time and place, Chair Hulett opened the public hearing and asked Community Development Director Laura Von Tersch for a brief review.

Ms. Von Tersch explained the Plan was being reviewed by the Planning and Zoning Commission when the American Rescue Plan was approved. The American Rescue Plan provided funding to cities that included wastewater and infrastructure improvements. Ms. Von Tersch thought it would be best to recall and broaden the plan.

One comment was received by email from Dodd Snodgrass in his personal capacity. Mr. Snodgrass was writing in favor of the amended Urban Renewal Plan. The full letter is attached as Exhibit A.

There being no other public comment, Chair Hulett closed the public hearing.

IV. CONSENT AGENDA (ACTION ITEMS)

A. Approval of Minutes June 8, 2021

B. Approval of Invoices

1. Jennifer Douglass, $492.00

Board members Hasenoehrl and Alford moved and seconded, respectively approval of the consent agenda. The motion carried 6-0.

V. APPROVAL OF INVOICE, LEWISTON MORNING TRIBUNE, $68.64

Board members Marsh and Cole-Hansen moved and seconded, respectively, approval of the Tribune Invoice. The motion carried 5-0-1 with Board member Alford abstaining.

VI. ADOPT RESOLUTION NO. 2021-3 APPROVING URBAN RENEWAL PLAN, RAA #7 DOWNTOWN/NORMAL HILL

Board members Alford and Cole-Hansen moved and seconded, respectively, approval of Resolution 2021-3 and opened the floor for discussion.

Board member Cole-Hansen requested page numbers be added. Ms. Cole-Hansen expressed appreciation of the verbiage in the Plan and that the very first paragraph is well written and well said. Board members agreed.

After discussion, Board members Alford and Cole-Hansen moved and seconded, respectively to amend their motion to include the following revisions to the Urban Renewal Plan, RAA #7:

1. Add a total column to the Project Summary Estimated Costs Table;
2. Add page numbers;
3. Eliminate the text stating that “Projects are identified in their current order of priority.”; and
4. Increase the Removal of Blight budget from $200,000 to $400,000.

The motion carried 6-0.

VII. REVIEW DRAFT BUDGETS

A. PROPOSED REVISED FY’21-22 BUDGET

B. PROPOSED FY’22-23 BUDGET

After reviewing the budgets, Board members directed staff to notice the budgets for public hearing at the August meeting.

VIII. UNFINISHED AND NEW BUSINESS

A. Board Member Comments

None.

B. Staff Comments

None.

IX. ADJOURN

There being no more business to come before the Board, Chair Hulett adjourned the meeting at approximately 12:48 p.m.

RESPECTFULLY SUBMITTED,

_____

TANYA M. BROCKE,
RECORDING SECRETARY

ATTEST:

_____

URBAN RENEWAL AGENCY CHAIR

Approved this _____ day of _____, 2021.

EXHIBIT A:

PUBLIC COMMENTS FOR PUBLIC HEARING

Lewiston

Laura VonTersch <lvontersch@cityoflewiston.org>

URA Plan Comments

1 message

Dodd Snodgrass <dsnod13@gmail.com> Thu, Jul 8, 2021 at 7:24 PM
To: Laura VonTersch <lvontersch@cityoflewiston.org>

Dear Laura –

I am writing in favor of the amended Urban Renewal Plan for RAA #7 Downtown/Normal Hill Area. I believe the changes recommended to the plan are supported by the Idaho Urban Renewal Law to eliminate blight and enhance development, job creation or private investment. Given the prospects for private investment and development of the former Twin City Food site, increased activity with commercial property downtown, and interest in projects such as a downtown innovation hub, it seems the timing is ripe for the agency to undertake additional activities.

I am in favor of the addition of "removal of blight" in the plan. I think this is a role the URA should take more aggressively to create more usable spaces and incentivize private investment.

The provisions for water distribution improvements are important, especially given the opportunity with the allocation of local American Rescue Act Plan (ARPA) funds and the prospect for more funding through the state.

Pedestrian access to downtown, streetscaping and public spaces will improve the vitality of downtown. I had the opportunity to participate in the University of Idaho architecture/landscape architecture student projects that re-imagined the downtown waterfront. There were some impressive – and practical – ideas that I hope the URA and City might integrate. The New 6th Street Staircase is a good project, but you could go bolder and incorporate additional ideas around the Beachey/Capital/Main St area.

Along those lines, the plan could identify that most of the area within RAA #7 is a "Qualified Census Tract." As you know these are HUD-designated areas defined as having 50% percent of households with incomes below 60% of the Area Median Gross Income. I believe the ARPA rules and FAQs note that jurisdictions with QCTs may have additional opportunity to use funding for parks and housing projects.

Thank you for the proposed changes to the plan. The Lewiston URA is an important agency, with unique tools to improve our community's economic development prospects.

Sincerely

Dodd Snodgrass

RESOLUTION NO. 2021-3

A RESOLUTION OF THE URBAN RENEWAL AGENCY OF THE CITY OF LEWISTON APPROVING THE URBAN RENEWAL AGENCY'S PLAN FOR REVENUE ALLOCATION AREA #7, DOWNTOWN/NORMAL HILL AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, as the Urban Renewal Agency has considered in a public hearing held July 13, 2021, an Urban Renewal Plan for Revenue Allocation Area #7, Downtown/Normal Hill, which is attached hereto;

NOW THEREFORE BE IT RESOLVED by the Board of Commissioner of the Urban Renewal Agency, that:

1) The Urban Renewal Plan for Revenue Allocation Area #7, Downtown/Normal Hill shall be and is hereby approved as attached hereto as Exhibit 1.
2) The Urban Renewal Agency upon approval of this Resolution hereby submits Revenue Allocation Area #7, Downtown/Normal Hill, to the City pursuant to I.C. § 50-2008 for the approval of the Plan.
3) This Resolution shall be in full force and effect upon its passage and approval.

DATED this 13th day of July 2021.

BOARD OF COMMISSIONERS:

By: Joe Hulett
Joe Hulett, Chairman

ATTEST:
Daniel J. Marsh
Daniel J. Marsh, Secretary

Notice for publication 7/11/2021

PUBLIC NOTICE

The Planning and Zoning Commission of the City of Lewiston, Idaho will hold a meeting 7/28/2021 at 5:30 p.m., 215 "D" Street, Bell Building, Second Floor Conference Room, to discuss and determine whether the Urban Renewal Plan for RAA #7, Downtown/Normal Hill is consistent with the Comprehensive Plan.

Due to COVID-19 and Governor Little's Stage 4 Order (issued May 11, 2021), the number of people allowed to attend this meeting in-person will be based upon room capacity for 6-foot physical distancing. Seating will be available on a first-come, first-served basis. All others who wish to observe this meeting may watch and listen to the livestream on their own device(s) by visiting the City of Lewiston's Facebook page or the City's website at cityoflewiston.org. Persons attending this meeting are strongly encouraged to wear a face covering.

This plan incorporates a revenue allocation area generally consisting of properties a) Downtown west of Lincoln Street, b) south of the Clearwater River c) east of the Snake River, d) north of the Normal Hill Bluff, e) on both sides of 5th Street between 4th Avenue, 3rd Avenue and Fourth Street and f) between 5th Street and Sixth Street between 3rd Avenue and the alley south of 5th Avenue.

A Revenue Allocation Area will cause property taxes resulting from any increase in equalized assessed valuation as shown on the base assessment roll to be allocated to the Urban Renewal Agency for urban renewal projects. The projects being considered are water main replacement in Main Street and Third Avenue; Pedestrian Corridor between Downtown and Normal Hill; Pedestrian and Vehicular Wayfinding, streets, parking areas and other utility needs.

Copies of the draft plan can be obtained or viewed on-line at https://www.cityoflewiston.org/443/Urban-Renewal-Agency, at the Community Development Department (215 "D" Street), the City Library (411 "D" Street) and from the City Clerk, (City Hall, 1134 "F" Street). Comments on the plan are welcome and may be submitted in writing to URA, P.O. Box 617, Lewiston, Idaho 83501; by email to lvontersch@cityoflewiston.org; or at the public hearing.

Please note the content of this notice was accurate at the time of preparation. The draft plan may be continually revised until its adoption by the City Council. Please check the website for the most current version.

MEETING AGENDA

LEWISTON PLANNING AND ZONING COMMISSION

JULY 28, 2021 AT 5:30 P.M.

NOTE NEW MEETING LOCATION: COMMUNITY DEVELOPMENT DEPARTMENT BUILDING, 215 D STREET, 2ND FLOOR, LEWISTON, ID 83501

Due to COVID-19 and the Governor's Stage 4 Order (issued May 11, 2021), the number of persons allowed to physically attend this meeting will be based upon room capacity for 6-foot social distancing. Seating will be available on a first come first serve basis. Unvaccinated persons attending this meeting are strongly encouraged to wear a face covering.

People interested in observing this meeting may watch and listen to the livestream on their own device(s) online at the City of Lewiston's Livestream Platform: https://livestream.com/lewiston/events/7428184 or the City of Lewiston's Facebook page: https://www.facebook.com/CityofLewistonIdaho

Citizen comments and testimony for public hearings may be made: in-person, by emailing Tanya Brocke at tbrocke@cityoflewiston.org, or by calling (208)798-2570 and leaving a message. Citizen comments and testimony for public hearings submitted by email or phone will be forwarded to the Planning & Zoning Commission. If you would like your citizen comment to be read out loud during the meeting, please so indicate in your message. Testimony for public hearings that was submitted by email or phone and unable to be forwarded to the Planning & Zoning Commission prior to the meeting will be read out loud during the public hearing. Members of the public who wish to provide in-person comment or testimony, but who are unable to secure a seat in the designated meeting space and/or overflow room(s) due to occupancy or gathering limits, will be rotated in and out of the designated meeting space in order to provide comment. While not in the designated meeting space, such persons may watch and listen to the livestream of the meeting on their own devices by visiting the City of Lewiston's Facebook page or the City's website at cityoflewiston.org

COMMISSION MEMBERS: Chair, Hannah Liedkie; Vice Chair, Rick Tousley; Richard Kremer; Joan Hunter; Michael Busch; Michael Menegas

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AS A MATTER OF PUBLIC SERVICE AND GOVERNMENTAL TRANSPARENCY, THIS MEETING MAY BE RECORDED, STREAMED LIVE AND/OR ACCESSED AT A LATER TIME. NOTE THAT THIS MAY INCLUDE VIDEO AND AUDIO OF ALL PERSONS PRESENT.

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I. CALL TO ORDER

II. CITIZENS COMMENTS – An opportunity for citizens to address the Commission with comments and/or questions about Planning and Zoning Commission-related matters that are not a public hearing action item on this agenda. Citizens are asked to limit their time to three minutes each.

III. APPROVAL OF JULY 14, 2021 MEETING MINUTES (ACTION ITEM)

IV. PUBLIC HEARING – CONSIDERATION OF A NEW URBAN RENEWAL PLAN REVENUE ALLOCATION AREA #7, DOWNTOWN/NORMAL HILL AREA (ACTION ITEM – VON TERSCH): Adoption of the American Rescue Plan by Congress provides a funding source for the water trunk line in Main street that had been a priority project in the Downtown/Normal Hill Urban Renewal Plan. As a result, the Urban Renewal Board chose to recall the Plan, and make revisions to more specifically support development initiatives such as Twin City Foods and the Lewis Clark Hotel. A second revision is an expanded section on removal of blight, including derelict metal buildings along Beachy and Capital and structures impacted by fire. The Urban Renewal Agency Board conducted a public hearing on this matter on July 13, 2021 and after deliberation, passed Resolution 2021-3 to proceed with its adoption. Pursuant to Idaho Code 50-2008(b), the Planning and Zoning Commission shall make its recommendation to the City Council as to the conformity of the proposal to the Comprehensive Plan.

V. STAFF-COMMISSION COMMUNICATIONS

A. Query of Commissioners to attend the regularly scheduled meeting of 8/11/21 (Public hearing for CUP x2 and ANX/CPA/ZNC).

B. Other

VI. ADJOURN

The City of Lewiston is committed to providing access and reasonable accommodation in its services, programs, and activities and encourages persons with disabilities to participate. If you anticipate needing any type of accommodation or have questions about the physical access to the facility within which this meeting is being held, please contact City Planner, Joel D. Plaskon at least forty eight hours in advance of the meeting at (208) 746-1318 extension 7202 or jplaskon@cityoflewiston.org.

Memo

To: **MANAGER NYGAARD**

From: **PLANNING AND ZONING COMMISSION**

Date: **JULY 28, 2021**

Re: **URBAN RENEWAL PLAN DOWNTOWN/NORMAL HILL**

The Planning and Zoning Commission held a public meeting 7/28/2021 to consider the Urban Renewal Plan, RAA #7, Downtown/Normal Hill Area. The Planning and Zoning Commission found that the Plan complies with and is in conformance with the Comprehensive Plan.

Chair, or Vice Chair, Signature: _____

Name: Rick L. Tousley

215 D Street • PO Box 617 • Lewiston, ID 83501-1930 • Ph.208.746.1318 • Fx.208.746.5595 • www.cityoflewiston.org

July 28, 2021

The LEWISTON PLANNING AND ZONING COMMISSION met in the Community Development Department Second Floor Conference Room at 215 "D" Street. Vice Chair Tousley called the meeting to order at 5:30 p.m.

Planning & Zoning meetings are recorded live. To view the full video, go to https://livestream.com/accounts/11220190 and select Planning & Zoning.

I. CALL TO ORDER

COMMISSIONERS PRESENT: Rick Tousley, Vice Chair; Michael Busch; Joan Hunter; Richard Kremer; Michael Menegas;

COMMISSIONERS EXCUSED: Hannah Liedkie, Chair;

STAFF MEMBERS PRESENT: Laura Von Tersch, Community Development Director; Tanya Brocke, Community Development Specialist; Aaron Butler, IT;

CITIZEN COMMENTS

No public attended the meeting.

II. APPROVAL OF JULY 14, 2021 MEETING MINUTES

Commissioners Menegas and Kremer moved and seconded, respectively, approval of the July 14, 2021 meeting minutes as written. The motion carried 5-0-1 with Commissioner Hunter abstaining.

III. PUBLIC HEARING – CONSIDERATION OF A NEW URBAN RENEWAL PLAN REVENUE ALLOCATION AREA #7, DOWNTOWN/NORMAL HILL AREA

Acting Chair Tousley explained the public hearing process, opened the public hearing and asked for staff report.

Community Development Director Laura Von Tersch explained that the adoption of the American Rescue Plan by Congress provides a funding source for the water trunk line in Main Street that had been a priority project in the Downtown/Normal Hill Urban Renewal Plan. As a result, the Urban Renewal Board chose to recall the Plan, and make revisions to more specifically support development initiatives such as Twin City Foods and the Lewis Clark Hotel. A second revision is an expanded section on removal of blight, including derelict metal buildings along Beachy and Capital and structures impacted by fire. The Urban Renewal Agency Board conducted a public hearing on this matter on July 13, 2021 and after deliberation, passed Resolution 2021-3 to proceed with its adoption. Pursuant to Idaho Code 50-2008(b), the Planning and Zoning Commission shall make its recommendation to the City Council as to the conformity of the proposal to the Comprehensive Plan.

There being no public testimony received and no public in attendance, Acting Chair Tousley closed the public hearing.

Commissioners Menegas and Kremer moved and seconded, respectively, that the Urban Renewal Plan for the Downtown/Normal Hill Area conforms with the Comprehensive Plan and authorizing the Chair to sign a letter with such recommendation to the City Council. The motion carried 5-0.

IV. STAFF-COMMISSION COMMUNICATIONS:

A. Query of Commissioners to attend the regularly scheduled meeting of 8/11/21.
Commissioners Busch and Tousley were not sure, while Commissioners Hunter, Menegas and Kremer planned to attend.

B. Other
Commissioners asked for follow up on the vacant position and emails.

V. ADJOURN

There being no further business, Commissioners Busch and Menegas moved and seconded, respectively to adjourn. The motion carried 5-0 and the Planning and Zoning Commission adjourned at approximately 5:46 p.m.

RESPECTFULLY SUBMITTED,

_____	_____
Tanya M. Brocke	Chairperson or Acting Chairperson
Recording Secretary	Planning and Zoning Commission

Approved this _____ day of _____, 2021.

Notice for publication 7/17/2021

PUBLIC NOTICE

The City Council of the City of Lewiston, Idaho will hold a public hearing 8/16/2021 at 6:00 p.m., 411 "D" Street, City Library, Second Floor Conference Room, to discuss and adopt the Urban Renewal Plan for RAA#7, Downtown/Normal Hill.

Due to COVID-19 and Governor Little's Stage 4 Order (issued May 11, 2021), the number of people allowed to attend this meeting in-person will be based upon room capacity for 6-foot physical distancing. Seating will be available on a first-come, first-served basis. All others who wish to observe this meeting may watch and listen to the livestream on their own device(s) by visiting the City of Lewiston's Facebook page or the City's website at cityoflewiston.org. Persons attending this meeting are strongly encouraged to wear a face covering.

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Copies of the draft plan can be obtained or viewed on-line at https://www.cityoflewiston.org/443/Urban-Renewal-Agency, at the Community Development Department (215 "D" Street), the City Library (411 "D" Street) and from the City Clerk, (City Hall, 1134 "F" Street). Comments on the plan are welcome and may be submitted in writing to URA, P.O. Box 617, Lewiston, Idaho 83501; by email to lvontersch@cityoflewiston.org; or at the public hearing.

Please note the content of this notice was accurate at the time of preparation. The draft plan may be continually revised until its adoption by the City Council. Please check the website for the most current version.

CITY OF LEWISTON
COMMUNITY DEVELOPMENT
1861

CITY COUNCIL MEETING
AGENDA ITEM HISTORY/COMMENTARY

ITEM TITLE	AGENDA NO._____	1ST READING_____
Adoption of Urban Renewal Plan, Revenue Allocation Area #7, Downtown/Normal Hill	AGENDA DATE _8/16/21__	2ND READING_____
	CONSENT: ☐ ACTIVE: x	3RD/ADOPTION_____

ORIGINATING SOURCE	FUNDING CERTIFICATION (IF APPLICABLE)
Community Development Director Date: _____	Date: _____
DIVISION MANAGER REVIEW (If applicable) Date: _____	DEPARTMENT MANAGER REVIEW (If applicable) Jay Van Tassell Date: 8/16/21_____
RECOMMENDED FOR COUNCIL ACTION	CITY MANAGER Date:_____

ITEM HISTORY (PREVIOUS COUNCIL REVIEWS, ACTION RELATED TO THIS ITEM, OTHER PERTINENT HISTORY)

October 5, 2020—City Council approved preparing a Resolution finding that the Downtown/Normal Hill Area is deteriorated and deteriorating as described in state law.

January 11, 2021---City Council approved Resolution No. 2021-4 finding the Downtown/Normal Hill Area is deteriorated and deteriorating.

ITEM COMMENTARY (BACKGROUND, DISCUSSION, KEY POINTS, RECOMMENDATIONS, ETC.) Please identify any or all impacts this proposed action would have on the City budget and/or personnel resources.

The Downtown/Normal Hill Area is deteriorated and deteriorating as a result of an inadequate water distribution system, lack of fire flows, high rates of poverty, unemployment and other factors. A memo prepared for the Urban Renewal Agency 9/8/20, and forwarded to City Council 10/5/20 with Resolution 2021-4 goes into additional detail about the deteriorated conditions.

February 9, 2021 the Urban Renewal Agency adopted Urban Renewal Plan RAA #7 Downtown/Normal Hill by Resolution 2021-01. Projects to address deteriorated conditions are listed in priority order beginning on page 12: Water Mains in Main Street and Third Avenue, Pedestrian Staircase at New 6th, Wayfinding, Roads/Parking Lots, ADA Upgrades and Waste Water Lines. Over the term of the district, an estimated 10.2 million dollars will be generated for these projects.

The Planning and Zoning Commission reviewed the Plan as to its conformance with the Comprehensive Plan 4/14/21. They found Urban Renewal Plan, Revenue Allocation Area #7, Downtown/Normal Hill conforms with the Comprehensive Plan. One Commissioner did express concerns with conceptual transportation/circulation options contained within the Downtown Master Plan. She indicated more analysis was needed prior to embarking on these projects. Staff indicated this would be part of any project development. The next step in the process is a public hearing before the City Council and adoption of the necessary ordinance.

The normal sequence of steps in the plan adoption process was interrupted by adoption of the American Rescue Plan. Lewiston is receiving approximately $6 million. Manager Nygaard recommends prioritizing improvements to the water system, which would include the water trunk line in Main Street. This water line is the number one priority for the city's water distribution system. As such, it had featured prominently in the URA Plan. Now that that project has funding, the URA Plan was revised to more specifically address supporting development such as LC Hotel and Twin City Foods.

June 8, 2021 through Resolution 2021-02 the Board recalled the plan to allow revisions. July 13, 2021 the Board held a public hearing and adopted the Plan by Resolution No. 2021-03. In addition to the revisions on water projects, additional narrative was included to address blight, specifically removal of derelict buildings. The Plan was resubmitted to the Planning and Zoning Commission who again found it in conformance with the Comprehensive Plan 7/28/21.

ACTION PROPOSED:

Approve Ordinance 4814, Adopting Urban Renewal Plan, Revenue Allocation Area #7, Downtown/Normal Hill.

(Above space for Recorder's use)

CITY ORDINANCE NO. 4814

AN ORDINANCE OF THE CITY OF LEWISTON MAKING THE FINDINGS REQUIRED BY IDAHO CODE § 50-2008 TO APPROVE AN URBAN RENEWAL PLAN AND URBAN RENEWAL PROJECTS; APPROVING THE "URBAN RENEWAL PLAN FOR REVENUE ALLOCATION AREA #7 DOWNTOWN/NORMAL HILL AREA"; CREATING A REVENUE ALLOCATION AREA AS PART OF SUCH URBAN RENEWAL PLAN; DESCRIBING THE REQUIREMENT FOR HOW THE NEZ PERCE COUNTY COMMISSIONERS ARE TO LEVY TAXES BY OR FOR EACH TAXING DISTRICT IN WHICH REVENUE ALLOCATION AREA #7 IS LOCATED; DIRECTING THE CITY CLERK TO TRANSMIT A COPY OF THIS ORDINANCE AND OTHER REQUIRED INFORMATION TO THE NEZ PERCE COUNTY AUDITOR AND TAX ASSESSOR, THE AFFECTED TAXING DISTRICTS, AND THE STATE TAX COMMISSION; PROVIDING A LIMITATION ON ACTIONS AGAINST SUCH URBAN RENEWAL PLAN; PROVIDING A SAVINGS AND SEVERABILITY CLAUSE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Urban Renewal Agency of the City of Lewiston, Idaho ("Agency") was established on October 18, 1999 through Resolution No. 99-75 of the City of Lewiston, Idaho ("City");

WHEREAS, the City, through Resolution 2021-4, determined certain property to be deteriorated or deteriorating areas and designated such property as appropriate for urban renewal projects, thereby creating an urban renewal area ("Urban Renewal Area") in accordance with Idaho Code §§ 50-2008(a) and 50-2018(11);

WHEREAS, the City and the Agency want to carry out urban renewal projects within the Urban Renewal Area, including installing and replacing water mains; reconstructing staircases; providing for wayfinding; and building streets, parking lots, and wastewater lines;

WHEREAS, in order to move forward with urban renewal projects within the Urban Renewal Area, the Agency prepared an urban renewal plan, titled "Urban Renewal Plan for Revenue

Allocation Area #7 Downtown/Normal Hill Area" ("Downtown/Normal Hill Plan"), which plan sets forth urban renewal projects to be completed within the Urban Renewal Area;

WHEREAS, on December 8, 2020, the Agency met to consider the Downtown/Normal Hill Plan and, on February 9, 2021, through Resolution 2021-1, approved the Downtown/Normal Hill Plan;

WHEREAS, on April 5, 2021, the Downtown/Normal Hill Plan was submitted to the City of Lewiston Planning and Zoning Commission ("Planning and Zoning Commission"), in accordance with Idaho Code § 50-2008(b);

WHEREAS, on April 14, 2021, the Planning and Zoning Commission reviewed the Downtown/Normal Hill Plan and unanimously determined that the Downtown/Normal Hill Plan is in conformity with the City of Lewiston's Comprehensive Plan, and the Planning and Zoning Commission's written recommendation with respect to the Downtown/Normal Hill Plan was submitted to the Lewiston City Council on April 15, 2021, in accordance with Idaho Code § 50-2008(b);

WHEREAS, on June 8, 2021, the Agency vacated Resolution 2021-1 and recalled the Downtown/Normal Hill Plan, through Resolution 2021-2, due to adoption of the American Rescue Plan and developer interest in the Twin City Foods property, both of which caused the Agency to consider changes to the Downtown/Normal Hill Plan;

WHEREAS, on July 13, 2021, the Agency met to consider a revised version of the Downtown/Normal Hill Plan and, through Resolution 2021-3, approved said revised version of the Downtown/Normal Hill Plan;

WHEREAS, on July 14, 2021, the Downtown/Normal Hill Plan was submitted to the Planning and Zoning Commission, in accordance with Idaho Code § 50-2008(b);

WHEREAS, on July 16, 2021, the City transmitted a notice of public hearing regarding the

Downtown/Normal Hill Plan, a copy of the Downtown/Normal Hill Plan, and the recommendation of the Agency to the governing body of each taxing district that levies taxes upon any taxable property within proposed revenue allocation area #7, in accordance with Idaho Code § 50-2906(3);

WHEREAS, on July 17, 2021, a notice of a public hearing regarding the Downtown/Normal Hill Plan was published in the Lewiston Tribune, in accordance with Idaho Code §§ 50-2008(c) and 50-2906(3);

WHEREAS, on July 28, 2021, the Planning and Zoning Commission reviewed the Downtown/Normal Hill Plan and unanimously determined that the Downtown/Normal Hill Plan is in conformity with the City of Lewiston's Comprehensive Plan, and the Planning and Zoning Commission's written recommendation with respect to the Downtown/Normal Hill Plan was submitted to the Lewiston City Council on July 29, 2021, in accordance with Idaho Code § 50-2008(b);

WHEREAS, on August 16, 2021, the City Council held a public hearing on the proposed Downtown/Normal Hill Plan;

WHEREAS, because the Downtown/Normal Hill Plan contains a revenue allocation financing provision, the Downtown/Normal Hill Plan includes the following items, as required by Idaho Code §§ 50-2008(h) and 50-2905:

(1) A statement describing the total assessed valuation of the base assessment roll of revenue allocation area #7 and the total assessed valuation of all taxable property within the City;

(2) A statement listing the kind, number, and location of all proposed public works or improvements within revenue allocation area #7;

(3) An economic feasibility study;

(4) A detailed list of estimated project costs;

(5) A fiscal impact statement showing the impact of revenue allocation area #7, both until and after the bonds are repaid, upon all taxing districts levying taxes upon property in revenue allocation area #7;

(6) A description of the methods of financing all estimated project costs and the time

when related costs or monetary obligations are to be incurred;

(7) A termination date for the Downtown/Normal Hill Plan and revenue allocation area #7; and

(8) A description of the disposition or retention of any assets of the Agency upon the termination date; and

WHEREAS, it is in the best interest of the City to adopt the Downtown/Normal Hill Plan and form revenue allocation area #7 because tax increment financing will: (a) help fund the urban renewal projects to be completed in accordance with the Downtown/Normal Hill Plan, which projects will encourage private development and investment in the project area, and such development would not be possible without sufficient water and wastewater utilities, streets, and parking lots; (b) prevent and arrest decay of the project area due to the inability of existing financing methods to provide needed public improvements; and (c) encourage taxing districts to cooperate in the allocation of future tax revenues arising in the project area in order to facilitate the long-term growth of their common tax base.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF LEWISTON, IDAHO:

SECTION 1: In accordance with Idaho Code § 50-2008(d), it is hereby found that:

(a) No families or persons are expected to be displaced from the Urban Renewal Area as a result of the urban renewal projects set forth in the Downtown/Normal Hill Plan.

(b) The Downtown/Normal Hill Plan conforms to the City of Lewiston's Comprehensive Plan.

(c) The Downtown/Normal Hill Plan gives due consideration to the provision of adequate park and recreational areas and facilities that may be desirable for neighborhood improvement, with special consideration for the health, safety, and welfare of children residing in the general vicinity of the site covered by the Downtown/Normal Hill Plan.

(d) The Downtown/Normal Hill Plan will afford maximum opportunity, consistent with the sound needs of the City of Lewiston, for the rehabilitation or redevelopment of the Urban Renewal Area by private enterprise.

(e) The Urban Renewal Area does not consist of an area of open land to be acquired by the Agency.

SECTION 2: The Downtown/Normal Hill Plan is hereby approved, a copy of which is attached hereto and incorporated herein as Exhibit A.

SECTION 3: As part of the Downtown/Normal Hill Plan, revenue allocation area #7 is hereby created, the legal description for which is attached hereto and incorporated herein as Exhibit B.

SECTION 4: The Downtown/Normal Hill Plan establishes a base assessment roll as of January 1, 2021, as it may be adjusted, in revenue allocation area #7.

SECTION 5: In accordance with Idaho Code § 50-2908(1), for purposes of calculating the rate at which taxes shall be levied by or for each taxing district in which revenue allocation area #7 is located, the Nez Perce County Commissioners shall, with respect to the taxable property located in revenue allocation area #7, use the equalized assessed value of such taxable property as shown on the base assessment roll rather than on the current equalized assessed valuation of such taxable property.

SECTION 6: In accordance with Idaho Code §§ 50-2907 and 63-215, the City Clerk shall transmit a copy of this Ordinance No. 4814, including a copy of the legal description and a map of the boundaries of revenue allocation area #7, attached hereto and incorporated herein as Exhibits B and C, to the Nez Perce County Auditor and Tax Assessor; the affected taxing districts, consisting of the City of Lewiston, Nez Perce County, Lewiston Independent School District No. 1, and the Port of Lewiston; and the Idaho State Tax Commission within thirty (30) days following the effective date of this Ordinance No. 4814.

SECTION 7: In accordance with Idaho Code §§ 50-2027 and 50-2911, no direct or collateral action attacking the Downtown/Normal Hill Plan shall be brought prior to the effective date of this ordinance or after the elapse of thirty (30) days from the effective date of this ordinance.

SECTION 8: The provisions and parts of this ordinance are intended to be severable. If any section, sentence, clause, or phrase of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause, or phrase of this ordinance.

SECTION 9: This ordinance shall take effect and be in full force from and after its passage and publication.

PASSED this _____ day of _____ 2021.

CITY OF LEWISTON

By: _____
Michael G. Collins, Mayor

ATTEST:

_____
Kari J. Ravencroft, City Clerk

STATE OF IDAHO)
) ss.
County of Nez Perce)

On this _____ day of _____ 2021, before me, a Notary Public, personally appeared Michael G. Collins and Kari J. Ravencroft, known or identified to me as the Mayor and City Clerk, respectively, of the City of Lewiston, and stated that they have the authority to execute this instrument on behalf of the City of Lewiston, and did execute this instrument on behalf of the City of Lewiston.

_____
Notary Public for the State of Idaho
Commission Expires _____

DRAFT

Lewiston City Council

REGULAR MEETING AGENDA

Monday, August 16, 2021 – 6:00 p.m.

Lewiston City Library – Second Floor Activity Room – 411 D Street

Lewiston, Idaho 83501

Due to COVID-19 and Governor Little's Stage 4 Order (issued May 11, 2021), the number of people allowed to attend this meeting in-person will be based upon room capacity for 6-foot distancing. Seating will be available on a first-come, first-served basis. All others who wish to observe this meeting may watch and listen to the livestream on their own device(s) by visiting the City of Lewiston's Facebook page or the City's website at cityoflewiston.org.

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. CITIZEN COMMENTS

This is an opportunity for members of the public to address the City Council on agenda items or any issue of City business; provided, however, members of the public shall not address matters that are the subject of a public hearing or provide additional testimony or information on a quasi-judicial matter (e.g., Planning and Zoning matter) after the official record of such matter has been closed. Persons commenting may request that items be placed on a future agenda for further discussion; such requests are subject to approval by the City Manager or a majority vote of the City Council. Comments regarding the performance of a specific City employee are not appropriate during Citizens' Comments; instead, a meeting should be scheduled with the City Manager. The presiding officer may determine that comments regarding matters that have been previously heard and/or decided by the City Council are not appropriate for Citizens' Comments.

A person shall not provide comment unless and until recognized by the presiding officer. Persons providing comment shall identify themselves by their names and cities of residence, but shall not be required to disclose their mailing or home addresses. Persons making comments shall be limited to ***3 minutes*** *each, unless additional time is allowed by the presiding officer.*

Comments may be made: (1) in-person, (2) by emailing the City Clerk at kravencroft@cityoflewiston.org, or (3) by calling (208) 746-3676 and leaving a message. Comments submitted by email or phone will be forwarded to the City Council. If you would like your comment to be read out loud during the meeting, please so indicate in your message. Members of the public who wish to provide in-person comment, but who are unable to secure a seat in the designated meeting space and/or overflow room(s) due to occupancy or gathering limits, will be rotated in and out of the designated meeting space in order to provide comment. While not in the designated meeting space and/or overflow room(s), such persons may watch and listen to the livestream of the meeting on their own devices by visiting the City of Lewiston's Facebook page or the City's website at cityoflewiston.org. The City will not provide a means for listening to the meeting outside of the designated meeting space and/or overflow room(s).

IV. PRESENTATIONS AND PUBLIC HEARINGS

A. ***PUBLIC HEARING: URBAN RENEWAL PLAN, REVENUE ALLOCATION AREA #7, DOWNTOWN/NORMAL HILL****: Accepting testimony on Revenue Allocation Area #7, Downtown/Normal Hill area, for the purposes of water main replacement in Main Street and Third Avenue, pedestrian corridor between Downtown and Normal Hill, pedestrian and vehicular wayfinding, streets, parking areas, and other utility needs* (Von Tersch)

V. CONSENT AGENDA

All items on the Consent Agenda are considered routine by the Council and will be enacted by one motion. There will be no separate discussion on these issues unless a councilor so requests, in which case the item will be removed from the Consent Agenda and considered on the Active Agenda under "Items Moved from the Consent Agenda".

A. ***CITY COUNCIL MEETING MINUTES***: *06/14/21 Regular; 06/29/21 Budget* - Action Item

B. ***ADVISORY BOARD AND COMMISSION MEETING MINUTES***: _____ – Action Item

C. ***VOUCHERS PAYABLE***: *07/23/21 through 08/____/21 - $*_____ - Action Item

VI. ACTIVE AGENDA

A. ORDINANCES

1. First Reading

a. ***Ordinance 4814***: *Making the findings required by Idaho Code § 50-2008 to approve an Urban Renewal Plan and Urban Renewal projects; approving the "Urban Renewal Plan for Revenue Allocation Area #7 Downtown/Normal Hill Area"; creating a Revenue Allocation Area as part of such Urban Renewal Plan; describing the requirement for how the Nez Perce County Commissioners are to levy taxes by or for each taxing district in which Revenue Allocation Area #7 is located* – Action Item (Von Tersch)

2. Second Readings

a. ***Ordinance 4829***: *Considering amending Ordinance Number 4783, the Annual Appropriation Ordinance for the fiscal year beginning October 1, 2020, and ending September 30, 2021, appropriating additional monies that are to be received by the City of Lewiston in the sum of $16,556,650* - Action Item (Nygaard/Marsh)

b. ***Ordinance 4828***: *To be termed the "2022 Annual Appropriation Ordinance," considering appropriating sums of money authorized by law and deemed necessary for all general and special municipal purposes of the city of Lewiston for the fiscal year commencing October 1, 2021, and ending September 30,* 2022 - Action Item (Nygaard/Marsh)

c. ***Ordinance 4830***: *Considering fixing and establishing the tax certification on all taxable properties situated within the corporate limits of the City of Lewiston for the fiscal year commencing October 1, 2021, and ending September 30, 2022, for the purpose of providing and raising monies for municipal and corporate purposes; providing for the tax certification to the Nez Perce Board of County Commissioners in the amount of $23,366,000* - Action Item (Nygaard/Marsh)

B. ***RESOLUTION 2021-34***: *Considering consenting to the assignment of the lease and development agreement dated November 9, 1979, and the lease and development agreement dated July 14, 1980, from Roy A. Baldus and Tammy M. Baldus, D/B/A Adams Lane Rentals, to WSR LLC* – Action Item (Von Tersch)

C. ***IAFF COLLECTIVE BARGAINING AGREEMENT***: *Considering approving the Collective Bargaining Agreement between the City and International Association of Firefighters (IAFF) Local 1773 for the period October 1, ____, through September 30, ____* – Action Item (Province)

D. ***ITEMS MOVED FROM THE CONSENT AGENDA*** – Action Item

VII. UNFINISHED AND NEW BUSINESS

A. ***CITY COUNCILOR COMMENTS***

B. ***CITY MANAGER COMMENTS***

C. ***ADVISORY BOARD AND COMMISSION APPOINTMENTS - ACTION ITEM***

D. ***AGENDA TOPICS – ACTION ITEM***

VIII. ADJOURNMENT

The City of Lewiston is committed to providing access and reasonable accommodation in its services, programs, and activities and encourages qualified persons with disabilities to participate. If you anticipate needing any type of accommodation or have questions about the physical access provided at this meeting, please contact City Clerk Kari Ravencroft at least forty-eight (48) hours in advance of the meeting at 208-746-3671, ext. 6203.

Placeholder for August 16, 2021 City Council Minutes

Amended 08/17/2021

Lewiston City Council

REGULAR MEETING AGENDA

Monday, August 23, 2021 – 6:00 p.m.

Lewiston City Library – Second Floor Activity Room – 411 D Street

Lewiston, Idaho 83501

Due to COVID-19 and Governor Little's Stage 4 Order (issued May 11, 2021), the number of people allowed to attend this meeting in-person will be based upon room capacity for 6-foot distancing. Seating will be available on a first-come, first-served basis. All others who wish to observe this meeting may watch and listen to the livestream on their own device(s) by visiting the City of Lewiston's Facebook page or the City's website at cityoflewiston.org.

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. AGENDA AMENDMENT

A. ***AMENDMENT TO THE AGENDA***: *Considering amending the agenda pursuant to Lewiston City Code § 2-20(a) to change the order of business by moving the presentation regarding City finances and the public hearing regarding forgone taxes to follow the Active Agenda* – Action Item

IV. CITIZEN COMMENTS

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Facebook page or the City's website at cityoflewiston.org. The City will not provide a means for listening to the meeting outside of the designated meeting space and/or overflow room(s).

V. CONSENT AGENDA

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A. ***CITY COUNCIL MEETING MINUTES***: *07/12/21 Regular; 07/26/21 Regular* - Action Item

B. ***ADVISORY BOARD AND COMMISSION MEETING MINUTES***: – *07/28/21 Planning & Zoning Commission* - Action Item

VI. ACTIVE AGENDA

A. ***RESOLUTION 2021-35***: *Considering a sole source Resolution declaring Govred Technology, Inc. as the only reasonably available vendor for Apex Officer, a virtual reality training simulator for police officers* – Action Item (Klone)

B. ***RESOLUTION 2021-36***: *Considering accepting a public utility and access easement from John and Jenny Jelinek to the City of Lewiston* – Action Item (Weigand)

C. ***ORDINANCES***

1. ***Second Reading***

a. ***Ordinance 4814***: *Making the findings required by Idaho Code § 50-2008 to approve an Urban Renewal Plan and Urban Renewal projects; approving the "Urban Renewal Plan for Revenue Allocation Area #7 Downtown/Normal Hill Area"; creating a Revenue Allocation Area as part of such Urban Renewal Plan; describing the requirement for how the Nez Perce County Commissioners are to levy taxes by or for each taxing district in which Revenue Allocation Area #7 is located* – Action Item (Von Tersch)

2. ***Third Readings***

a. ***Ordinance 4829***: *Considering amending Ordinance Number 4783, the Annual Appropriation Ordinance for the fiscal year beginning October 1, 2020, and ending September 30, 2021, appropriating additional monies that are to be received by the City of Lewiston in the sum of $16,556,650* - Action Item (Nygaard/Marsh)

b. ***Ordinance 4828***: *To be termed the "2022 Annual Appropriation Ordinance," considering appropriating sums of money authorized by law and deemed necessary for all general and special municipal purposes of the city of Lewiston for the fiscal year commencing October 1, 2021, and ending September 30,* 2022 - Action Item (Nygaard/Marsh)

c. ***Ordinance 4830***: *Considering fixing and establishing the tax certification on all taxable properties situated within the corporate limits of the City of Lewiston for the fiscal year commencing October 1, 2021, and ending September 30, 2022, for the purpose of providing and raising monies for municipal and corporate purposes; providing for the tax certification to the Nez Perce Board of County Commissioners in the amount of $23,366,000* - Action Item (Nygaard/Marsh)

3. ***Adoption of Ordinances***

a. ***Ordinance 4829*** – Action Item

b. ***Ordinance 4828*** – Action Item

c. ***Ordinance 4830*** – Action Item

D. ***854 AND 858 MAIN STREET*** – *Receiving an update regarding the nuisance building located at 854 and 858 Main Street and potential direction from the City Council regarding said nuisance* – Action Item (Hermann)

E. ***ITEMS MOVED FROM THE CONSENT AGENDA*** – Action Item

VII. PRESENTATIONS AND PUBLIC HEARINGS

A. ***FINANCIAL REPORT – JULY 31, 2021***: *Provided by Administrative Services Director Marsh in accordance with Idaho Code 50-208* (Marsh)

B. ***PUBLIC HEARING: FORGONE TAXES***: *Accepting testimony on the consideration of accruing forgone tax which equates to the amount of property tax the Council elects to not levy for amounts that are less than the 3 percent increase as permitted for the 2022 fiscal year* (Marsh)

VIII. ACTIVE AGENDA

A. ***RESOLUTION 2021-33***: *Considering reserving the right to recover $_____ of forgone increase for Fiscal Year 2022 in a subsequent year, pursuant to Idaho Code § 63-802(1)(f)* – Action Item (Marsh)

IX. UNFINISHED AND NEW BUSINESS

A. CITY COUNCILOR COMMENTS
B. CITY MANAGER COMMENTS
C. ADVISORY BOARD AND COMMISSION APPOINTMENTS - ACTION ITEM
D. AGENDA TOPICS – ACTION ITEM

X. ADJOURNMENT

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Placeholder for August 23, 2021 City Council Minutes

REVISED 9/9/2021

Lewiston City Council

REGULAR MEETING AGENDA

Monday, September 13, 2021 – 6:00 p.m.

Lewiston City Library – Second Floor Activity Room – 411 D Street

Lewiston, Idaho 83501

Due to COVID-19 and Governor Little's Stage 4 Order (issued May 11, 2021), the number of people allowed to attend this meeting in-person will be based upon room capacity for 6-foot distancing. Seating will be available on a first-come, first-served basis. All others who wish to observe this meeting may watch and listen to the livestream on their own device(s) by visiting the City of Lewiston's Facebook page or the City's website at cityoflewiston.org.

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. CITIZEN COMMENTS

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IV. *PRESENTATIONS AND PUBLIC HEARINGS*

A. ***PROCLAMATION – DIRECT SUPPORT PROFESSIONAL RECOGNITION WEEK – September 12-18, 2021***: (Mayor Collins)

V. CONSENT AGENDA

All items on the Consent Agenda are considered routine by the Council and will be enacted by one motion. There will be no separate discussion on these issues unless a councilor so requests, in which case the item will be removed from the Consent Agenda and considered on the Active Agenda under "Items Moved from the Consent Agenda".

A. ***CITY COUNCIL MEETING MINUTES***: *07/01/21 Budget Work Session* - Action Item

B. ***ADVISORY BOARD AND COMMISSION MEETING MINUTES***: *05/19/21 Parks & Recreation Commission* - Action Item

C. ***ADMINISTRATIVE PLAT – ZANY'S ADDITION*** – *Considering approval of a two lot subdivision located south of 19th Avenue between 17th Street and Thain Grade* - Action Item

D. ***FINAL PLAT – NORTHEAST CROSSING ADDITION PHASE IVB*** – *Considering approval of the northerly extension of Pathfinder Way and completion of the east-west street known as Frontier Drive, in addition to all associated water, wastewater and stormwater improvements within Phase IVB* - Action Item

E. ***INTERGOVERNMENTAL AGREEMENT FOR EMS*** – *Considering approval of an Intergovernmental Agreement for EMS between the City of Lewiston and Asotin County* - Action Item

F. ***SCHOOL RESOURCE OFFICER AGREEMENT***: *Considering approval of an SRO Agreement, effective August 30, 2021, through June 7, 2022, between the City of Lewiston and the Independent School District No. 1* – Action Item

VI. ACTIVE AGENDA

A. ***IAFF COLLECTIVE BARGAINING AGREEMENT (AMENDED)***: *Considering approving the Collective Bargaining Agreement between the City and International Association of Firefighters (IAFF) Local 1773 for the period October 1, 2021, through September 30, 2024* – Action Item (Province)

B. ***TR057 ITD RAILROAD CROSSING REMOVAL AGREEMENT***: *Considering a Cooperative Agreement between the City of Lewiston and the Idaho Transportation Department* - Action Item (D. Johnson)

C. ***WATER TREATMENT PLANT RETROFIT – SECOND AMENDMENT FOR EARLY WORK, PROCUREMENT OF MEMBRANE FILTRATION SYSTEM***: *Considering approval of the Second Amendment to the Progressive Design Build Agreement with IMCO General Construction, Inc.* - Action Item (Bailey) (Information to be provided at a later date)

D. ORDINANCES

1. Third Reading

a. ***Ordinance 4814***: *Making the findings required by Idaho Code § 50-2008 to approve an Urban Renewal Plan and Urban Renewal projects; approving the "Urban Renewal Plan for Revenue Allocation Area #7 Downtown/Normal Hill Area"; creating a Revenue Allocation Area as part of such Urban Renewal Plan; describing the requirement for how the Nez Perce County Commissioners are to levy taxes by or for each taxing district in which Revenue Allocation Area #7 is located* – Action Item (Von Tersch)

2. Adoption of Ordinance and Approval of Ordinance Summary

a. ***Ordinance 4814*** – Action Item

E. UPDATE - 854 AND 858 MAIN STREET – *Receiving an update regarding the nuisance building located at 854 and 858 Main Street and potential direction from the City Council regarding said nuisance* – Action Item (Hermann)

F. ITEMS MOVED FROM THE CONSENT AGENDA – Action Item

VII. UNFINISHED AND NEW BUSINESS

A. CITY COUNCILOR COMMENTS

B. CITY MANAGER COMMENTS

C. ADVISORY BOARD AND COMMISSION APPOINTMENTS - ACTION ITEM

D. AGENDA TOPICS – ACTION ITEM

VIII. ADJOURNMENT

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Placeholder for September 13, 2021 City Council Minutes

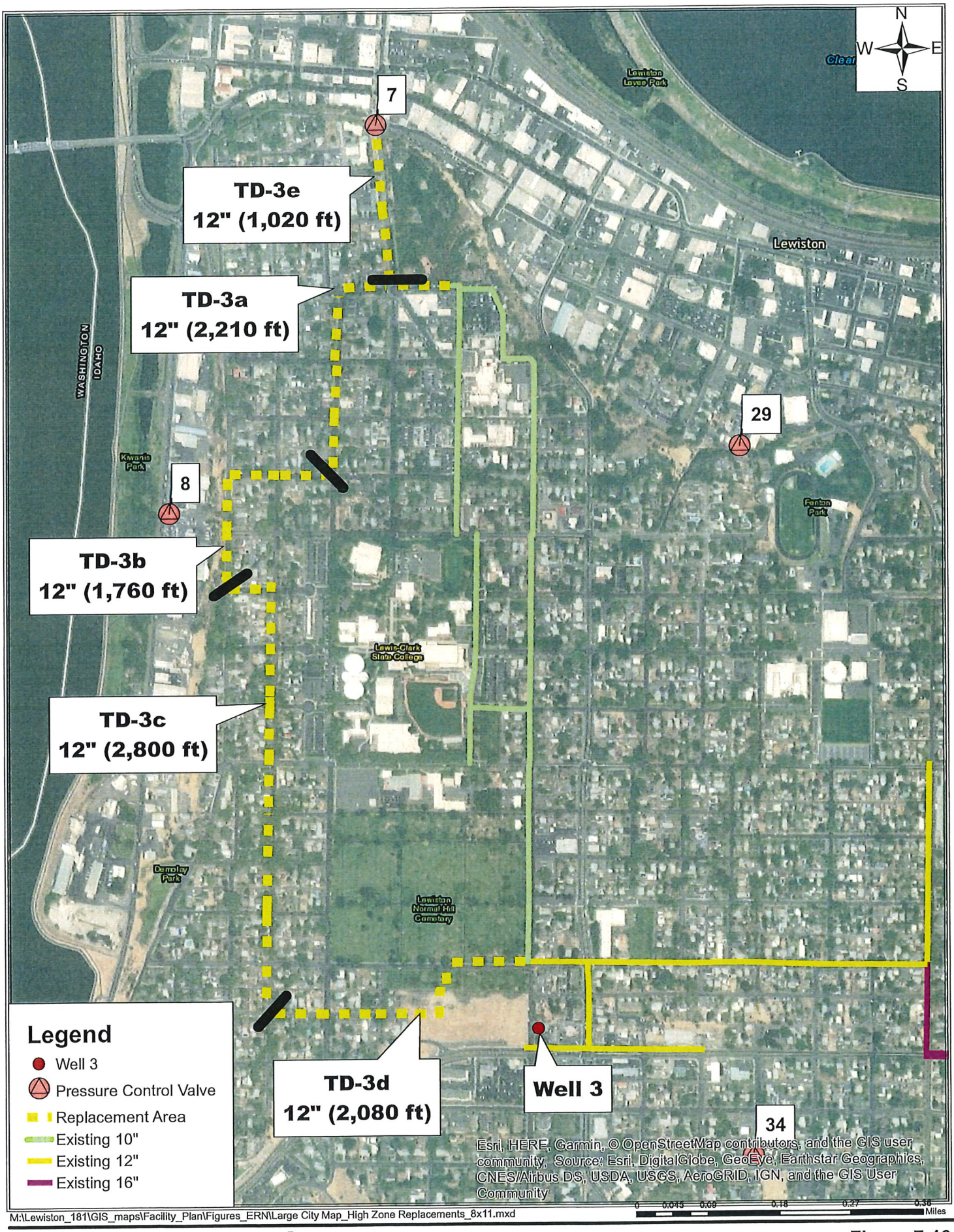
Capital Improvement Plan

Table ES-1: CIP Priority Projects

Operational Group	Project	Need/Justification	Cost (x $1,000)
	Source of Supply (SS)		
SS-1c	Retrofit Existing Treatment Plant with 10-MGD Membrane Filtration	Aging Infrastructure, Supply Capacity	$28,450
SS-1e	Retrofit and Upgrade Existing Primary Permanent Surface Water Intake (Site C)		$3,190
SS-2	New 2-MGD Groundwater Well in South High Service Level (Well No. 7)	Accommodate Growth	$6,000
SS-3	Well No. 6 Pumping and Backup Power Modifications	Reliability, Increase Service Life	$518
SS-4	Upgrade Well No. 3 for PWS Utilization in High Service Level	Supply Capacity, Redundancy	$400
SS-5	Upgrade Well No. 2 for PWS Use in Low Service Level	Redundancy	$186
SS-6	Low to High System Intertie Located at WTP Clearwell	Supply Capacity	$60
	Booster Pumping (BP)		
BP-1a	21st Street Booster Station Upgrades	Aging Infrastructure, Reliability	$325
BP-2	21st Street Booster Suction Transmission Main Modifications	Pumping Capacity, Regulatory	$30
BP-3	Southport No. 1 Booster Intertie	Supply Capacity, Redundancy	$120
	Water Storage (WS)		
WS-1	New 1.8 MG Standpipe or 1.6-MG Ground Level Reservoir in Southeast Service Level	Fire Flow, Accommodate Growth	$3,250
WS-3	2-MG North Lewiston Reservoir Recoating	Aging Infrastructure	$350
WS-4	2-MG South High Reservoir Recoating	Aging Infrastructure	$350
	Transmission and Distribution (TD)		
TD-1	Main Street Transmission Main Replacement	Aging Infrastructure, Supply Capacity, Fire Flow	$1,110
TD-2a	16-inch Replacement Main, 8th Avenue	Aging Infrastructure, Supply Capacity, Fire Flow	$429
TD-2b	16-inch Replacement Main, 8th Avenue, 20th, 7th Streets		$743
TD-2c	16-inch Replacement Main, 8th Avenue, 20th, 7th Streets	**Total TD-2 (Low System) Group: $2,000**	$577
TD-2d	16-inch Replacement Main, 16th and G Streets from Idaho to 13th Streets		$251

APPENDIX F - 1

Operational Group	Project	Need/Justification	Cost (x $1,000)
TD-3a	12-inch Replacement Main, 4th Street (from 6th Avenue to 3rd Avenue) and 3rd Avenue (from 4th Street to 6th Street)	Aging Infrastructure, Fire Flow **Total TD-3 (High System) Group: $2,840**	$633
TD-3b	12-inch Replacement Main, 6th Avenue (from Prospect Avenue to 4th Street) and Prospect Avenue (from 8th Avenue to 6th Avenue)		$532
TD-3c	12-inch Replacement Main, 3rd Street (from 16th Avenue to 8th Avenue) and 8th Avenue (from 3rd Street to Prospect Avenue)		$895
TD-3d	12-inch Replacement Main, 16th Avenue (from 3rd Street to 6th Street and north to 15th Avenue, in the vicinity of the Normal Hill Cemetery) and 15th Avenue (to 7th Street.)		$525
TD-3e	12-inch Replacement Main, 5th Street (from 3rd Avenue to F Street)		$255
TD-5	21st Street Booster Station Automated Return Bypass	Redundancy	$60
TD-6	Southwest Booster Station Automated Return Bypass	Redundancy	$60
Annual Rate-Supported Capital (ARSC)			
ARSC-1	New and Aging Underground Distribution Infrastructure	Aging Infrastructure	$1,000
ARSC-2	Short-Lived Asset Replacement	Aging Infrastructure	$2,000
ARSC-3	Rolling Stock Replacement	Vehicle/Large Equipment	$93



Mountain WATERWORKS

Figure 7-18
TD-3: High Service Level Distribution Main Replacements

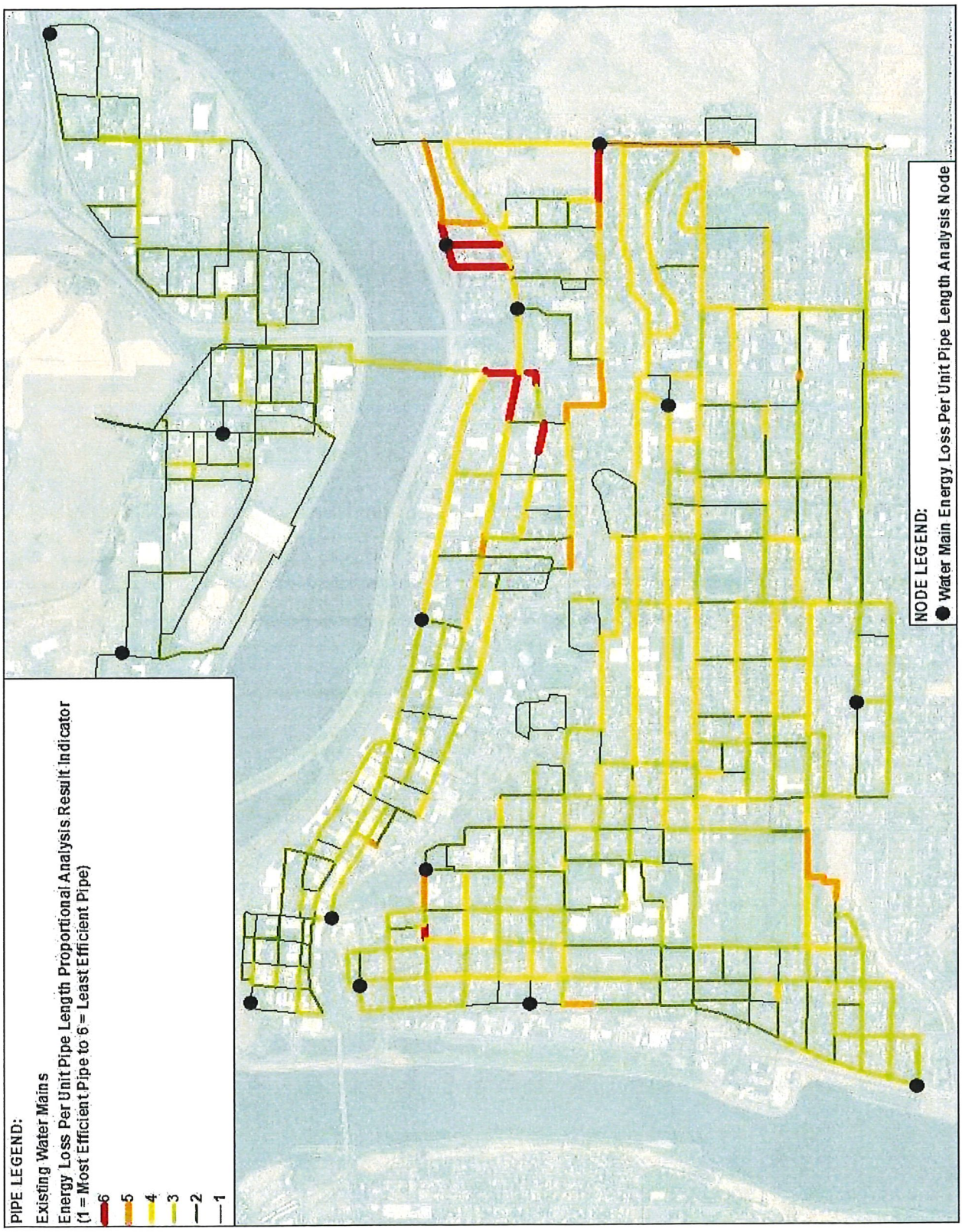


Figure 7-15
Distribution System Hydraulic Efficiency

TRANSMISSION AND DISTRIBUTION (TD)

Project Identifier:	**TD-1**	**CIP Budget:**	**$1,110,000**
Project Name:	**Main Street Transmission Main Replacement**	**Funding Source:**	**Debt**

PROJECT DESCRIPTION: This project consists of replacing approximately 3,900-ft. of 12-inch converse steel (steel) water main in Main Street with 16-inch ductile iron (D.I.) from 9th to 18th Street. This water main replacement project is part of a City roadway overlay project that will be bid during 2019. By replacing the 12-inch water main underlying the roadway with a 16-inch water main, the City is replacing aging infrastructure that is critical to providing fire flow to historic downtown Lewiston.

NEED OR JUSTIFICATION: This project is required as part of the City's water main replacement plan of replacing undersized metallic water mains that have outlived their useful life. In addition, this water main was installed in the early 1900s and has had a history of leaks and expensive repairs. By replacing this water main, the City is increasing fire flow capacities and reducing the potential of water main failure in the future.

TD-3 Group: High System Summary

Project Identifier:	**TD-3 Group**	**CIP Budget:**	**$2,840,000**
Project Name:	**TD-3a, 3b, 3c, 3d, 3e**	**Funding Source:**	**Rates**

PROJECT DESCRIPTION (TD-3 GROUP): This group of projects includes replacement of transmission and distribution infrastructure within the High System with appropriately-sized pipe consisting of materials suitable to each area's underground conditions.

NEED OR JUSTIFICATION (TD-3 GROUP): These water main replacement projects will improve distribution system hydraulic efficiency across the High Service Level to meet peaking demands and increased fire protection capacity to critical supply areas and customers. These replacement main projects will provide a 12-inch looped distribution system to critical customers such as the Lewis and Clark State College and the St. Joseph Regional Medical Center.

In addition to providing increased fire protection capacity, the projects will replace aging undersized infrastructure that are prone to leaking, system outages and corrosion. Hydraulic modeling of the distribution system during peak day system demands plus the required fire flow capacity, provided data showing this area of the distribution system to be unable to meet International Fire Code (IFC) Standards. These projects will significantly improve fire flow to the college and medical center, which are currently supplied by an undersized looped 4,6-inch distribution system.

INDIVIDUAL HIGH SYSTEM PROJECTS

Project Identifier:	**TD-3a (High Service Level)**	**CIP Budget:**	**$633,000**
Project Name:	**12-inch Replacement Main, in 4th Avenue from 6th Street to St. Johns Way**	**Funding Source:**	**Rates**

PROJECT DESCRIPTION: This project replaces approximately 2,212 ft. of 4, 6-inch cast iron water main located in 4th Street and 3rd Avenue with 12-inch PVC water main. The water main will be replaced in 4th Street from 6th Avenue to 3rd Avenue, and it will be replaced in 3rd Avenue from 4th Street to 6th Street. The estimated cost of replacement is estimated at $633,000 which includes the following markups: 6% sales tax, 15% contractor overhead/profit, 20% construction contingency and 20% engineering and administrative expense.

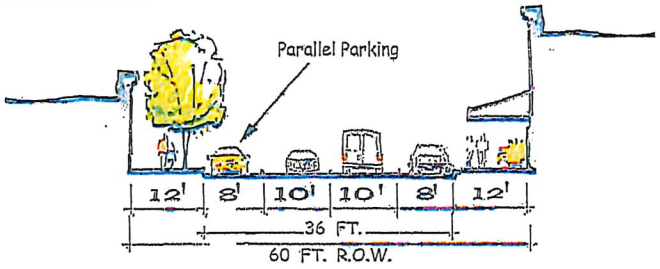
Project Identifier:	**TD-3e (High Service Level)**	**CIP Budget:**	**$255,000**
Project Name:	**12-inch Replacement Main, in 5th Street from 3rd Avenue to F Street**	**Funding Source:**	**Rates**

PROJECT DESCRIPTION: This project replaces approximately 1,020 ft. of 6-inch cast iron water main located in 5th Street from 3rd Avenue to F Street with 12-inch PVC water main. The estimated cost of replacement is estimated at $255,000 which includes the following markups: 6% sales tax, 15% contractor overhead/profit, 20% construction contingency and 20% engineering and administrative expense.

Lewiston-Clarkston Downtown Circulation Plan

Recommended Street Configurations

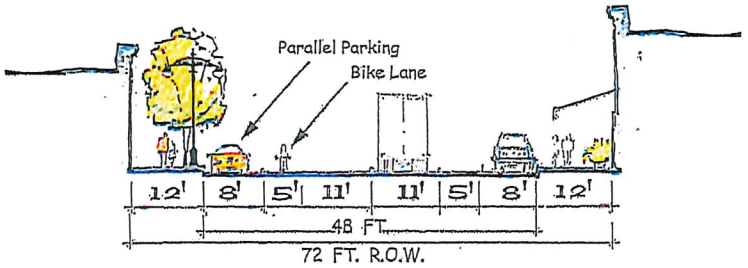
The following general street configurations are recommended as guidelines for design. Example locations are given, but configurations could apply in other locations as well. Actual street widths will vary depending on site conditions, turn lane needs, parking needs, and available right-of-way.



2-LANE LOCAL STREET

WITH PARALLEL PARKING

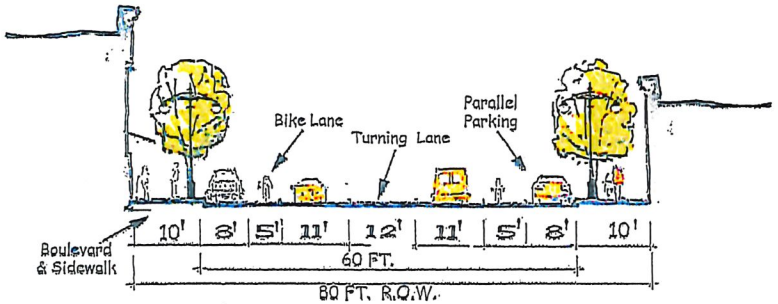
Various Locations



2-LANE COLLECTOR or MINOR ARTERIAL

WITH BIKE LANES & PARKING

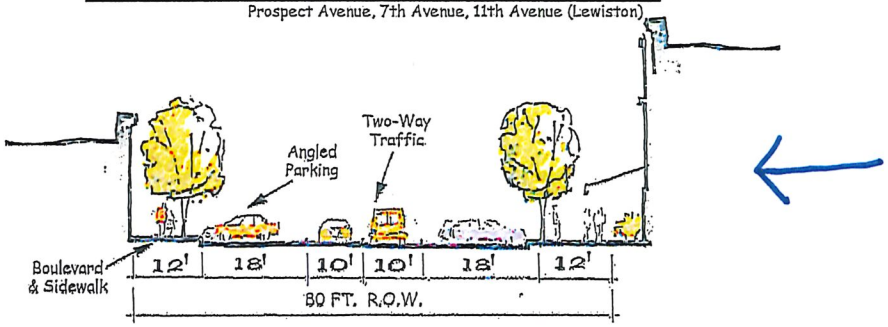
Example Locations: 13th Street, Elm Street, Chestnut Street (Clarkston)
Prospect Avenue, 7th Avenue, 11th Avenue (Lewiston)



3-LANE COLLECTOR OR MINOR ARTERIAL

WITH BIKE LANES AND PARKING

Example Locations: 5th/6th Street, 15th Street, Port Drive (Clarkston)
5th Street, 9th Street, 18th Street (Lewiston)



PARKING STREET

ANGLED PARKING ON BOTH SIDES

Example Locations: 5th Street, 7th Street (Downtown Clarkston)
3rd Street, Beachey Street (Lewiston)

Figure 6-7: Multi-Criteria Evaluation to Identify Priority Routes

The 10 highest priority routes were refined further by a combination of technical factors and DAC priority to identify which of the 10 projects constitute the highest priority for short-term funding pursuits by the City of Lewiston. The route ranking is based on a total maximum available points of 100, spread across eight categories. These categories consist of using the average ranking by DAC members, along with observable characteristics of the corridor related to traffic exposure (traffic volumes), speeds, proximity to high priority land uses, presence of disabled populations based on Census data, presence or proximity to bus routes, and east of implementation. The City staff, particularly Public Works, should work with the DAC and others to identify priority segments or opportunities as other project upgrades are made. Some priority routes have substantial sidewalks already in place while others have large gaps. On these routes with large gaps, full-scale improvements along an entire priority route within a single project are unlikely due to length and cost.

This ranking is intended to provide direction, not absolutes for decision-making, as a corridor like Thain/21st is ranked very high but also difficult and costly to upgrade compared to Main, Idaho Street, and others. Given the point spread between Main and Thain/21st and the next projects on the list, it is advised that the City pursue funding for concept design to better scope the specific needs on these corridors. A route like Thain/21 may require phasing of improvements given its length and complexity.

Project	DAC Priority	Traffic Exposure	Traffic Speed	Proximity to Social & Health Services	Proximity to Groc/ Prescrip	Disabled Population	Bus Route	Ease of Imp.	Total Points Out of 100	Rank
Max Points per Category	20	15	10	10	10	20	5	10		
Main, 1st to 21st	20	11	5	10	5	20	5	10	86	1
Thain/21st, 7th to Powers	18	15	10	7	10	20	1	3	84	2
9th St/8th, D to Bryden	10	7	5	7	10	20	5	10	74	3
Idaho St, 9th St to 21st St.	16	3	5	10	5	20	3	10	72	4
Bryden, 4th to Thain	14	15	10	3	5	15	1	7	70	5
18th/17th/5th, Main to Bryden	12	11	10	5	7	15	3	3	66	6
D Ave, 1st St to 11th St	4	7	5	7	1	20	5	10	59	7
Southway/16th, Snake River Ave to 21st	6	11	10	5	3	10	5	3	53	8
11th Avenue, Snake River Ave to 21st	8	7	5	3	5	10	3	7	48	9
Warner, 10th/Thain to 14th	2	3	10	3	3	10	1	7	39	10

Figure 6-5: Summary of Sidewalks and Ramps by Street Type in Lewiston

Individual Streets	Total Miles	Total Lane Miles	Miles with Sidewalks - One Side	Miles with Sidewalk - Both Sides	Street Corners with Sidewalks- No Ramps	Street Corners without Sidewalks- No Ramps	Street Corners with Non-Compliant Ramps	Street Corners with Compliant Ramps
9th St, D to 5th Ave & 8th St, 5th Ave to Bryden	2.6	5.2	0.6	2.0	43	5	29	22
11th Ave, Snake River Ave to 21st	1.5	3.0	0.2	0.9	45	8	35	0
18th/17th/5th, Main to Bryden	2.6	8.1	0.5	0.9	21	26	46	26
Bryden, 4th to Thain	1.5	3.0	0.5	0.3	16	20	32	8
D Street, 1st St to 11th St	0.7	1.4	0.0	0.7	4	1	24	13
Idaho St, 9th St to 21st St.	1.0	2.1	0.0	1.0	26	1	20	1
Main, 1st to 21st	1.4	2.9	0.0	1.4	0	0	25	34
Southway/16th, Snake River Ave to 21st	1.7	3.3	0.7	0.8	20	27	28	10
Thain/21st, Main to Powers	3.9	15.3	0.5	3.2	37	6	100	1
Warner, 10th/Thain to 14th	1.0	2.0	0.7	0.1	7	3	1	8

Figure 6-6: Summary of Sidewalks and Ramps by Street Type in Lewiston

Individual Streets	Ramps Cost Estimate	Sidewalks Cost Estimate	Total Estimate
9th St, D to 5th Ave & 8th St, 5th Ave to Bryden	$770,000	$3,200,000	$3,970,000
11th Ave, Snake River Ave to 21st	$880,000	$2,100,000	$2,980,000
18th/17th/5th, Main to Bryden	$930,000	$7,200,000	$8,130,000
Bryden, 4th to Thain	$680,000	$2,700,000	$3,380,000
D Street, 1st St to 11th St	$290,000	$700,000	$990,000
Idaho St, 9th St to 21st St.	$470,000	$1,100,000	$1,570,000
Main, 1st to 21st	$250,000	$1,500,000	$1,750,000
Southway/16th, Snake River Ave to 21st	$750,000	$2,500,000	$3,250,000
Thain/21st, Main to Powers	$1,430,000	$12,100,000	$13,530,000
Warner, 10th/Thain to 14th	$110,000	$1,900,000	$2,010,000
Estimated Total	$6,560,000	$35,000,000	$41,560,000

4.4.3 1C – ENGINEERING INVESTIGATION OF ACCESS OPTIONS

This project groups together the access issues listed in Chapter 2 into a study to determine viable options for improved access.

4.4.4 2A – 24TH STREET NORTH PIPELINE REPLACEMENT – 3RD AVE N TO 1ST AVE N

This project will increase the capacity of the sewer main in North Lewiston to accommodate future industrial growth. About 800 feet of 12-inch sewer main will be installed as a part of this project.

4.4.5 2B – PIPELINE REPLACEMENT – 11TH AVE TO 16TH AVE BETWEEN 21ST ST AND 23RD ST

Nearly 2,300 feet of 8-inch pipeline will be replaced with this project. The existing sewer main does not follow a roadway and the City should consider re-routing the sewer line into a road to make access easier. Pipe bursting should be considered during the pre-design phase of this project. The City should monitor flow in the pipeline reach. Provided growth continues as expected, it is likely this project will need to be completed in the next 5-10 years.

4.4.6 2C/3E – EAST ORCHARDS SEWER EXPANSION PHASE 2 AND 3

This project will expand on the trunk lines constructed as a part of Priority 1a and make sewer service available to the remaining homes on septic east of Lewiston and help reduce nitrate concerns in the area. In total, the sewer mains needed for this phase total over 29,000 feet. Also included in this project is a small lift station. The City should explore grant funding to help cover the cost of the expansion.

4.4.7 2D – DESIGN AND CONSTRUCTION OF ACCESS IMPROVEMENTS

After completion of the engineering study of Priority 1f, design and construction will proceed with gravel access roads where practical. Manhole rim elevations will be raised and supported to reduce the risk of storm flow entering the top of manholes. This project assumes a total of approximately 13,000 feet of roadway will be constructed/improved along with improvements to about 45 manholes.

4.4.8 3A – PIPELINE REPLACEMENT NEAR LEWISTON COUNTRY CLUB

The existing pipeline that provides service to the Lewiston Country Club area has several pipeline segments with slopes much lower than the rest. These areas act as bottlenecks that limit the overall capacity of the line. This project aims to increase the capacity of these lines by adjusting slopes where possible and increasing pipe diameter where needed. In total, the project includes about 100 feet of 8-inch sewer main and 2,200 feet of 12-inch sewer main.

4.4.9 3B – MAIN STREET PIPELINE REPLACEMENT – 9TH ST TO 6TH ST

The existing pipeline in this area is installed at less than minimum slope. Currently, this does not result in capacity problems within the system provided the pipelines are well maintained and free of debris. However, as future development increases flows throughout the system the potential for manhole surcharging increases. This project will reconstruct pipelines at desired slopes to achieve desired pipeline capacities.

4.4.10 3C – G STREET PIPELINE REPLACEMENT – 15TH ST TO 16TH ST

The existing pipeline in this area is installed at less than minimum slope. Currently, this does not result in capacity problems within the system provided the pipelines are well maintained and free of debris. However, as future development increases flows throughout the system the potential for manhole surcharging increases. This project will reconstruct pipelines at desired slopes to achieve desired pipeline capacities.

TABLE ES.6 – WWTP AND COLLECTION SYSTEM PRIORITY IMPROVEMENTS (CONT.)

ID	Item	Primary Purpose	Capital Improvement Plan (2017 Dollars)
Priority 1 Improvements			
Wastewater Treatment Plant			
1A	UV System	Capacity/Redundancy	$ 1,225,000
1B	Aeration Basins, Blowers, and Flow Splitting	Operations/Capacity	$ 7,501,000
1C	Primary Clarifier Rehabilitation	Operations/Replacement	$ 1,046,000
1D	New RAS/WAS Pumping	Redundancy	$ 1,164,000
1E	Dewatering	Replacement/Redundancy	$ 1,523,000
1F	Solids Thickening	Replacement/Redundancy	$ 993,000
1G	New Aeration Basin	Capacity/Redundancy	$ 4,973,000
1H	North Shore Pump Station	Operation/Capacity	$ 1,275,000
1I	Screen Washer/Compactor	Redundancy	$ 28,000
1J	Investigate Dissolved Air Floatation (DAF)	Operations/Redundancy	$ 81,000
1K	Sludge Blending and Sludge Holding Tanks	Operations/Replacement	$ 1,050,000
1L	Plant Security	Operations	$ 105,000
1M	New Primary Clarifier; Flow Splitting and Piping	Capacity/Redundancy	$ 1,469,000
1N	New Secondary Clarifier	Capacity/Redundancy	$ 3,673,000
		Wastewater Treatment Plant Subtotal	**$ 26,106,000**
Wastewater Collection System			
1a	Pipeline Reconstruction along 11th Ave and Prospect Ave to 10th Ave	Capacity	$ 199,000
1b	Lift Station Upgrades	Capacity/Redundancy	$ 314,000
1c	Engineering Investigation of Access Options	Operations	$ 150,000
		Wastewater Collection System Subtotal[1]	**$ 663,000**
		Total Priority 1	**$ 26,769,000**
Priority 2 Improvements (2021 - 2025)			
Wastewater Collection System			
2a	24th Street North Pipeline Replacement - 3rd Ave N to 1st Ave N	Replacement	$ 223,000
2b	Pipeline Replacement - 11th Ave to 16th Ave between 21st and 23rd St	Replacement	$ 584,000
2c	East Orchards Sewer Expansion Phase 2	Nitrate Reduction	$ 2,000,000
2d	Design and Construction of Access Improvements	Operations	$ 1,395,000
		Wastewater Collection System Subtotal	**$ 4,202,000**
		Total Priority 2	**$ 4,202,000**
Priority 3 Improvements (Beyond 2025)			
Wastewater Treatment Plant			
3.1	Administration Building	Operations	$ 735,000
3.2A	Hypochlorite System	Replacement	$ 452,000
3.2B	3W System (Plant Water; Non-potable, disinfected plant effluent)	Replacement	$ 368,000
3.2C	Potable Water	Replacement	$ 97,000
3.3	Digester Control Building	Operations	$ 231,000
3.4	Headworks Building	Operations	$ 1,784,000
3.5	Screen Washer/Compactor	Redundancy	$ 1,574,000
3.6	Influent Screens	Capacity/Redundancy	$ 1,155,000
3.7	Grit Chambers	Operations/Capacity	$ 58,000
3.8	Septage Receiving	Operations	$ 1,050,000
3.9	Shop Facility	Operations	$ 326,000
		Wastewater Treatment Plant Subtotal	**$ 7,830,000**
Wastewater Collection System			
3a	Pipeline Replacement near Lewiston Country Club	Replacement	$ 720,000
3b	Main Street Pipeline Reconstruction - 9th St to 6th St	Replacement	$ 304,000
3c	G Street Pipeline Reconstruction 15th St to 16th St	Replacement	$ 202,000
3d	Pipeline Reconstruction downstream of COSD Warner Discharge Point	Replacement	$ 68,000
3e	East Orchards Sewer Expansion Phase 3	Nitrate Reduction	$ 3,879,000
		Wastewater Collection System Subtotal	**$ 5,173,000**
		Total Priority 3	**$ 13,003,000**

Note:
1. City plans to fund the Priority 1 Collection System projects through its operations budget.

KEY ACTIONS

Introduction

Seven key actions will drive the next phase of downtown Lewiston's growth and development.

These concepts were developed from consultant research, stakeholder input, public feedback, and direction from the steering committee. These actions will become catalysts for investment in downtown Lewiston and attract a substantially larger residential population, as well as a diversity of commercial and mixed-use development.



The confluence of the Snake and Clearwater Rivers creates a unique natural asset and waterfront for the City of Lewiston. This unique and community defining feature is currently underused, and easy to overlook even for downtown users who are only a few hundred feet away. The waterfront can be activated with wayfinding strategies to draw downtown users to the water. New public uses can also be incorporated, including: a waterfront dog park; a splash pad for kids; and amenities for walking, running and cycling; as well as a marina with docking facilities for local boaters and tour operators. Opportunities for new waterfront amenities should be done in conjunction with future development to accommodate new uses and through public/private partnerships.



Residential growth should happen in downtown through new apartment rentals and condominiums Downtown's job growth and increase in workers under the age of 30 is twice the rate of the two-county region. This creates an opportunity to provide residential units that are close to where these employees work. Additionally, mild weather makes the Lewis Clark Valley a retirement hub, and retirees are increasingly seeking to live in urban, walkable environments near amenities. Increasing the number of residents living in downtown will decrease commute times, increase the customer base of businesses in the area, and increase desirability as a place to live. Residential opportunities in downtown Lewiston can be summarized into four categories: Major Site Developments, Downtown Mixed Use, Infill Development & Upper Story Rehabilitation.



The arts can be a key investment driver for downtown Lewiston. Naming the downtown as a cultural destination will solidify downtown as the community's center for arts and culture; increase its sense of place and identify; and support anchor retail stores. A January 2019 convening of regional arts and culture organizations concluded that their patrons want to attend performances in a downtown setting within walking distance to restaurants and bars. Reconstruction of the iconic Liberty Theater is a critical step that will create a performance venue on Main Street. The stage of the Liberty Theater, however, isn't large enough to accommodate performances by the full symphony or the local theatre organization. The arts and cultural organizations concluded that a new dedicated multi-use performance facility located downtown is needed as a cultural hub for the Lewis Clark Valley.



Connections between Normal Hill and downtown (and on to the waterfront) can be enhanced by investing in improvements to the pedestrian realm at several key points. Main Street and D Street are major downtown arterials that accommodate vehicular movement between the Clarkston Bridge to the Memorial Bridge. This traffic currently uses Main Street (eastbound, 1st Street to 11th Street) and D Street (westbound) as a one-way couplet. Despite the availability of the US 12 bypass around downtown Lewiston, traffic studies show that 70% of motorists continue eastbound on Main Street. Citizens overwhelmingly identify traffic speeds and poor pedestrian connectivity as creating a negative atmosphere downtown. Based on previous traffic studies and current volumes, Main Street can be re-configured as a two-way street to increase access to downtown's small businesses and promote local circulation within the downtown core.



Downtown utility infrastructure should be upgraded to meet the growing demands of residential and business uses and facilitate future development. Utility improvements include larger water pipes to reduce the fire suppression costs to private investors, and continued support for expansion of the Port of Lewiston's dark fiber network because it allows big businesses to move data and potentially work remotely. All construction work should be done in conjunction with other public works projects to minimize construction impacts and to create opportunities for further streetscape improvements throughout downtown Lewiston.



As noted earlier, the Twin City Foods site has potential to be a major economic driver with new mixed-use development that adds new multi-family housing, commercial uses and public art opportunities, along with new public spaces and waterfront amenities. As a public-private partnership, development can be expected to occur in phases over a multi-year time frame in response to market demand and private investment interest.



The City of Lewiston, Urban Renewal Agency, private sector, and Beautiful Downtown Lewiston need to play distinct and complementary roles in implementing this master plan. The City of Lewiston should make downtown Lewiston a top priority, and proceed with infrastructure improvements, development incentives, streamlined permitting, and funding for ongoing downtown management. The Urban Renewal Agency should close the existing Downtown Revenue Allocation Area (RAA) as soon as possible and form a new RAA. Private property and business owners should invest in downtown Lewiston. Beautiful Downtown Lewiston should step up its work as a powerful champion for downtown — making it clear to everyone that downtown Lewiston is everybody's neighborhood.

NEW 6TH STREET STAIRCASE



NEW 6TH STREET STAIRCASE



EXHIBIT B
TO ORDINANCE NO. 4814



REVENUE ALLOCATION AREA #7

A Revenue Allocation Area situate in Section 31, Township 36N., Range 5 W., and Section 36, Township 36N., Range 6 W., Boise Meridian, in the City of Lewiston, County of Nez Perce, Idaho and being more particularly described as follows:

Commencing at True's Monument No. 11, also known as Monument 12-10 in the records of the City of Lewiston, Idaho, said point being on the centerline of Main Street;

Thence following the centerline of Main Street, North 77°32'10" West a distance of 217.71 feet to a point on the said centerline of Main Street, and the TRUE POINT OF BEGINNING,

Thence continue along the said centerline of Main Street, North 77°32'10" West a distance of 23.66 feet to the intersection of the centerline of said Main Street, and the centerline of Lincoln Street.

Thence leaving the said centerline of Main Street, and following the said centerline of Lincoln Street, South 13°22'09" West a distance of 265.25 feet to a point on the centerline of said Lincoln Street.

Thence continuing along the said centerline of Lincoln Street, South 13°26'15" West a distance of 22.29 feet to the intersection of the said centerline of Lincoln Street, and the easterly extension of the southerly right-of-way line of "F" Street;

Thence westerly, following the said southerly right-of-way line of "F" Street and its extension, North 78°02'55" West a distance of 496.27 feet to a point on the said southerly right-of-way line of "F" Street;

Thence leaving the said southerly right-of-way line of "F" Street, and following the street right-of-way across the chamfered right-of-way corner, South 49°20'12" West a distance of 30.36 feet to a point on the easterly right-of-way line of 13th Street;

Thence southerly, following the said easterly right-of-way line of 13th Street and its extensions, South 03°16'40" East a distance of 428.79 feet to a point at the northerly point of curvature of the right-of way intersection radius of said 13th Street and Idaho Street;

Thence leaving the said easterly right-of-way line of 13th Street and crossing the said intersection of 13th Street and Idaho Street, South 33°01'53" West a distance of 84.44 feet to the intersection of the southerly line of said Idaho Street, and the westerly line of said 13th Street;

Thence westerly, following the said southerly right-of-way line of Idaho Street, and its extensions, North 66°43'31" West a distance of 1161.89 feet to the intersection of the said southerly right-of-way line of Idaho Street and the easterly right-of-way line of an un-named 8 foot wide alley located on the easterly side of the Wyncoop Addition to the City of Lewiston, and dedicated on the recorded plat thereof;

Thence leaving the said southerly right-of-way line of Idaho Street, and following the said easterly right-of-way line of the un-named 8 foot wide alley, South 24°01'32" West a distance of 554.00 feet to the southerly end of said platted alley;

Thence south-westerly, leaving said easterly alley right-of-way line, South 71°10'01" West a distance of 158.08 feet to a point on the easterly right-of-way line of 9th Street at the southerly point of curvature of a right-of-way curve;

Thence leaving said easterly right-of-way line of 9th Street and crossing the said 9th Street right-of-way, North 47°00'01" West a distance of 485.08 feet to a point at the intersection of the south-westerly right-of-way line of said 9th Street, and the easterly right-of-way line of 7th Street;

Thence south-westerly, crossing the intersection of said 7th Street and 4th Avenue, South 43°31'57" West a distance of 118.15 feet to the intersection of the westerly right-of-way line of said 7th Street, and the southerly right-of-way line of said 4th Avenue;

Thence westerly, following the said southerly right-of-way line of 4th Avenue, North 89°06'59" West a distance of 152.46 feet to the westerly end of the said 4th Avenue right-of-way segment;

Thence northerly, following the end of the said 4th Avenue right-of-way, North 00°53'01" East a distance of 79.00 feet to a point on the northerly right-of-way line of said 4th Avenue at the westerly end of the said right-of-way segment;

Thence leaving the said 4th Avenue right-of-way, North 00°10'58" West a distance of 262.47 feet to a point;

Thence North 23°02'17" West a distance of 148.13 feet to a point on the southerly right-of-way line of 3rd Avenue at the easterly end of the said right-of-way segment;

Thence westerly following the said southerly right-of-way line of 3rd Avenue, North 89°15'48" West a distance of 222.61 feet to the intersection of the said southerly right-of-way line of 3rd Avenue, and the easterly right-of-way line of 6th Street;

Thence southerly, following the said easterly right-of-way line of 6th Street, South 00°54'50" West a distance of 777.26 feet to the intersection of said 6th Street (north) and the northerly right-of-way line of 5th Avenue;

Thence easterly, following the said northerly right-of-way line of 5th Avenue, South 89°06'59" East a distance of 15.00 feet to the intersection of the said northerly right-of-way line of 5th Avenue and the said easterly right-of-way line of 6th Street(south);

Thence southerly, following the said easterly right-of-way line of 6th Street, South 00°54'50" West a distance of 222.14 feet to the intersection of the said easterly right-of-way line of 6th Street, and the northerly right-of-way line of the 16 foot wide alley running through Blocks 8, 9, and 10 of the subdivision of North Park Place in the City of Lewiston, Idaho, according to the recorded plat thereof;

Thence westerly following the said northerly alley right-of-way line and its extensions, North 89°05'46" West a distance of 520.28 feet to the intersection of the said northerly alley right-of-way line and the westerly right-of-way line of 5th Street;

Thence northerly, following the said westerly right-of-way line of 5th Street and its extensions, North 00°54'50" East a distance of 843.98 feet to the intersection of the said westerly right-of-way line of 5th Street, and the southerly right-of-way line of the 16 foot wide alley running east-west through Block 2 of the Vollmer Field Addition to the City of Lewiston, Idaho, according to the recorded plat thereof;

Thence westerly, following the said southerly right-of-way line of the 16 foot wide alley, South 87°07'31" West a distance of 345.52 feet to the intersection of the extension of the said southerly alley right-of-way line, and the extension of the westerly right-of-way line of 4th Street;

Thence northerly, following the said westerly right-of-way line of 4th Street and its extension, North 03°54'01" East a distance of 152.07 feet to the intersection of the said westerly right-of-way line of 4th Street and the southerly right-of-way line of 3rd Avenue;

Thence westerly, following the southerly right-of-way line of 3rd Avenue, South 87°07'36" West a distance of 85.32 feet to the intersection of the said southerly right-of-way line of 3rd Avenue and the southerly extension of the westerly right-of-way line of 4th Street;

Thence northerly, following the said westerly right-of-way line of 4th Street and its extension, North 02°52'08" West a distance of 459.78 feet to the intersection of the said westerly right-of-way line of 4th Street, and the southerly right-of-way line of 2nd Avenue;

Thence easterly, following the said southerly right-of-way line of 2nd Avenue and its extensions, North 87°08'25" East a distance of 409.84 feet to the intersection of the said southerly right-of-way line of 2nd Avenue, and the said westerly right-of-way line of 5th Street;

Thence northerly, crossing said 2nd Avenue, North 05°01'15" West a distance of 80.06 feet to the intersection of the northerly right-of-way line of said 2nd Avenue and the said westerly right-of-way line of 5th Street;

Thence northerly, following the said westerly right-of-way line of 5th Street, North 01°53'31" West a distance of 155.62 feet to an angle point in the said westerly right-of-way line of 5th Street;

Thence westerly, following the said westerly right-of-way line of 5th Street, South 87°08'25" West a distance of 8.50 feet to an angle point in the said westerly right-of-way line of 5th Street;

Thence northerly, following the said westerly right-of-way line of 5th Street and its extension, North 05°01'15" West a distance of 160.37 feet to the intersection of the extension of the said westerly right-of-way line of 5th Street(south) and the northerly right-of-way line of 1st Avenue;

Thence easterly, following the said northerly right-of-way line of 1st Avenue, North 87°07'12" East a distance of 16.01 feet to the intersection of the said northerly right-of-way line of 1st Avenue and the said westerly right-of-way line of 5th Street(north);

Thence northerly, following the said westerly right-of-way line of 5th Street, North 05°01'15" West a distance of 227.39 feet, to an angle point in the said westerly right-of-way line of 5th Street;

Thence continue northerly, following the said westerly right-of-way line of 5th Street, North 14°46'07" West a distance of 71.25 feet to the intersection of said westerly right-of-way line of 5th Street, and the extension of the northerly right-of-way line of Prospect Boulevard;

Thence westerly, following the northerly right-of-way line of Prospect Boulevard and its said extension, North 80°00'16" West a distance of 270.38 feet;

Thence continue westerly, following the said northerly right-of-way line of Prospect Boulevard, the following courses:

North 85°45'16" West a distance of 396.61 feet;

Thence South 66°17'21" West a distance of 235.63 feet;

Thence South 60°57'51" West a distance of 233.64 feet to an angle point in the said northerly right-of-way line of Prospect Boulevard where Prospect Boulevard turns south;

Thence continuing to follow the said right-of-way line of Prospect Boulevard southerly, on the now westerly right-of-way line, South 02°42'39" East a distance of 77.53 feet to a point on the said westerly right-of-way line of Prospect Boulevard;

Thence leaving the said westerly right-of-way line of Prospect Boulevard, North 89°03'26" West a distance of 256.71 feet, to a point on the United States Army Corps of Engineers, Lower Granite Lock and Dam Monumented Project Boundary according to U.S.A.C.E. File GDG-0-0-1/14;

Thence southerly, following the said U.S.A.C.E. project boundary, the following courses:

South 04°53'32" West a distance of 50.88 feet;

Thence South 04°34'41" West a distance of 499.64 feet;

Thence South 04°34'16" West a distance of 1000.17 feet;

Thence South 04°34'02" West a distance of 500.06 feet;

Thence South 19°54'17" West a distance of 72.49 feet;

Thence South 07°52'14" West a distance of 427.36 feet;

Thence South 14°50'41" West a distance of 132.20 feet;

Thence South 01°47'05" East a distance of 22.95 feet to a point on the said U.S.A.C.E. project boundary line;

Thence westerly, leaving the said U.S.A.C.E. project boundary line, South 89°59'54" West a distance of 148.28 feet to a point at approximately the top of bank line on the river side of the earthen levee constructed as part of the said United States Army Corps of Engineers, Lower Granite Lock and Dam Project;

Thence northerly, following the said approximate top of bank line, the following courses:

North 03°27'59" East a distance of 1397.97 feet;

Thence 375.83 feet along a 4018.00 foot radius tangent curve to the left with a 05°21'33" central angle and a 375.69 foot long chord that bears North 00°47'12" East;

Thence North 01°53'34" West a distance of 2026.89 feet;

Thence 272.33 feet along a 320.00 foot radius tangent curve to the right with a 48°45'38" central angle and a 264.19 foot long chord that bears North 22°29'15" East;

Thence North 46°52'04" East a distance of 309.67 feet;

Thence 244.56 feet along a 320.00 foot radius tangent curve to the right with a 43°47'16" central angle and a 238.65 foot long chord that bears North 68°45'42" East;

Thence South 89°20'40" East a distance of 1569.16 feet to the intersection of the said top of bank line, and a line parallel to, and offset 30 feet westerly from, the centerline of the Great Northwest Railroad, Inc. main rail line;

Thence southerly, leaving the said top of bank line and following the said line offset from the railroad centerline, South 09°15'24" East a distance of 170.31 feet to a point at the end of a curve on the said line offset from the railroad centerline;

Thence continue southerly, following the said line offset from the railroad centerline, 535.46 feet along a 860.00 foot radius tangent curve to the left with a 35°40'26" central angle and a 526.85 foot long chord that bears South 27°05'37" East to a point at the intersection of said line offset from the railroad centerline, and the southerly right-of-way line of vacated “B” (Beachey) Street;

Thence westerly leaving the said line offset from the railroad centerline and following the said southerly right-of-way line of vacated “B” (Beachey) Street, and an extension thereof, North 86°06'47" West a distance of 244.85 feet to a point at the intersection of the extension of the said southerly right-of-way line of vacated “B” (Beachey) Street, and the center line of vacated 6th Street;

Thence southerly, following the said center line of vacated 6th Street, South 03°52'52" West a distance of 118.51 feet to a point on the said vacated centerline, said point also being the south-easterly corner of the parcel conveyed by the Quitclaim Deed recorded under Instrument No. 739360 of said County records;

Thence westerly, leaving the said vacated center line, and following the southerly line of the said 739360 parcel, North 86°07'08" West a distance of 279.38 feet to a point at the intersection of the said southerly line of the 739360 parcel, and the easterly right-of-way line of 5th Street;

Thence southerly, leaving the said southerly line of the 739360 parcel, and following the said easterly right-of-way line of 5th Street, South 04°27'52" West a distance of 100.01 feet to the

intersection of the said easterly right-of-way line of 5th Street, and the northerly right-of-way line of "C" (Capital) Street;

Thence easterly, leaving the said easterly right-of-way line of 5th Street, and following the said northerly right-of-way line of "C" (Capital) Street, and its extensions, South 86°07'08" East a distance of 759.13 feet to the intersection of said extension of the northerly right-of-way line of "C" (Capital) Street, and the easterly right-of-way line of 7th Street;

Thence southerly, leaving the said northerly right-of-way line of "C" (Capital) street, and its extensions, and following the said easterly right-of-way line of 7th Street, South 14°46'59" West a distance of 271.92 feet to a point at the northerly end of a right-of-way radius at the north-easterly corner of 7th Street and "D" Street;

Thence 17.04 feet along a 13.80 foot radius tangent curve to the left with a 70°45'56" central angle and a 15.98 foot long chord that bears South 20°35'59" East to a point at the southerly end of said right-of-way radius;

Thence south-easterly, following the north-easterly right-of-way line of "D" Street the following courses:

South 55°58'57" East a distance of 156.64 feet;

Thence South 59°18'45" East a distance of 53.77 feet;

Thence South 59°03'45" East a distance of 718.13 feet;

Thence South 59°03'45" East a distance of 27.50 feet;

Thence South 59°03'41" East a distance of 181.18 feet;

Thence South 59°59'45" East a distance of 103.48 feet;

Thence South 30°00'15" West a distance of 5.00 feet;

Thence South 59°59'45" East a distance of 145.42 feet;

Thence 157.14 feet along a 175.46 foot radius non-tangent curve to the right with a 51°18'57" central angle and a 151.94 foot long chord that bears South 34°15'58" East;

Thence South 08°31'44" East a distance of 102.52 feet to a point at the intersection of the said north-easterly right-of-way line of "D" Street, and the north-westerly line of the parcel conveyed by the Warranty Deed recorded under Instrument No. 794704 of said County records;

Thence leaving the said north-easterly right-of-way line of "D" Street, north-easterly along the said north-westerly parcel line, North 29°16'37" East a distance of 202.78 feet to the northwesterly corner of the said 794704 parcel;

Thence leaving the said 794704 parcel line and continuing North 29°16'37" East a distance of 472.33 feet to a point at approximately the top of bank line on the river side of the earthen levee constructed as part of the said United States Army Corps of Engineers, Lower Granite Lock and Dam Project;

Thence south-easterly, following the said approximate top of bank line, 1127.10 feet along a 2268.00 foot radius non-tangent curve to the left with a 28°28'25" central angle and a 1115.54 foot long chord that bears South 67°28'05" East;

Thence continue following the said top of bank line, South 81°42'18" East a distance of 274.03 feet;

Thence southerly leaving the said top of bank line, South 08°13'25" West a distance of 417.92 feet to the north-easterly corner of the parcel conveyed by the Warranty Deed recorded under Instrument No. 820603 of said County records;

Thence southerly, following the easterly line of said 820603 parcel, South 13°34'34" West a distance of 118.03 feet to the intersection of said easterly 820603 parcel line, and the northerly right-of-way line of said Main Street;

Thence westerly, following the said northerly right-of-way line, North 77°40'05" West a distance of 92.95 feet to a point on the said northerly right-of-way line;

Thence southerly, leaving the said northerly right-of-way line, South 13°17'17" West a distance of 40.88 feet; back to the TRUE POINT OF BEGINNING, said area containing 212.26 acres, more or less.

REVENUE ALLOCATION AREA #7

The purpose of this Revenue Allocation Area legal description is to provide the Idaho State Tax Commission with a metes and bounds description meeting their requirements. This is not a surveyed boundary and the bearings and distances shown in this legal description are derived from resource quality GIS information. This description is intended to be used only by the Idaho State Tax Commission GIS Department for the purpose of establishing a tax boundary.

A Revenue Allocation Area situate in Section 31, Township 36N., Range 5 W., and Section 36, Township 36N., Range 6 W., Boise Meridian, in the City of Lewiston, County of Nez Perce, Idaho and being more particularly described as follows:

Commencing at True's Monument No. 11, also known as Monument 12-10 in the records of the City of Lewiston, Idaho, said point being on the centerline of Main Street and having the NAD83 Idaho State Plane, West Zone, US Foot coordinates of N: 1,734,499.12 and E: 2,306,272.61;

Thence North 77°32'10" West a distance of 217.71 feet to the TRUE POINT OF BEGINNING;

Thence North 77°32'10" West a distance of 23.66 feet;

Thence South 13°22'09" West a distance of 265.25 feet;

Thence South 13°26'15" West a distance of 22.29 feet;

Thence North 78°02'55" West a distance of 496.27 feet;

Thence South 49°20'12" West a distance of 30.36 feet;

Thence South 03°16'40" East a distance of 428.79 feet;

Thence South 33°01'53" West a distance of 84.44 feet;

Thence North 66°43'31" West a distance of 1161.89 feet;

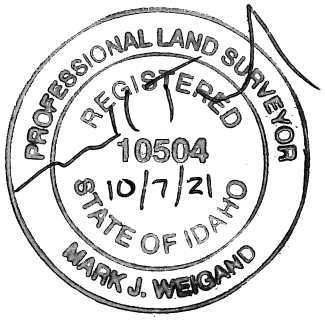
Thence South 24°01'32" West a distance of 554.00 feet;

Thence South 71°10'01" West a distance of 158.08 feet;

Thence North 47°00'01" West a distance of 485.08 feet;

Thence South 43°31'57" West a distance of 118.15 feet;

Thence North 89°06'59" West a distance of 152.46 feet;



Thence North 00°53'01" East a distance of 79.00 feet;

Thence North 00°10'58" West a distance of 262.47 feet;

Thence North 23°02'17" West a distance of 148.13 feet;

Thence North 89°15'48" West a distance of 222.61 feet;

Thence South 00°54'50" West a distance of 777.26 feet;

Thence South 89°06'59" East a distance of 15.00 feet;

Thence South 00°54'50" West a distance of 222.14 feet;

Thence North 89°05'46" West a distance of 520.28 feet;

Thence North 00°54'50" East a distance of 843.98 feet;

Thence South 87°07'31" West a distance of 345.52 feet;

Thence North 03°54'01" East a distance of 152.07 feet;

Thence South 87°07'36" West a distance of 85.32 feet;

Thence North 02°52'08" West a distance of 459.78 feet;

Thence North 87°08'25" East a distance of 409.84 feet;

Thence North 05°01'15" West a distance of 80.06 feet;

Thence North 01°53'31" West a distance of 155.62 feet;

Thence South 87°08'25" West a distance of 8.50 feet;

Thence North 05°01'15" West a distance of 160.37 feet;

Thence North 87°07'12" East a distance of 16.01 feet;

Thence North 05°01'15" West a distance of 227.39 feet;

Thence North 14°46'07" West a distance of 71.25 feet;

Thence North 80°00'16" West a distance of 270.38 feet;

Thence North 85°45'16" West a distance of 396.61 feet;

Thence South 66°17'21" West a distance of 235.63 feet;

Thence South 60°57'51" West a distance of 233.64 feet;

Thence South 02°42'39" East a distance of 77.53 feet;

Thence North 89°03'26" West a distance of 256.71 feet;

Thence South 04°53'32" West a distance of 50.88 feet;

Thence South 04°34'41" West a distance of 499.64 feet;

Thence South 04°34'16" West a distance of 1000.17 feet;

Thence South 04°34'02" West a distance of 500.06 feet;

Thence South 19°54'17" West a distance of 72.49 feet;

Thence South 07°52'14" West a distance of 427.36 feet;

Thence South 14°50'41" West a distance of 132.20 feet;

Thence South 01°47'05" East a distance of 22.95 feet;

Thence South 89°59'54" West a distance of 148.28 feet;

Thence North 03°27'59" East a distance of 1397.97 feet;

Thence 375.83 feet along a 4018.00 foot radius tangent curve to the left with a 05°21'33" central angle and a 375.69 foot long chord that bears North 00°47'12" East;

Thence North 01°53'34" West a distance of 2026.89 feet;

Thence 272.33 feet along a 320.00 foot radius tangent curve to the right with a 48°45'38" central angle and a 264.19 foot long chord that bears North 22°29'15" East;

Thence North 46°52'04" East a distance of 309.67 feet;

Thence 244.56 feet along a 320.00 foot radius tangent curve to the right with a 43°47'16" central angle and a 238.65 foot long chord that bears North 68°45'42" East;

Thence South 89°20'40" East a distance of 1569.16 feet;

Thence South 09°15'24" East a distance of 170.31 feet;

Thence 535.46 feet along a 860.00 foot radius tangent curve to the left with a 35°40'26" central angle and a 526.85 foot long chord that bears South 27°05'37" East;

Thence North 86°06'47" West a distance of 244.85 feet;

Thence South 03°52'52" West a distance of 118.51 feet;

Thence North 86°07'08" West a distance of 279.38 feet;

Thence South 04°27'52" West a distance of 100.01 feet;

Thence South 86°07'08" East a distance of 759.13 feet;

Thence South 14°46'59" West a distance of 271.92 feet;

Thence 17.04 feet along a 13.80 foot radius tangent curve to the left with a 70°45'56" central angle and a 15.98 foot long chord that bears South 20°35'59" East;

Thence South 55°58'57" East a distance of 156.64 feet;

Thence South 59°18'45" East a distance of 53.77 feet;

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Thence South 59°59'45" East a distance of 103.48 feet;

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Thence South 59°59'45" East a distance of 145.42 feet;

Thence 157.14 feet along a 175.46 foot radius non-tangent curve to the right with a 51°18'57" central angle and a 151.94 foot long chord that bears South 34°15'58" East;

Thence South 08°31'44" East a distance of 102.52 feet;

Thence North 29°16'37" East a distance of 202.78 feet;

Thence North 29°16'37" East a distance of 472.33 feet;

Thence 1127.10 feet along a 2268.00 foot radius non-tangent curve to the left with a 28°28'25" central angle and a 1115.54 foot long chord that bears South 67°28'05" East;

Thence South 81°42'18" East a distance of 274.03 feet;

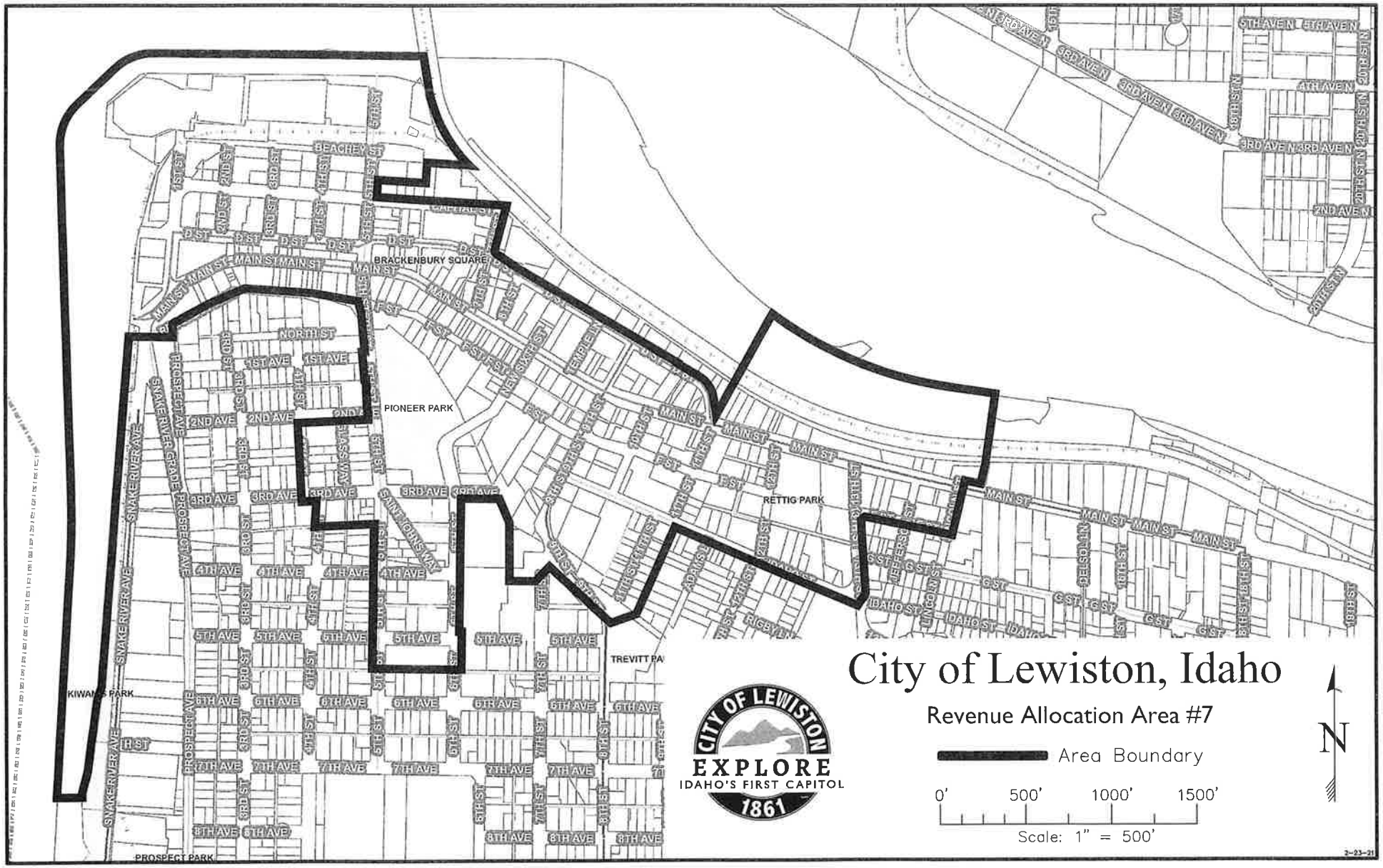
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Thence South 13°34'34" West a distance of 118.03 feet;

Thence North 77°40'05" West a distance of 92.95 feet;

Thence South 13°17'17" West a distance of 40.88 feet, back to the TRUE POINT OF BEGINNING, said area containing 212.26 acres, more or less.

EXHIBIT C
TO ORDINANCE NO. 4814


BRACKENBURY SQUARE
PIONEER PARK
RETTIG PARK
KIWANIS PARK
PROSPECT PARK
TREVITT PARK
MAIN ST
NORTH ST
BEACHEY ST
1ST AVE
2ND AVE
3RD AVE
4TH AVE
5TH AVE
6TH AVE
7TH AVE
8TH AVE
D ST
F ST
G ST
SNAKE RIVER AVE
PROSPECT AVE
SAINT JOHNS WAY
IDAHO ST
RIGBY LN
CITY OF LEWISTON
EXPLORE
IDAHO'S FIRST CAPITOL
1861
City of Lewiston, Idaho
Revenue Allocation Area #7
Area Boundary
0'
500'
1000'
1500'
Scale: 1" = 500'
N
3-23-21