

October 21, 2026

City Council Meeting Information Packet

Agenda Item # 1

Public Comment

Agenda Item #2

Summary Action Items

a. Approval of Minutes from the October 21, 2026 City Council Regular Meeting

b. Approval of bills

Agenda Item #3

Consideration of Ordinance 2026-33 amending the Official Zoning Map of Grantsville City to rezone approximately 6.34 acres located at 848 North Cooley Street from RR-2.5 to RR-1 for the Storybrook Subdivision

GRANTSVILLE CITY
Planning and Zoning

336 W. Main Street
Grantsville, Utah 84029
(435) 884-1674

Staff Report

Storybook Subdivision Rezone

To	Grantsville City Planning Commission
From	Shelby Moore, Planning and Zoning Administrator
Meeting Date	October 6, 2026
Public Hearing	October 6, 2026
Agenda Item	Proposed rezone of approximately 6.34 acres at 848 North Cooley Street from RR-2.5 to RR-1 for the Storybook Subdivision

Executive Summary

The applicant requests that approximately 6.34 acres at 848 North Cooley Street be rezoned from RR-2.5 to RR-1 to support the proposed Storybook Subdivision. The property is part of a former 9.7-acre parcel that the City Council rezoned from A-10 to RR-2.5 in October 2020. The larger parcel was later divided, and approximately 2.977 acres were separated from the land that is now the subject of this request.

The Future Land Use Map designates the subject property for residential development at a density of one dwelling unit per one to ten acres. The existing RR-2.5 zoning already implements that designation. RR-1 may also fall within the numerical range, but it represents the most intensive end of the designation and would materially increase the property's potential residential yield.

Nearby land associated is zoned RR-1, including a separate parcel connected to the 2020 annexation and subsequent development history. That surrounding zoning is relevant to compatibilit. The proposed amendment remains a legislative decision requiring evaluation of land-use compatibility, access, utilities, infrastructure, and the public interest.

Request and Property Information

Item	Information
Property location	848 North Cooley Street
Current owner	Diane Fisher
Parcel	01-061-0-0103
Area	Approximately 6.34 acres
Current zoning	RR-2.5
Requested zoning	RR-1
Future Land Use Map	Residential, one dwelling unit per 1 to 10 acres

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Property and Zoning History

2020 Annexation

On January 15, 2020, the City Council adopted Ordinance 2020-01, approving the annexation of approximately 9.93 acres along the south side of Vegas Street between Hale Street and Cooley Street.

Rezone of the Original 9.7 Acre Parcel

On October 7, 2020, the City Council adopted Ordinance 2020-31, rezoning approximately 9.7 acres at 848 North Cooley Street from A-10 to RR-2.5. The ordinance identified Chance Fackrell as the applicant and parcel 01-061-0-0067 as the affected parcel. The Council found the RR-2.5 designation consistent with the General Plan and in the best interests of the City and its residents.

9. Consideration of Ordinance 2020-31 amending the official zoning map of Grantsville City, Utah to rezone 9.7 acres for Chance Fackrell to go from an A-10 zone to a RR-2.5 zone for property located at 848 North Cooley Street. Chance Fackrell was present. He stated he is planning to build a barn and corals for his horses on his parent's property. He would like to split about three acres off their land for his horses and equipment. Councilman Stice pointed out this property is surrounded by quite a few smaller lots. **Motion:** Councilwoman Allen made a motion to approve Ordinance 2020-31 amending the official zoning map of Grantsville City, Utah to rezone 9.7 acres for Chance Fackrell to go from an A-10 zone to a RR-2.5 zone for property located at 848 North Cooley Street **Second:** Councilman Stice seconded the motion. **Vote:** The vote was as follows: Councilman Rowberry, "Aye", Councilwoman Allen, "Aye", Councilman Hutchins, "Aye", Councilman Stice, "Aye", and Councilwoman Sparks, "Aye". The motion carried.

Subsequent Parcel Division

The original 9.7-acre parcel was later divided. A quitclaim deed recorded July 7, 2023, as Entry No. 590999 conveyed approximately 2.977 acres from the Fackrell Family Irrevocable Trust. The division left approximately 6.34 acres associated with the property now proposed for rezoning.

Future Land Use Map Analysis

The Future Land Use Map identifies the property for a residential density of one dwelling unit per one to ten acres. The existing RR-2.5 zoning is within that range and currently implements the General Plan designation. The requested RR-1 zoning is also within the range when considered only numerically, but it would place the property at the designation's highest contemplated residential intensity.

The Future Land Use Map is a policy guide and does not guarantee the most intensive zoning district available within a broad density category. The Planning Commission and City Council may consider the full density range together with existing development patterns, surrounding lot sizes, transitions between zoning districts, access, utility capacity, and public-service impacts.

Compatibility with Surrounding Zoning

The requested RR-1 designation would not introduce an entirely new zoning district into the area. Nearby properties are zoned RR-1, which supports an argument that one-acre zoning may be compatible with at least a portion of the surrounding area.

Infrastructure and Development Considerations

A zoning-map amendment changes the development potential of the property but does not approve a subdivision. If the rezone is approved, any future subdivision must undergo separate review and comply with the standards in effect at that time. That review should address:

- Legal and physical access from Cooley Street and any required roadway improvements;
- Culinary water and secondary-water availability, including required water rights or shares;
- Sanitary sewer availability and connection requirements;

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- Stormwater drainage and grading;
- Fire access, emergency response, and hydrant requirements;
- Lot frontage, setbacks, easements, and the relationship of proposed lots to existing structures; and
- Payment of impact fees and completion or bonding of required public improvements.

Staff Analysis

The application is consistent with the Future Land Use Map only in the broad numerical sense that RR-1 permits approximately one dwelling unit per acre. The existing RR-2.5 zoning is already consistent with the same designation and more closely reflects the zoning decision the City Council made for the original 9.7-acre property in 2020.

Findings for Consideration

1. The subject property contains approximately 6.34 acres and is currently zoned RR-2.5.
2. The Future Land Use Map designates the property for residential development at one dwelling unit per one to ten acres.
3. The existing RR-2.5 zoning complies with the Future Land Use Map designation.
4. The requested RR-1 zoning also falls within the numerical range but represents the designation's highest residential intensity.
5. The subject property was part of a 9.7-acre parcel rezoned from A-10 to RR-2.5 through Ordinance 2020-31.
6. The original parcel was later divided, leaving approximately 6.34 acres involved in the current request.
7. Nearby property is zoned RR-1, including a separate parcel associated with the 2020 annexation and subsequent development history.
8. Approval of the rezone would increase potential density but would not approve a subdivision or guarantee a particular number of lots.
9. Any future subdivision would remain subject to access, utility, fire, drainage, engineering, and subdivision requirements.
10. The rezone is a legislative decision for which the Planning Commission makes a recommendation and the City Council makes the final determination.

VEGAS ST

PIONEER

ROSE ST

HALE ST

WARR ST

WAR STREET

25

Grantsville City
Record of Ordinance Adoption

A regular meeting of the City Council of Grantsville City was held at City Hall in Grantsville, Utah on Wednesday, the 15th day of January at the hour of 7:00 p.m., there being present and answering roll call the following:

Brent Marshall	Mayor
Krista Sparks	Council Member
Scott Stice	Council Member
Jeff Hutchins	Council Member
Jewel Allen	Council Member
Darrin Rowberry	Council Member

Also Present:

Christine Webb	City Recorder

Absent:

Brett Coombs	City Attorney

After the meeting had been duly called to order and the minutes of the preceding meeting approved, the ordinance 2020-01 was introduced in writing, read in full, and pursuant to a Motion made by Councilwoman Allen. Seconded by Councilwoman Sparks and was adopted by the following vote:

Yea:	Unanimous
Opposed:	None
Abstained:	None

The ordinance was then signed by the Mayor and recorded by the City Recorder in the official records of Grantsville City, Utah. The ordinance is attached:

Christine Webb
Grantsville City Recorder

GRANTSVILLE CITY
ORDINANCE 2020-01

AN ORDINANCE OF GRANTSVILLE CITY, A MUNICIPAL CORPORATION OF THE STATE OF UTAH, ANNEXING INTO ITS CORPORATE CITY LIMITS 9.93 ACRES OF REAL PROPERTY LOCATED ADJACENT TO THE NORTH BOUNDARY OF GRANTSVILLE CITY.

(Vegas Meadows)

WHEREAS, the Grantsville City Council has received and considered a petition for the annexation of 9.93 acres of real property located directly north of the City boundary, to the south side of Vegas Street between Hale Street and Cooley Street; and

WHEREAS, no protests of the annexation petition have been filed; and

WHEREAS, the Grantsville City Council has conducted a public hearing on this proposed annexation, after proper notice and has considered any comments made at the public hearing; and

WHEREAS, the Grantsville City Council finds that this annexation petition will promote the best interests of the City, including the health, safety and welfare of its residents.

NOW, THEREFORE, BE IT ORDAINED BY THE GRANTSVILLE CITY COUNCIL, that the Annexation Petition dated September 26, 2019 and filed by Samuel Clegg is hereby granted. The following described real property located in Tooele County, State of Utah is hereby annexed into the corporate boundaries of Grantsville City, a municipal corporation of the State of Utah and the inhabitants and property owners thereof shall enjoy all of the privileges of Grantsville City upon the effective date of this ordinance:

A parcel of land, situate in the Southwest Quarter of Section 19 and the Northwest Quarter of Section 30, Township 2 South, Range 5 West, also situate in the Southeast Quarter of Section 24 and the Northeast Quarter of Section 25, Township 2 South, Range 6 West, Salt Lake Base and Meridian, said parcel also located in Tooele County, Utah, more particularly described as follows:

Beginning at the northeast corner of Pheasant Run Ranch Minor Subdivision, recorded as Entry No. 441348 at the Tooele County Recorder's Office, said point is located on the west line of Hale Street more or less at a fence corner and is monumented with a Hathcock bar and cap, said point being North 89°24'27" East 17.44 feet along the Section Line and South 0°35'33" East 25.32 feet from the Section Corner of Sections 19 and 30, Township 2 South Range 5 West, and Sections 24 and 25, Township 2

South Range 6 West, Salt Lake Base and Meridian, and running:

thence South 89°30'27" West 423.08 feet along the north line Lot 4 of said Pheasant Run Ranch Minor Subdivision and more or less along an existing fence;

thence South 89°16'27" West 898.15 feet along the north line of Lot 4 and Lot 3 of said Pheasant Run Ranch Minor Subdivision and more or less along said fence, said line runs through a Hathcock bar and cap found at the northwest corner of said Lot 4 and the northeast corner of said Lot 3, as well as a found mag nail located at the northwest of said Lot 3, to a fence tee;

thence North 89°46'39" West 609.68 feet along an existing fence, to the east line of Cooley Street, said point being more or less 1 foot east of an existing fence;

thence North 0°13'21" East 229.25 feet along the east line of Cooley Street, to the south line of Vegas Street, said point being more of less 1 foot south of an existing fence;

thence South 89°54'11" East 1,931.46 feet along the south line of said Vegas Street, said line parallel with and more or less 1 foot south of existing fences, to a fence and the west line of Hale Street;

thence South 0°24'35" West 213.34 feet along said fence and the west line of said Hale Street; to the Point of Beginning.

The appropriate City Officers are hereby authorized and directed to execute the annexation plat that was presented as a part of the annexation petition and within 30 days of the enactment of this ordinance, send notice of this annexation to each affected entity including the Tooele County Commissioners, North Tooele County Fire Protection Service District, Tooele Valley Mosquito Abatement District, Tooele County Special Service District—Water, Tooele County School District, Tooele County Boundary Commission, Tooele County Recreation Service District, Rocky Mountain Power, has been record with the Tooele County Recorder a certified copy of this ordinance together with the annexation plat and file with the Lieutenant Governor of the State of Utah a certified copy of this ordinance, a copy of the approved annexation plat with evidence that it was recorded by the Tooele County Recorder and filed with the Tooele County Surveyor in accordance with Utah Code Ann. §17-23-17, together with the required certification and written notice of the adoption of this ordinance. Also in accordance with Utah Code Ann. §10-1-116 the appropriate City Officers shall provide notice of this annexation to the State Tax Commission accompanied with a copy of this ordinance, a copy of the annexation plat with evidence that the plat was recorded by the Tooele County Recorder and the required Certification of the Grantsville City Council.

This Ordinance shall take effect upon the date of the Lieutenant Governor's issuance of a certificate of annexation under Utah Code Ann. §10-2-425(5)(b), provided a short summary of this ordinance has been published in a newspaper of general circulation within Grantsville City, as provided for by law.

IN WITNESS WHEREOF, this Ordinance was passed by the Grantsville City Council this 15th day of January, 2020.

GRANTSVILLE CITY COUNCIL

By Brent K. Marshall

A T T E S T

Christine Webb,
City Recorder

(S E A L)



Date of Posting _____

STATE OF UTAH)

) SS:

COUNTY OF TOOELE)

I, Christine Webb, do hereby certify that I am the duly appointed, qualified and acting Recorder for the Grantsville City Council, (the "City"), State of Utah, and do further certify that the above and foregoing is a true and correct copy of Ordinance 2020-01 duly adopted by the City of Grantsville, by the Council thereof at a meeting duly called and held in Grantsville, UT on the 15th day of January, 2020, at the hour of 7:00 o'clock p.m. of said day, and I certify that after its passage I caused to be published in the Tooele Transcript Bulletin a short summary of the ordinance on the 21st day of January, 2020.

Publication – Tooele Transcript Bulletin

(S E A L)

Christine Webb

Christine Webb
City Recorder

PROOF OF PUBLICATION

STATE OF UTAH }
County of Tooele } SS.

GRANTSVILLE CITY NOTICE OF ADOPTION OF ORDINANCES

NOTICE IS HEREBY GIVEN that on January 15, 2020 the Grantsville City Council enacted the following ordinance:

Ordinance 2020-01 annexing 9.93 acres of real property located on the south side of Vegas Street between Hale Street and Cooley Street into Grantsville City.

This ordinance will take effect upon the publication of this notice. This ordinance may be reviewed or a copy may be obtained from the Grantsville City Recorder at 429 East Main Street, Grantsville Utah. (435.884.3411)

DATED this 16th day of January, 2020.

Christine Webb
Grantsville City Recorder

(Published in the Tooele Transcript Bulletin January 21, 2020)

I, Scott C. Dunn, being first duly sworn, depose and say that I am the Publisher of the Tooele Transcript-Bulletin, a twice-weekly newspaper of general circulation published each Tuesday and Thursday at Tooele City, Tooele County, Utah; that the notice attached hereto and which is a part of the proof of publication of

Grantsville City
Notice of Adoption of Ordinances

was published in said newspaper for one issue(s), the first publication having been made on the 21st day of January, 20 20, and the last on the 21st day of January, 20 20; that said notice was published in the regular and entire issue of every Tuesday edition of the newspaper during the period and time of publication, and the same was published in a newspaper proper and not in a supplement. Said notice was also placed online at www.utahlegals.com.

Scott C. Dunn

Subscribed and sworn to me this 26th day of January, 20 20.

Notary Public - State of Utah
CHRISTIN EVANS
Comm. #698282
My Comm. Exp. Jan. 5, 2022

Notary Public

TOOELE TRANSCRIPT BULLETIN

Grantsville City
Record of Ordinance Adoption

A regular meeting of the City Council of Grantsville City was held at City Hall in Grantsville, Utah on Wednesday, the 7th day of October at the hour of 7:00 p.m., there being present and answering roll call the following:

Brent Marshall	Mayor
Krista Sparks	Council Member
Scott Stice	Council Member
Jeff Hutchins	Council Member
Jewel Allen	Council Member
Darrin Rowberry	Council Member

Also Present:

Christine Webb	City Recorder
Brett Coombs	City Attorney

Absent:

After the meeting had been duly called to order and the minutes of the preceding meeting approved, the ordinance 2020-31 was introduced in writing, read in full, and pursuant to a Motion made by Councilwoman Allen. Seconded by Councilman Stice and was adopted by the following vote:

Yea:	Unanimous
Opposed:	None
Abstained:	None

The ordinance was then signed by the Mayor and recorded by the City Recorder in the official records of Grantsville City, Utah. The ordinance is attached:

Christine Webb
Grantsville City Recorder

GRANTSVILLE CITY
ORDINANCE NO. 2020-31

AN ORDINANCE AMENDING THE OFFICIAL ZONING MAP OF GRANTSVILLE CITY, UTAH TO REZONE 9.7 ACRES OF LAND FOR CHANCE FACKRELL LOCATED AT 848 NORTH COOLEY STREET TO GO FROM AN A-10 ZONE TO A RR-2.5 ZONE

Be it enacted and ordained by the City Council of Grantsville City, Utah as follows:

SECTION ONE: PURPOSE. This Ordinance is for the purpose of amending the official zoning map and the Land Use Development and Management Code of Grantsville City, Utah by rezoning 9.7 acres of real property for Chance Fackrell located at 848 North Cooley Street to go from an A-10 zone to a RR-2.5 zoning designation. The Grantsville City Council finds that this amendment is consistent with the general plan of Grantsville City and will be in the best interests of Grantsville City and its residents.

SECTION TWO: ZONING MAP AMENDMENT. The Grantsville City Land Use Development and Management Code and Official Zoning Map are hereby amended by changing the zoning designation of the following described parcel from an A-10 zoning designation to a RR-2.5 zoning designation, as defined by the Grantsville City zoning regulations:

Parcel #s: 01-061-0-0067 at one point in time this was a whole parcel now owned by the Kimbros and Fisher which was divided by a QCD

Legal Description: Commencing W of the NE corner of Section 25, T28, R6W, SLBM; Thus S approx. 25.955 feet to a line extending from the boundary line agreement Ent# 260444; Thus Easterly along said line approx. 39.70 feet to the most westerly line of said bla and fence corner; thence following said line S 0°23'W 303.20 feet; thence S 0°33'W 300 feet to a fence intersection.

The total parcels described herein is located within the Grantsville City limits.

SECTION THREE: EFFECTIVE DATE. This ordinance shall take effect immediately upon the publication of a short summary of this Ordinance in a newspaper of general circulation within Grantsville City, as provided for by law and upon the recording of a copy hereof with the Tooele County Recorder as required by the foregoing section.

ADOPTED AND PASSED BY THE CITY COUNCIL OF GRANTSVILLE CITY, UTAH THIS 7th DAY OF OCTOBER, 2020.

Brent K. Marshall
MAYOR BRENT K. MARSHALL

ATTEST:

Christine Webb
Christine Webb, City Recorder

(S E A L)

Date of Publication _____

GRANTSVILLE CITY INCORPORATED JAN 12 1867 SEAL

STATE OF UTAH)

) SS:

COUNTY OF TOOELE)

I, Christine Webb, do hereby certify that I am the duly appointed, qualified and acting Recorder for the Grantsville City Council, (the "City"), State of Utah, and do further certify that the above and foregoing is a true and correct copy of Ordinance 2020-31 duly adopted by the City of Grantsville, by the Council thereof at a meeting duly called and held in Grantsville, UT on the 7th day of October, 2020, at the hour of 7:00 o'clock p.m. of said day, and I certify that after its passage I caused to be published in the Tooele Transcript Bulletin a short summary of the ordinance on the 13th day of October, 2020.

Publication – Tooele Transcript Bulletin

(S E A L)

Christine Webb

Christine Webb
City Recorder



PROOF OF PUBLICATION

STATE OF UTAH }
County of Tooele } SS.

GRANTSVILLE CITY NOTICE OF ADOPTION OF ORDINANCES

NOTICE IS HEREBY GIVEN that on October 7, 2020 the Grantsville City Council enacted the following ordinances:

Ordinance 2020-28 amending the consolidated fee schedule.

Ordinance 2020-29 amending the official zoning map of Grantsville City, Utah to rezone 16.6 acres for Shane and Cari Watson to go from an R-1-21 zone to an R-1-12 zone for property located at approximately 547 West Apple Street.

Ordinance 2020-30 amending the official zoning map of Grantsville City, Utah to rezone twelve (12) acres for Andrei Popa to go from an A-10 zone to an MD zone for property located at approximately 1342 North Old Lincoln Highway.

Ordinance 2020-31 amending the official zoning map of Grantsville City, Utah to rezone 9.7 acres for Chance Fackrell to go from an A-10 zone to an RR-2.5 zone for property located at 848 North Cooley Street.

This ordinance will take effect upon the publication of this notice. This ordinance may be reviewed or a copy may be obtained from the Grantsville City Recorder at 429 East Main Street, Grantsville Utah. (435.884.3411)

DATED this 8th day of October, 2020.

Christine Webb
Grantsville City Recorder

(Published in the Tooele Transcript Bulletin October 13, 2020)

I, Scott C. Dunn, being first duly sworn, depose and say that I am the Publisher of the Tooele Transcript-Bulletin, a twice-weekly newspaper of general circulation published each Tuesday and Thursday at Tooele City, Tooele County, Utah; that the notice attached hereto and which is a part of the proof of publication of

Grantsville City
Notice of Adoption of Ordinances

was published in said newspaper for one issue(s), the first publication having been made on the 13th day of October, 20 20, and the last on the 13th day of October, 20 20; that said notice was published in the regular and entire issue of every Tuesday edition of the newspaper during the period and time of publication, and the same was published in a newspaper proper and not in a supplement. Said notice was also placed online at www.utahlegals.com.

Scott C. Dunn

Subscribed and sworn to me this 16th day of October, 20 20.

Notary Public - State of Utah
CHRISTIN EVANS
Comm. #698282
My Comm. Exp. Jan. 5, 2022

Notary Public

TOOELE TRANSCRIPT BULLETIN

Entry #: 590999
07/07/2023 10:17 AM QUIT CLAIM DEED
Page: 1 of 2
FEE: $40.00 BY: CHANCE FACKRELL
Jerry Houghton, Tooele County, Recorder

When recorded return to:
Chance Fackrell
84 Willow Street
Grantsville, Utah 84029

QUIT CLAIM DEED

Tooele County

Parcel 01-061-0-0067

ROBERT L. FACKRELL and JOLYNN FACKRELL, Trustees of the FACKRELL FAMILY IRREVOCABLE TRUST, dated October 23, 2020, of 848 North Cooley Street, Grantsville, Tooele County, State of Utah 84029, **GRANTORS**, hereby Quit Claim to **CHANCE FACKRELL** of 84 Willow Street, Grantsville, Tooele County, Utah 84029, **GRANTEE**, for the sum of 10 dollars and other good and valuable consideration, the following described tract of land in Tooele County, to wit:

Affects Parcel 01-061-0-0067

A parcel of land located in the Northeast Quarter of Section 25, Township 2 South, Range 6 West, Salt Lake Base and Meridian in the City of Grantsville, Tooele County, State of Utah described by survey as follows:

Beginning at a point which lies North 89°55'40" East 1367.67 feet (record = 19.93 chains = 1315.38 feet) along the section line and South 0°04'20" East 24.35 feet from a Tooele County Surveyor brass monument representing the North Quarter Corner of Section 25, Township 2 South, Range 6 West, Salt Lake Base and Meridian, said Point of Beginning being the northwest corner of PHEASANT RUN RANCH MINOR SUBDIVISION, recorded December 21, 2016 as Entry No. 441348 in the office of the Tooele County Recorder, (Basis of Bearing for this description is North 89°55'40" East 2643.39 feet along the section line defined by Tooele County Surveyor brass monuments, dated 1986, representing the North Quarter Corner and the Northeast Corner of said Section 25.);
thence along the westerly boundary of said PHEASANT RUN RANCH MINOR SUBDIVISION and that boundary established by Boundary Line Agreement, recorded May 26, 2006 as Entry No. 260444 in the office of said Recorder South 0°23'00" West 214.718 feet;
thence along an existing fence line, North 89°16'00" West 335.58 feet;
thence North 4°00'00" West 9.50 feet;
thence along an existing fence line, North 87°21'00" West 303.00 feet to the easterly right-of-way line of Cooley Street, a 66-foot wide public street;
thence along said easterly right-of-way line, North 0°46'30" East 185.65 feet;
thence along an old established fence line, North 89°53'00" East 637.82 feet to the Point of Beginning.
The above-described parcel of land contains approximately 129,667 square feet in area or 2.977 acres.

Subject to easements, restrictions and rights-of-way appearing of record or enforceable in law and equity.

WITNESS the hand of said grantors, this 7th day of July, 2021.

The FACKRELL FAMILY IRREVOCABLE TRUST, dated October 23, 2020

Robert L. Fackrell

ROBERT L. FACKRELL, TRUSTEE

Jo Lynn Fackrell

JOLYNN FACKRELL, TRUSTEE

STATE OF UTAH)
: ss.
COUNTY OF Tooele)

On the 7th day of July 2023 ~~2021~~, personally appeared before me, a Notary Public in and for the State of Utah, ROBERT L. FACKRELL and JOLYNN FACKRELL, signers of the within and foregoing instrument, who being by me duly sworn did say that they are the Trustees of the FACKRELL FAMILY IRREVOCABLE TRUST, dated October 23, 2020, and said ROBERT L. FACKRELL and JOLYNN FACKRELL duly acknowledged to me that they executed the same in behalf of said Trust.

Notary Public: Stephanie Herrera

STEPHANIE HERRERA
NOTARY PUBLIC-STATE OF UTAH
My Commission Expires April 06, 2027
COMMISSION NUMBER 730430

My Commission Expires: 4/6/2027

Residing at: 225 E main Street, Grantsville UT 84029

GRANTSVILLE CITY
ORDINANCE NO. 2026-33

AN ORDINANCE AMENDING THE OFFICIAL ZONING MAP OF GRANTSVILLE CITY, UTAH, TO REZONE APPROXIMATELY 6.34 ACRES LOCATED AT 848 NORTH COOLEY STREET FROM RR-2.5 TO RR-1 FOR THE STORYBOOK SUBDIVISION.

Be it enacted and ordained by the City Council of Grantsville City, Utah as follows:

WHEREAS, Grantsville City is authorized to establish and amend zoning districts and the City's official zoning map pursuant to applicable Utah law and the Grantsville City Land Use and Development Code; and

WHEREAS, approximately 6.34 acres of property located at 848 North Cooley Street, identified as Parcel No. 01-061-0-0103, is currently zoned RR-2.5; and

WHEREAS, the property is proposed to be rezoned from RR-2.5 to RR-1 in connection with the proposed Storybook Subdivision; and

WHEREAS, the City's Future Land Use Map designates the property for residential development at a density of one dwelling unit per one to ten acres, and the requested RR-1 zoning falls within that designation; and

WHEREAS, the property was previously part of an approximately 9.7-acre parcel that was rezoned from A-10 to RR-2.5 pursuant to Ordinance 2020-31, and the property was subsequently divided, leaving approximately 6.34 acres subject to this rezone request; and

WHEREAS, the City Council has considered the proposed zoning amendment, the recommendation of the Planning Commission, the applicable provisions of the Grantsville City Land Use and Development Code, surrounding land uses and zoning, and the interests of the City and its residents; and

WHEREAS, the City Council finds that the proposed zoning amendment is appropriate and in the best interests of Grantsville City and its residents.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF GRANTSVILLE CITY, STATE OF UTAH, AS FOLLOWS:

Section 1. Zoning Map Amendment: The official zoning map of Grantsville City is hereby amended to rezone approximately 6.34 acres located at 848 North Cooley Street, identified as Parcel No. 01-061-0-0103, from RR-2.5 (Rural Residential 2.5) to RR-1 (Rural Residential 1), as more particularly depicted and described in Exhibit A, attached hereto and incorporated herein by reference.

Section 2. No Subdivision Approval: Approval of this zoning map amendment does not constitute approval of the proposed Storybook Subdivision or authorize development of the property. Any future subdivision or development of the property shall be subject to all applicable requirements, reviews, approvals, infrastructure requirements, and development standards in effect at the time of the applicable application.

Section 3. Codification: The City Recorder is authorized and directed to update the official zoning map of Grantsville City to reflect the zoning amendment adopted by this Ordinance and to make such non-substantive changes to the Grantsville City Code and related zoning records as are necessary to accurately reflect the adoption of this Ordinance.

Section 4. Effective Date: This Ordinance shall take effect immediately upon its passage and approval as provided by law.

Section 5. Severability clause: If any part or provision of this Ordinance is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Ordinance and all provisions, clauses and words of this Ordinance shall be severable.

ADOPTED AND PASSED BY THE CITY COUNCIL OF GRANTSVILLE CITY, THIS 21ST DAY OF OCTOBER, 2026.

BY THE ORDER OF THE GRANTSVILLE CITY COUNCIL:

_____
By Mayor Heidi Hammond

ATTEST

_____
Alicia Fairbourne, City Recorder

EXHIBIT “A”

VEGAS ST

PIONEER

ROSE ST

HALE ST

WARR ST

WAR STREET

25

Grantsville City
Record of Ordinance Adoption

A regular meeting of the City Council of Grantsville City was held at City Hall in Grantsville, Utah on Wednesday, the 15th day of January at the hour of 7:00 p.m., there being present and answering roll call the following:

Brent Marshall	Mayor
Krista Sparks	Council Member
Scott Stice	Council Member
Jeff Hutchins	Council Member
Jewel Allen	Council Member
Darrin Rowberry	Council Member

Also Present:

Christine Webb	City Recorder

Absent:

Brett Coombs	City Attorney

After the meeting had been duly called to order and the minutes of the preceding meeting approved, the ordinance 2020-01 was introduced in writing, read in full, and pursuant to a Motion made by Councilwoman Allen. Seconded by Councilwoman Sparks and was adopted by the following vote:

Yea:	Unanimous
Opposed:	None
Abstained:	None

The ordinance was then signed by the Mayor and recorded by the City Recorder in the official records of Grantsville City, Utah. The ordinance is attached:

Christine Webb
Grantsville City Recorder

GRANTSVILLE CITY
ORDINANCE 2020-01

AN ORDINANCE OF GRANTSVILLE CITY, A MUNICIPAL CORPORATION OF THE STATE OF UTAH, ANNEXING INTO ITS CORPORATE CITY LIMITS 9.93 ACRES OF REAL PROPERTY LOCATED ADJACENT TO THE NORTH BOUNDARY OF GRANTSVILLE CITY.

(Vegas Meadows)

WHEREAS, the Grantsville City Council has received and considered a petition for the annexation of 9.93 acres of real property located directly north of the City boundary, to the south side of Vegas Street between Hale Street and Cooley Street; and

WHEREAS, no protests of the annexation petition have been filed; and

WHEREAS, the Grantsville City Council has conducted a public hearing on this proposed annexation, after proper notice and has considered any comments made at the public hearing; and

WHEREAS, the Grantsville City Council finds that this annexation petition will promote the best interests of the City, including the health, safety and welfare of its residents.

NOW, THEREFORE, BE IT ORDAINED BY THE GRANTSVILLE CITY COUNCIL, that the Annexation Petition dated September 26, 2019 and filed by Samuel Clegg is hereby granted. The following described real property located in Tooele County, State of Utah is hereby annexed into the corporate boundaries of Grantsville City, a municipal corporation of the State of Utah and the inhabitants and property owners thereof shall enjoy all of the privileges of Grantsville City upon the effective date of this ordinance:

A parcel of land, situate in the Southwest Quarter of Section 19 and the Northwest Quarter of Section 30, Township 2 South, Range 5 West, also situate in the Southeast Quarter of Section 24 and the Northeast Quarter of Section 25, Township 2 South, Range 6 West, Salt Lake Base and Meridian, said parcel also located in Tooele County, Utah, more particularly described as follows:

Beginning at the northeast corner of Pheasant Run Ranch Minor Subdivision, recorded as Entry No. 441348 at the Tooele County Recorder's Office, said point is located on the west line of Hale Street more or less at a fence corner and is monumented with a Hathcock bar and cap, said point being North 89°24'27" East 17.44 feet along the Section Line and South 0°35'33" East 25.32 feet from the Section Corner of Sections 19 and 30, Township 2 South Range 5 West, and Sections 24 and 25, Township 2

South Range 6 West, Salt Lake Base and Meridian, and running:

thence South 89°30'27" West 423.08 feet along the north line Lot 4 of said Pheasant Run Ranch Minor Subdivision and more or less along an existing fence;

thence South 89°16'27" West 898.15 feet along the north line of Lot 4 and Lot 3 of said Pheasant Run Ranch Minor Subdivision and more or less along said fence, said line runs through a Hathcock bar and cap found at the northwest corner of said Lot 4 and the northeast corner of said Lot 3, as well as a found mag nail located at the northwest of said Lot 3, to a fence tee;

thence North 89°46'39" West 609.68 feet along an existing fence, to the east line of Cooley Street, said point being more or less 1 foot east of an existing fence;

thence North 0°13'21" East 229.25 feet along the east line of Cooley Street, to the south line of Vegas Street, said point being more of less 1 foot south of an existing fence;

thence South 89°54'11" East 1,931.46 feet along the south line of said Vegas Street, said line parallel with and more or less 1 foot south of existing fences, to a fence and the west line of Hale Street;

thence South 0°24'35" West 213.34 feet along said fence and the west line of said Hale Street; to the Point of Beginning.

The appropriate City Officers are hereby authorized and directed to execute the annexation plat that was presented as a part of the annexation petition and within 30 days of the enactment of this ordinance, send notice of this annexation to each affected entity including the Tooele County Commissioners, North Tooele County Fire Protection Service District, Tooele Valley Mosquito Abatement District, Tooele County Special Service District—Water, Tooele County School District, Tooele County Boundary Commission, Tooele County Recreation Service District, Rocky Mountain Power, has been record with the Tooele County Recorder a certified copy of this ordinance together with the annexation plat and file with the Lieutenant Governor of the State of Utah a certified copy of this ordinance, a copy of the approved annexation plat with evidence that it was recorded by the Tooele County Recorder and filed with the Tooele County Surveyor in accordance with Utah Code Ann. §17-23-17, together with the required certification and written notice of the adoption of this ordinance. Also in accordance with Utah Code Ann. §10-1-116 the appropriate City Officers shall provide notice of this annexation to the State Tax Commission accompanied with a copy of this ordinance, a copy of the annexation plat with evidence that the plat was recorded by the Tooele County Recorder and the required Certification of the Grantsville City Council.

This Ordinance shall take effect upon the date of the Lieutenant Governor's issuance of a certificate of annexation under Utah Code Ann. §10-2-425(5)(b), provided a short summary of this ordinance has been published in a newspaper of general circulation within Grantsville City, as provided for by law.

IN WITNESS WHEREOF, this Ordinance was passed by the Grantsville City Council this 15th day of January, 2020.

GRANTSVILLE CITY COUNCIL

By Brent K. Marshall

A T T E S T

Christine Webb,
City Recorder

(S E A L)



Date of Posting _____

STATE OF UTAH)

) SS:

COUNTY OF TOOELE)

I, Christine Webb, do hereby certify that I am the duly appointed, qualified and acting Recorder for the Grantsville City Council, (the "City"), State of Utah, and do further certify that the above and foregoing is a true and correct copy of Ordinance 2020-01 duly adopted by the City of Grantsville, by the Council thereof at a meeting duly called and held in Grantsville, UT on the 15th day of January, 2020, at the hour of 7:00 o'clock p.m. of said day, and I certify that after its passage I caused to be published in the Tooele Transcript Bulletin a short summary of the ordinance on the 21st day of January, 2020.

Publication – Tooele Transcript Bulletin

(S E A L)

Christine Webb

Christine Webb
City Recorder

PROOF OF PUBLICATION

STATE OF UTAH }
County of Tooele } SS.

GRANTSVILLE CITY NOTICE OF ADOPTION OF ORDINANCES

NOTICE IS HEREBY GIVEN that on January 15, 2020 the Grantsville City Council enacted the following ordinance:

Ordinance 2020-01 annexing 9.93 acres of real property located on the south side of Vegas Street between Hale Street and Cooley Street into Grantsville City.

This ordinance will take effect upon the publication of this notice. This ordinance may be reviewed or a copy may be obtained from the Grantsville City Recorder at 429 East Main Street, Grantsville Utah. (435.884.3411)

DATED this 16th day of January, 2020.

Christine Webb
Grantsville City Recorder

(Published in the Tooele Transcript Bulletin January 21, 2020)

I, Scott C. Dunn, being first duly sworn, depose and say that I am the Publisher of the Tooele Transcript-Bulletin, a twice-weekly newspaper of general circulation published each Tuesday and Thursday at Tooele City, Tooele County, Utah; that the notice attached hereto and which is a part of the proof of publication of

Grantsville City
Notice of Adoption of Ordinances

was published in said newspaper for one issue(s), the first publication having been made on the 21st day of January, 20 20, and the last on the 21st day of January, 20 20; that said notice was published in the regular and entire issue of every Tuesday edition of the newspaper during the period and time of publication, and the same was published in a newspaper proper and not in a supplement. Said notice was also placed online at www.utahlegals.com.

Scott C. Dunn

Subscribed and sworn to me this 26th day of January, 20 20.

Notary Public - State of Utah
CHRISTIN EVANS
Comm. #698282
My Comm. Exp. Jan. 5, 2022

Notary Public

TOOELE TRANSCRIPT BULLETIN

Grantsville City
Record of Ordinance Adoption

A regular meeting of the City Council of Grantsville City was held at City Hall in Grantsville, Utah on Wednesday, the 7th day of October at the hour of 7:00 p.m., there being present and answering roll call the following:

Brent Marshall	Mayor
Krista Sparks	Council Member
Scott Stice	Council Member
Jeff Hutchins	Council Member
Jewel Allen	Council Member
Darrin Rowberry	Council Member

Also Present:

Christine Webb	City Recorder
Brett Coombs	City Attorney

Absent:

After the meeting had been duly called to order and the minutes of the preceding meeting approved, the ordinance 2020-31 was introduced in writing, read in full, and pursuant to a Motion made by Councilwoman Allen. Seconded by Councilman Stice and was adopted by the following vote:

Yea:	Unanimous
Opposed:	None
Abstained:	None

The ordinance was then signed by the Mayor and recorded by the City Recorder in the official records of Grantsville City, Utah. The ordinance is attached:

Christine Webb
Grantsville City Recorder

GRANTSVILLE CITY
ORDINANCE NO. 2020-31

AN ORDINANCE AMENDING THE OFFICIAL ZONING MAP OF GRANTSVILLE CITY, UTAH TO REZONE 9.7 ACRES OF LAND FOR CHANCE FACKRELL LOCATED AT 848 NORTH COOLEY STREET TO GO FROM AN A-10 ZONE TO A RR-2.5 ZONE

Be it enacted and ordained by the City Council of Grantsville City, Utah as follows:

SECTION ONE: PURPOSE. This Ordinance is for the purpose of amending the official zoning map and the Land Use Development and Management Code of Grantsville City, Utah by rezoning 9.7 acres of real property for Chance Fackrell located at 848 North Cooley Street to go from an A-10 zone to a RR-2.5 zoning designation. The Grantsville City Council finds that this amendment is consistent with the general plan of Grantsville City and will be in the best interests of Grantsville City and its residents.

SECTION TWO: ZONING MAP AMENDMENT. The Grantsville City Land Use Development and Management Code and Official Zoning Map are hereby amended by changing the zoning designation of the following described parcel from an A-10 zoning designation to a RR-2.5 zoning designation, as defined by the Grantsville City zoning regulations:

Parcel #s: 01-061-0-0067 at one point in time this was a whole parcel now owned by the Kimbros and Fisher which was divided by a QCD

Legal Description: Commencing W of the NE corner of Section 25, T28, R6W, SLBM; Thus S approx. 25.955 feet to a line extending from the boundary line agreement Ent# 260444; Thus Easterly along said line approx. 39.70 feet to the most westerly line of said bla and fence corner; thence following said line S 0°23'W 303.20 feet; thence S 0°33'W 300 feet to a fence intersection.

The total parcels described herein is located within the Grantsville City limits.

SECTION THREE: EFFECTIVE DATE. This ordinance shall take effect immediately upon the publication of a short summary of this Ordinance in a newspaper of general circulation within Grantsville City, as provided for by law and upon the recording of a copy hereof with the Tooele County Recorder as required by the foregoing section.

ADOPTED AND PASSED BY THE CITY COUNCIL OF GRANTSVILLE CITY, UTAH THIS 7th DAY OF OCTOBER, 2020.

Brent K. Marshall
MAYOR BRENT K. MARSHALL

ATTEST:

Christine Webb
Christine Webb, City Recorder

(S E A L)

Date of Publication _____

GRANTSVILLE CITY INCORPORATED JAN 12 1867 SEAL

STATE OF UTAH)

) SS:

COUNTY OF TOOELE)

I, Christine Webb, do hereby certify that I am the duly appointed, qualified and acting Recorder for the Grantsville City Council, (the "City"), State of Utah, and do further certify that the above and foregoing is a true and correct copy of Ordinance 2020-31 duly adopted by the City of Grantsville, by the Council thereof at a meeting duly called and held in Grantsville, UT on the 7th day of October, 2020, at the hour of 7:00 o'clock p.m. of said day, and I certify that after its passage I caused to be published in the Tooele Transcript Bulletin a short summary of the ordinance on the 13th day of October, 2020.

Publication – Tooele Transcript Bulletin

(S E A L)

Christine Webb

Christine Webb
City Recorder



PROOF OF PUBLICATION

STATE OF UTAH }
County of Tooele } SS.

GRANTSVILLE CITY NOTICE OF ADOPTION OF ORDINANCES

NOTICE IS HEREBY GIVEN that on October 7, 2020 the Grantsville City Council enacted the following ordinances:

Ordinance 2020-28 amending the consolidated fee schedule.

Ordinance 2020-29 amending the official zoning map of Grantsville City, Utah to rezone 16.6 acres for Shane and Cari Watson to go from an R-1-21 zone to an R-1-12 zone for property located at approximately 547 West Apple Street.

Ordinance 2020-30 amending the official zoning map of Grantsville City, Utah to rezone twelve (12) acres for Andrei Popa to go from an A-10 zone to an MD zone for property located at approximately 1342 North Old Lincoln Highway.

Ordinance 2020-31 amending the official zoning map of Grantsville City, Utah to rezone 9.7 acres for Chance Fackrell to go from an A-10 zone to an RR-2.5 zone for property located at 848 North Cooley Street.

This ordinance will take effect upon the publication of this notice. This ordinance may be reviewed or a copy may be obtained from the Grantsville City Recorder at 429 East Main Street, Grantsville Utah. (435.884.3411)

DATED this 8th day of October, 2020.

Christine Webb
Grantsville City Recorder

(Published in the Tooele Transcript Bulletin October 13, 2020)

I, Scott C. Dunn, being first duly sworn, depose and say that I am the Publisher of the Tooele Transcript-Bulletin, a twice-weekly newspaper of general circulation published each Tuesday and Thursday at Tooele City, Tooele County, Utah; that the notice attached hereto and which is a part of the proof of publication of

Grantsville City
Notice of Adoption of Ordinances

was published in said newspaper for one issue(s), the first publication having been made on the 13th day of October, 20 20, and the last on the 13th day of October, 20 20; that said notice was published in the regular and entire issue of every Tuesday edition of the newspaper during the period and time of publication, and the same was published in a newspaper proper and not in a supplement. Said notice was also placed online at www.utahlegals.com.

Scott C. Dunn

Subscribed and sworn to me this 16th day of October, 20 20.

Notary Public - State of Utah
CHRISTIN EVANS
Comm. #698282
My Comm. Exp. Jan. 5, 2022

Notary Public

TOOELE TRANSCRIPT BULLETIN

Entry #: 590999
07/07/2023 10:17 AM QUIT CLAIM DEED
Page: 1 of 2
FEE: $40.00 BY: CHANCE FACKRELL
Jerry Houghton, Tooele County, Recorder

When recorded return to:
Chance Fackrell
84 Willow Street
Grantsville, Utah 84029

QUIT CLAIM DEED

Tooele County

Parcel 01-061-0-0067

ROBERT L. FACKRELL and JOLYNN FACKRELL, Trustees of the FACKRELL FAMILY IRREVOCABLE TRUST, dated October 23, 2020, of 848 North Cooley Street, Grantsville, Tooele County, State of Utah 84029, **GRANTORS**, hereby Quit Claim to **CHANCE FACKRELL** of 84 Willow Street, Grantsville, Tooele County, Utah 84029, **GRANTEE**, for the sum of 10 dollars and other good and valuable consideration, the following described tract of land in Tooele County, to wit:

Affects Parcel 01-061-0-0067

A parcel of land located in the Northeast Quarter of Section 25, Township 2 South, Range 6 West, Salt Lake Base and Meridian in the City of Grantsville, Tooele County, State of Utah described by survey as follows:

Beginning at a point which lies North 89°55'40" East 1367.67 feet (record = 19.93 chains = 1315.38 feet) along the section line and South 0°04'20" East 24.35 feet from a Tooele County Surveyor brass monument representing the North Quarter Corner of Section 25, Township 2 South, Range 6 West, Salt Lake Base and Meridian, said Point of Beginning being the northwest corner of PHEASANT RUN RANCH MINOR SUBDIVISION, recorded December 21, 2016 as Entry No. 441348 in the office of the Tooele County Recorder, (Basis of Bearing for this description is North 89°55'40" East 2643.39 feet along the section line defined by Tooele County Surveyor brass monuments, dated 1986, representing the North Quarter Corner and the Northeast Corner of said Section 25.);
thence along the westerly boundary of said PHEASANT RUN RANCH MINOR SUBDIVISION and that boundary established by Boundary Line Agreement, recorded May 26, 2006 as Entry No. 260444 in the office of said Recorder South 0°23'00" West 214.718 feet;
thence along an existing fence line, North 89°16'00" West 335.58 feet;
thence North 4°00'00" West 9.50 feet;
thence along an existing fence line, North 87°21'00" West 303.00 feet to the easterly right-of-way line of Cooley Street, a 66-foot wide public street;
thence along said easterly right-of-way line, North 0°46'30" East 185.65 feet;
thence along an old established fence line, North 89°53'00" East 637.82 feet to the Point of Beginning.
The above-described parcel of land contains approximately 129,667 square feet in area or 2.977 acres.

Subject to easements, restrictions and rights-of-way appearing of record or enforceable in law and equity.

WITNESS the hand of said grantors, this 7th day of July, 2021.

The FACKRELL FAMILY IRREVOCABLE TRUST, dated October 23, 2020

Robert L. Fackrell

ROBERT L. FACKRELL, TRUSTEE

Jo Lynn Fackrell

JOLYNN FACKRELL, TRUSTEE

STATE OF UTAH)
: ss.
COUNTY OF Tooele)

On the 7th day of July 2023 ~~2021~~, personally appeared before me, a Notary Public in and for the State of Utah, ROBERT L. FACKRELL and JOLYNN FACKRELL, signers of the within and foregoing instrument, who being by me duly sworn did say that they are the Trustees of the FACKRELL FAMILY IRREVOCABLE TRUST, dated October 23, 2020, and said ROBERT L. FACKRELL and JOLYNN FACKRELL duly acknowledged to me that they executed the same in behalf of said Trust.

Notary Public: Stephanie Herrera

STEPHANIE HERRERA
NOTARY PUBLIC-STATE OF UTAH
My Commission Expires April 06, 2027
COMMISSION NUMBER 730430

My Commission Expires: 4/6/2027

Residing at: 225 E main Street, Grantsville UT 84029

Agenda Item # 4

Consideration of Resolution 2026-80 approving the First Amendment to the Master Development Agreement for the Canyon View Subdivision

GRANTSVILLE CITY

Canyon View Subdivision MDA Amendment

Planning Commission Staff Report

Prepared by Shelby Moore, Planning and Zoning Administrator

Applicant CD DEV, LLC, as identified in the MDA and proposed amendment

Agenda item Presentation, Public Hearing, Discussion and Recommendation: Recommendation of the 1st Amendment to the Master Development Agreement (MDA) for Canyon View Subdivision.

Date: October 20th,2026

Requested Action

The applicant requests an amendment to reduce the open space fee-in-lieu established in the Canyon View Subdivision MDA from $92,480 to $47,000. The Planning Commission is asked to review the proposed amendment and supporting appraisal, receive public comment, and determine whether to recommend the reduction to the City Council.

Background

The Canyon View Subdivision MDA was approved by the Grantsville City Council on July 6, 2022. Addendum No. 1, Section 2(a), establishes an open space fee-in-lieu based on the raw, undeveloped ground value of 1.56 acres, described as 10 percent of the total parcel acreage. The approved fee is $92,480, payable at $4,020.87 per lot per phase, based on 23 lots, before recording each phase.

The applicant believes an error occurred in the original fee-in-lieu analysis and that the resulting fee was too high. To support this position, the applicant submitted an updated appraisal and proposed the 1st Amendment to the MDA.

Proposed Amendment

The proposed amendment replaces Addendum No. 1 in its entirety. It retains the 1.56-acre open space basis and proposes a $47,000 fee. It also changes payment from a per-lot, phased payment to a single lump sum within seven days of the parties' full execution of the MDA, as stated in the draft.

Fee comparison	Approved MDA	Proposed amendment
Total fee-in-lieu	$92,480	$47,000
Requested reduction	—	$45,480

The draft continues to direct the funds toward procurement or improvement of open space, parks, or trails and retains the construction coordination requirements in Addendum No. 1. Other MDA provisions remain in effect except as expressly amended.

Appraisal and Staff Analysis

The December 2024 appraisal by Matthew Limpert, MAI, of Limpert Commercial Appraisal evaluates approximately 15.58 acres at 400 East Nygreen Street. The transmittal and final reconciliation identify a retrospective valuation date of May 5, 2022, and conclude that the land's fee simple market value was $470,000. The valuation excludes subdivision improvements constructed after that date. Ten percent of the appraised total value is $47,000, which is the amount proposed in the amendment.

The appraisal provides a basis for the applicant's requested reduction. The Planning Commission must evaluate whether the valuation and supporting analysis justify recommending a lower fee than the amount approved in 2022. Staff has reviewed the 1st Amendment, and it is proceeding through the approval process. Staff review does not constitute approval of the amendment or a determination that the fee should be reduced.

For the Commission's review, the appraisal contains inconsistent references to its effective valuation date and intended use. Although the transmittal and final reconciliation use May 5, 2022, the executive summary and effective-date discussion reference November 21, 2024; the intended-use discussion also references loan underwriting or credit management. Clarification from the appraiser would help establish a consistent basis for reliance on the report for this fee-in-lieu request.

The draft payment language should also be clarified to identify the execution event that starts the seven-day payment period. Any fees already paid, and whether an adjustment would involve a remaining balance, credit, or refund, should be confirmed before final execution. This report does not assume that any fee has been paid or that a refund is authorized.

Supporting Materials

Proposed 1st Amendment, March 6, 2026 draft, replacement Addendum No. 1, Section 2(a).

Canyon View MDA approved July 6, 2022, Addendum No. 1, Section 2(a) (PDF page 15).

Canyon View appraisal, December 2024, transmittal, and printed pages 8–9, 11, 14, and 51–53.

GRANTSVILLE CITY
RESOLUTION NO. 2026-80

A RESOLUTION APPROVING THE FIRST AMENDMENT TO THE MASTER DEVELOPMENT AGREEMENT FOR CANYON VIEW SUBDIVISION

Be it resolved by the City Council of Grantsville City, Utah as follows:

WHEREAS, Grantsville City approved the Master Development Agreement ("MDA") for Canyon View Subdivision on July 6, 2022, with CD DEV, LLC ("Developer"); and

WHEREAS, the Developer has requested an amendment to Addendum No. 1 of the MDA to reduce the open space fee-in-lieu from $92,480 to $47,000, based on an appraisal of the property; and

WHEREAS, the proposed First Amendment replaces Addendum No. 1 in its entirety, establishes a lump-sum payment of $47,000 within seven (7) days of the parties' full execution of the MDA, and retains the existing requirements for the use of open space funds and construction coordination; and

WHEREAS, the Grantsville City Planning Commission reviewed the proposed First Amendment on October 20, 2026, and provided a positive recommendation with all members in favor; and

WHEREAS, the City Council finds that approval of the First Amendment is appropriate, subject to the terms of the final agreement attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF GRANTSVILLE CITY, STATE OF UTAH, AS FOLLOWS:

Section 1. Approval: The First Amendment to the Master Development Agreement for Canyon View Subdivision between Grantsville City and CD DEV, LLC, attached hereto as Exhibit A and incorporated herein by reference, is hereby approved.

Section 2. Authorization: The Mayor and City staff are hereby authorized to execute the First Amendment and take such actions as are reasonably necessary to implement this Resolution, subject to any final revisions approved by the City Attorney.

Section 3. Effective Date: This resolution shall take effect immediately upon its passage and approval as provided by law.

Section 4. Severability clause: If any part or provision of this Resolution is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Resolution and all provisions, clauses and words of this Resolution shall be severable.

ADOPTED AND PASSED BY THE CITY COUNCIL OF GRANTSVILLE CITY, THIS 4TH DAY OF NOVEMBER, 2026.

BY THE ORDER OF THE GRANTSVILLE CITY COUNCIL:

_____
By Mayor Heidi Hammond

ATTEST

_____
Alicia Fairbourne, City Recorder

EXHIBIT “A”

First Amendment to the MDA for Canyon View Subdivision

WHEN RECORDED, RETURN TO:

Alicia Fairborn
Grantsville City Recorder
429 East Main Street
Grantsville City, Utah 84029

FIRST AMENDMENT TO GRANTSVILLE CITY MASTER DEVELOPMENT AGREEMENT FOR CANYON VIEW SUBDIVISION APPROVED BY THE GRANTSVILLE CITY COUNCIL AND EFFECTIVE AS OF JULY 6, 2022

THIS FIRST AMENDMENT to "Grantsville City Master Development Agreement for Canyon View Subdivision" approved by the Grantsville City Council and effective as of July 6, 2022, as amended (hereinafter the "**MDA**") is made and entered as of the date of approval____ day of _____ 2026 (the "**Amendment**"), by and between Grantsville City, a municipal corporation of the State of Utah and CD DEV, LLC, a Utah limited liability company.

RECITALS

A. The Parties entered into the MDA, which was approved and made effective by the City Council on or about July 6, 2022.

B. The Parties now agree that certain changes are needed to the MDA, and therefore desire to enter into this Amendment to provide updates to the MDA in accordance with the terms herein.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and Developer hereby agree to the following:

TERMS

1. **Incorporation.** All of the terms of the MDA are incorporated into this Amendment, except as revised below. In the event of a conflict between the MDA and this Amendment, this Amendment shall control. Capitalized terms in this Amendment shall have the same meaning given in the MDA, except if there is a conflict, then this Amendment's definition shall control.

2. **Nature of Amendment.** This Amendment modifies only those provisions of the MDA as specifically set forth herein. The Project remains subject to the MDA except as expressly provided herein.

3. **Amendment.** The Parties agree that the following section will be added and incorporated into the MDA and become binding on the Parties:

3.1. **Addendum No.** 1 is hereby repealed and replaced in its entirety with the following:

ADDENDUM NO. 1

(Project-specific terms)

1. **Definitions**. The capitalized terms used in this Addendum No. 1 shall have the meanings set forth in the MDA unless otherwise specified herein.

2. **Open Space**.

a. The Developer shall provide Grantsville City a fee-in-lieu for the raw ground (undeveloped) value of 1.56 acres also described as 10% of the total parcel acreage at a value of $47,000, based on an appraisal provided by Developer pursuant to Grantsville Utah Land Use Development and Management Code Section 21.1.15. Developer shall pay this fee in a single lump sum payment within seven (7) days of the Parties' full execution of the MDA.

b. Grantsville City shall utilize the fee-in-lieu open space funds provided by the Developer for procurement and/or improvement of open space, parks, and/or trails.

3. **Construction Coordination**.

a. The Developer shall provide the City 48 hours' notice to coordinate with the City prior to working on or around existing City water and sewer infrastructure.

b. All connections to City water and sewer infrastructure shall be inspected by the City prior to back-filling.

c. The Developer shall request inspections at least 48 hours prior to the day the Contractor desires the inspection to occur.

d. The Developer shall request disinfection testing at least 48 hours prior to the day the Contractor desires the testing to occur.

4. **Counterparts.** This Amendment may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. A signed copy of this Amendment delivered by facsimile, email, or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Amendment.

[signature pages follow]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respective, duly authorized representatives as of the day and year first herein above written.

DEVELOPER
CD DEV, LLC.

_____
By:
Its: Owner

GRANTSVILLE CITY

_____
By: Heidi Hammond,
Its: Mayor

Approved as to form and legality:

_____
City Attorney

Attest:

_____
City Recorder

CITY ACKNOWLEDGMENT

STATE OF UTAH)
: SS.
COUNTY OF TOOELE)

On the _____ day of_____, 20__ personally appeared before me _____who being by me duly sworn, did say that he is the Mayor of Grantsville City, a political subdivision of the State of Utah, and that said instrument was signed in behalf of the City by authority of its City Council and said Mayor acknowledged to me that the City executed the same.

_____
NOTARY PUBLIC

My Commission Expires: _____

Residing at: _____

DEVELOPER ACKNOWLEDGMENT

STATE OF UTAH)
: Ss.
COUNTY OF _____)

On the _____ day of _____, 20__, personally appeared before me _____, who being by me duly sworn, did say that Developer is the owner of The, CD DEV LLC, a Utah limited liability company and that the foregoing instrument was duly authorized by the company at a lawful meeting held by authority of its operating agreement and signed in behalf of said company.

_____
NOTARY PUBLIC

My Commission Expires: _____

Residing at: _____

EXHIBIT A

LEGAL DESCRIPTION

BOUNDARY DESCRIPTION

A parcel of land, situate in the Northwest Quarter of Section 8, Township 3 South, Range 5 West, Salt Lake Base and Meridian, said parcel also located in Tooele, Tooele County, Utah, more described as follows:

All of Lot 4 of the 'Kenneth H. Minor Subdivision', as recorded October 15, 2012, under Entry no. 375852, in the Tooele County Recorder's Office, more particularly described as follows:

Beginning at a point which is located on the South line of Nygreen Street, said point also being the Northwest corner of said Lot 4 of the 'Kenneth H. Minor Subdivision', said point also located South 0°32'09" West 76.96 feet along the Section Line and East 0.70 feet from the Northwest Corner of Section 8, Township 3 South, Range 5 West, Salt Lake Base and Meridian, and running:

thence South 89°54'00" East 150.08 feet along the said South line of Nygreen Street to the West line of Lot 1 of said 'Kenneth H. Minor Subdivision';
thence South 0°30'05" West 300.73 feet along the said West line to the South line of said Lot 1 of 'Kenneth H. Minor Subdivision';
thence North 89°58'39" East 151.01 feet along the said South line to the East line of said Lot 1 of 'Kenneth H. Minor Subdivision';
thence North 0°30'05" East 300.41 feet along the said East line to the said South line of Nygreen Street;
thence South 89°54'00" East 60.00 feet along the said South line of Nygreen Street to the West line of Lot 2 of said 'Kenneth H. Minor Subdivision';
thence South 0°30'05" West 300.28 feet along the said West line to the South line of said Lot 2 of 'Kenneth H. Minor Subdivision';
thence North 89°58'39" East 298.02 feet along the South line of said Lot 2 and Lot 3 of 'Kenneth H. Minor Subdivision' to the East line of said Lot 4 of said 'Kenneth H. Minor Subdivision';
thence South 0°30'05" West 943.53 feet along the East line to the South line of said Lot 4 of 'Kenneth H. Minor Subdivision';
thence South 89°57'50" West 648.60 feet along the said South line to the West line of said Lot 4 of 'Kenneth H. Minor Subdivision';
thence North 0°01'01" East 1244.68 feet along the said West line of Lot 4 of said 'Kenneth H. Minor Subdivision' to the Point of Beginning;

Parcel contains: 678,555 square feet, or 15.58 acres.

5-11-22

PROFESSIONAL LAND SURVEYOR
No. 334575
DOUGLAS J KINSMAN
STATE OF UTAH

MAY 11, 2022
Date
Douglas J. Kinsman
License no: 334575

AN APPRAISAL REPORT OF
15.58-ACRES OF RESIDENTIAL LAND
KNOWN AS CANYON VIEW SUBDIVISION



LOCATED AT
400 EAST NYGREEN STREET,
GRANTSVILLE, UTAH

PREPARED FOR
CV DEVELOPMENT, LLC

EPARED BY
MATTHEW LIMPERT, MAI
CERTIFIED GENERAL APPRAISER

RETROSPECTIVE EFFECTIVE DATE OF VALUATION
MAY 5, 2022

DATE OF INSPECTION
NOVEMBER 21, 2024

REPORT DATE
DECEMBER 19, 2024

December 20, 2024

CV Development, LLC
Mr. Brian Barrow
Finance Director
1676 Progress Way
Tooele, Utah 84074

Re: An appraisal report of 15.58-acres of residential land located at 400 East Nygreen Street, Grantsville, Utah, Tooele County Parcel Number: Former parcel 18-027-0-0004; Appraiser File Number: 190ML1124.

CV Development, LLC,

In compliance with the request received by our firm, we have conducted an investigation and completed an analysis sufficient to form an opinion of market value, reflecting the fee simple interest of the commercial pad site located at 400 East Nygreen Street, Grantsville, Utah.

After inspecting the site, pertinent market data were gathered and used for a comparative analysis. This was done to determine an estimate of the appraised property's market value. The results are summarized in a narrative format, known as an Appraisal Report.

As requested, this is a narrative Appraisal Report which is intended to comply with the reporting requirements set forth under Standards Rule 2-2(a) of the Uniform Standards of Professional Appraisal Practice (USPAP) for an appraisal report. As such, it presents a discussion of the data, reasoning, and analysis that were used in the appraisal process to develop the appraiser's opinion of value. The report also conforms to 12 CFR Part 34 (FIRREA). Supporting documentation concerning the data, reasoning, and analysis is retained in the appraiser's file. The depth of the discussion contained in this report is specific to the needs of the client and for the intended use stated in the report. The valuation in the appraisal is based upon all applicable approaches to value. The appraisers are not responsible for unauthorized use of this report.

It is noted that the effective date of valuation for the subject property is retrospective, namely May 5, 2022. As of the date of valuation, the property was vacant residential land and the property is appraised. Since the date of valuation, the property has been developed into a subdivision known as Canyon View Subdivision. None of the current or existing subdivision improvements or lots which were constructed since the date of value are included in the valuation. The purpose of the appraisal is to assist in determining an applicable open space fee for the City of Grantsville.

CV Development, LLC
December 19, 2024
Page 2

Based on my investigation and analysis, we have concluded the following:

RECONCILED MARKET VALUE	
Market Value – As Is (Fee Simple) (Date of Inspection/Effective Date: May 5, 2022-Retrospective)	**$470,000**

Your attention is invited to the attached appraisal report, which outlines in detail the data collected and the methods used to estimate the market value of the above-described property. The values given are subject to the general assumptions and limiting conditions, and specific extraordinary assumptions and hypothetical conditions stated in the report and/or itemized in the preface section of this document. It is important that the reader of this report review and understand all general and specific assumptions and limiting conditions. The date of the report is December 20, 2024.

Respectfully submitted,



Matthew Limpert, MAI
Utah State Certified General Appraiser
License No. 5489702-CG00, Expires 1-31-25
Enc.

WHEN RECORDED, RETURN TO:

Brett Coombs, Esq.
Grantsville City Attorney
429 East Main Street
Grantsville City, Utah 84029

GRANTSVILLE CITY
MASTER DEVELOPMENT AGREEMENT
FOR
CANYON VIEW SUBDIVISION

THIS MASTER DEVELOPMENT Agreement ("**Agreement**") is made and entered as of the _____ day of _____, 2022, by and between Grantsville City, a municipal corporation of the State of Utah ("**City**") and GTM Builders, LLC, a Utah limited liability corporation ("**Developer**").

RECITALS

A. The capitalized terms used in this Agreement and in these Recitals are defined in Section 1.2, below.

B. Developer owns and is developing the Property as a residential subdivision. Developer and the City desire that the Property be developed in a unified and consistent fashion pursuant to the Preliminary Plat and Final Plat. The Parties desire to enter into this Agreement to specify the rights and responsibilities of the Developer to develop the Property as expressed in this Agreement and the rights and responsibilities of the City to allow and regulate such development pursuant to the requirements of this Agreement.

C. The Parties understand and intend that this Agreement is a "development agreement" within the meaning of, and entered into pursuant to the terms of Utah Code Ann. §10-9a-101 (2005) *et seq*. This Agreement conforms with the intent of the City's General Plan and the Zoning.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the City and Developer hereby agree to the following, incorporating by reference the prior recitals as if fully set forth herein:

TERMS

1. **Definitions.** As used in this Agreement, the words and phrases specified below shall have the following meanings:

1.1. **Agreement** means this Master Development Agreement including all of its Exhibits and Addenda, including Addenda added after this Agreement is executed.
1.2. **Applicant** means a person or entity submitting a Development Application.
1.3. **Buildout** means the completion of all of the development in each phase of the entire Project in accordance with this Agreement.
1.4. **City** means Grantsville City, a political subdivision of the State of Utah.
1.5. **City's Future Laws** means the ordinances, policies, standards, and procedures which may be in effect as of a particular time in the future when a Development Application is submitted for a part of the Project and which may or may not be applicable to the Development Application depending upon the provisions of this Agreement.
1.6. **Council** means the elected City Council of the City.
1.7. **Default** means a breach of this Agreement as specified herein.
1.8. **Developer** means GTM Builders, LLC and its successors/assignees as permitted by this Agreement.
1.9. **Development** means the development of any portion of the Property pursuant to an approved Development Application.
1.10. **Development Application** means an application to the City for development of a portion of the Project or any other permit, certificate or other authorization from the City required for development of the Project.
1.11. **Final Plat** means the recordable map or other graphical representation of land prepared in accordance with Utah Code Ann. § 10-9a-603 (2019), and approved by the City, subdividing any portion of the Project.
1.12. **GLUDMC** means the Grantsville Land Use and Development Code.
1.13. **LUDMA** means the Land Use, Development, and Management Act, Utah Code Ann.
§ 10-9a-101 (2005), *et seq.*
1.14. **Maximum Residential Units** means the development on the Property of Canyon View Subdivision, twenty-three (23) Residential Dwelling Units.
1.15. **Notice** means any notice to or from any Party to this Agreement that is either required or permitted to be given to another party.
1.16. **Party/Parties** means, in the singular, Developer or the City; in the plural Developer and the City.
1.17. **Final Plat** means the final plat for the development of the Project, which has been approved by the City and which is attached as Exhibit "B."
1.18. **Project** means the residential subdivision to be constructed on the Property, in phases, pursuant to this Agreement with the associated Public Infrastructure and private facilities, and all of the other aspects approved as part of this Agreement.
1.19. **Property** means the real property owned by and to be developed by Developer more fully described in **Exhibit A**.
1.20. **Public Infrastructure** means those elements of infrastructure that are planned to be dedicated to the City or other public entities as a condition of the approval of a Development Application.
1.21. **Residential Dwelling Unit** means a structure or portion thereof designed and intended for use as attached residences as illustrated on the Final Plan.
1.22. **Zoning** means the RR1 zoning of the Property.

2. **Development of the Project.**

2.1. **Compliance with the Final Plat and this Agreement.** Development of the Project shall be in accordance with LUDMA, GLUDMC, the City's Future Laws (to the extent they are applicable as specified in this Agreement), the Final Plat and this Agreement.

2.2. **Maximum Residential Units.** At Buildout, Developer shall be entitled to have developed the Maximum Residential Units of the type and in the general location as shown on the Final Plat.

3. **Vested Rights.**

3.1. **Vested Rights Granted by Approval of this Agreement.** To the maximum extent permissible under the laws of Utah and the United States and at equity, the Parties intend that this Agreement grants to Developer all rights to develop the Project in fulfillment of this Agreement, LUDMA, GLUDMC, the Zoning of the Property, and the Final Plat except as specifically provided herein. The Parties specifically intend that this Agreement grant to Developer the "vested rights" identified herein as that term is construed in Utah's common law and pursuant to Utah Code Ann. § 10-9a-509 (2019).

3.2. **Exceptions.** The vested rights and the restrictions on the applicability of the City's Future Laws to the Project as specified in Section 3.1 are subject to the following exceptions:

3.2.1. Developer Agreement. The City's Future Laws or other regulations to which the Developer agrees in writing;

3.2.2. State and Federal Compliance. The City's Future Laws or other regulations which are generally applicable to all properties in the City and which are required to comply with State and Federal laws and regulations affecting the Project;

3.2.3. Codes. Any City's Future Laws that are updates or amendments to existing building, fire, plumbing, mechanical, electrical, dangerous buildings, drainage, or similar construction or safety related codes, such as the International Building Code, the APWA Specifications, AAHSTO Standards, the Manual of Uniform Traffic Control Devices or similar standards that are generated by a nationally or statewide recognized construction/safety organization, or by the State or Federal governments and are required to meet legitimate concerns related to public health, safety or welfare;

3.2.4. Taxes. Taxes, or modifications thereto, so long as such taxes are lawfully imposed and charged uniformly by the City to all properties, applications, persons and entities similarly situated; or,

3.2.5. Fees. Changes to the amounts of fees for the processing of Development Applications that are generally applicable to all development within the City (or a portion of the City as specified in the lawfully adopted fee schedule) and which are adopted pursuant to State law.

3.2.6. Impact Fees. Impact Fees or modifications thereto which are lawfully adopted, and imposed by the City pursuant to Utah Code Ann. Section 11-36a-101 (2011) *et seq.*

3.2.7. Planning and Zoning Modification. Changes by the City to its planning principles and design standards as permitted by Local, State or Federal law.

3.2.8. Compelling, Countervailing Interest. Laws, rules or regulations that the City's land use authority finds, on the record, are necessary to avoid jeopardizing a compelling, countervailing public interest pursuant to Utah Code Ann. § 10-9a-509(1)(a)(i) (2020).

4. **Term of Agreement.** Unless earlier terminated as provided for herein, the term of this Agreement shall be until January 31, 2027. If Developer has not been declared to be currently in

Default as of January 31, 2027 (and if any such Default is not being cured) then this Agreement shall be automatically extended until January 31, 2032. This Agreement shall also terminate automatically at Buildout.

5. **Addenda** Addendum No. 1 contains the provisions of this Agreement that are specific to the development of phase 1 of Project. Any future phases of the Project may require an added addendum. If there is a conflict between this Agreement and Addendum No. 1 or any future addenda, then Addendum No. 1 and the future addenda shall control.

6. **Public Infrastructure.**

6.1. **Construction by Developer.** Developer, at Developer's cost and expense, shall have the right and the obligation to construct or cause to be constructed and install all Public Infrastructure reasonably and lawfully required as a condition of approval of this Development Application pursuant to GLUDMC. Such construction must meet all applicable standards and requirements and must be approved by the City's Engineer and Public Works Director.

6.2. **Responsibility Before Acceptance.** Developer shall be responsible for all Public Infrastructure covered by this Agreement until final inspection of the same has been performed by the City, and a final acceptance and release has been issued by the City. The City shall not, nor shall any officer or employee thereof, be liable or responsible for any accident, loss or damage happening or occurring to the Public Infrastructure, nor shall any officer or employee thereof, be liable for any persons or property injured by reason of said Public Infrastructure; all of such liabilities shall be assumed by the Developer.

6.3. **Warranty.** Developer shall repair any defect in the design, workmanship or materials in all Public Infrastructure which becomes evident during a period of one year following the acceptance of the improvements by the City Council or its designee (Durability Testing Period). If during the Durability Testing Period, any Public Infrastructure shows unusual
depreciation, or if it becomes evident that required work was not done, or that the material or workmanship used does not comply with accepted standards, said condition shall, within a reasonable time, be corrected.

6.4. **Timing of Completion of Public Infrastructure.** In accordance with the diligence requirements for the various types of approvals as described in the GLUDMC, construction
of the required Public Infrastructure for each phase shall be completed within one year after the City Council grants final plat approval for that phase and prior to recordation of the
mylar for that phase. Upon a showing of good and sufficient cause by Developer the City shall, in accordance with the provisions of GLUDMC, extend the time of performance if requested prior to expiration of the completion date.

6.5. **Bonding.** In connection with any Development Application, Developer shall provide bonds or other development security, including warranty bonds, to the extent required by GLUDMC, unless otherwise provided by Utah Code § 10-9a-101, *et seq.* (2005), as amended. The Applicant shall provide such bonds or security in a form acceptable to the City or as specified in GLUDMC. Partial releases of any such required security shall be made as work progresses based on GLUDMC.

6.6. **City Completion.** The Developer agrees that in the event he does not: (a) complete all improvements within the time period specified under paragraph two above, or secure an extension of said completion date, (b) construct said improvements in accordance with City standards and as set forth in Paragraph one above, or (c) pay all claimants for material and labor used in the construction of said improvements, the City shall be entitled to declare the developer(s) in default, request and receive the funds held by the guarantor as surety and utilize the monies obtained to install or cause to be installed any uncompleted improvements and/or to pay any outstanding claims, as applicable. Provided however, that the City shall not be responsible for any work beyond the amount of funds so provided. Any funds remaining after completion of the improvements shall be returned to the Guarantor. The Developer further agrees to be personally liable for any cost of improvements above the amount made available under the terms of this agreement.

7. **Upsizing/Reimbursements to Developer.**

7.1. **Upsizing.** The City shall not require Developer to "upsize" any future Public Infrastructure (i.e., to construct the infrastructure to a size larger than required to service the Project) unless financial arrangements reasonably acceptable to Developer are made to compensate Developer for the incremental or additive costs of such upsizing to the extent required by law.

8. **Default.**

8.1. **Notice.** If Developer or the City fails to perform their respective obligations hereunder or to comply with the terms hereof, the Party believing that a Default has occurred shall provide Notice to the other Party.

8.2. **Contents of the Notice of Default**. The Notice of Default shall:

8.2.1. Specific Claim. Specify the claimed event of Default;

8.2.2. Applicable Provisions. Identify with particularity the provisions of any applicable law, rule, regulation or provision of this Agreement that is claimed to be in Default; and

8.2.3. Optional Cure. If the City chooses, in its discretion, it may propose a method and time for curing the Default which shall be of no less than thirty (30) days duration,
if weather conditions permit.

8.3. **Remedies.** Upon the occurrence of any Default, and after notice as required above, then the parties may have the following remedies:

8.3.1. Law and Equity. All rights and remedies available at law and in equity, including, but not limited to, injunctive relief and/or specific performance.

8.3.2. Security. The right to draw on any security posted or provided in connection with the Project and relating to remedying of the particular Default.

8.3.3. Future Approvals. The right to withhold all further reviews, approvals, licenses, building permits and/or other permits for development of the Project in the case of a default by Developer until the Default has been cured.

8.4. **Public Meeting.** Before any remedy in Section 8.3 may be imposed by the City the party allegedly in Default shall be afforded the right to attend a public meeting before the City Council and address the City Council regarding the claimed Default.

8.5. **Default of Assignee.** A default of any obligations expressly assumed by an assignee shall not be deemed a default of Developer.

8.6. **Limitation on Recovery for Default – No Damages against the City.** Anything in

this Agreement notwithstanding, Developer shall not be entitled to any claim for any monetary damages as a result of any breach of this Agreement and Developer waives any claims thereto. The sole remedy available to Developer and any assignee shall be that of specific performance.

9. **Notices.** All notices required or permitted under this Agreement shall, in addition to any other means of transmission, be given in writing by certified mail and regular mail to the following address:

To the Developer:

GTM Builders, LLC
1676 Progress Way
Tooele, Utah 84074

To the City:

Grantsville City
Attn: City Manager
429 East Main Street
Grantsville, Utah 84029

10. **Dispute Resolution.** Any disputes subject to mediation or arbitration shall be resolved pursuant to Addendum No. 2.

11. **Incorporation of Recitals and Exhibits.** The Recitals and Exhibits "A" - "B" are hereby incorporated into this Agreement.

12. **Headings.** The captions used in this Agreement are for convenience only and a not intended to be substantive provisions or evidences of intent.

13. **No Third-Party Rights/No Joint Venture.** This Agreement does not create a joint venture relationship, partnership or agency relationship between the City, or Developer. Except as specifically set forth herein, the parties do not intend this Agreement to create any third-party beneficiary rights.

14. **Assignability.** The rights and responsibilities of Master Developer under this Agreement may be assigned in whole or in part, respectively, by Developer with the consent of the City as provided herein.

14.1. **Sale of Lots.** Developer's selling or conveying lots in any approved subdivision shall not be deemed to be an assignment.

14.2. **Related Entity.** Developer's transfer of all or any part of the Property to any entity "related" to Developer (as defined by regulations of the Internal Revenue Service in Section 165), Developer's entry into a joint venture for the development of the Project or Developer's pledging of part or all of the Project as security for financing shall also not be deemed to be an assignment. Developer shall give the City Notice of any event specified in this sub-section within ten (10) days after the event has occurred. Such Notice shall include providing the City with all necessary contact information for the newly responsible party.

14.3. **Process for Assignment.** Developer shall give Notice to the City of any proposed

assignment and provide such information regarding the proposed assignee that the City may reasonably request in making the evaluation permitted under this Section. Such Notice shall include providing the City with all necessary contact information for the proposed assignee. Unless the City objects in writing within twenty (20) business days of notice, the City shall be deemed to have approved of and consented to the assignment. The City shall not unreasonably withhold consent.

14.4. **Partial Assignment.** If any proposed assignment is for less than all of Master Developer's rights and responsibilities then the assignee shall be responsible for the performance of each of the obligations contained in this MDA to which the assignee succeeds. Upon any such approved partial assignment Master Developer shall not be released from any future obligations as to those obligations which are assigned but shall remain jointly and severally liable with assignee(s) to perform all obligations under the terms of this Agreement which are specified to be performed by Developer.

14.5. **Complete Assignment.** Developer may request the written consent of the City of an assignment of Developer's complete interest in this Agreement, which consent shall not be unreasonably withheld. In such cases, the proposed assignee shall have the qualifications and financial responsibility necessary and adequate, as required by the City, to fulfill all obligations undertaken in this Agreement by Developer. The City shall be entitled to review and consider the ability of the proposed assignee to perform, including financial ability, past performance and experience. After review, if the City gives its written consent to the assignment, Developer shall be released from its obligations under this Agreement for that portion of the Property for which such assignment is approved.

15. **No Waiver.** Failure of any Party hereto to exercise any right hereunder shall not be deemed a waiver of any such right and shall not affect the right of such party to exercise at some future
date any such right or any other right it may have.

16. **Severability.** If any provision of this Agreement is held by a court of competent jurisdiction to be invalid for any reason, the Parties consider and intend that this Agreement shall be deemed amended to the extent necessary to make it consistent with such decision and the balance of this Agreement shall remain in full force and affect.

17. **Force Majeure.** Any prevention, delay or stoppage of the performance of any obligation under this Agreement which is due to strikes, labor disputes, inability to obtain labor, materials, equipment or reasonable substitutes therefor; acts of nature, governmental restrictions, regulations
or controls, judicial orders, enemy or hostile government actions, wars, civil commotions, fires or other casualties or other causes beyond the reasonable control of the Party obligated to perform hereunder shall excuse performance of the obligation by that Party for a period equal to the duration of that prevention, delay or stoppage.

18. **Time is of the Essence.** Time is of the essence to this Agreement and every right or responsibility shall be performed within the times specified.

19. **Appointment of Representatives.** To further the commitment of the Parties to cooperate in the implementation of this Agreement, the City and Developer each shall designate and appoint
a representative to act as a liaison between the City and its various departments and the Developer. The initial representative for the City shall be the City Manager. The initial representative for

Developer shall be Shawn Holste. The Parties may change their designated representatives by Notice. The representatives shall be available at all reasonable times to discuss and review the performance of the Parties to this Agreement and the development of the Project.

20. **Applicable Law.** This Agreement is entered into in Tooele County in the State of Utah and shall be construed in accordance with the laws of the State of Utah irrespective of Utah's choice of law rules.

21. **Venue.** Any action to enforce this Agreement shall be brought only in the Third District Court, Tooele County in and for the State of Utah.

22. **Entire Agreement.** This Agreement, and all Exhibits thereto, documents referenced herein, is the entire agreement between the Parties and may not be amended or modified except either as provided herein or by a subsequent written amendment signed by all Parties.

23. **Mutual Drafting.** Each Party has participated in negotiating and drafting this Agreement and therefore no provision of this Agreement shall be construed for or against any Party based on which Party drafted any particular portion of this Agreement.

24. **No Relationship.** Nothing in this Agreement shall be construed to create any partnership, joint venture or fiduciary relationship between the parties.

25. **Amendment.** This Agreement may be amended only in writing signed by the parties hereto.

26. **Recordation and Running with the Land.** This Agreement shall be recorded in the chain of title for the Project. This Agreement shall be deemed to run with the land.

27. **Priority.** This Agreement shall be recorded against the Property senior to any respective covenants and any debt security instruments encumbering the Property.

28. **Authority.** The Parties to this Agreement each warrant that they have all of the necessary authority to execute this Agreement. Specifically, on behalf of the City, the signature of the City Manager of the City is affixed to this Agreement lawfully binding the City pursuant to Resolution No. 2022-35 adopted by the City on May 5, 2022.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by and through their respective, duly authorized representativesas of the day and year first herein above written.

DEVELOPER
GTM Builders, LLC

By: _____
Its: _____

GRANTSVILLE CITY

By: Jesse Wilson
Its: City Manager

Approved as to form and legality:

City Attorney _____

Attest:

City Recorder _____

CITY ACKNOWLEDGMENT

STATE OF UTAH)
:ss.
COUNTY OF TOOELE)

On the _____ day of_____, 2021 personally appeared before me Jesse Wilson who being by me duly sworn, did say that he is the City Manager of Grantsville City, a political subdivision of the State of Utah, and that said instrument was signed in behalf of the City by authority of its City Council and said City Manager acknowledged to me that the City executed the same.

NOTARY PUBLIC

My Commission Expires: _____

Residing at: _____

DEVELOPER ACKNOWLEDGMENT

STATE OF UTAH)
:ss.
COUNTY OF _____)

On the _____ day of _____, 20__, personally appeared before me _____, who being by me duly sworn, did say that he/she is the _____ of _____, a Utah limited liability company and that the foregoing instrument was duly authorized by the company at a lawful meeting held by authority of its operating agreement and signed in behalf of said company.

NOTARY PUBLIC

My Commission Expires: _____

Residing at: _____

TABLE OF EXHIBITS

Exhibit "A"	Legal Description of Property
Exhibit "B"	Final Plat
Addendum No. 1	Specific Project Terms
Addendum No. 2	Dispute Resolution Procedures

Exhibit "A"
Legal Description of Property

A parcel of land, situate in the Northwest Quarter of Section 8, Township 3 South, Range 5 West, Salt Lake Base and Meridian, said parcel also located in Tooele, Tooele County, Utah, more described as follows:
All of Lot 4 of the 'Kenneth H. Minor Subdivision', as recorded October 15, 2012, under Entry no. 375852, in the Tooele County Recorder's Office, more particularly described as follows: Beginning at a point which is located on the South line of Nygreen Street, said point also being the Northwest corner of said Lot 4 of the 'Kenneth H. Minor Subdivision', said point also located South 0°32'09" West 76.96 feet along the Section Line and East 0.70 feet from the Northwest Corner of Section 8, Township 3 South, Range 5 West, Salt Lake Base and Meridian, and running: thence South 89°54'00" East 150.08 feet along the said South line of Nygreen Street to the West line of Lot 1 of said 'Kenneth H. Minor Subdivision'; thence South 0°30'05" West 300.73 feet along the said West line to the South line of said Lot 1 of 'Kenneth H. Minor Subdivision'; thence North 89°58'39" East 151.01 feet along the said South line to the East line of said Lot 1 of 'Kenneth H. Minor Subdivision'; thence North 0°30'05" East 300.41 feet along the said East line to the said South line of Nygreen Street; thence South 89°54'00" East 60.00 feet along the said South line of Nygreen Street to the West line of Lot 2 of said 'Kenneth H. Minor Subdivision'; thence South 0°30'05" West 300.28 feet along the said West line to the South line of said Lot 2 of 'Kenneth H. Minor Subdivision'; thence North 89°58'39" East 298.02 feet along the South line of said Lot 2 and Lot 3 of 'Kenneth H. Minor Subdivision' to the East line of said Lot 4 of said 'Kenneth H. Minor Subdivision'; thence South 0°30'05" West 943.53 feet along the East line to the South line of said Lot 4 of 'Kenneth H. Minor Subdivision'; thence South 89°57'50" West 648.60 feet along the said South line to the West line of said Lot 4 of 'Kenneth H. Minor Subdivision'; thence North 0°01'01" East 1244.68 feet along the said West line of Lot 4 of said 'Kenneth H. Minor Subdivision' to the Point of Beginning;

Parcel contains: 678,555 square feet, or 15.58 acres.

Exhibit "B"
Final Plat

ADDENDUM NO.1

TERMS

1. **Definitions.** The capitalized terms used in this Addendum No. 1 shall have the meanings set forth in the MDA unless otherwise specified herein.

2. **Open Space:**
   a. The Developer shall provide Grantsville City a fee-in-leu for the raw ground (undeveloped) value of 1.56 acres also described as 10% of the total parcel acreage at a value of $92,480. The funds shall be deposited with Grantsville City at an equivalent of $4,020.87 per lot per phase ($92,480 divided by 23 lots) prior to recording of each phase.
   b. Grantsville City shall utilize the fee in lieu open space funds provided by the Developer for procurement and/or improvement of open space, parks, and/or trails.

3. **Construction Coordination:**
   a. The Developer shall provide the City 48 hours' notice to coordinate with the City prior to working on or around existing City water and sewer infrastructure.
   b. All connections to City water and sewer infrastructure shall be inspected by the City prior to back-filling.
   c. The Developer shall request inspections at least 48 hours prior to the day the Contractor desires the inspection to occur.
   d. The Developer shall request disinfection testing at least 48 hours prior to the day the Contractor desires the testing to occur.

Addendum No. 2
(Dispute Resolution)

1. **Meet and Confer.** The City and Developer/Applicant shall meet within fifteen (15) business days of any dispute under this Agreement to resolve the dispute.

2. **Mediation.**

2.1. Disputes Subject to Mediation. Disputes that are not subject to arbitration provided in
Section 3 shall be mediated.

2.2. Mediation Process. If the City and Developer/Applicant are unable to resolve a disagreement subject to mediation, the Parties shall attempt within ten (10) business days to appoint a mutually acceptable mediator with knowledge of the legal issue in dispute. If the Parties are unable to agree on a single acceptable mediator they shall each, within ten (10) business days, appoint their own representative. These two representatives shall, between them, choose the single mediator. Developer/Applicant shall pay the fees of the chosen mediator. The chosen mediator shall within fifteen (15) business days from selection, or such other time as is reasonable under the circumstances, review the positions of the Parties regarding the mediation issue and promptly attempt to mediate the issue between the Parties. If the Parties are unable to reach an agreement, the Parties shall request that the mediator notify the Parties in writing of the resolution that the mediator deems appropriate. The mediator's opinion shall not be binding on the Parties.

Agenda Item # 5

Consideration of Ordinance 2026-31 amending Chapters 2, 8, and 16 of the Grantsville City Land Use Development and Management Code regarding animal rescue land use

Animal Rescue New Use Staff Report

Proposed amendments to Chapters 2 and 8 and the applicable land use table

Agenda item	Presentation, Public Hearing, Discussion, and Recommendation on a proposed Animal Rescue use
Applicant	Bella's Furever Friends
Related property	94 West Main Street, Grantsville, Utah · parcel 01-094-0-0031 · C-S district
Requested action	Legislative recommendation to the City Council on a new conditional land use and operating standards
Meeting	10/06/2026

Staff Summary

The applicant proposes a new Animal Rescue use for cats and dogs, with a maximum of 75 animals onsite, indoor housing, appointment-based public access, and a Conditional Use Permit (CUP). The submission supplies definitions and operating standards for Chapters 2 and 8. The Planning Commission should consider whether the use belongs in the land use table and whether the proposed limits can be applied consistently to other sites.

Decision Before the Planning Commission

This is a legislative recommendation about the ordinance, not a CUP or an occupancy approval. The Commission may recommend approval, approval with revisions, or denial. If the Council adopts the use, Bella's Furever Friends would still need a separate site-specific CUP and all required building, fire, utility, health, and business approvals before operating under the new classification.

Background

The reference staff report describes a complaint received January 24, 2026, a Notice of Violation issued March 23 because a cat rescue was not listed in the C-S use table, and subsequent discussions with the owner and rescue representatives. Staff was informed on April 14 that the building lacked an active water connection and referred the property to the Tooele County Health Department in June. The record furnished for this report does not confirm that water service, a health inspection, or occupancy approvals have since been completed.

The current applicant proposal is broader: it includes both cats and dogs and sets numerical standards for staffing, visitors, parking, lot area, and buffers. Those changes warrant review as a general code policy, especially for sites near homes.

Summary of the Applicant Proposal

- Chapter 2 would define Animal Rescue, Temporary Housing, Long Term Boarding, and Local Municipalities. The use would be limited to nonprofit or state-registered animal welfare organizations and would exclude breeding, pet retail, private boarding, veterinary hospitals, commercial kennels, and animal encounter facilities.
- Chapter 8 would allow indoor intake, housing, care, quarantine, rehabilitation, adoption, foster coordination, transfer, and related administration. Outdoor activity would be limited to secured transport, waste removal, deliveries, maintenance, and emergencies.
- Capacity would be capped at 75 cats and dogs combined. A typical stay would be up to six months; a rescue director could document an extension for medical, behavioral, or placement reasons.
- Public appointments would be limited to 8:00 a.m. to 7:00 p.m., Monday through Saturday, with no more than five public visitors onsite at a time. The text permits urgent rescue intake without an appointment.
- Routine operations would generally involve two caretakers or volunteers, with no more than five onsite.
- The proposal specifies a 60,000 square feet minimum lot, five off-street spaces including an accessible space, and a ten-foot landscaped buffer along boundaries adjoining residential uses, subject to its stated exceptions or approvals.

- The Planning Commission would review the CUP, increases above 75 animals, and large public events. Material operational changes would receive City review.

Code Structure and Drafting Issues

Use Table and Geographic Scope

The submission does not identify the exact land use table row, district designations, or table amendment needed to authorize the use. The earlier report proposed a conditional use in C-S under Table 16.1. Before a recommendation is finalized, the ordinance should expressly identify every district in which Animal Rescue is proposed and show the precise use-table change. The Council should determine the geographic scope as a citywide policy; the classification should not depend on the particular applicant or parcel.

Definition and Scope

The proposed definition combines use classification with detailed operating rules and uses "state registered" without specifying the registration contemplated. Keep the definition focused on the nature of the use; place measurable conditions in Chapter 8. Clarify whether municipal or governmental rescues qualify, whether off-site veterinary care and foster coordination are incidental, and whether "Local Municipalities" needs a separate definition if the final standards do not use the term. Use one consistent term for the proposed land use throughout the ordinance and use table.

Capacity and Animal Care

The 75-animal figure is an applicant-proposed ceiling, not proof that every facility can safely house 75 animals. The code should require each CUP to establish a lower site-specific limit when floor area, separation of species, quarantine space, ventilation, sanitation, water, wastewater, staffing, and emergency planning warrant it. Specify how temporarily absent foster animals and newborn litters count. Retain intake and disposition records and a documented basis for stays exceeding six months without turning the use into indefinite boarding.

Site Standards and Public Access

The 60,000 square foot lot, five-space parking minimum, accessible space, and ten-foot residential buffer need review against the actual C-S parcel and other potentially eligible sites. "Unless otherwise approved" for lot area should identify the decision-maker and criteria, or be removed. Parking and accessible design should be reconciled with otherwise applicable City and accessibility standards. Clarify whether the ten-foot buffer applies to existing buildings and how any physical constraint would be addressed. The urgent-intake exception should require supervised receipt indoors and must not permit unattended drop-off.

Operations and Enforcement

The draft should specify waste storage and removal, odor and pest prevention, cleaning and disease-control protocols, secured animal movement, and compliance with applicable noise and lighting rules. Clarify that maintenance weekends do not authorize public events, identify the applicable permit amendment process for operational changes, and align any suspension or revocation language with existing CUP procedures. The submitted text refers to "Chapter 8" but does not supply final section numbering or conforming cross-references.

Land Use Analysis

An indoor, scheduled rescue may be compatible with a commercial district if its building and operations control animal noise, odor, waste, vehicle activity, and public access. Adding dogs can increase noise, handling, exercise, and species-separation demands beyond the prior cat-only concept. A CUP provides a site-specific review of those impacts, but objective code standards should define the minimum safeguards and leave the CUP to address demonstrated site conditions.

The submission does not include a dimensioned site plan, parking layout, building floor plan, utility confirmation, ventilation information, animal-care layout, or documented basis for 75 animals at 94 West Main Street. Those omissions do not bar consideration of a general code amendment. They do prevent a conclusion that this property can meet the proposed operating standards or support the requested capacity.

Recommended Findings for the Code Recommendation

1. The current proposal would establish a new Animal Rescue use for cats and dogs and would require a CUP.
2. The prior staff report identified that the proposed rescue use was not listed in the C-S land use table; the applicant has not supplied a final proposed use-table amendment or a complete list of eligible districts.
3. Animal capacity, sanitation, noise, disease control, waste, traffic, parking, utilities, and adjacency to residential uses are relevant impacts that require ordinance standards and site-specific review.
4. The proposed numerical limits and operational exceptions require clarification to function as generally applicable code.
5. A legislative amendment alone would neither approve operations at 94 West Main Street nor resolve outstanding compliance and occupancy issues.

Staff Recommendation

Staff recommends that the Planning Commission recommend the Animal Rescue concept to the City Council with revisions: identify the proposed conditional-use districts and amend the applicable use table; separate the definition from operating standards; make 75 animals a maximum subject to a lower CUP limit; clarify the lot-area exception, parking, buffer, urgent intake, recordkeeping, and review of operational changes; and require demonstrated utility, sanitation, building, fire, and health compliance before any site operates. If the Commission prefers to review final ordinance language before recommending adoption, it may continue the item and direct staff to prepare that text.

Possible Motion

I move to recommend that the City Council consider the proposed Animal Rescue land use as a conditional use, subject to the drafting revisions and findings in the staff report, with the understanding that adoption of the ordinance does not grant a CUP or authorize operation at 94 West Main Street.

Chapter 2 Definitions

ANIMAL RESCUE

A nonprofit or state registered animal welfare organization that operates a controlled, fully enclosed indoor facility for the temporary housing and care of stray, abandoned, feral, surrendered, and homeless cats and dogs. The use is limited to short term intake, evaluation, quarantine, medical recovery, behavioral assessment, socialization, adoption processing, foster placement, inter agency transfer, and community placement. All animal housing, care, and operations shall occur entirely within a climate-controlled building designed to prevent noise, odor, waste, and visibility impacts to surrounding properties.

An animal rescue under this section shall not include or operate as a commercial kennel, veterinary hospital, breeding facility, retail pet store, private boarding operation, or animal encounter facility. Outdoor pens, runs, enclosures, yards, or free roaming areas are prohibited. No long term or permanent housing is permitted. The facility may not accept animals for commercial purposes, may not provide services to the general public other than adoption related activities, and may not exceed the temporary housing capacity established by the City. The rescue shall maintain complete intake, care, quarantine, and placement records and shall make such records available to the City upon request.

TEMPORARY HOUSING

A short-term, rescue-related housing period during which a cat or dog is evaluated, quarantined, medically treated, behaviorally assessed, socialized, prepared for adoption, placed with a foster home, transferred to another qualified rescue partner, or returned through an approved community placement or spay-neuter return program. Temporary housing is limited to the duration reasonably necessary to complete these rescue functions and shall not exceed six months except where documented medical, behavioral, or placement-related conditions require an extended stay.

LONG TERM BOARDING

The private boarding or keeping of a customer’s cat or dog for compensation or convenience outside of any rescue-related intake, medical recovery, foster placement, adoption process, transfer arrangement, or community placement plan. Long-term boarding is a commercial activity and is not included within, or authorized as part of, an animal rescue use.

LOCAL MUNICIPALITIES

Cities, towns, counties, and animal-control agencies within Tooele County and adjacent communities that coordinate with an animal rescue regarding the intake, care, placement, spay-neuter services, or other public animal-welfare functions for cats and dogs.

Chapter 8 Regulations of General Applicability

1. Purpose and Intent

Provide for a controlled, fully enclosed indoor nonprofit animal rescue for cats and dogs that supports animal welfare and public health through temporary housing, evaluation, quarantine, medical recovery, socialization, adoption placement, foster coordination, inter-agency transfer, and community placement, including spay/neuter support and public education. The use is intended to operate at a small scale, with limited public access, and without commercial boarding or kennel-type impacts.

2. Description and Scope

The use is a small nonprofit animal rescue with limited staffing, scheduled public access, and indoor-only housing of cats and dogs. The use is restricted to rescue-related intake, care, and placement functions. It excludes commercial kennels, veterinary hospitals, breeding facilities, retail pet stores, private boarding operations, and animal encounter facilities. Large public events are not included unless separately reviewed and approved.

3. Allowed Activities

(a) Indoor animal housing, feeding, cleaning, quarantine, wellness observation, medical recovery, behavioral assessment, adoption meetings, foster coordination, volunteer activities, and routine rescue administration.

(b) Coordinated rescue intake, transportation, placement, inter-agency transfer, and community placement or spay-neuter return activities for cats and dogs.

(c) Short, supervised incidental outdoor activities, including: transporting animals in secured carriers to or from vehicles; waste removal to approved containers; supply receipt; minor exterior maintenance; and emergency evacuation.

Cats and dogs shall not be housed outdoors, allowed to roam outdoors, or kept in outdoor pens, runs, yards, or enclosures. Transportation may be coordinated by rescue staff or designated personnel. Medical examinations may occur at off-site nonprofit partners or licensed veterinarians within Tooele County.

4. Operational Limitations (Revised & Completed)

(a) Capacity

Maximum of 75 animals (cats and dogs combined) onsite at any one time unless an amendment is reviewed and approved by the Planning Commission.

(b) Access

Public visits shall occur by appointment only for adoption, foster coordination, intake, volunteer activity, or official agency coordination. Appointments shall be staggered to limit traffic and noise. Drop-in retail activity and unscheduled public surrender activity are not included; however, urgent rescue intake may occur without an appointment.

(c) Length of Stay

Temporary housing is intended to last up to six months, with longer stays permitted when documented medical, behavioral, placement, or transfer-related conditions require additional time. Approval of stays beyond six months shall be made by the rescue's designated director or authorized proxy.

Animals not yet adopted remain under rescue management while adoption promotion, foster placement, qualified rescue transfer, medical or behavioral rehabilitation, or appropriate community placement or spay/neuter return is pursued.

(d) Staffing

Routine operations generally involve two caretakers or rescue volunteers, with a maximum of five onsite at one time. Up to four times per year, additional caretakers or volunteers may attend during a weekend for deep cleaning or facility improvements, including brush removal, larger repairs, or extensive cleaning and maintenance. Maximum staffing during these maintenance weekends shall not exceed ten individuals onsite.

(e) Volunteer Controls

Volunteers shall be screened through an application or intake form, contact-information review, orientation, and approval before independent work. Orientation shall cover handling, sanitation, safety, quarantine procedures, confidentiality, visitor rules, and emergency expectations. Youth volunteers shall perform supervised work at all times and may participate only with written guardian permission.

(f) Records

Each intake shall be evaluated and approved by the rescue's designated intake coordinator or director. Each animal's record shall identify intake date, source, description, known medical or vaccination status, quarantine or observation status, and planned outcome. Records shall be updated through care, foster placement, adoption, transfer, return, or other disposition and shall be available for City inspection.

(g) Hours and Days of Operation (NEW)

The rescue shall maintain posted hours for appointments, staff access, and volunteer activity. Public appointment hours shall be limited to 8:00 a.m. to 7:00 p.m., Monday through Saturday, unless otherwise approved. No more than five public visitors may be onsite at one time.

(h) Minimum Crate and Holding Areas

Each cat or dog housed at the animal rescue shall be provided an indoor primary enclosure, crate, pen, or holding room meeting the minimum usable floor area below, based on the animal's current weight. These requirements apply to individual housing, group housing, quarantine, isolation, and medical recovery areas. The minimum is required for each animal and shall be maintained throughout its stay.

Size category	Animal weight	Minimum area per animal
Extra Small	10 lbs. or less	20 sq. ft.
Small	Over 10 through 20 lbs.	40 sq. ft.
Medium	Over 20 through 40 lbs.	80 sq. ft.

Size category	Animal weight	Minimum area per animal
Large	Over 40 through 60 lbs.	160 sq. ft.
Extra Large	Over 60 through 80 lbs.	320 sq. ft.
Giant	Over 80 lbs.	640 sq. ft.

Usable floor area. Required area shall be measured within the interior walls of the enclosure and shall exclude space occupied by litter boxes, food and water containers, and fixed equipment that prevents the animal from standing, turning, or resting. Shelves, perches, stacked cage levels, aisles, storage areas, and shared exercise or visitation rooms shall not count toward the minimum. Each animal shall have sufficient enclosure height and dimensions to stand normally, turn freely, and lie fully extended without contacting the enclosure walls or ceiling.

Group housing. Only compatible animals may share an enclosure. The required floor area shall equal the sum of the minimum areas for every animal housed together. Cats and dogs shall be housed separately. Animals requiring quarantine or isolation shall be housed separately from the general population. Cats shall have a litter area separated from food, water, and resting areas and access to a hiding place and perch; these features shall not reduce the required usable floor area.

Crates and temporary carriers. A crate used as a primary enclosure or for routine holding shall meet the same minimum area requirements. A smaller secured carrier may be used only during active transportation, emergency evacuation, or brief transfer between compliant enclosures and shall not be used for routine or overnight housing. During such use, the carrier shall allow the animal to stand normally, turn freely, and lie comfortably.

Facility capacity and verification. Before operation or any increase in approved capacity, the rescue shall submit a floor plan identifying enclosure dimensions, usable floor areas, assigned weight categories, maximum occupancy of each enclosure, and separate quarantine and isolation spaces. Records shall identify each animal's current weight and assigned enclosure and shall be updated when the animal changes weight category or enclosure. Actual occupancy shall not exceed the lesser of the City-approved capacity or the capacity supported by compliant available enclosures. The 75-animal limit does not authorize overcrowding or reduction of these minimum areas.

5. Site and Development Standards

- Minimum lot area: The facility shall be located on a lot of at least 0.5 acres, unless otherwise approved.
- Setbacks: All structures used for rescue operations shall comply with the underlying zoning district setbacks.
- Parking: A minimum of five off-street parking spaces shall be provided, including one accessible space.
- Access: Driveways and access points shall comply with City standards for width, surfacing, and visibility.
- Landscaping and buffering: A minimum 10-foot landscaped buffer shall be maintained along property boundaries adjoining residential uses.
- Lighting and signage: All lighting and signage shall comply with City code and CUP conditions.
- Waste and storage: Waste shall be managed to prevent odor and sanitation impacts. Outdoor storage must be screened, secured, and limited to approved containers.

6. Approval Type (Completed)

The use requires a Conditional Use Permit reviewed and approved by the Planning Commission. Any amendment increasing animal capacity or authorizing large public events shall require Planning Commission review and approval. All references shall align with the applicable chapters of the Grantsville Land Use Code.

7. Enforcement and Changes to the Use (Completed)

Any increase above 75 animals requires Planning Commission amendment review and approval. Other changes to operations, hours, staffing levels, species allowed, or site modifications that materially alter the approved use shall require administrative review or Planning Commission approval as determined by the Zoning Administrator. Violations may result in corrective orders, suspension, or revocation of the Conditional Use Permit.

14.6 Codes And Symbols, Use Table 14.1

In the following sections of this chapter, uses of land or buildings which are allowed in various districts are shown as "permitted uses," indicated by a "P" in the appropriate column, or as a "conditional use," indicated by a "C" in the appropriate column. If a use is not allowed in a given district, it is either not named in the use list or it is indicated in the appropriate column by a dash, "-." If a regulation applies in a given district, it is indicated in the appropriate column by a numeral to show the linear or square feet required, or by the letter "A." If the regulation does not apply, it is indicated in the appropriate column by a dash, "-." No building, structure or land shall be used and no building or structure shall be hereafter erected, structurally altered, enlarged or maintained in the multiple use, agricultural, or rural residential districts except as provided in this Code.

Table 14.1 Use Regulations *Amended 04/02 by Ordinance 2002-05, 08/02 by Ordinance 2002-15, 02/09 by Ordinance 2008-44, 11/10 by Ordinance 2010-23, 06/11 by Ordinance 2011-18, 03/15 by Ordinance 2015-05*

USE	A	RR-5	RR-2.5	RR-1
Accessory buildings & uses incidental to permitted ag uses (except for the keeping of animals). Said uses shall be kept a minimum of 100' from the property line on which the primary building fronts and 100' from any pre-existing dwelling. If these accessory buildings and uses have been kept prior to the construction of a residential dwelling on an adjoining parcel, said uses need not be kept 100' away from the new dwelling, but may be maintained. (Amended 2008,2009)	P	P	P	P
Accessory buildings and uses customarily incidental to permitted uses other than those listed above.	P	P	P	P
Accessory buildings and uses customarily incidental to conditional uses	C	C	C	C
Accessory buildings for the housing of animals customarily incidental to permitted ag uses, including pens, corrals and pastures for the keeping of animals. Such accessory buildings and uses shall not be allowed closer than 100' from any pre-existing residential dwelling on an adjoining parcel. If these	P	C	C	C

accessory buildings and uses have been kept, prior to the construction of a residential dwelling, but may be maintained subject to the terms of any required conditional use permit. (Amended 2008, 2009)				
Family Food Production and the Raising of Large, Medium, and Small Animals. The first large animal (fully grown) shall have 10,000 sq ft of open area, each additional large animal shall have an additional 2,000 sq ft of open area. Each medium sized animal (fully grown) shall have 1,000 sq ft of open area, not to exceed more than 6 medium animals per half acre. Each small sized animal (fully grown) shall have 100 sq ft of open area, not to exceed more than 6 medium animals per half acre. The area of stables, barns, and pens accessible to regulate animals may count towards the open area requirements. No animal shall be kept, corralled, penned, or raised within 100' from any pre-existing residential dwelling located on an adjoining lot measured at the nearest corner. There is no setback requirement from neighboring residential dwellings if a C.U.P. has been issued prior to the start of construction of a residential dwelling on an adjoining lot measured at the nearest corner.	P	P	P	C
Class "A" Kennel (4-15 animals only). No animal shall be kept, penned, or raised within 100' from any preexisting residential dwelling located on an adjoining lot measured at the nearest corner and it must have 4,000 sq ft for each additional animal over 5.	C	C	C	C
Sportsman's Permit for 4-6 dogs. No dog shall be kept, penned, or raised within 100' of an adjoining residence or dwelling measured at the nearest corner.	C	C	C	C
Raising of Rabbits, Ducks, Chickens (hens only), or Turkeys with not more than six (6) such animals in any combination	P	P	P	P
Temporary buildings for uses incidental to construction work, including living quarters for guard or night watchman, which buildings must be removed upon completion or abandonment of the construction work.	C	C	C	C
Mobile Homes for temporary living quarters and such other temporary uses found appropriately by the Planning Commission.	C	C	C	C
Agriculture, including grazing and pasturing of animals.	P	C	C	C
Agricultural Industry (Amended 2010)	C	C	C	-
Fruit/Vegetable Stand	P	C	C	C
Farm (Amendment 8/21/02, complete addition of term)	P	P	P	C
Accessory Farm Employee Housing. Each accessory farm employee housing unit must be located on a contiguous parcel that contains at least 10 acres or more for each such unit and	C	C	C	C

which must have at least 10 additional acres if it is located on the same property as the primary residential dwelling. (Amended 8/21/02, complete addition of term)				
Farms devoted to raising and marketing chickens, turkeys or other fowl or poultry, fish or frogs, mink, rabbits, including wholesale and retail sale (does not include family food production).	P	C	-	-
Forestry and forest industry, such as a saw mill, wood products, plants, or others	C	-	-	-
Apiary	P	C	C	C
Aviary	P	P	P	P
Public Stable, riding academy or riding ring, horse show barns or facilities	C	C	C	C
RESIDENTIAL	**A**	**RR-5**	**RR-2.5**	**RR-1**
Single-Family Dwellings Detached	P	P	P	P
Single-Family Attached Dwellings	P	P	P	P
Two-Family Dwellings	P	P	P	P
Twin Home Dwellings	-	C	C	C
Congregate Care Facility	-	-	C	C
Nursing Care Facility	C	C	C	C
Group Home, Small	C	C	C	C
Group Home, Large	C	C	-C	C-
Transitional Treatment Home, Small	C	C	C	C
Transitional Treatment Home, Large	C	C	C	C
Residential facilities for handicapped or elderly	P	P	P	P
Home Occupation	P	P	P	P
Household Pets, other than a sportsman permit	P	P	P	P
INSTITUTIONAL	**A**	**RR-5**	**RR-2.5**	**RR-1**

Adult Day Care Center	C	C	C	C
Child Day Care Center	C	C	C	C
Places of Worship (Amended 7/98)	-	-	C	C
Schools, professional and vocational	C	C	C	C
Kennel	P	C	C	C
POWER GENERATION (Primary Power for on-site use)	**A**	**RR-5**	**RR-2.5**	**RR-1**
Solar	P	P	P	P
Wind driven under 5.9 KVA output	P	P	P	P
Auxiliary, temporary, and/or wind, with more than 6 KVA, but less than 150 KVA output	P	C	C	C
Steam, hydro, or reciprocating engine with more than 10.05 KVA, but less than 150 kVA output	C	C	C	C
RECREATION, CULTURAL & ENTERTAINMENT	**A**	**RR-5**	**RR-2.5**	**RR-1**
Dude Ranch; Family Vacation Ranch	C	-	-	-
Natural Open Space & Conservation Areas	P	P	P	P
Parks and Playgrounds, Public and Private, Less than one acre in size	C	P	P	P
Community & Recreations Centers	C	C	C	C
Community Gardens	P	P	P	P
Commercial Outdoor Recreation (amended 6/11)	C	-	-	-
MISCELLANEOUS	**A**	**RR-5**	**RR-2.5**	**RR-1**
Personal Wireless Telecommunication Facilities (Amended 4/01)	C	-	-	-
Public/private Utility Transmission Wires, Line, Pipes, and Poles	P	P	P	P

Public/Private Utility Buildings and Structures	C	C	C	C
Animal Rescue	C	C		
Veterinary Offices	P	P	P	P
Governmental Uses and Facilities	C	C	C	C
Municipal Service Uses, Including City Utility Uses, Police and Fire Stations	C	C	C	C

HISTORY
Amended by Ord. 2022-14 on 8/3/2022
Amended by Ord. 2025-05 on 1/30/2025
Amended by Ord. 2025-31 on 7/9/2025
Amended by Ord. 2026-18 on 5/6/2026

16.8 Codes And Symbols And Use Table 16.1

(1) In the following sections of this chapter, uses of land or buildings which are allowed in various districts are shown as "permitted uses," indicated by a "P" in the appropriate column, or as a "conditional use," indicated by a "C" in the appropriate column. If a use is not allowed in a given district, it is either not named in the use list or it is indicated in the appropriate column by a dash, "-". If a regulation applies in a given district, it is indicated in the appropriate column by a numeral to show the linear or square feet required, or by the letter "A". If the regulation does not apply, it is indicated in the appropriate column by a dash, "-". No building, structure or land shall be used and no building or structure shall be hereafter erected, structurally altered, enlarged, or maintained in the multiple use, agricultural, or rural residential districts except as provided in this Code.

Table 16.1 Use Regulations

USE	C-N	C-S	C-G	C-D	M-D	M-G	MD-EX
COMMERCIAL							
Adult Day Care Center	C	C	C	C	-	-	-
Cabinet and Woodworking Mills	-	-	C	C	P	P	-
Bakery, Commercial	-	-	P	C	P	P	-
Blacksmith Shop	-	-	P	C	P	P	-
Carpet Cleaning	-	-	P	C	P	P	-
Commercial Laundries, Linen Service and Dry	-	-	P	C	P	P	-

Cleaning							
Commercial Day Care Center (not in a home) no more than 20 children at any one time	C	C	C	C	-	-	-
Child Day Care Facility (a commercial operation, not in a home, no more than 100 children at any one time)	C	C	C	C	-	-	-
Convenience Store	C	P	P	C	P	P	-
Diaper Service	-	-	P	C	P	P	-
Gas Station (sales and/or minor repairs)	C	P	P	C	P	P	-
Greenhouse for Food and Plant Production	-	-	P	C	P	P	-
Golf Course	C	C	C	C	C	C	C
Heavy Equipment (Rental)	-	-	-	C	P	P	-
Heavy Equipment (Sales and Service)	-	-	-	C	P	P	-
Hospital	-	C	C	C	-	-	-
Laboratory: Medical, Dental, Optical	-	-	P	C	-	-	-
Laboratory: Testing	-	C	P	C	P	P	-
Mini-warehouse	-	-	P	C	P	-	-
Motion Picture Studio	-	P	P	C	-	-	-
Photofinishing Lab	-	P	P	C	P	P	-
Plant and Garden Shop, including outdoor retail sales area	C	C	C	C	-	-	-
Precision Equipment Repair	-	-	P	C	P	P	-
Preschool (a commercial operation, not in a home, no more than 20 children from the ages of 4 to 6 years in age, at any one time, for a period not to exceed four hours)	C	C	C	C	-	-	-

Private educational institution having a curriculum similar to the public schools, grades K-12	C	C	C	C	-	-	-
Schools of higher education, community colleges, off campus facilities	C	C	C	C	-	-	-
Schools, professional and vocational	C	C	C	C	-	-	-
Twin Commercial Units	C	C	C	C	C	C	-
Sign Painting/Fabrication	-	-	P	C	P	P	-
Welding Shop	-	-	P	C	P	P	-
Wholesale Distributors	-	-	P	C	P	P	-
Tobacco Specialty Store: This use is not permitted in any part of the proposed or existing building containing the use is located within 1,000 feet from (a) any school (public or private kindergarten, elementary, middle, charter, junior high, or high school), public park, public recreation facility, youth center, library, or church and (b) any other Tobacco Specialty Store. Distances shall be measured in a straight line, without regard to intervening structures or zoning districts, from a Tobacco Specialty Store structure to the property line of a school, public park, library, church, youth center, cultural activity, residential use, zoning district boundary, or other Tobacco Specialty Store.	-	C	C	C	P	P	-
MANUFACTURING	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Chemical Manufacturing and Storage	-	-	-	-	-	C	-
Concrete Manufacturing	-	-	-	-	-	P	-
Drop-Forge Industry	-	C	C	-	C	P	-
Explosive Manufacturing and Storage	-	-	-	-	-	C	-
Flammable Liquids or Gases, Heating Fuel Distribution & Storage	-	-	-	-	-	P	-

Grain Elevator	-	-	-	-	-	P	-
Bottling Plant	-	-	-	C	P	P	-
Cabinet Making/Woodworking Mills	-	-	-	C	P	P	-
Heavy Manufacturing	-	-	-	-	-	P	-
Incinerator, Medical Waste/Hazardous Waste	-	-	-	-	-	C	-
Industrial Assembly	-	-	-	C	P	P	-
Light Manufacturing	-	-	-	C	P	P	-
Moving and Storage	-	-	-	C	P	P	-
Paint Manufacturing	-	-	-	-	-	P	-
Publishing Company	-	-	-	C	P	P	-
Railcar fabrication, repair and cleaning	-	-	-	-	-	C	C
Recycling Collection Station	-	-	-	C	P	P	-
Recycling Processing Center	-	-	-	C	C	P	-
Rock, Sand, and Gravel Storage and Distribution	-	-	-	-	-	C	C
Truck Freight Terminal	-	-	-	C	P	P	-
Sign Painting/Fabrication	-	-	-	C	P	P	-
Warehousing	-	-	-	C	P	P	-
OFFICE AND RELATED USES	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Financial Institution, without drive through facilities	C	P	P	C	P	P	-
Financial Institution, with drive through facilities	-	P	P	C	P	P	-
Offices	C	P	P	C	P	P	-

Veterinary Offices, operating entirely within an enclosed building and keeping animals	-	-	P	C	P	-	-
RETAIL SALES & SERVICES	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Auction Sales	-	P	P	C	-	-	-
Automobile Repair, Major	-	P	P	C	P	-	-
Automobile Repair, Minor	C	P	P	C	P	-	-
Automobile Sales/Rental and Service	C	P	P	C	C	-	-
Boat/Recreational Vehicle Sales and Service	-	P	P	C	C	-	-
Car Wash	C	P	P	C	P	P	-
Convenience retail store	C	P	P	C	P	P	-
Department Stores	-	P	P	C	-	-	-
Equipment rental, indoor and outdoor	-	P	P	C	P	-	-
Furniture Repair Shop	-	P	P	C	P	P	-
Health and Fitness Facility	-	P	P	C	-	-	-
Large Truck Rental	-	-	P	C	P	P	-
Liquor Store	-	C	C	C	-	-	-
Manufactured Home Sales, Service, and Storage	-	-	P	C	P	-	-
Pawnshop	-	-	P	C	P	-	-
Restaurants, with drive through facilities	C	P	P	C	P	P	-
Restaurants, without drive through facilities	C	P	P	C	P	P	-
Retail Goods Establishments	C	P	P	C	-	-	-
Retail Services Establishments	C	P	P	C	P	P	-

Upholstery Shop	-	P	P	C	P	-	-
RECREATIONAL, CULTURAL, AND ENTERTAINMENT	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Amusement Park	-	P	P	C	-	-	-
Art Gallery	C	P	P	C	-	-	-
Art Studio	C	P	P	C	-	-	-
Commercial Indoor Recreation	-	P	P	C	P	-	-
Commercial Outdoor Recreation	-	P	P	C	P	-	-
Commercial Video Arcade	-	C	C	C	-	-	-
Dance Studio	C	P	P	C	-	-	-
Live Performance Theaters	-	P	P	C	-	-	-
Miniature Golf	-	P	P	C	P	-	-
Movie Theaters	-	P	P	C	-	-	-
Private Club	-	C	C	C	P	-	-
Sexually Oriented Businesses (Amended 4/05)	-	-	-	-	C	-	-
Tavern/Lounge/Brew Pub; more than 5,000 sq. ft. in floor area	-	C	C	C	-	-	-
RESIDENTIAL	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Dwelling Unit (Single Family)	C	C	C	C	C	C	-
Living Quarters for Caretaker or Security Guard	C	C	C	C	C	C	-
INSTITUTIONAL	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**

Adult Day Care Center	C	P	P	C	P	P	-
Child Day Care Center or Pre-School (a commercial operation) Amended 9/2011	C	P	P	C	P	P	-
Government Facilities	C	P	P	C	P	P	-
Hospital	-	-	P	C	-	-	-
Medical or Dental Clinic	C	P	P	C	P	P	-
Museum	-	P	P	C	-	-	-
Music Conservatory	-	P	P	C	-	-	-
Places of Worship				C			
Schools, Professional and Vocational	C	P	P	C	P	P	-
Schools of higher education, community colleges, off campus facilities	-	-	-	C	C	C	-
MISCELLANEOUS	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Accessory Uses, except those that are otherwise specifically regulated in this Chapter, or elsewhere in this Code	C	P	P	C	P	P	-
Animal Pound (Amended 10/02)	-	-	-	-	-	P	-
Kennel (Amended 10/02)	C	C	-	C	C	C	-
Auditorium	-	P	P	C	-	-	-
Automobile Salvage & Recycling (Indoor)	-	-	-	C	P	P	-
Automobile Salvage & Recycling (Outdoor)	-	-	-	C	C	P	-
Boilerworks	-	-	-	-	-	P	-
Bus Line Terminals	-	-	P	C	P	P	-
Bus Line Yards and Repair Facilities	-	-	-	C	-	P	-

Commercial Parking Garage or Lot	C	C	C	C	C	C	C
Personal Wireless Telecommunication Facilities (Amended 4/02)	-	C	C	C	-	-	-
Communication Towers	-	P	P	C	P	P	-
Communication Towers, exceeding the maximum building height, but not higher than 80 feet	-	-	C	C	C	C	-
Contractor's Yard/Office (with outdoor storage)	-	-	P	C	P	P	-
Crop Production	-	-	P	C	P	P	-
Display Room; Wholesale	-	-	-	C	P	P	-
Farmer's Market	-	P	P	C	P	-	-
Flea Market (indoor)	-	P	P	C	P	-	-
Flea Market (outdoor)	-	P	P	C	P	-	-
Funeral Home	-	P	P	C	-	-	-
Hotel or Motel	-	P	P	C	-	-	-
Limousine Service	-	C	P	C	P	P	-
Outdoor Sales and Display	-	P	P	C	P	-	-
Commercial Storage Units	-	C	C	C	C	C	-
Outdoor Storage	-	-	P	C	P	P	-
Poultry Farm or Processing Plant	-	-	-	-	-	P	-
Animal Rescue	-	C	-	-	-	-	-
Public/Private Utility Transmission Wires, Lines, Pipes, and Poles	C	P	P	C	P	P	-
Public/Private Utility Buildings and Structures	C	C	P	C	P	P	-

Radio, Television Station	-	C	P	C	P	P	-
Sewage Treatment Plant	-	-	-	C	C	C	-
Golf Course	-	C	C	C	C	C	-
Ambulance Services dispatching, staging, and maintenance conducted entirely within an enclosed building	-	P	P	C	P	P	-
Vehicle Auction Use	-	-	P	C	P	P	-
Governmental Uses and Facilities	C	C	C	C	C	C	-
Municipal Service Uses, including City Utility Uses, Police and Fire Stations	C	C	C	C	C	C	-
Correctional Facility, Detention Center, Jail, Penitentiary, Prison, Penal Institution (1 -249 beds)	-	-	-	-	C	C	C
Correctional Facility, Detention Center, Jail, Penitentiary, Prison, Penal Institution (250 or more beds)	-	-	-	-	-	-	-
MINING AND EXCAVATION	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Accessory uses and buildings customarily incidental to conditional uses	-	-	-	-	-	-	C
Agriculture, grazing of animals, raising crops	-	-	-	-	-	-	P
Automobile and truck service station	-	-	-	-	-	-	C
Cast stone, cement, cinder, terra cotta, tile brick, synthetic cast stone, block, pumice stone, and gypsum products	-	-	-	-	-	-	C
Coffee Shop	-	-	-	-	-	-	C
Construction equipment and supply trailer, temporary	-	-	-	-	-	-	C
Construction field office, temporary	-	-	-	-	-	-	C

Convenience store with gasoline sales	-	-	-	-	-	-	C
Gravel and sand excavation:							
1. Commercial operations	-	-	-	-	-	-	C
2. Temporary project specific operations	-	-	-	-	-	-	C
Machine Shop	-	-	-	-	-	-	C
Mines	-	-	-	-	-	-	C
Quarries	-	-	-	-	-	-	C
Parking lot incidental to a use conducted on the premises	C	C	C	C	C	C	C
Parking lot not incidental to a use conducted on the premises	C	C	C	C	C	C	C
Pottery, plaster, incidental plaster, plaster of paris, ceramic, and clay	-	-	-	-	-	-	C
Power generation (electrical) for on-site use							
Solar under 50 kvas	P	P	P	C	P	P	P
Solar 50 kva and above	C	C	C	C	C	C	C
Fuel cells, steam, hydro, or reciprocating engine	C	C	C	C	C	C	C
Wind under 5.9 kva	-	-	-	-	-	-	P
Auxiliary, temporary, wind, with more than 6 kva but less than 10 kva output	-	-	-	-	-	-	P
Fuel cells, steam, hydro, or reciprocating engine with more than 10.5 kva, but less than 150 kva output	-	-	-	-	-	-	C
Steam, hydro, or reciprocating engine with more than 150 kva, but less than 150 kva output	-	-	-	-	-	-	C
Rock crusher/concrete batch plant	-	-	-	-	-	-	C

Truck and freighting operation	-	-	-	-	-	-	C
Truck and heavy equipment service station and repair facility	-	-	-	-	-	-	C
Truck wash	-	-	-	-	-	-	C

ASSOCIATION OF SHELTER VETERINARIANS

Checklist of Key Statements

from the **2022 ASV Guidelines for Standards of Care in Animal Shelters**

and the Journal of Shelter Medicine and Community Animal Health

Published by the Association of Shelter Veterinarians ©2023

How to use this document

Each of the 553 statements included in this checklist were written, edited, and approved by the ASV's Board of Directors and Guidelines Taskforce of authors of the Second Edition of the ASV Guidelines for Standards of Care in Animal Shelters, published in the Journal of Shelter Medicine and Community Animal Health in December 2022.

Key actionable statements in the Guidelines use an unacceptable, must, should, or ideal format:

- **Unacceptable** practices need to be avoided or prevented without exception
- **Must** practices are necessary to ensure humane care
- **Should** practices are strongly recommended, and compliance is expected in almost all circumstances
- **Ideal** practices are implemented when resources allow

This checklist document is intended to assist shelters and their consultants measure their operations against those recommended (or not recommended) in the 2022 ASV Guidelines for Standards of Care in Animal Shelters, and to help shelters prioritize and advocate for needed changes when identified. It is meant to be supplementary to the Guidelines document, which provides context and justification. This is a self-assessment tool, not a regulatory or legal document, and the ASV is not an accreditation body that can confirm or deny compliance.

This checklist is based on the ASPCApro.org resource "Shelter Care Checklists: Putting ASV Guidelines into Action," which was among many created for the first edition of the ASV Guidelines published in 2010. Thank you to the authors of both Guidelines editions for the content, the ASPCA checklist authors, and Abigail Appleton for organizing and collating these statements. Layout by Lena DeTar.

The mission of the Association of Shelter Veterinarians is to advance and support the practice of shelter medicine in order to improve community animal health and well-being; this checklist is offered as a tool to support that mission. For more information about the Guidelines and the Association of Shelter Veterinarians, visit www.sheltervet.org.

Section 1: Management and Recordkeeping

1.1 General

- ❑ Shelters **must** have a clearly defined mission or mandate, adequate personnel, up-to-date policies and protocols, a system for training and supervising personnel, and management practices aligned with these guidelines
- ❑ The shelter's mission or mandate **should** reflect the needs of the community it serves
- ❑ The community's needs **should** be regularly reviewed, and strategies and goals updated accordingly

1.2 Management structure

- ❑ Veterinarians **should** be integrally involved with development and implementation of the shelter's organizational policies and protocols
- ❑ Shelters **must** have a clearly defined organizational structure that outlines accountability, responsibility, and authority for management decisions
- ❑ This organizational structure **must** be communicated to all staff and volunteers
- ❑ Lines of authority, responsibility, and supervision **should** be in writing, reviewed periodically, and updated when roles change
- ❑ Decision-making **must** take into account resource allocation as well as population and individual animal health and welfare

- ❑ Authority and responsibility for tasks and decision-making **must** be given only to those who have the appropriate knowledge, training, and when applicable, credentials
- ❑ A formal relationship with a veterinarian **must** be in place to ensure oversight of medical and surgical care in the shelter (also in Medical 6.2)
- ❑ A shelter's veterinarian **must** have knowledge about their particular population
- ❑ A shelter's veterinarian **should** have training or experience in shelter medicine
- ❑ The shelter's veterinarian **should** be consulted on all policies and protocols related to the maintenance of medical and behavioral animal health

1.3 Establishment of policies and protocols

- ❑ Operating beyond an organization's capacity for care is an **unacceptable** practice (also in Population Management 2.1)
- ❑ Protocols **must** be developed and documented in sufficient detail to achieve and maintain the standards described in this document
- ❑ Protocols **should** be reviewed and updated regularly
- ❑ All personnel **must** have access to up-to-date protocols
- ❑ Shelter management **must** routinely monitor and ensure compliance with protocols

1.4 Training

- ❑ Personnel training **should** incorporate all relevant aspects of working in the organization
- ❑ Shelters **must** provide training for each shelter task
- ❑ Personnel **must** demonstrate skills and knowledge before proficiency is assumed
- ❑ Documentation of training **should** be maintained and reviewed regularly as a part of professional development and performance reviews
- ❑ When licensing or certification is required to perform specialized duties, as in veterinary care or euthanasia, personnel performing these tasks **must** be credentialed
- ❑ Continuing education **must** be provided for all personnel in order to improve skills and maintain credentials
- ❑ Shelters **must** provide all personnel the information and training needed to recognize and protect themselves against common zoonotic conditions
- ❑ Shelter personnel having any form of contact with animals **should** have proper training in basic animal handling skills, animal body language, and bite prevention strategies

1.5 Record keeping and animal identification

- ❑ Shelters **must** adhere to the elements of record-keeping defined within regulatory requirements
- ❑ Digital systems **should** be used for record keeping, preferably software systems designed for animal shelters

- ❑ The software system used by a shelter **should** be able to generate basic population level reports as well as individual animal records
- ❑ Each animal **must** have a unique identifier and individual record
- ❑ Shelters **must** have an organized system by which animal identification information can be quickly and easily matched to animals in enclosures and their shelter records
- ❑ A means of identification **should** be physically affixed (e.g. collar and tag) or permanently inserted (microchip), when it is safe to do so
- ❑ Shelter records **should** capture all pertinent medical and behavioral information
- ❑ Records **must** be maintained for animals in foster care and other offsite housing locations just as they are for shelter-housed animals

Section 2. Population Management

2.1 General

- ❑ Shelters **must** practice active population management
- ❑ Operating beyond an organization's capacity for care is an **unacceptable** practice (also in Management and Record Keeping 1.3)
- ❑ Policies and protocols **must** be in place to ensure an organization operates within its capacity for care
- ❑ Housing capacity calculations **must** be based on the ability to promote each animal's positive welfare

2.2 Determining Capacity for Care

- ❑ Trained personnel **must** be scheduled to meet daily animal care needs and efficiently and effectively accomplish each critical task
- ❑ Services such as surgery, veterinary visits, or transport **should** be scheduled in anticipation of an animal's eligibility for that service
- ❑ Foster programs **must** have sufficient personnel to provide support to caregivers and animals
- ❑ Medical, surgical, and behavioral services for foster animals **must** be provided in a manner that promotes animal welfare and minimizes LOS
- ❑ Shelters **should** engage with one another to leverage resources and maximize each organization's strengths

2.3 Operating within Capacity for Care

- ❑ An organization's policies for admissions and outcomes **should** be based on their mandate, mission, and the needs of their community
- ❑ When appropriate, admission policies **should** prioritize retention over shelter intake
- ❑ Decisions about intake **must** consider whether admission is the best option for the animal or their situation
- ❑ Admission **must** be balanced with the ability to provide appropriate outcomes, minimize LOS, and ensure the shelter remains within its capacity for care
- ❑ An animal **must** only be admitted if the shelter can provide the care they require
- ❑ Organizations that are impacted by unpredicted intakes (e.g. disasters and large-scale investigations) **must** have a plan to flex their operations to increase their capacity for care
- ❑ Every attempt **must** be made to locate a lost animal's owner, including careful screening for identification and microchips, in the field and at the time of intake
- ❑ Shelters **should** remove barriers to local outcomes
- ❑ Medical or behavioral care that can reasonably occur outside of the shelter, either in foster care or after adoption, **should** be identified to minimize time in the shelter environment
- ❑ Regardless of whether animals are on site or in foster care, decision-making and animal movement **must** optimize LOS

- ❑ The entire shelter population, including animals housed in foster or off-site, **must** be regularly assessed by knowledgeable personnel with decision-making ability and authority
- ❑ Any needs identified during population rounds that could compromise welfare or extend the shelter stay **must** be addressed promptly
- ❑ All animals physically in the shelter **must** be monitored daily to identify housing, care, or service needs
- ❑ A shelter animal inventory, including all animals in foster care, **should** be taken and reconciled daily

2.4 Monitoring population data

- ❑ At a minimum, shelters **must** track monthly intake and outcome type for each species by age group
- ❑ Data collection **should** include information about health and behavior status at intake and outcome
- ❑ LOS data, broken down by age category, species, status, and location, **should** be regularly analyzed to identify bottlenecks, mismatched resources, and capacity for care concerns
- ❑ Population level data **should** be reviewed and analyzed regularly to ensure that operations align with the organization's goals, purpose, and policies
- ❑ population level metrics are **ideally** monitored as a community through transparent sharing of data
- ❑ Live release rates or save rates **must** be evaluated in the context of animal welfare and cannot be used alone as a measure of success

Section 3. Animal Handling

3.1 General

- ❑ Handling **must** be humane and appropriate for the individual animal and situation
- ❑ Shelter personnel **should** offer high-value treats or food when handling animals or performing procedures
- ❑ When needed, medication **should** be used to minimize fear, anxiety, and stress and enhance safety during handling

3.2 Restraint

- ❑ The minimal amount of physical restraint needed to accomplish necessary animal care without injury to people or animals **must** be used
- ❑ Forceful restraint methods **must** not be used, except in extraordinary circumstances
- ❑ Handling **must** minimize the risk of escape

3.3 Handling equipment

- ❑ A variety of humane equipment that facilitates animal handling with minimal or no hands-on contact **must** be available
- ❑ Control poles **must** only be used when alternatives for handling dogs are insufficient to protect human safety

- ❑ It is **unacceptable** to use control poles on cats or small dogs
- ❑ Animals for whom handling equipment is necessary for long-term safe handling **should** receive positive reinforcement training to minimize fear, anxiety, and distress during its use
- ❑ Animal shelters **must** have written protocols and readily accessible equipment for breaking up dog fights to prevent human and animal injury

Section 4: Facilities

4.1 General

- ❑ The shelter facility **must** include sufficient space to allow for the execution of essential shelter operations and programs as required by mission or mandate
- ❑ Both the quantity and design of housing **must** be appropriate for the species, the number of animals receiving care, and the expected length of stay
- ❑ Facility design and use **must** provide for proper separation of animals by species, predator/prey status, health status, and behavior
- ❑ Housing in foster care **should** meet or exceed the guidelines for in-shelter housing

4.2 Primary enclosures

- ❑ Shelters **must** have a variety of housing units available to meet the individual needs of animals, including physical, behavioral, and medical needs
- ❑ The primary enclosure **must** be structurally sound and maintained in safe, working condition to prevent injury and escape
- ❑ Primary enclosures with wire-mesh bottoms or slatted floors are **unacceptable**
- ❑ The use of cages or crates intended for short-term, temporary confinement or travel is also **unacceptable** as primary enclosures
- ❑ It is **unacceptable** to stack or arrange enclosures in a manner that increases animal stress and discomfort, compromises ventilation, or allows for waste material contamination between housing units

- ❑ Animals **must** be able to make normal postural adjustments within their primary enclosure, including standing and walking several steps, sitting normally, laying down at full body length, and holding the tail completely erect
- ❑ Individual adult cat housing that is less than 8 ft^2 (0.75 m^2) of floor space is **unacceptable**
- ❑ **Ideally**, individual cat housing provides 11 ft^2 (1.0 m^2) or more of floor space
- ❑ The primary enclosure **must** allow animals to sit, sleep, and eat away from areas of their enclosures where they defecate and urinate
- ❑ Multi-compartment enclosures **should** be provided for the majority of animals housed in the shelter
- ❑ Cat housing units **should** be elevated off the floor
- ❑ Cat cages **should** face away from each other or be spaced more than 4 ft (1.2m) apart
- ❑ Primary enclosures with indoor–outdoor access are **ideal** for most animals, especially when held long term
- ❑ Enclosures that include outdoor space **must** protect animals from adverse weather; provide choice for thermoregulation; protect from predators; and prevent escape, theft, or harassment
- ❑ All dogs **should** be given the opportunity to hide within their enclosure
- ❑ A soft resting place that elevates animals off of the floor **should** be made available for all animals

- ☐ All cats **must** be given the opportunity to hide within their enclosure
- ☐ Feline primary enclosures **must** allow scratching, climbing, and perching
- ☐ Cats **must** have a litter box large enough to comfortably accommodate their entire body and allow for proper posturing
- ☐ Housing that provides animals with additional space, enrichment, and choice within their enclosure **must** be provided for animals remaining in the shelter long-term (i.e. more than 2 weeks)
- ☐ It is **unacceptable** to house animals in an enclosure that would require the use of forceful animal handling equipment for daily cleaning and care
- ☐ Except for a brief, emergency situation, it is **unacceptable** to house animals in facility spaces not intended for animal housing (e.g. bathrooms and hallways)
- ☐ Tethering is an **unacceptable** method of confinement for any animal

4.3 Co-housing

- ☐ The size of a primary enclosure for cohousing **must** allow each animal to express a variety of normal behaviors and maintain distance from roommates when they choose to do so
- ☐ A minimum of 18 ft^2 (1.7 m^2) of floor space per adult cat **should** be provided for cohousing
- ☐ Appropriate resources (e.g. food, water, bedding, litter boxes, and toys) **must** be provided to minimize competition or resource guarding and ensure access by all cohoused animals

- ❑ For cohoused cats, a variety of elevated resting perches and hiding places **must** be provided to increase complexity and choice within the living space
- ❑ Random cohousing of animals in shelters is an **unacceptable** practice
- ❑ Unrelated or unfamiliar animals **must** not be cohoused until health and behavior are assessed
- ❑ No more than six adult cats **should** be cohoused in a primary enclosure
- ❑ No more than two to four adult dogs **should** be cohoused in a primary enclosure
- ❑ Puppies and kittens under 20 weeks of age **must** not be cohoused with unfamiliar animals except when the benefits outweigh the risks for all animals involved
- ❑ Dogs **should** be introduced outside of their primary enclosures in pairs or groups to determine compatibility prior to cohousing
- ❑ Turnover within groups **must** be minimized to reduce stress and social conflicts as well as the risk of infectious disease exposure and transmission
- ❑ Individual animals and group dynamics **must** be monitored to recognize signs of stress and social conflicts in cohousing enclosures
- ❑ Individual enriched housing **must** be provided for animals who are fearful or behave aggressively toward other animals, are stressed by the presence of other animals, require individual monitoring, or are ill and require treatment that cannot be provided in cohousing
- ❑ Cohousing animals who fight with one another is **unacceptable**

- ❑ Shelters **must** have a means of isolating infectious animals

4.4 Isolation housing

- ❑ Isolation housing **must** meet the medical and behavioral needs of ill animals
- ❑ Different species **must** not be housed within the same isolation room
- ❑ Separate isolation areas **must** be provided for animals with different highly contagious diseases to prevent coinfections with multiple pathogens
- ❑ Isolation rooms **must** be designed so that they do not open directly into another animal housing area
- ❑ Isolation rooms **should** have access to a sink for handwashing and be set up with space for treatments, examinations, and storage for dedicated supplies
- ❑ Isolation rooms **must** be clearly labeled to indicate current use and necessary precautions
- ❑ Human and animal traffic through isolation spaces **should** be limited
- ❑ **Ideally**, isolation rooms are designed with windows to allow observation of animals from a corridor without needing to repeatedly enter the room

4.5 Surfaces and drainage

- ❑ Primary enclosures and all animal areas **must** be able to be fully sanitized and withstand repeated cleanings

- ❑ A sealed, impermeable surface, such as resinous epoxy or resinous urethane, is recommended for shelter flooring and **should** be considered for new facilities
- ❑ Points where walls meet floors **should** be sealed to prevent water intrusion and the accumulation of organic matter and pathogens
- ❑ Drainage systems **must** be designed to prevent standing water and cross-contamination of waste between housing units
- ❑ Floors **should** be gently sloped to enable waste and water to run into the drains, particularly in animal housing areas
- ❑ Drain covers **must** be designed to prevent injury or escape
- ❑ Drain covers **should** be easily removable for routine cleaning
- ❑ Outdoor primary enclosures or portions of primary enclosures that are outdoors **must** have nonporous, durable floors that allow for sanitation and proper drainage

4.6 Heating, ventilation, and air quality

- ❑ Environmental temperature **must** be maintained between 64°F (18°C) and 80°F (26.6°C)
- ❑ Animals **must** be monitored individually to ensure the environmental temperature is comfortable
- ❑ Necessary measures **must** be taken if an animal appears too cold or too hot
- ❑ Relative humidity **should** be maintained between 30 and 70%

- ❑ Ventilation **must** be maintained at a high enough rate to ensure adequate air quality in all areas of the shelter including in the primary enclosure
- ❑ Ventilation **must** not compromise recommended ambient temperatures
- ❑ All ventilation systems **must** be regularly maintained based on manufacturer recommendations
- ❑ Air from isolation areas **should** be exhausted outside and not recirculated
- ❑ Ultraviolet irradiation **must** not be relied on as the sole method for ensuring good air quality or infectious disease prevention

4.7 Noise control

- ❑ Noise **must** be minimized in animal housing areas
- ❑ Noise and vibration-producing equipment and mechanical systems **should** be located as far away from animal housing as possible
- ❑ Prevention and mitigation strategies to minimize the impact of noise **should** be implemented in facility design, added to existing facilities, and incorporated into shelter operations
- ❑ Preventing visual contact between dogs **should** not be used as a sole strategy to reduce barking

4.8 Lighting

- ❑ Lighting **should** promote a safe working environment and effective observation of animals and the enclosure

- ❑ Facilities **should** be designed to offer as much natural light as possible
- ❑ When natural lighting is not available and artificial light is used, it **should** approximate natural light in duration and intensity to support circadian rhythms

4.9 Enrichment spaces

- ❑ All enclosed outdoor spaces **should** have double door entry points to keep animals safe and reduce the risk of escape

4.10 Intake Spaces

- ❑ Shelter admission areas **should** be separated from adoptions and other client-facing areas
- ❑ Animal intake **should** occur in a designated quiet space away from the main pattern of foot traffic
- ❑ Cages and kennels in intake areas **should** only hold animals until their initial intake assessment has been completed
- ❑ Intake rooms **should** have elevated surfaces to place animals in carriers off of floor level

4.11 Drop boxes

- ❑ The use of 'drop boxes' where live animals are placed in unmonitored receptacles for later intake is **unacceptable**

4.12 Facility design and planning

- ❑ In order to meet the changing needs of the community and services offered by the shelter, flexibility in operational and spatial use **should** be incorporated into designs for remodeling and new facilities
- ❑ When designing a new facility or undertaking a significant renovation, shelters **should** consult with a shelter veterinarian and an architect experienced in shelter design
- ❑ Shelters **must** avoid large warehouse type rooms when designing housing
- ❑ When remodeling or planning a new facility, the movement of animals, people, and supplies **should** be incorporated into the design
- ❑ Animal shelter design **should** provide an environment that also serves the needs of personnel and clients

Section 5: Sanitation

5.3 Sanitation practices

- ❑ Shelters **must** have a sanitation plan for all locations in which animals are present
- ❑ Sanitation protocols **should** be based on pathogens, routes, and risk of transmission
- ❑ Sanitation protocols **must** include steps for removal of organic matter, cleaning, and disinfection
- ❑ **Ideally**, sanitation protocols will be developed in consultation with a veterinarian experienced in shelter medicine
- ❑ Sanitation products **must** be diluted and used according to label instructions or published recommendations
- ❑ Disinfectants used in animal areas **must** be effective against non-enveloped viruses, such as parvovirus, panleukopenia, and calicivirus
- ❑ Alternative methods of disinfection such as ultraviolet light, steam, freezing, and air filtration systems **must** not be relied on as the sole means of sanitation in shelters
- ❑ Sufficient personnel **must** be assigned to complete sanitation tasks promptly each day so that animals spend most of their time in sanitary conditions
- ❑ Sanitation **should** proceed in an order that minimizes both the risk of pathogen transmission from infected animals and the exposure of vulnerable animals

- ☐ Sanitation practices **should** be observed regularly to ensure consistency with written protocols
- ☐ During an outbreak, protocols **should** be reviewed and practices observed to ensure efficacy against suspected pathogens
- ☐ Enclosures **must** be completely sanitized before being occupied by a different animal
- ☐ It is **unacceptable** to spray primary enclosures while animals are inside them
- ☐ Drainage systems or operational practices (e.g. squeegee and towel drying) **must** prevent the accumulation of standing water
- ☐ **Ideally**, mopping is avoided in animal housing areas
- ☐ When mopping cannot be avoided, personnel **must** ensure that both cleaning and disinfection of the floor surface occur
- ☐ Spot cleaning **should** be conducted at least daily when an animal will remain in the same enclosure

5.4 Reducing pathogen spread

- ☐ PPE **should** be selected based on specific pathogens and exposure risks within each population
- ☐ Appropriate PPE **should** be used in each area and disposed of or sanitized before proceeding to care for other animals
- ☐ Protective garments **must** be changed between handling each animal when there is a high risk for disease transmission

- ☐ Personnel **should** wash hands after removing PPE
- ☐ Hand hygiene stations **should** be available in or near every area where contact with animals occurs
- ☐ **Ideally**, hand hygiene stations are sinks that allow washing with soap and water, and drying with single use towels
- ☐ Hand sanitizers **should** not be relied on as the sole means of hand hygiene
- ☐ Hand sanitizer **should** only be used on hands that are visibly clean
- ☐ Sanitation protocols **must** address hand hygiene for shelter staff, volunteers, and visitors
- ☐ All items that come into contact with animals **should** be sanitized on a regular basis, whenever visibly soiled, and when in direct contact with bodily fluids
- ☐ Separate cleaning supplies **must** be designated for each shelter area or be sanitized prior to use in each area
- ☐ Transport cages and traps, as well as vehicle compartments used for animal transport, **must** be sanitized before being occupied by a different animal
- ☐ Mobile equipment such as rolling trash cans, shopping carts, and food or treatment carts **should** be assigned to one area or be sanitized between areas
- ☐ Objects with scratched, damaged, and porous surfaces are difficult or impossible to completely disinfect and **should** be used with caution or discarded between animals
- ☐ All bedding and other textiles used at the shelter **must** be discarded or laundered and thoroughly dried when visibly soiled and before reuse with a different animal

- ❑ Organic debris (e.g. feces) **should** be removed from items before laundering
- ❑ Automatic watering devices and water bottles **should** not be used if the watering valve cannot be sanitized before being used by another animal
- ❑ Food and water bowls **must** be sanitized in a different location or at a different time than litter pans or items soiled by feces
- ❑ Basins used to sanitize food and water bowls and litter pans **should** be thoroughly sanitized between uses

5.5 Other shelter areas

- ❑ Dedicated boots that can be sanitized or disposable shoe covers **should** be used in potentially contaminated or protected areas, such as isolation and surgery
- ❑ Footbaths **must** not be relied on for infectious disease control in the shelter
- ❑ It is unacceptable for animals to walk through footbaths
- ❑ Animal waste and bodily fluids **must** be removed from indoor common spaces as soon as possible
- ❑ Feces **must** be removed from outdoor areas between animals or groups
- ❑ Outdoor areas around the shelter **must** be kept clean
- ❑ Access to areas that cannot be sanitized **should** be restricted to adult animals who have been vaccinated, dewormed, and appear healthy, or animals for

whom the benefits of such access outweigh the risks of disease exposure or transmission

- ☐ Standing water **should** not be allowed to accumulate in or around the shelter

5.6 Wildlife, rodent & insect control

- ☐ All food **must** be protected from wildlife, rodents, and insects
- ☐ Rodent and insect control solutions **must** be safe, humane, and effective

Section 6: Medical Health

6.1 General

- ❑ Health care for animals in shelters is a necessity and **must** include attention to overall well-being
- ❑ Shelter medical care **must** begin at or before intake and continue throughout the shelter stay
- ❑ When medical treatment is necessary, it **must** be provided in a timely fashion
- ❑ Shelters **must** provide species-appropriate preventive health care; this includes implementing protocols that strengthen resistance to disease and minimize exposure to pathogens
- ❑ Individual animal health **must** be addressed within the balance of decisions and practices that support overall population health
- ❑ Shelters **should** have a protocol for making decisions about which animals and conditions to treat, and which animals and conditions they cannot treat

6.2 Veterinary oversight and medical recordkeeping

- ❑ A formal relationship with a veterinarian **must** be in place to ensure oversight of medical and surgical care in the shelter (also in MRK 1.2)
- ❑ Personnel providing medical care **must** have the skills and equipment to administer prescribed treatments safely and effectively
- ❑ All medical practices and protocols **must** be developed in consultation with the shelter's veterinarian

- ❑ When a medical concern falls outside of standard protocols or does not respond to treatment as expected, a veterinarian **must** be consulted
- ❑ Medications and treatments **must** only be administered by prescription or in accordance with written protocols provided by a veterinarian
- ❑ Medication **should** only be prescribed when there exists a reasonable presumptive diagnosis, the ability to administer as directed, and a plan to monitor the course of disease, so that success or failure can be determined
- ❑ When drugs are used or dispensed, it **must** be done in accordance with federal and state regulations
- ❑ A medical history **must** be requested for all animals presented to the shelter and added to the medical record
- ❑ Shelters **must** document all medical care rendered to each animal in the medical record
- ❑ A record of the animal's medical care **must** be provided in hardcopy or electronic form when the animal leaves the shelter's care
- ❑ Each animal's individual health status **must** be evaluated, documented, and monitored beginning at intake

6.3 Medical assessment

- ❑ Each animal **must** receive at least a cursory health assessment by trained personnel at intake to check for signs of infectious disease or problems that require emergency medical care
- ❑ A comprehensive physical examination by a veterinarian or trained personnel **should** also be performed

- ❑ **Ideally**, this physical exam is performed within 24 hours of intake
- ❑ Animals with signs of infectious disease at intake **should** be isolated until determined to be low-risk to the population
- ❑ Heightened precautions to prevent disease transmission **should** be taken when handling more susceptible animals, such as juveniles, older animals, and those with underlying conditions
- ❑ Trained personnel **must** visually observe the health and well-being of every animal at least once every 24 hours
- ❑ **Ideally**, daily monitoring observations take place before cleaning, so that food intake and condition of the enclosure, including feces, urine, or vomit, can be noted
- ❑ A medical staff member **should** attend population rounds with representatives from other departments
- ❑ At minimum, an examination by trained personnel, including weighing and body condition score, **should** be repeated on a monthly basis
- ❑ A comprehensive exam **should** be performed at least every 6 months
- ❑ Grooming and bathing are essential components of animal care and **must** be provided when necessary for animal health or comfort

6.4 Essential wellness and preventive care

- ❑ Shelters **must** have a written vaccination protocol developed under the supervision of the shelter's veterinarian

- ❑ Shelters **must** properly handle and store vaccines according to manufacturer guidelines
- ❑ The location for specific vaccine injections **should** follow administration site guidelines
- ❑ Shelters **must** have protocols for recognizing, managing, and reporting adverse vaccine reactions, and required treatments **must** be accessible
- ❑ For all core vaccines except rabies, shelters **should** use modified live virus or recombinant vaccines (MLV) rather than killed products because they provide a faster immune response
- ❑ Eligible dogs and cats **should** be vaccinated against rabies before leaving shelter care
- ❑ Rabies vaccines **must** be administered following state and local guidelines and the most recent Compendium for Animal Rabies Prevention and Control
- ❑ Feral cats **should** receive all core vaccines at the time of spay-neuter, regardless of age
- ❑ Adult animals **must** be vaccinated with core vaccines at or before intake
- ❑ Animals housed in shelters **should** be vaccinated with core vaccines even if ill or pregnant
- ❑ Puppies and kittens housed in shelter facilities **must** begin core vaccinations at or before intake starting at 4 weeks old and **must** be revaccinated every 2 weeks until 20 weeks old
- ❑ Puppies and kittens housed in foster care **must** begin core vaccinations at or before intake starting at 4 weeks old and **must** be revaccinated at the veterinarian's discretion every 2–4 weeks until 20 weeks old

- ❑ Animals **should** receive anti-parasite treatments at or before intake and throughout their shelter stay
- ❑ An effective parasite control program, including medications and environmental control, **should** be designed with the supervision of a veterinarian
- ❑ Feces **should** be promptly removed from animal housing and exercise areas
- ❑ Shelters **should** have policies regarding testing, prevention, and management of heartworm disease
- ❑ Shelters **should** seek veterinary input when developing a feeding protocol for their animal population
- ❑ Food that is consistent with the nutritional needs, health status, and species of the individual animal **must** be provided at least daily
- ❑ Food **must** be fresh, palatable, free from contamination, and not shared between enclosures
- ❑ Fresh, clean water **must** be available to animals unless there is a medical reason for water to be withheld for a prescribed period of time
- ❑ **Ideally**, healthy adult dogs are fed twice daily, and cats are fed multiple small meals or allowed to forage throughout the day
- ❑ When managing starved animals or those with unique nutritional needs, veterinary input **must** be sought
- ❑ Healthy puppies and kittens as well as lactating and pregnant animals **must** be fed small amounts frequently or have food available through the day (i.e. free-choice)

- ❑ Food intake **must** be monitored daily
- ❑ Each animal **should** be fed to meet individual needs and prevent excessive gain or loss of body weight
- ❑ Body condition and hydration status of animals **must** be monitored
- ❑ Cohoused animals **should** be monitored during feeding times, so that appetite and conflicts around food may be addressed
- ❑ Food and water dishes **must** be safe, sufficient in number, and of adequate size
- ❑ Supplies of food **must** be stored in a manner to prevent spoilage or contamination
- ❑ Shelters **should** have a protocol for the care of pregnant, nursing, and neonatal animals
- ❑ Shelters housing pregnant, nursing, or neonatal animals **must** ensure that additional disease prevention, nutrition, and stress reduction measures are taken
- ❑ Any animal observed to be experiencing pain, suffering, or distress; rapidly deteriorating health; life-threatening problems; or suspected zoonotic medical conditions **must** be promptly assessed and managed

6.5 Responding to health concerns

- ❑ Infectious disease protocols **must** include measures both to minimize transmission and to ensure appropriate care of the infected animals

- ☐ The shelter veterinarian **should** be consulted on all policies and protocols related to the maintenance of medical and behavioral animal health
- ☐ Pain **must** be recognized and treated to alleviate suffering
- ☐ Failure to provide treatment for pain is **unacceptable**
- ☐ Protocols for the treatment of painful conditions **should** be created by a veterinarian
- ☐ Pain control provided **must** be of an appropriate strength and duration to preempt or relieve pain
- ☐ When pain can be anticipated, as with surgical procedures, pain control **should** be provided before the painful event
- ☐ The use of controlled drugs **must** be supervised by a veterinarian as required by regulatory statutes
- ☐ Animals **must** be reassessed frequently to determine the efficacy of pain relief provided
- ☐ When the pain relief provided is inadequate, emergency medical care **must** be provided
- ☐ An emergency medical plan **must** be in place to provide appropriate and timely veterinary care for any animal who is injured, in distress, or showing signs of significant illness
- ☐ The emergency medical plan **must** indicate how staff will recognize and report medical conditions requiring emergency care
- ☐ The emergency medical plan **should** specify whether emergency services are provided on site or through an outside veterinary clinic

- ❑ Foster care providers **should** be given clear instructions about how and when to access emergency and after-hours care
- ❑ If the emergency medical plan cannot be implemented or fails to relieve suffering, the animal **should** be euthanized
- ❑ The legal status of the animal **must** not prevent treatment to relieve suffering
- ❑ Shelters **must** have a means of isolating contagious animals
- ❑ Animals with a suspected infectious disease **must** be isolated until diagnosis by a veterinarian or treatment determines them to be a low risk to the general population
- ❑ Allowing animals with severe infectious disease to remain in the general population is **unacceptable**
- ❑ When the number of cases increases above typical for the shelter, when signs are severe or not responding to treatment as expected, and when a zoonotic condition is suspected, diagnosis or identification of specific pathogens **should** be sought
- ❑ When an animal dies from unexplained causes, a necropsy **should** be performed
- ❑ During an outbreak, a risk assessment to identify potentially exposed animals **must** be performed based on the confirmed or suspected pathogen
- ❑ During an outbreak, physical separation **must** be established between sick, exposed, at-risk, and unexposed animals or groups of animals
- ❑ Animal handling and foot traffic **should** be limited during disease outbreaks

- ❑ During an outbreak, all at-risk animals **should** be monitored for signs of disease at least once a day
- ❑ Animal care staff **should** be educated on the clinical signs of the disease of concern and on the process for alerting medical staff
- ❑ Shelters **should** avoid returning recovered or exposed animals to the general population, while there is significant risk that they may transmit disease to other animals
- ❑ Shelters **must** also ensure federal, state, and local laws are followed concerning reportable diseases
- ❑ As part of the outbreak response, relevant protocols **should** be reviewed to ensure control measures are effective against the suspected pathogen
- ❑ In the rare instance that depopulation is considered, an experienced shelter veterinarian **must** be consulted beforehand

6.6 Population health surveillance

- ❑ Shelters **should** track animal population health trends (e.g. morbidity and mortality) and develop targeted strategies to address concerns

6.7 Rehoming considerations

- ❑ Adopters or others receiving animals from shelters **should** be informed about any disease or condition known to be present at the time of outcome
- ❑ Shelters **should** have and disclose policies that specify whether or not they provide care for medical conditions that are ongoing or occur after adoption

Section 7: Shelter Surgery

7.1 General

- ❑ It is **unacceptable** for organizations to allow shelter animals to breed
- ❑ When animals that are already pregnant are admitted, shelters **should** prevent birth from occurring in the facility, instead seeking alternatives such as spay or foster care

7.2 Spay-Neuter

- ❑ Shelters **should** sterilize all animals before adoption or ensure that they will be sterilized after their outcome
- ❑ Shelters performing post-adoption sterilization **must** have a system for keeping track of unaltered animals and ensuring that surgery is completed in a timely manner
- ❑ The final decision regarding acceptance of any patient for surgery **must** be made by a veterinarian based on a physical examination, available medical history, and capacity of the surgical team
- ❑ Granting an exemption from a spay-neuter requirement **should** only occur when performing the procedure puts the patient at significant risk
- ❑ When considering sterilizing patients with medical conditions, veterinarians **must** weigh the benefits and risks to that animal, others receiving surgery that day, the shelter population, and the community population
- ❑ Shelters that perform their own sterilization surgeries **must** follow the current ASV Veterinary Medical Care Guidelines for Spay-Neuter Programs,

which includes establishing policies and protocols for managing related complications and emergencies

- ❑ Sterilization status **should** be documented for each animal

7.3 Other Surgeries

- ❑ All surgical practices and protocols **must** be developed in consultation with a veterinarian familiar with the sheltering organization, its population, and facilities
- ❑ Non-sterilization surgeries performed in the shelter setting, including dentistry, **must** adhere to the ASV Spay-Neuter Guidelines regarding surgical suite, anesthesia, analgesia, and principles of sterility related to instrumentation and surgical practice
- ❑ **Ideally**, shelters without the capacity to perform these surgeries partner with outside organizations, specialists, or transport partners to obtain necessary care
- ❑ following orthopedic procedures, patients **must** receive appropriate rehabilitation and pain management
- ❑ **Ideally**, orthopedic patients requiring extended care are not housed long term at the shelter
- ❑ Medical records **should** document the dental exam, diagnostics, and treatments performed
- ❑ Non-anesthetic dental probing, scaling, and polishing is **unacceptable**

- ❑ **Ideally**, intraoral radiographs are taken in patients undergoing dental surgery
- ❑ Dental procedures, including radiology, **must** be performed by appropriately trained and credentialed individuals based on state and local regulations

Section 8: Forensics

8.2 Laws and regulations

- ❑ Shelters, veterinarians, and humane investigators **must** be familiar with animal abuse and neglect laws in their jurisdiction and know how to report suspected cases
- ❑ Veterinarians **must** be aware of their state's animal cruelty reporting requirements and liability protection statutes

8.3 Forensic investigation policies

- ❑ Shelters **should** have a policy that outlines the scope of forensic services provided
- ❑ Those investigating a suspected case of animal abuse or neglect **must** first ensure that they have the legal right (e.g. seizure, warrant, or owner consent) to examine, treat, and document the condition of the animal or scene

8.4 The veterinary forensic evaluation

- ❑ The veterinarian **should** have access to information about the scene, evidence collected, allegations, and known or reported history
- ❑ Evaluation and opinion formation for forensic purposes **must** be conducted by a veterinarian
- ❑ A key part of forensic evaluation is a forensic physical exam or necropsy with documentation, for which shelters **should** have standard protocols
- ❑ Forensic physical examinations and diagnostics **must** be conducted in a timely manner to preserve evidence

- ❑ Photographs **should** be of sufficient quality to serve as evidence, and they **should** be managed to ensure proof of origin and integrity

8.5 Managing evidence

- ❑ Humane investigators and veterinarians involved in investigating animal abuse and neglect **must** be prepared to maintain chain of custody protocols
- ❑ Monitoring and response to ongoing treatment **should** be documented as evidence throughout recovery

8.6 Training

- ❑ Veterinarians routinely involved in the investigation of animal cruelty **should** complete additional training in veterinary forensics or criminal justice

Section 9: Behavior and Mental Well-being

9.1 General

- ❑ Shelters **must** provide behavioral care that considers the needs of individual animals as well as conditions experienced by the entire population
- ❑ All shelter personnel **should** receive training about common behavior concerns at a level of detail appropriate to their position and job tasks
- ❑ All relevant personnel **must** be trained in animal body language, objectively describing behavior, and how to interpret and respond to animal body language and behavior

9.2 Stress and welfare

- ❑ Shelters **must** have comprehensive protocols in place for recognizing and mitigating stress and associated negative emotions including fear, anxiety, and frustration
- ❑ Animals **must** be monitored daily in order to detect trends or changes in well-being and respond to their behavioral needs
- ❑ Actions **must** be taken to respond promptly to behavioral needs that impact welfare
- ❑ Any animal experiencing mental suffering, distress, or behavioral deterioration **must** be urgently assessed and treated
- ❑ Alternative housing and placement options **must** be urgently pursued for distressed animals not responding to behavioral care
- ❑ Distressed animals not responding to behavioral care **should** be humanely euthanized when other options are not feasible or available

9.3 Intake

- ❑ Personnel **must** collect a thorough behavioral history at or near the time of intake, including the reasons the animal was brought to the shelter and previously observed behavior
- ❑ Available information about aggressive behavior **must** be recorded and include an objective description of the animal's actions and the circumstances
- ❑ Personnel **must** use the available history to tailor animal care, meet the needs of individuals, and protect the safety and welfare of people and animals
- ❑ Shelters **must** work to minimize stress at the point of initial contact and throughout an animal's stay
- ❑ Assessment of an animal's behavior **must** begin at the time of first contact or intake and continue throughout their stay

9.4 Environmental management

- ❑ Shelters **must** have policies and protocols for managing the environment in a manner that supports animal mental health and well-being
- ❑ Feral animals **must** not be housed in the shelter except for a brief period of time related to the delivery of veterinary care
- ❑ Prey species **must** be housed away from predatory species at all times
- ❑ Cats **should** not be handled or housed within spatial, visual, or auditory range of dogs

- ❑ Animals **should** be provided with a consistent and structured environment that minimizes reassignment of enclosures, caregivers, and schedules

9.5 Enrichment and socialization

- ❑ Enrichment **must** be given the same significance as other components of animal care, such as nutrition and medical care, and is never considered optional
- ❑ Positive social interaction, mental stimulation, and physical activity that meets each animal's needs **must** be provided daily, outside of the activities of feeding and cleaning
- ❑ Dogs **must** be provided with daily opportunities for activity outside of their kennels, unless doing so creates an unmanageable risk to the health or safety of people or other animals
- ❑ Cats **must** be offered regular opportunities to express natural behaviors, including physical activity and exploration
- ❑ Shelters **should** provide all animals with opportunities to engage in healthy social contact with people and other animals of the same species
- ❑ Shelters **should** optimize human and animal safety by limiting the number of dogs in playgroups based on competency of personnel, play yard size, individual dog behavior, and shelter resources
- ❑ A broad range of positive socialization experiences **must** be provided to puppies and kittens
- ❑ While in the shelter's care, young puppies and kittens **should** be housed with their littermates and their mother

9.6 Behavior assessment

- ❑ It is **unacceptable** to expose cats to dogs in the shelter as a test to determine if the dog can safely live with cats
- ❑ An overall behavior assessment **must** collect and consider all the information about the animal, including history and behaviors observed during all shelter and foster interactions
- ❑ Through the process of behavior assessment, shelter personnel **must** strive to learn as much as possible about each animal to aid in optimizing their care, pathway planning, outcome decisions, and adoption matching and counseling
- ❑ Behavior that requires intervention or affects how an animal can be safely handled **must** be entered into the animal's record and communicated with shelter personnel promptly
- ❑ When animals are experiencing high levels of stress or fear when interacting with people or other animals, they **must** not be forced to interact
- ❑ interactions with animals **must** not intentionally or carelessly provoke negative emotional states or undesirable behavior

9.7 Responding to behavior or welfare concerns

- ❑ Behavior care and outcome decisions **must** be based on current animal behavior science
- ❑ Animal training **must** be based on Least Intrusive Minimally Aversive principles and the Humane Hierarchy of Behavior Change in accordance with current professional guidelines
- ❑ Except when safety is an imminent concern, personnel **should** not use anything other than mildly aversive training methods

- ❑ **Ideally**, animal trainers and behavior consultants are certified or have graduated from a program that assesses knowledge and skills
- ❑ Behavior modification protocols **must** incorporate scientific principles of animal behavior and learning
- ❑ It is **unacceptable** to use physical force as punishment to modify animal behavior
- ❑ Before implementing behavior modification, shelters **must** ensure they have the necessary resources to support such plans
- ❑ Behavior medications **must** be strongly considered to address welfare concerns related to emotional health
- ❑ Behavioral health concerns **must** be objectively assessed and diagnosed to ensure that medications are prescribed when indicated, with clear goals for treatment and outcome
- ❑ Behavior medications **must** only be administered under the advice of or in accordance with written protocols provided by a veterinarian, and all drugs **must** be dispensed in accordance with federal and state regulations
- ❑ When behavior medication is prescribed, it **must** be part of a comprehensive plan to help address the animal's condition
- ❑ For all animals staying in the shelter more than a few days, appropriate levels of additional enrichment **must** be provided on a daily basis
- ❑ Housing that provides animals with additional space, enrichment, and choice within their enclosure **must** be provided for animals remaining in the shelter long-term
- ❑ Animals who are housed long-term **should** be spayed and neutered

- ❑ Long-term confinement of any animal who cannot be provided with basic care without inducing stress or compromising safety is **unacceptable**

9.8 Risk assessment of animals displaying aggressive behavior

- ❑ Shelters **must** promptly respond to behavior that poses a significant safety risk
- ❑ Shelters **must** have protocols and criteria in place that attempt to identify and manage animals at high risk of causing harm to shelter personnel, the public, or other domesticated animals

9.9 Rehoming considerations

- ❑ Adopters and foster caregivers **must** be counseled on providing safe, gradual, and controlled introductions of shelter animals to children and resident pets
- ❑ Foster caregivers and prospective adopters **should** be allowed to adopt or foster without bringing their own animals to the shelter
- ❑ A record of the animal's behavior **should** be provided in hardcopy or electronic form with the animal at the time of transfer, foster, or adoption

Section 10: Euthanasia

10.1 General

- ❑ All animals and people **must** be treated with respect during the euthanasia process
- ❑ The euthanasia process **must** be as free from pain, fear, anxiety, and distress as possible
- ❑ A veterinarian with appropriate training and expertise for the species involved **should** be consulted when establishing euthanasia protocols
- ❑ Agents and methods deemed unacceptable in the AVMA Guidelines for the Euthanasia of Animals are **unacceptable** to use in shelters
- ❑ Depopulation **must** only be used as a last resort when all other methods to address the situation have been exhausted

10.2 Euthanasia process

- ❑ Euthanasia protocols **must** be created and followed to support consistent euthanasia practices
- ❑ Protocols **should** have options to accommodate individual animal's behavioral and physical needs and ensure human safety
- ❑ Prompt intervention **must** occur if complications are noted during the euthanasia process
- ❑ It is **unacceptable** to euthanize an animal without confirming that the animal is the individual the shelter intends to euthanize

- ❑ For stray animals, a final check of local missing animal listings **should** be performed to confirm that there are no matches before performing euthanasia
- ❑ Immediately prior to euthanasia, animals **must** be scanned for a microchip, either to confirm known microchip identity or in case previous scanning was incomplete
- ❑ It is **unacceptable** to euthanize an animal without verifying legal eligibility
- ❑ Death **must** be verified by trained staff before disposing of the animal's body
- ❑ Euthanasia methods **must** be reliable, irreversible, compatible with the species, age, health and behavior of the animal, and ensure a smooth loss of consciousness followed by death
- ❑ Pre-euthanasia drugs **must** be administered when their use is necessary for a smooth euthanasia process
- ❑ Each animal's weight (actual or assessed) **must** be used to calculate adequate drug doses
- ❑ Unless an animal has been verified as unconscious, intra-organ injections are **unacceptable**
- ❑ Gunshot is **unacceptable** as a routine method for euthanasia of dogs, cats, or other small companion animals
- ❑ Inhalation of carbon monoxide is an **unacceptable** method of euthanasia for companion animals in shelters

10.3 Environment and equipment

- ☐ A separate room **should** be designated for euthanasia in a quiet area away from the main pattern of foot traffic
- ☐ The room used for euthanasia **should** be well lit and large enough to accommodate the necessary people and equipment
- ☐ Only people with defined roles in the euthanasia process **should** be in the room when the procedure is being performed
- ☐ The euthanasia environment **must** be set up to minimize discomfort and distress and accommodate the individual animal's behavioral and physical needs
- ☐ All equipment used during the euthanasia process **must** be easily accessible and in good working order to ensure a safe and humane euthanasia process
- ☐ A new needle **must** be used to administer euthanasia drugs to each animal
- ☐ Appropriate personal protective equipment **must** be utilized during the euthanasia process to avoid injury to personnel or transmission of disease
- ☐ Euthanasia equipment and surfaces **should** be cleaned after each use
- ☐ The entire euthanasia room **should** be sanitized regularly
- ☐ All drugs used during the euthanasia process **must** be stored, administered, and documented in accordance with federal and state regulations
- ☐ Storage and final disposal of animal remains **must** be in compliance with all applicable laws and regulations

- ❑ It is **unacceptable** for shelters to euthanize an animal solely for research or educational purposes

10.4 Personnel considerations

- ❑ Personnel performing euthanasia **must** be appropriately trained and maintain all necessary certification as required by state or local regulations
- ❑ The safety and well-being of personnel **must** be incorporated into euthanasia protocols and policy
- ❑ Systems **must** be in place to prevent, recognize, and address fatigue and distress related to euthanasia in shelter personnel
- ❑ Euthanasia decision-making **must** occur through a transparent process that lessens the decision-making burden on any one individual

Section 11: Animal Transport and Relocation Programs

11.1 General

- ❑ Decision-making in relocation programs **must** prioritize decreasing length of stay
- ❑ It is **unacceptable** to transport animals when the transport itself is likely to be harmful to their immediate or long-term health or welfare

11.2 Responsibilities for relocation programs

- ❑ All participants in the relocation process **must** follow federal regulations for animal transportation as well as local or state regulations for both source and destination locations
- ❑ For commercial air transport, organizations **must** consult with the airline for specific requirements
- ❑ Emergency plans **must** be made prior to transport
- ❑ Written agreements between all parties involved in the relocation program **should** be developed and reviewed regularly
- ❑ Animal health and behavior **must** be accurately described and communicated between relocation partners
- ❑ A contact person **must** be identified at each transfer point
- ❑ A record of each animal's travel from source to destination **must** be kept

- ❑ Public health and safety **must** be considered in the design of relocation programs and protocols
- ❑ Organizations engaging in relocation **should** track standard metrics for transported animals
- ❑ Unless there are extenuating circumstances, animals **should** not be returned to the source even in the event of unexpected medical or behavioral concerns

11.3 Responsibilities at the source

- ❑ All eligible animals within a source population **must** be vaccinated at or before intake
- ❑ **Ideally**, all dogs 6 months of age and older are tested for heartworm disease prior to relocation
- ❑ The animal's health and behavior records **must** be shared with the destination
- ❑ When required, a valid health certificate (CVI) and proof of rabies vaccination **must** accompany each animal
- ❑ Animals **must** be examined by trained staff within 24 hours prior to travel and deemed fit for transport
- ❑ A veterinarian **must** confirm that animals with medical concerns or recovering from surgery are fit for transport
- ❑ Animals being transported **must** be provided with visual identification
- ❑ **Ideally**, animals are microchipped before transport

- ❑ Each primary transport enclosure **must** be marked with each animal's unique identifier
- ❑ A copy of the manifest for each transport, identifying each animal on board, **must** be maintained in an accessible location separate from the vehicle itself

11.4 Responsibilities during transport

- ❑ Primary transport enclosures **must** be large enough for animals to stand and sit erect, turn around normally while standing, and lie in a natural position without lying on another animal
- ❑ Unfamiliar animals **must** not be transported together in the same primary enclosure
- ❑ **Ideally**, animals are introduced and acclimated to the transport carrier prior to transport in order to reduce associated stress
- ❑ The primary enclosure **must** not have sharp edges, and the flooring **must** prevent injury, discomfort, and leakage of fluids into other enclosures
- ❑ Absorbent bedding **must** be provided during transport unless it poses a risk to an individual animal's health
- ❑ In a transport vehicle, kennels **must** be positioned in a manner that ensures adequate airflow and temperature regulation within each primary enclosure
- ❑ Primary enclosures **must** be loaded in a manner that minimizes animal stress or discomfort while allowing direct visual observation
- ❑ Primary enclosures **must** be secured to prevent movement within the vehicle, and doors secured to prevent accidental opening
- ❑ In an emergency, operators **must** be able to swiftly remove animals

- ❑ During transport, cats **should** be provided with a hiding space or visual barrier that allows ventilation and monitoring
- ❑ **Ideally**, all cats are provided with access to a litter box during long-distance transport
- ❑ Cats and dogs are **ideally** transported in separate vehicles
- ❑ If cats are transported in a vehicle with dogs, they **must** be housed in a physically separate space with special consideration given to visual and noise barriers
- ❑ Kittens or puppies less than 8 weeks old **should** be transported with their mother when possible and **should** be transported in a single enclosure large enough for her to lie down with legs extended for comfort and to facilitate nursing
- ❑ Behavior medications **should** be considered when an animal is likely to have emotional welfare concerns during transport
- ❑ It is **unacceptable** for a relocation program to transport animals that are sedated or anesthetized to the point that they are unable to swallow, walk, or thermoregulate
- ❑ Department of Transportation (DOT) regulations promote the safety of drivers and those around them and **should** be followed even when transporters are not licensed or subject to them
- ❑ Vehicle operators **must** be licensed and trained in use of the specific vehicle they will be operating
- ❑ The temperature of the animal compartment in the vehicle **must** be monitored, and action taken if low or high temperatures occur

- ❑ For animal safety, ambient temperature **must** be maintained above 45°F (7.2°C) and below 85°F (29.5°C), and humidity maintained between 30 and 70%
- ❑ To ensure comfortable conditions, ambient temperature **should** be maintained between 64°F (18°C) and 80°F (26.6°C)
- ❑ Operators **must** ensure that air in the animal compartment is fresh and free of vehicle exhaust fumes
- ❑ To detect poor air quality, carbon monoxide detectors **should** be placed in the animal compartment
- ❑ Vehicle drivers or animal attendants **must** have sufficient training in animal health, welfare, and safety to recognize and respond to animal needs during transport
- ❑ For transports longer than 4 hours, two drivers **should** be present to monitor and reload animals
- ❑ At minimum, every 4 hours, the vehicle **must** be stopped, and a visual observation of each animal **must** be performed
- ❑ For juvenile animals, a small meal **should** be given no more than 4 hours before departure, and small amounts of food **should** be provided every 4 hours throughout transport
- ❑ For both adults and juveniles, water **must** be provided at least every 4 hours during observation stops
- ❑ Food **must** be provided at least every 24 hours for adult animals
- ❑ During transport, driving time to an intermediate or final destination **should** not exceed 12 hours per day, and loading and unloading of animals **should** not exceed 1 hour each

- ☐ Transport that exceeds 12 hours of travel **must** be broken up with an overnight rest stop at an intermediary location
- ☐ Total transport time from the source to a final destination **should** include no more than 28 hours confined to a transport vehicle, including loading and unloading time and excluding an overnight rest stop
- ☐ Dogs **must** be walked or exercised on trips that require an overnight stay
- ☐ Animals **should** never be left unattended in a transport vehicle unless sufficient monitoring capabilities are in place, and attendants are able to immediately respond to animal care needs
- ☐ Cats **must** have access to a litter box if being housed overnight
- ☐ If transporting animals from different sources on separate vehicles is not possible, animals from each source are **ideally** housed in separate compartments
- ☐ Whenever animals from different sources are held in the same vehicle or facility, protocols that minimize exposure and cross-contamination between populations **must** be in place

11.5 Responsibilities at the destination

- ☐ The destination shelter **must** have sufficient trained personnel ready to receive and evaluate animals upon arrival
- ☐ Each animal admitted through a relocation program **must** receive a brief health assessment at intake
- ☐ Veterinary services **must** be accessible upon arrival

- ❑ The destination facility **must** have adequate housing prepared for the arriving animals without displacing the existing population
- ❑ Destination shelters **should** maintain an active working knowledge of the source organization, which includes familiarity with the common diseases, preventive healthcare, and biosecurity practices at each source organization

Section 12: Disaster Response

12.1 General

- ❑ All shelters **should** be prepared to respond when directly affected by a disaster
- ❑ Deviations from these Guidelines as the result of a disaster **should** be as brief and as minimal as possible

12.2 Mitigation

- ❑ Shelters **should** take steps to anticipate, detect, and mitigate the impacts of disasters
- ❑ Shelters **must** identify and plan for reasonably anticipated disasters, including those most likely to occur in their geographic area

12.3 Preparedness

- ❑ Every sheltering organization **must** have a written plan that outlines the actions the shelter will take in response to likely emergency scenarios
- ❑ The written disaster response plan **should** be accessible by all personnel, used to train staff during disaster drills, and regularly reviewed and updated
- ❑ Disaster response plans **must** detail how shelters will provide essential services to all animals currently in care, including those in foster homes
- ❑ Plans **should** detail how necessary supplies will be acquired, and include evacuation strategies in the event that supply chains or utilities (e.g. water, food, and heating or cooling) are disrupted
- ❑ Emergency plans **should** include a process for preemptively relocating the shelter's population in advance of the event when appropriate

- ❑ Since the risk of zoonotic disease spread may increase during disasters, plans **must** include steps to control transmission
- ❑ Shelter disaster plans **should** indicate the personnel structure necessary to provide essential animal care services during a disaster
- ❑ Training specific to the roles personnel will fill during a disaster, including safety considerations, **should** be provided before starting the work
- ❑ Individuals participating in multi-agency disaster responses **should** complete National Response Framework (NRF) and National Incident Management System (NIMS) training, including Incident Command System (ICS) modules
- ❑ Disaster planning **should** include provisions to address the physical and mental stress experienced by personnel, community members, and responders
- ❑ Human safety **must** be the first priority of any disaster response plan
- ❑ If a shelter is part of an established disaster response team, a written plan **should** specify its particular role and the other organizations the shelter will be working with
- ❑ Shelters responding to disasters as part of a coordinated response **should** draft memoranda of understanding (MOUs) with their governmental and nongovernmental response partners

12.4 Response

- ❑ Response plans **should** be followed as soon as a disaster is anticipated or has occurred
- ❑ When indicated, an ICS **should** be initiated rapidly to designate and maintain a clear chain of command and communication infrastructure

- ☐ Each animal admitted during a disaster **must** receive at least a cursory assessment at intake to check for signs of infectious disease, any conditions that require emergency medical care, and exposure to hazards
- ☐ Animals admitted during a disaster **should** be given core vaccines, including rabies and parasite control
- ☐ Animals **must** be decontaminated when applicable
- ☐ shelters **must** make concerted efforts to reunify pets displaced by a disaster
- ☐ Shelters outside of the disaster area accepting impacted animals **must** be able to provide appropriate care and outcomes for their existing population before volunteering to accept displaced animals
- ☐ Shelters **should** have a system for managing physical and monetary donations during disaster response and recovery
- ☐ Shelters **should** track resources used during disaster response and recovery
- ☐ Shelters **must** anticipate the arrival of self-deployed volunteers during a disaster and **must** address how these individuals will or will not be used
- ☐ veterinary professionals **must** only provide medical treatment or services when they hold a license to practice in that jurisdiction or are exempt from this requirement
- ☐ Even during a disaster, oversight of use and storage of controlled substances **must** remain with the individual identified as the responsible party on the DEA license for that premise

12.5 Recovery

- ❑ If damage to the shelter building, grounds, or local infrastructure is a concern, a full safety assessment **must** be made prior to resuming normal activities in that area or facility
- ❑ Shelters **must** tailor placement efforts when their community is impacted by a disaster
- ❑ Shelters **should** provide additional services that support keeping pets with their owners in the time frame immediately following the disaster
- ❑ Following a disaster, shelters **should** debrief and evaluate their planning, response, and recovery processes, so that adjustments to their plans can be made

Section 13: Public Health

13.1 General

- ❑ Both within their facilities and in the larger community they serve, shelters **must** take precautions to protect the health and safety of animals, people, and the environment

13.2 Personal protective measures

- ❑ In order to protect personnel from exposure to workplace hazards, shelters **must** provide PPE such as gloves, smocks, goggles, face masks, face shields, shoe covers, and ear plugs
- ❑ PPE **must** be available in types and sizes to accommodate all personnel, including those with special concerns such as latex allergies
- ❑ Personnel **should** wear gloves when handling animal waste or fluids
- ❑ Personnel **should** wash hands frequently, especially after handling animals, and after removing PPE
- ❑ Personnel **should** wash their hands before eating, smoking, or touching their face
- ❑ Personnel and visitors **should** be discouraged from eating, drinking, or bringing pacifiers, teething toys, or baby bottles into animal housing areas
- ❑ Animals **should** not be present in areas designated for human food preparation or consumption

13.3 Workplace hazards

- ❑ Shelters **must** comply with local, state, and federal health and safety regulations regarding chemical, biological, and physical hazards in the workplace
- ❑ When working with hazardous chemicals, PPE such as eye protection or respirator face masks **must** be worn as indicated by the product label
- ❑ Shelters **must** promptly dispose of biological waste (animal waste, animal tissues, and carcasses) in a manner that follows state and local regulations
- ❑ Shelters **must** follow regulatory guidelines for the disposal of unused medications
- ❑ Controlled medications **must** be disposed of or wasted in a manner that follows regulations, prevents environmental contamination, and prevents human diversion
- ❑ Smoking **must** not be allowed in animal shelters
- ❑ Shelters **must** follow industry guidelines for the proper disposal of sharps
- ❑ supervisors **must** advise persons injured at the shelter or by a shelter animal to seek medical care
- ❑ Both environmental and behavioral noise abatement strategies **should** be used in animal housing and holding areas
- ❑ Hearing protection **must** be worn by employees working in environments where volume is at or above 100 dB cumulatively for 15 minutes
- ❑ When volumes exceed 85 dB at any point in time, hearing protection **should** be worn

- ❑ The public **must** be prevented from having contact with animals who pose a high risk of biting by clearly marking and restricting access to areas where these animals are held
- ❑ Shelters **must** consider public safety when making outcome decisions regarding animals who pose a risk of serious harm
- ❑ A record of all known bite incidents **must** be provided in hardcopy or electronic form to adopters, fosters, or transfer partners
- ❑ Shelters **must** follow regulations for reporting animal bites to humans
- ❑ At intake, shelter personnel **must** ask owners or finders if the animal being admitted has bitten anyone within the past 10 days
- ❑ Animals who have bitten a human **must** be managed according to state and local regulations, including quarantine of the animal or euthanasia for rabies testing when required
- ❑ Personnel who routinely work with animals **should** receive pre-exposure vaccinations against rabies in accordance with the current recommendations of the Advisory Committee on Immunization Practices
- ❑ At intake, shelter personnel **must** ask owners and finders of incoming animals about recent wildlife bites or exposures
- ❑ Shelter personnel **should** look for and document evidence of wounds that could indicate a potential rabies exposure
- ❑ Animals who have potentially been exposed to rabies **must** be managed with guidance from the NASPHV Rabies Compendium, and in accordance with state and local health regulations
- ❑ Shelters **should** vaccinate all animals eligible for rabies vaccine prior to leaving the shelter

- ❑ Shelters **should** have a protocol for responding to zoonotic diseases, including communication regarding potential exposures
- ❑ Access to animals with known zoonotic conditions **should** be limited to those necessary to provide appropriate care
- ❑ Enclosures of animals with suspected zoonotic disease **must** be clearly marked to indicate the condition and necessary precautions, such as recommended PPE, handling, and sanitation practices
- ❑ Shelters **must** disclose the risk of known zoonotic disease to personnel, transport partners, foster care providers, and adopters
- ❑ Routinely using antimicrobials to prevent infection in healthy animals is **unacceptable**
- ❑ Antimicrobial use **must** be tailored to appropriate clinical conditions, used judiciously, and evaluated for therapeutic effect
- ❑ animal shelters **should** monitor their populations for signs of unusual or severe disease
- ❑ Animal population management **should** be used to reduce the risk of developing novel or emerging pathogens

13.4 Human well-being

- ❑ Shelters **should** strive to become workplaces that emphasize staff wellness through a positive organizational culture, fair pay, hours and expectations, provisions for self-care, and ready access to mental health support systems without repercussions
- ❑ When mental health concerns are communicated or observed, personnel **should** be encouraged to seek professional help

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THE ASSOCIATION OF SHELTER VETERINARIANS' GUIDELINES FOR STANDARDS OF CARE IN ANIMAL SHELTERS

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Introduction

Purpose

The Association of Shelter Veterinarians' (ASV) Guidelines for Standards of Care in Animal Shelters ['The Guidelines[1]'] was originally published in 2010. While animal sheltering has evolved substantially in the last decade, this second edition shares the same fundamental goals. To provide:

- a set of common standards for the care and welfare of companion animals in shelters based on scientific evidence and expert consensus
- guidance that helps animal welfare organizations reduce overcrowding, stress, disease, and improve safety
- a tool for animal welfare organizations and communities to assess and improve their shelters
- references for creating regulations and statutes around sheltering, and benchmarks for organizational change
- guidance for animal housing in existing facilities and priorities for the design of new construction
- a living document that responds to developments in shelter medicine and animal care research and practice

Both documents share the guiding principle that meeting each animal's physical and emotional needs is the fundamental obligation of a shelter regardless of the mission of the organization or the challenges involved in meeting those needs.

About this document

This second edition keeps the intent and format of the original document, while incorporating important updates based on the growing body of animal sheltering science and recommendations rooted in practical experience. To undertake this revision, the Board of Directors of the ASV formed a task force of 19 shelter veterinarians from a pool of nominees and original authors. Task force members were selected from those active within the ASV community to provide diversity and breadth in their areas of expertise, geographical locations, and current or previous roles in a variety of shelter types. Task force members completed literature reviews and consulted subject matter experts to inform their contributions. Funding to support the research, development, and publication of this document was provided by the ASV. No commercial or industry funding was used.

This consensus document, which represents the collective input and agreement of all task force members, took 3 years to create. This second edition was approved unanimously by the ASV Board of Directors in December 2022.

Audience

The Guidelines for Standards of Care in Animal Shelters, Second Edition, is written for organizations of any size or type who provide temporary housing for companion animals. The term *shelter* used here includes foster-based rescues, nonprofit humane societies and SPCAs, municipal animal services facilities, and hybrid organizations. The Guidelines are also applicable to any organization that routinely cares for populations of companion animals, including companion animal sanctuaries, cat cafés, vet clinics, pet stores, dog breeding operations, research facilities (including universities), and service, military, or sporting dog organizations. This document was written for organizations working in every community, including those with significant numbers of homeless pets, those with the capacity to take in animals from other locations, and those whose pet population challenges vary by species, time of year, and other circumstances.

The term *personnel* is used in this document to include all paid and volunteer team members caring for animals in shelters and foster-based organizations. This document is intended to guide all personnel, including administrative, medical, behavior, and animal care staff; volunteers; foster caregivers; sole operators; and those filling any other role that supports animal well-being.

Scope

Although many practice recommendations and examples are included, these Guidelines are not a detailed manual for shelter operations. As with the previous document, the aim is to provide guiding standards of care to meet animals' needs, while allowing shelters to determine exactly how those standards are met in their own operating protocols, based on their mission or mandate, resources, challenges, and community needs.

In this document, we have deliberately limited our focus to the care of cats and dogs who make up the majority of animals admitted to shelters in the United States every year. When caring for other species, similar operational principles can be applied to meet the unique needs of those animals.

The ASV recognizes the importance of activities supporting pet retention and access to veterinary care, and that shelters are playing a large role in providing those services.[2] Informed community engagement is critical in supporting the health of animals in their communities, with impacts on shelter intake and human health.[3] Although these services are addressed where they intersect with shelter admission and outcome policies and decisions, this document does not focus specifically on how shelters support owned animals or community pet welfare.

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Format

These Guidelines have been divided into 13 sections; 11 have been updated from the original document and two are new. The document is intended to be read in its entirety because concepts build upon one another. A glossary is included as Appendix A; a checklist of key actionable statements is available on the ASV website. Lists of helpful resources are also included in appendices for ease of access. As an evidence-based document, the many references included direct the reader to the science and research behind specific recommendations.

As with the original document, the key actionable statements use an *unacceptable, must, should,* or *ideal* format:

- ***Unacceptable*** indicates practices that need to be avoided or prevented without exception
- ***Must*** indicates practices for which adherence is necessary to ensure humane care
- ***Should*** indicates practices that are strongly recommended, and compliance is expected in most circumstances
- ***Ideal*** indicates practices that are implemented when resources allow

The ASV recognizes that each organization is uniquely situated and faces challenges that may impact their ability to implement the practices recommended. The ranked format of statements allows organizations to set priorities for improving their operations and facilities. This is not a legal document; shelters should be aware that state and local laws and regulations may supersede the recommendations made here.

Ethical framework for animal welfare

The ethical principles for animal welfare used in the original Guidelines document were the Five Freedoms: the freedom from hunger and thirst; the freedom from discomfort; the freedom from pain, injury, or disease; the freedom to express normal behavior; and the freedom from fear and distress.[1,4]

While these principles are valuable for defining essential elements of animal welfare, their focus is on avoiding negative experiences. Positive experiences and welfare are also essential to promote a life worth living.[5] For example, shelters do more than ensure animals do not go hungry; they regularly provide species- and life stage-specific food that nourishes, provides interest, and satisfies without overfilling. Food can be even more enriching when provided in a context of social contact and animal training.

The Five Domains model, derived from the Five Freedoms, illustrates how better or worse nutrition, environment, physical health, and behavioral opportunities combine to inform an animal's mental state, which, in turn, informs their overall welfare.[6] This model does two new things. First, it gives a spectrum for each domain, for example, allowing not just the absence of pain but including the feelings of comfort and fitness (Table 1).

Second, this model illustrates that positive welfare states can still occur even when one or more important needs are not completely satisfied. For example, a stray cat with a healing pelvic fracture on cage rest (restricted agency, pain) may still have an overall positive welfare state when appropriately treated and housed in an enriched foster home. Negative mental states are also possible even if only one need is unmet. For example, a well-fed and physically healthy dog confined long-term to a kennel (restricted agency) may have profound mental distress and overall negative welfare.

When nutritional, environmental, physical, and emotional needs are increasingly satisfied, animals have increasingly positive mental states and demonstrate this

Table 1. The Five Domains that contribute to an animal's welfare status

	1. Nutrition	2. Environment	3. Health	4. Opportunity	5. Mental state
Positive experiences	Enough food and water Fresh clean water Balanced, variety of food	Comfortable Temperate Routine Clean Interest/variety	Physical health Good function Good body condition Restful sleep	Choice of environment Choice of interaction Behavioral variety (play, hunt, forage, engage, rest) Novelty	Satisfied Engaged Comfortable Affectionate Playful Confident Calm Encouraged
Negative experiences	Restricted water Restricted food Poor quality Monotonous	Too cold or hot Too dark or bright Too loud or quiet Unpredictable Malodorous Soiled Monotonous Uncomfortable	Body dysfunction or impairment Disease Pain Poor fitness	Barren cage Confined space Separation from people or species Restraint Unavoidable sensory inputs	Fearful or anxious Frustrated Bored, lonely Exhausted Ill, painful Uncomfortable Hungry, thirsty

Adapted from Mellor[6]

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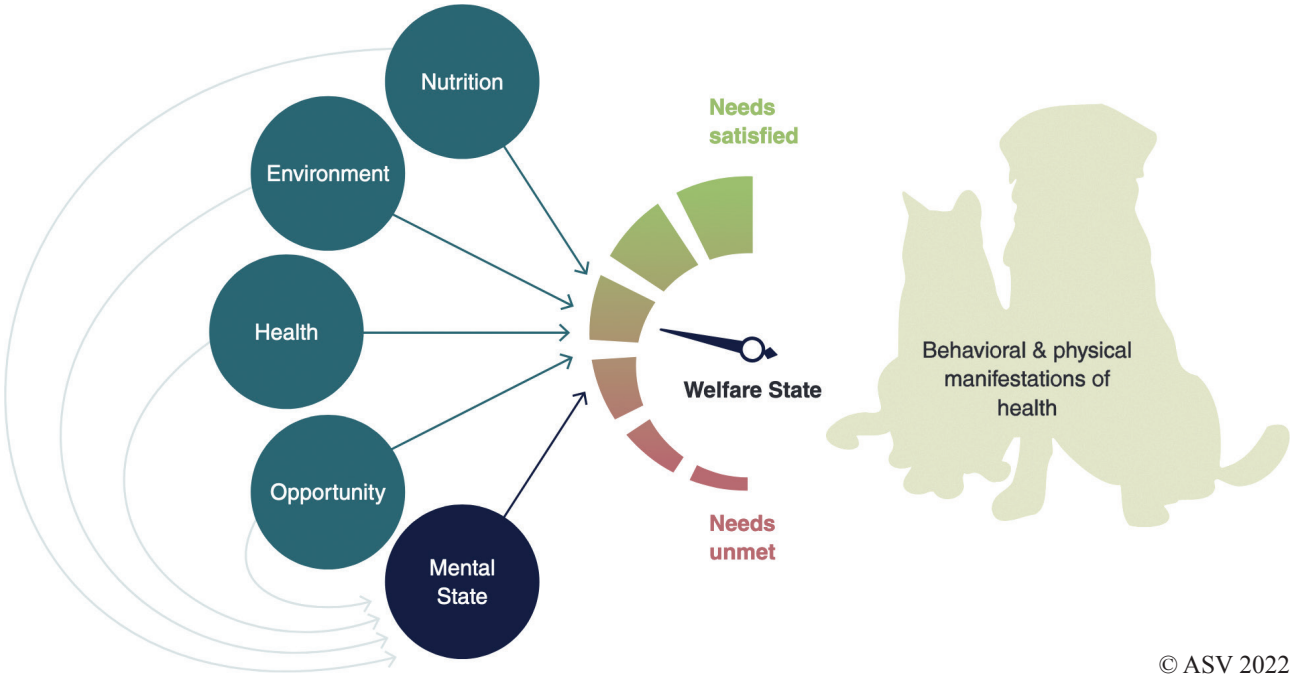


Figure 1. The Five Domains of animal welfare in action

through physical manifestations of good health and behavior (Figure 1).

In this document, we set out to help shelters achieve positive welfare in each of these Five Domains within the necessary constraints of animal and human safety and infectious disease control. In addition to following the Guidelines in this document, we hope that shelters will examine existing practices in light of the Five Domains framework and identify new ways to tip the balance toward positive well-being for the animals in their care.

Sheltering today

This document was created during a period of social upheaval, with a global pandemic, climate events, and racial inequity protests impacting communities around the world. Both the COVID-19 pandemic and increasingly frequent damaging weather events have accentuated the critical role that shelters play in keeping animals safe and preserving the human–animal bond. The willingness of communities to help shelters was also highlighted during the pandemic, when entire organizations pivoted to foster care and pursued creative alternatives to intake. Inviting members of the community to be a part of the safety-net has created opportunities for new programs and bigger impacts.

At the same time, the animal welfare industry has been reflecting on how sheltering and animal control practices contribute to systemic inequities in their communities, including the ways that shelters admit, transport, and adopt out animals. This reflection has emphasized the need for accessible, non-punitive services for pet owners in our communities, the benefits of culturally sensitive community engagement, and the need to work toward representing the diversity of our communities in our personnel and profession (ASV's Commitment to Diversity, Equity and Inclusion).[7] Staffing and work environment challenges, during the pandemic and beyond, have reiterated the need for shelters to be healthy, supportive, and inclusive places to work and volunteer (ASV's Well-being of Shelter Veterinarians and Staff).[8]

Confronting these challenges together has created a stronger, more interconnected animal welfare community. The ASV offers this document as a tool to help shelters connect to expert guidance and measure themselves against a common standard, to help personnel find compassion satisfaction, to solidify the shelter's role in supporting their community, and to elevate the welfare of animals in their care.

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1. Management and Record Keeping

1.1 General

A well-run sheltering organization of any size is built on a foundation of planning, training, and oversight. This foundation is an essential part of implementing the guidelines presented in this document. Shelters must have a clearly defined mission or mandate, adequate personnel, up-to-date policies and protocols, a system for training and supervising personnel, and management practices aligned with these guidelines.

The shelter's mission or mandate should reflect the needs of the community it serves. Tools that aid shelters in defining their purpose include community needs assessments and strategic planning. A community needs assessment reveals what services are already being provided in the community and where needs are unmet. Programs and collaborations have the biggest impact when they reflect principles of community engagement, including respect for each other's values and cultures.[1] The community's needs should be regularly reviewed, and strategies and goals updated accordingly.

Strategic planning is an organizational process used to define the shelter's essential programs and goals, and then purposefully allocate resources (e.g. shelter space, personnel, and finances) toward achieving these goals. This planning positively impacts an organization's ability to achieve its stated objectives.[2] Strategic plans are most effective when reviewed regularly, often quarterly, to ensure progress is being made and goals are still relevant.

Animal shelter administration requires the balance of a complex set of considerations, including a focus on collaboration and the establishment of best practices. When developing organizational level policies and protocols, administrators are encouraged to consult industry-specific professional organizations for guidance and to learn from the experience of others in the field.[3–5] Because animal health and welfare is woven into every facet of shelter operations, veterinarians should be integrally involved with development and implementation of the shelter's organizational policies and protocols.

1.2 Management structure

Shelters must have a clearly defined organizational structure that outlines accountability, responsibility, and authority for management decisions. This organizational structure must be communicated to all staff and volunteers. Organizational charts are visual tools that enable all personnel to understand roles and responsibilities, supporting clear communication across departments. This blueprint of the organization can be used by new team members learning about the organization, by those in leadership planning for growth and transition, and by external partners establishing a collaborative relationship with the organization. Lines of authority, responsibility, and supervision should be in writing, reviewed periodically, and updated when roles change.

Decision-making must take into account resource allocation as well as population and individual animal health and welfare. Decisions involving the allocation of resources, whether at the organizational, population, or individual animal level, are best made by personnel aware of organizational priorities and the shelter's capacity for care.

Authority and responsibility for tasks and decision-making must be given only to those who have the appropriate knowledge, training, and when applicable, credentials. For example, resource-based decisions (e.g. to treat or to euthanize an individual animal) may be made by shelter personnel, but medical treatment decisions (e.g. which drug to treat with) need to involve a veterinarian.

The practice of veterinary medicine and surgery is restricted to those with a valid license. In the United States, veterinary practice is defined by state or territorial practice acts. These acts generally cover the diagnosis and treatment of medical conditions, prescription of pharmaceuticals, surgery, and the tasks that other personnel (e.g. technicians, assistants, veterinary students, and others) may perform under direct or indirect veterinary supervision.[6] Several states and the AVMA Model Veterinary Practice Act have sections specific to population medicine and the provision of veterinary oversight through standard written protocols and timely visits to the premises where animals are housed.[7,8]

Some medical procedures (e.g. microchipping and alternative therapies) may be restricted to veterinarians in some states and not in others.[9] Shelters can maximize capacity for medical services by using veterinary technicians and other veterinary professionals to the extent of their capabilities. Providing veterinary care via telemedicine extends veterinary bandwidth and can improve animal welfare.[10]

A formal relationship with a veterinarian must be in place to ensure oversight of medical and surgical care in the shelter. Many shelters employ one or more veterinarians, others may use local veterinary clinics, and some use paid or unpaid contract veterinarians. A shelter's veterinarian must have knowledge about their particular population and should have training or experience in shelter medicine. The shelter's veterinarian should be consulted on all policies and protocols related to the maintenance of medical and behavioral animal health (see Medical Health).

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Furthermore, veterinarians may be uniquely suited to provide training and continuing education, communicate with external stakeholders, and engage in organizational policy and protocol development in shelters.

1.3 Establishment of policies and protocols

Organizational policies are a framework of high-level decisions that ensure operations remain consistent with the shelter's mission and priorities. Shelter policies help ensure that animal needs do not overwhelm the resources available to meet those needs, since operating beyond an organization's capacity for care is unacceptable (see Population Management). Important policies for sheltering organizations include intake, treatable conditions, euthanasia, adoption, transport, and community animal services.

Shelter protocols are critical tools that ensure consistent daily operations in keeping with organizational policies. Protocols must be developed and documented in sufficient detail to achieve and maintain the standards described in this document and should be reviewed and updated regularly. All personnel must have access to up-to-date protocols. How shelters provide this access will vary by organization and may include digital or paper documents. Shelter management must routinely monitor and ensure compliance with protocols. Appendix B provides a comprehensive list of protocols recommended in these Guidelines.

Shelters are obligated to comply with all local, state, and national regulations, which need to be reviewed regularly. In some cases, existing regulations may represent outdated practice or lower standards of care and can restrict or even conflict with current best practices. When implementation of these Guidelines does not align with government regulations or policies, shelters are encouraged to support endeavors for legislative change.

1.4 Training

Effective training of personnel (i.e. paid and unpaid staff and volunteers) is necessary to ensure safe and humane animal care and the safety of people.[11] Personnel training should incorporate all relevant aspects of working in the organization. In addition to operating protocols for daily tasks, effective training programs include broader topics that help staff to perform their duties well, such as communication techniques; data management; animal husbandry; staff well-being; and diversity, equity, and inclusion (Appendix B).

Onboarding is an important part of introducing new personnel to any organization. Shelters must provide training for each shelter task, and personnel must demonstrate skills and knowledge before proficiency is assumed. For example, new animal care staff could complete virtual training materials on sanitation and work with a senior staff member prior to being assigned to sanitize enclosures.

Documentation of training should be maintained and reviewed regularly as a part of professional development and performance reviews. Ongoing feedback about performance, both in-the-moment and through formal reviews, is an important element of professional growth for personnel at all levels. When licensing or certification is required to perform specialized duties, as in veterinary care or euthanasia, personnel performing these tasks must be credentialed.[12,13] Continuing education must be provided for all personnel in order to improve skills and maintain credentials. Investing in training requires time and resources but is key to program success.

To ensure employee, volunteer, and public safety, shelters must provide all personnel the information and training needed to recognize and protect themselves against common zoonotic conditions (see Public Health). In addition, shelter personnel having any form of contact with animals should have proper training in basic animal handling skills, animal body language, and bite prevention strategies. This training reduces risk for staff and volunteers and provides a more humane experience for animals.

1.5 Record keeping and animal identification

Shelter animal identification and maintenance of animal records are essential for shelter operations. Shelters must adhere to the elements of record-keeping defined within regulatory requirements.

Given the wide availability of technology, digital systems should be used for record keeping, preferably software systems designed for animal shelters. With proper utilization, shelter software or spreadsheet programs allow organizations to better manage resources, schedules, and shelter processes. The software system used by a shelter should be able to generate basic population level reports as well as individual animal records. Population-level data inform management strategies (see Population Management) and allow regular assessment and reporting of organizational goals and activities.[14]

No matter the system used, each animal must have a unique identifier and individual record. This identifier (e.g. name and number) is established at or prior to admission and ensures consistency and accuracy in care and record keeping for that animal. Shelter software programs typically generate a 'kennel card' based on animal information entered into the system, which can be displayed on or near the animal's primary enclosure for easy reference by personnel and the public.

Because animals may move within and between areas, shelters must have an organized system by which animal identification information can be quickly and easily matched to animals in enclosures and their shelter records.

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Table 1.1. Essential elements of an animal shelter record

Animal information	Unique identifier (number/name)
	Intake type (source)
	Date of intake
	Species
	Age/age category (estimate or known)
	Sex
	Spay-neuter status
	Physical description
	Weight
Identification	Photograph of the animal
	Microchip scan results
	Identifying markings (tattoos, tags, scars, etc.)
History	Medical conditions and services received
	Behavioral events and experiences
	People and animals lived with
	Home environment
In-shelter care activities	Medical findings, treatments, and procedures
	Behavioral findings, plans, and treatments
	Housing locations by time
Outcome information	Outcome type
	Date of outcome

Since identification may be challenging when animals are outside of their enclosures, co-housed with similar animals, or in foster homes, a means of identification should be physically affixed (e.g. collar and tag) or permanently inserted (microchip), when it is safe to do so.

Shelter records should capture all pertinent medical and behavioral information (Table 1.1.) Records must be maintained for animals in foster care and other off-site housing locations just as they are for shelter-housed animals.

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2. Population Management

2.1 General

Shelters must practice active population management, which is the process of intentionally and efficiently planning services for each animal in the shelter's care. Individual animals are managed in consideration of the shelter's ability to care for that animal and their entire population in a manner consistent with the guidelines outlined in this document. Population management includes pre-intake planning, protocols for care and services, ongoing daily evaluation, outcome planning, and response to changing conditions of the shelter and the animal.[1]

Every organization has limits to its ability to provide care. Limits include financial and physical resources, personnel hours and skills, housing and operations space, and the opportunity for live outcomes. These limitations define the number and type of animals for which an organization can provide humane care, also known as the organization's *capacity for care*. The concept of capacity for care is not unique to animal sheltering and is recognized in veterinary hospitals, other animal care fields, human healthcare, hospitality, and other industries.[2,3]

Operating beyond an organization's capacity for care is an unacceptable practice. When shelter populations tax the organization's ability to provide care for their animals, living conditions worsen, and population health and well-being are compromised.[4,5] Delays in recognizing problems and providing services negatively impact animal welfare and prolong the length of stay (LOS) for animals in shelters. Alternatively, working to maintain the population within the shelter's capacity for care has been linked to decreased LOS, decreased disease and euthanasia rates, and increased live outcomes.[6,7] Policies and protocols must be in place to ensure an organization operates within its capacity for care.

2.2 Determining capacity for care

The most visible factor in determining the shelter's capacity for care is housing capacity, or the number of available humane housing units. Housing units include in-shelter enclosures as well as foster homes and off-site housing. Housing capacity calculations must be based on the ability to promote each animal's positive welfare. Housing units that are too small or otherwise inappropriate cannot be included (see Facilities). The number of humane housing units available may exceed an organization's capacity for care, since the organization's capacity is also determined by shelter personnel, resources, and available outcomes.

The time and skills of shelter personnel is another critical component of a shelter's capacity for care. Trained personnel must be scheduled to meet daily animal care needs and efficiently and effectively accomplish each critical task. A standard estimate such as 15 minutes per animal per day[8] may roughly calculate the time needed for cleaning and feeding in some facilities, but it does not account for variations in housing designs and sanitation protocols, the time needed for training personnel, and the provision of enrichment and additional care.[9] Personnel time needed for essential care tasks such as sanitation, feeding, and enrichment is best estimated using direct observation to calculate the average time per task. These estimates, when multiplied by the number of animals in care, can guide staffing levels and schedules. Direct observation is also useful for estimating the time needed for personnel to complete other critical tasks, such as intake, rounds, assessments, and outcome processes.

Animals with medical and behavioral challenges may need more care time per day and may also require services from personnel with advanced skills or credentials. When these services are provided by external partners, a shelter's capacity for care will also be affected by the capacity of these partners. Services such as surgery, veterinary visits, or transport should be scheduled in anticipation of an animal's eligibility for that service. Proactive scheduling can maximize the use of external partner capacity.

Foster programs must have sufficient personnel to provide support to caregivers and animals. Foster support includes tasks such as maintaining a foster caregiver database, communicating with foster caregivers, scheduling appointments, and facilitating outcomes. Medical, surgical, and behavioral services for foster animals must be provided in a manner that promotes animal welfare and minimizes LOS.

Shelter resources, including finances and material goods, are another critical factor in determining an organization's capacity for care. If a shelter cannot afford or otherwise procure supplies or necessary services for the animals in their facility, animal welfare will be compromised. There is no standard estimate for calculating cost of care per animal but using historical organizational information and comparing budgets with similar organizations can help shelters manage their available resources.

Shelters should engage with one another to leverage resources and maximize each organization's strengths. Thoughtful partnerships avoid redundancy and increase the community's capacity to help animals. For example, a small organization with limited medical resources can partner with a larger organization with a full-service hospital, or a brick-and-mortar organization can partner with a foster-based organization to house animals with kennel-induced stress. In addition to partnering with other animal welfare organizations, collaborating with

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human service professionals, such as social workers, housing advocates, and home care providers, can support pet retention and prevent relinquishment.

2.3 Operating within capacity for care

Shelters experience a high demand for their services. Working within their capacity for care maximizes each shelter's impact through thoughtful planning and efficient decision-making. An organization's policies for admissions and outcomes should be based on their mandate, mission, and the needs of their community. When organizations find that they are frequently near or over their capacity for care, strategic planning can be a valuable process to address how a shelter's capacity for care and their community's needs can better align (see Management and Record Keeping).

2.3.1 Admission planning

When appropriate, admission policies should prioritize retention over shelter intake. Helping pets stay with their owner or caregiver preserves the human–animal bond, eliminates the stress of shelter admission, and addresses discriminatory admissions practices.[10] Owners may be able to keep their pet if given access to services, supplies, or information.[11]

Decisions about intake must consider whether admission is the best option for the animal or their situation. Gathering and providing information prior to admission can support intake diversion. For example, finders can be provided information about neonatal kitten care, so that they can rear kittens in their home until they are old enough to be adopted.

Admission must be balanced with the ability to provide appropriate outcomes, minimize LOS, and ensure the shelter remains within its capacity for care. Population management begins prior to admission: an animal must only be admitted if the shelter can provide the care they require. For welfare or safety reasons, some animals may need to be admitted so that euthanasia can be provided.

When admission is deemed the best solution for an animal, situation, and shelter, appropriate intake scheduling ensures that the shelter has the capacity to care for this animal and the animals already in care.[12,13] Intake by appointment is recommended even for shelters with high intake demand and open admissions policies and can be used to control the flow of animals into the shelter.[11,13,14]

Organizations that are impacted by unpredicted intakes (e.g. disasters and large-scale investigations) must have a plan to flex their operations to increase their capacity for care. Compromising the welfare of animals and personnel is not an acceptable strategy for meeting the increased care demands of unpredicted intakes. Increasing a shelter's capacity requires more than identifying additional humane housing units; all aspects of care need to flex to match, including increased animal care personnel and hours, medical and behavioral care services and providers, resources to supply and fund the response, and a range of available outcomes.[15]

2.3.2 Outcome planning

Every attempt must be made to locate a lost animal's owner, including careful screening for identification and microchips, in the field and at the time of intake. Field agents and admissions personnel require ready access to lost pet data and social media in order to cross-check identifying features of animals being picked-up or brought in. Lost pets are usually found close to home and may be returned to their owner without shelter admission.[16,17] Reunification of pets can be an opportunity to provide owners with services or information promoting identification (microchipping and ID tags), spay-neuter, training, or fence-building programs. Shelters can also support community members working to reunite animals with their owners directly.

In addition to prioritizing pet retention and reunification, shelters should remove barriers to local outcomes. Removing barriers can include:

- accessible and convenient open hours
- adoption and reclaim services in languages spoken by the community
- affordable adoption and reclaim fees
- adoption and outreach events that reach the entire community
- inclusive adoption policies

Imposing strict policies or requirements on adopters (e.g. employment status, landlord checks, home visits, and veterinary references) is discriminatory, prolongs LOS in the shelter, and prevents future adoptions.[18] Strategies that support pet retention, reunification, and local adoption acknowledge the community's ability and desire to provide care for their pets.

Relocation of animals for adoption can be a valuable strategy for live outcomes while working to address population challenges and remove barriers to local outcomes (see Animal Relocation and Transport). Destination shelters need to critically consider their capacity for care before making the decision to take in transported animals. These programs are not a replacement for partnership building within the local community.

2.3.3 Length of stay

The number of animals a shelter has in its care on any given day is a product of the number of animals it admits and the length of time they stay in the shelter's care (i.e. LOS).

Average Daily Population =
Average Daily Admissions × Average Length of Stay

If two shelters take in the same number of animals each year, the shelter with the shorter average LOS will have fewer animals in care each day (Table 2.1).

Caring for fewer animals at a time allows shelters to provide better welfare and creates the capacity to provide care for animals who require longer stays.[1] Or, when it is within the shelter's capacity and mission to do so, shortening average LOS can allow the shelter to take in more animals or expand other services.

Table 2.1. Example of the relationship between length of stay and shelter population

Average admissions per day	Average length of stay (days)	Average daily population (animals)	Admissions per year (animals)
10	7	70	3,650
10	14	140	3,650
10	21	210	3,650

2.3.4 Pathway planning

LOS can be minimized through effective pathway planning. Pathway planning is a proactive process that anticipates the services and care an animal will require to achieve an appropriate outcome.[12] A pathway is selected in consideration of available housing, personnel, resources, and the likelihood of achieving the outcome while maintaining good welfare. Planning ahead prevents needless delays that add days to a shelter stay.

Policies that detail which medical and behavioral conditions a shelter can treat help personnel make swift, measured decisions when an animal's needs may be beyond their ability to provide care. Although legal holding periods and time in medical or foster care may extend the time in care, efficient planning of services can also decrease LOS for these animals.

For shelters with both an on-site and foster population, determining whether to pursue foster placement for an animal is a key part of pathway decision-making. Medical or behavioral care that can reasonably occur outside of the shelter, either in foster care or after adoption, should be identified to minimize time in the shelter environment. Regardless of whether animals are on site or in foster care, decision-making and animal movement must optimize LOS.

2.3.5 Population rounds

To ensure that each animal has a clear plan and that all needs and critical points of service are promptly met, the entire shelter population, including animals housed in foster or off-site, must be regularly assessed by knowledgeable personnel with decision-making ability and authority. The personnel involved in this assessment, often called population or 'daily' rounds, will vary based on the shelter population and organizational structure. Population rounds work best when participants include a small group of people who represent relevant departments or teams, including intake, medical, behavior, management, daily care, and outcome personnel (individuals may represent multiple areas). Participants collectively provide and consider all aspects of each animal's pathway, needs, and next steps.

The population rounds team answers the following for each animal:

- How are you doing?
- What is your pathway?
  - Are there updates or concerns that change this pathway?
- What are your next steps?

The outcome of population rounds is a task list for each participant or team. Any needs identified during population rounds that could compromise welfare or extend the shelter stay must be addressed promptly. Although population rounds are recommended daily for most shelters, it is more important that population rounds occur frequently enough that animal care, including for those in foster, is not delayed.

Additionally, all animals physically in the shelter must be monitored daily to identify housing, care, or service needs. Monitoring these needs helps a shelter determine whether they are within or over their capacity for care. A shelter animal inventory, including all animals in foster care, should be taken and reconciled daily. This ensures that no animals are missing, data collection is accurate, and population levels are within capacity for care. This inventory can be taken during population rounds or daily monitoring.[1]

2.4 Monitoring population data

Keeping track of shelter metrics and population statistics over time is a key component of successful population management. Population level statistics are available as reports from shelter software programs or can be generated manually using commonly available spreadsheet programs. At a minimum, shelters must track monthly intake and outcome type for each species by age group.[19]

Data collection should include information about health and behavior status at intake and outcome. Tracking this information allows shelters to understand the effects of shelter care on animal health and well-being. For example, discovering a trend where animals that are healthy at the time of intake subsequently become ill warrants investigation into the shelter's population management practices.[20]

LOS data, broken down by age category, species, status, and location, should be regularly analyzed to identify

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bottlenecks, mismatched resources, and capacity for care concerns.[1,9] Population level data should be reviewed and analyzed regularly to ensure that operations align with the organization's goals, purpose, and policies.[9] For example, when an organization's mandate is to admit stray, injured, or at-risk animals, redirecting healthy community cats to return-to-field services creates capacity to care for the animals that the organization is required to serve.[21]

Because local capacity to support animal welfare is maximized when organizations collaborate, population level metrics are ideally monitored as a community through transparent sharing of data. Sharing data can help communities strategically leverage resources, increase efficiency, and maximize impact for community animals and people. Organizations can share their data directly or participate in national data sharing databases such as Shelter Animals Count.[22] Although useful for tracking shelter goals year over year, outcome-based metrics do not account for quality of life or animals still in the shelter's care. Live release rates or save rates must be evaluated in the context of animal welfare and cannot be used alone as a measure of success.[9] Aversion to euthanasia is not an excuse for crowding and poor welfare.

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3. Animal Handling

3.1 General

Safe and humane handling is an essential part of supporting animal well-being. When fear and stress are minimized, animals are calmer and more willing to interact, resulting in safer and more successful interactions. Handling must be humane and appropriate for the individual animal and situation. Humane handling requires

- on-going observation and assessment of behavior with adjustments to the animal's handling plan as needed
- appropriate choice and management of environment
- sufficient number of trained personnel
- suitable equipment readily available and in good working condition

Considering how animals perceive their environment and making adjustments to minimize potential stressors can reduce or prevent negative emotional responses. These adjustments might include a slow introduction, providing a hiding option during handling (e.g. with a towel), covering a table surface to improve traction, keeping voices low, and the use of gentle but consistent touch to reduce unpredictability.[1,2] To create a positive emotional response to human handling, shelter personnel should offer high-value treats or food when handling animals or performing procedures. Treats and toys can engage, distract, and reward animals before, during, and immediately after handling.[3,4] When needed, medication should be used to minimize fear, anxiety, and stress and enhance safety during handling[5–9] (see Behavior).

3.2 Restraint

Resistance to handling is almost always the result of fear or anxiety. Improper or forceful use of restraint techniques and equipment can escalate a high stress situation, increasing the likelihood of animal or human injury.[10] Gentle handling with minimal restraint can improve safety and compliance during care tasks for most animals. The minimal amount of physical restraint needed to accomplish necessary animal care without injury to people or animals must be used.[11,12]

Forceful restraint methods must not be used, except in extraordinary circumstances. Extraordinary circumstances include situations in which a human or animal is in immediate danger, and other low-stress handling options, sedation, or delays are not possible. Forceful restraint methods include scruffing cats[12] or pinning dogs to the ground. For example, a short period of forceful restraint may be required for an animal that needs to be captured and removed from an unsafe environment. Techniques that rely on dominance theory, such as alpha rolls, are inhumane.[5,11,13]

Alternatives to forceful restraint include distraction with food or toys, positive reinforcement, use of towels, blocking visual stimuli, sedation, and proper use of humane handling equipment (Table 3.1). Selecting a quiet environment, preparing all necessary materials in advance, and involving a person the animal has a bond with can help minimize fear, anxiety, and stress and reduce the restraint required.[14,15] If repeated handling is required, training the animal to allow common tasks or to cooperate with handling equipment such as the use of a muzzle is a valuable strategy. Use of sedatives or behavior medications can be the most humane and effective option for frightened, fractious, or feral animals for the delivery of necessary care.[1]

Handling must minimize the risk of escape. Attention to security of enclosures and carriers, building and vehicle exit points, and minimizing fearful stimuli that trigger flight behavior are important during daily care and when moving animals inside and outside the facility. Being recaptured after escape is profoundly stressful for many animals and creates additional risk of injury to the animal and personnel.[4] Delaying handling to allow the animal to calm down can minimize stress and reduce the risk of escape.

3.3 Handling equipment

Using humane handling equipment minimizes animal stress during necessary procedures and daily care, prevents escape, and promotes animal and human safety. For example, rather than carrying a cat in their arms,

Table 3.1. Humane handling equipment by species

Equipment	Dogs	Cats
Live trap	✓	✓
Trap divider	✓	✓
Transport carrier and cat den	✓	✓
Towel/blanket	✓	✓
Rolling transport kennel	✓	o
Capture net (e.g. floor net and cat nabber)	o	o
Squeeze cage	✓	✓
Purpose designed protective gloves	✓	✓
Flexible snare	o	x
Muzzle	✓	o
Press gate/panel/cage shield	✓	✓
Vision blocking device (e.g. calming cap and e-collar)	✓	o
Syringe pole	✓	✓
Control pole (catch or rabies pole)	o	x

Legend: ✓=recommended; o=situational use; x=inappropriate

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personnel can transport cats through the shelter in carriers. A variety of humane equipment that facilitates animal handling with minimal or no hands-on contact must be available (Table 3.1). Handling equipment also has the potential to increase fear or injury if used in a forceful manner or not maintained in good working order.

Control poles (i.e. catch poles or rabies poles) are designed to keep a dog's head at a safe distance from a handler. They are not meant to lift, push, or pull a dog and are not appropriate for routine use. Control poles must only be used when alternatives for handling dogs are insufficient to protect human safety. To prevent the need for daily removal of dogs that are not deemed safe to walk on a leash, double compartment housing is recommended.

Because control poles can cause significant injury and even death, it is unacceptable to use control poles on cats or small dogs. Any restraint method, including control poles, cat tongs, or slip-leads, that causes significant compression of the neck or thorax can cause substantial or life-threatening injury and profound emotional trauma in cats.[4,12,16]

Animals for whom handling equipment is necessary for long-term safe handling should receive positive reinforcement training to minimize fear, anxiety, and distress during its use.[11]

Aggressive behavior between dogs can occur unexpectedly for a variety of reasons, and humans can be severely injured when trying to intervene. Animal shelters must have written protocols and readily accessible equipment for breaking up dog fights to prevent human and animal injury. Equipment may include air horns, whistles, citronella spray, blankets, break sticks, panels, and water hoses[17,18] (see Behavior).

3.4 Handling feral cats

Specific handling procedures are necessary for feral cats, including the use of live traps, cat dens, squeeze cages, trap dividers, purposely designed cage nets, and multi-compartment enclosures.[16,19–21] This equipment permits personnel to safely sedate or anesthetize extremely fearful cats with injectable medication, to provide food and sanitation, to transfer cats from one enclosure to another, and to release outside, all without hands-on handling.

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4. Facilities

4.1 General

The facility plays a critical role in the care provided to animals who are admitted into animal shelters. While community-centered sheltering practices and foster programs are reducing the demand for in-shelter care in some areas, providing housing for animals remains an essential part of sheltering operations. Thoughtful planning and use of the shelter building and grounds are important parts of supporting the physical and emotional health of shelter populations while meeting the organization's mission and goals.[1] The shelter facility must include sufficient space to allow for the execution of essential shelter operations and programs as required by mission or mandate.

The quality and set-up of animal housing impacts every aspect of their experience within the facility and plays a pivotal role in managing disease.[2] Poor housing is one of the greatest shortcomings observed in shelters and has a substantially negative impact on both health and well-being. Both the quantity and design of housing must be appropriate for the species, the number of animals receiving care, and the expected length of stay. Facility design and use must provide for proper separation of animals by species, predator/prey status, health status, and behavior. Housing in foster care should meet or exceed the guidelines for in-shelter housing.

4.2 Primary enclosures

A primary enclosure is an area of confinement such as a cage, kennel, or housing unit where an animal spends the majority of their time. Shelters must have a variety of housing units available to meet the individual needs of animals, including physical, behavioral, and medical needs. These needs will vary based on species, life stage, individual animal personality, prior socialization, and past experience.[1] Appropriate primary enclosures provide complexity and allow choice within the environment to help support positive welfare[3] (see Behavior).

The primary enclosure must be structurally sound and maintained in safe, working condition to prevent injury and escape. There can be no sharp edges, gaps, or other defects that could cause injury or trap a limb or other body part. Primary enclosures with wire-mesh bottoms or slatted floors are unacceptable because they can cause pain, discomfort, and injury. Enclosure sides that are entirely wire or chain-link increase the risk of disease transmission, animal stress, and injury. Solid barriers are recommended where animal contact can occur.

The use of cages or crates intended for short-term, temporary confinement or travel is also unacceptable as primary enclosures. These include airline crates, transport carriers, live traps, and wire crates. It is unacceptable to stack or arrange enclosures in a manner that increases animal stress and discomfort, compromises ventilation, or allows for waste material contamination between housing units.

4.2.1 Individual primary enclosure size

Animals must be able to make normal postural adjustments within their primary enclosure, including standing and walking several steps, sitting normally, laying down at full body length, and holding the tail completely erect.[1,3–6] Primary enclosure size significantly impacts overall health and well-being. Larger enclosures generally provide animals more choice, permit additional enrichment, and make it possible to safely interact with people and other animals for socialization or cohousing. In cats, sufficiently sized housing reduces stress and respiratory disease incidence.[7,8] Individual adult cat housing that is less than 8 ft^2 (0.75 m^2) of floor space is unacceptable.[8] Ideally, individual cat housing provides 11 ft^2 (1.0 m^2) or more of floor space.[7] For dogs, the minimum recommended kennel dimensions differ widely based on body size.[9]

The primary enclosure must allow animals to sit, sleep, and eat away from areas of their enclosures where they defecate and urinate.[8] Housing with two or more appropriately sized compartments provides this separation and gives animals more choice and control over their environment and interactions. It also facilitates spot cleaning, reduces fomite transmission, and increases personnel safety[3,5] (see Sanitation). Because of all these benefits, multi-compartment enclosures should be provided for the majority of animals housed in the shelter.

Multi-compartment housing is particularly important for newly admitted, fractious, quarantined, sick, and juvenile animals. Enriched room-sized primary enclosures (i.e. real-life rooms) may also benefit from separate elimination areas. Single compartment housing may be necessary for animals with specific medical conditions, which increases the importance of enhanced in-kennel enrichment and supervised out of kennel time (see Behavior).

Cats prefer spending time on raised surfaces and high structures rather than being on the floor.[10,11] Cat housing units should be elevated off the floor. Housing cats at human eye level reduces stress, facilitates positive interactions with personnel and visitors, and improves ease of monitoring.[5,6,12] Cat cages should face away from each other or be spaced more than 4 ft (1.2 m) apart to prevent droplet transmission of respiratory pathogens while sneezing, coughing, or vocalizing.[13–15]

Primary enclosures with indoor–outdoor access are ideal for most animals, especially when held long term. Some shelters in temperate climates may have primary enclosures that are fully outdoors. Enclosures that include outdoor

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space must protect animals from adverse weather; provide choice for thermoregulation; protect from predators; and prevent escape, theft, or harassment. It is recommended that all enclosed outdoor spaces have double-door entry points to keep animals safe and reduce the risk of escape.

4.2.2 Primary enclosure set-up

In addition to the size and structural layout, the set-up of the enclosure and care items provided are important in meeting the welfare needs of shelter animals (Figures 4.1 & 4.2).[1] The enclosure needs to be large enough to accommodate the necessary set-up without impeding the animal's ability to move or stretch.

All dogs should be given the opportunity to hide within their enclosure, especially young, small, fearful, and anxious animals. Options for canine hiding areas include a covered crate within the enclosure or a visual barrier over part of the kennel front.

A soft resting place that elevates animals off of the floor should be made available for all animals to ensure comfort, keep animals dry, and support thermoregulation.

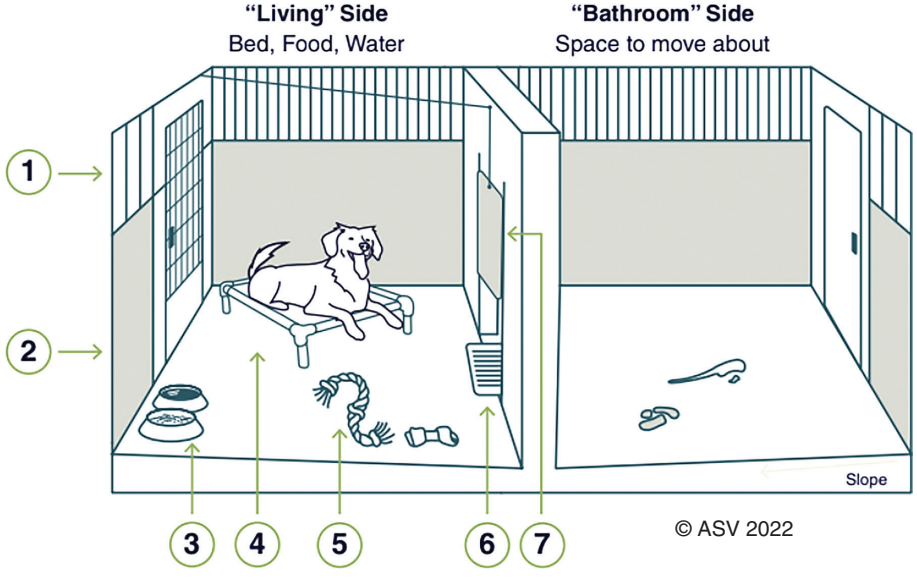
All cats must be given the opportunity to hide within their enclosure. A hiding place provides the choice to be seen or not seen and a place to feel safe and protected.[11,16] Options for feline hiding places include feral cat dens, perches covered with towels, cardboard boxes, and partial coverings over enclosure doors. Cats with hiding places spend less time trying to hide and are more likely to approach adopters.[17,18]

To ensure that cats can display natural behaviors, feline primary enclosures must allow scratching, climbing, and perching. Cats must have a litter box large enough to comfortably accommodate their entire body and allow for proper posturing.[19,20] Litter boxes that are too small impact welfare and potentially lead to house soiling behavior.[20]

4.2.3 Additional considerations

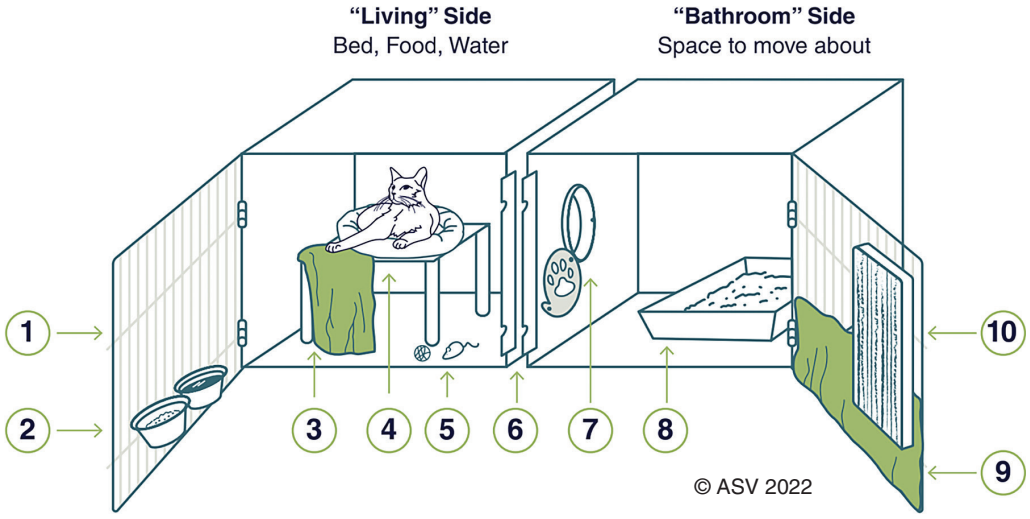
Appropriately sized, enriched primary enclosures are critical for all animals regardless of their length of stay in the shelter. Housing that provides animals with additional space, enrichment, and choice within their enclosure must be provided for animals remaining in the shelter long-term (i.e. more than 2 weeks). Foster care, while beneficial for many animals, can be particularly valuable when animals require a longer length of stay, such as protracted legal holds or long-term medical care.

Animals for whom handling poses an acute welfare or safety risk need to be housed in enclosures that allow humane, touch-free daily care (i.e. multi-compartment). It is unacceptable to house animals in an enclosure that would require the use of forceful animal handling equipment for daily cleaning and care (see Animal Handling).



1. Open Bars
   - Interaction
   - Ventilation
2. Partial Visual Barrier
   - Retreat space
   - Interaction choice
3. Food and water
4. Bed or Crate Den
   - Soft resting place
   - Retreat space
5. Toys
6. Floor slope toward drain
   - Faster drying
   - Durable cleanable materials
7. Guillotine door
   - Ease of daily care
   - Staff safety latch outside
   - Retreat space
   - Open except during cleaning

Figure 4.1. Canine primary enclosure set-up



1. Open Bars
   - Interaction
   - Ventilation
2. Food and water
3. Draped Towel
   - Hiding place
   - Interaction choice
4. Raised Bed
   - Soft resting place
   - Retreat space
5. Toys
6. Quiet latches and hinges
7. Portal
   - Ease of daily care
   - Separation of spaces
   - Open except during cleaning
8. Litter box
   - Full size
   - No shelf above
9. Partial Cage Cover
   - Retreat space
   - Interaction choice
10. Scratching Material

Figure 4.2. Feline primary enclosure set-up

Except for a brief, emergency situation, it is unacceptable to house animals in facility spaces not intended for animal housing (e.g. bathrooms and hallways). Shelters may have multiuse spaces such as offices set up for animal housing; these planned spaces differ from unplanned practices such as placing temporary kennels in areas unequipped for sanitation or delivery of care.

Tethering is an unacceptable method of confinement for any animal.[21] Tethering can cause significant stress and frustration and is best avoided even when used briefly during the cleaning of primary enclosures. Multicompartment enclosures, thoughtful timing of walks and playgroups, or the use of securely enclosed exercise areas are good alternatives to tethering.

4.3 Cohousing

Cohousing, or keeping more than one animal in an enclosure, can improve animal welfare in some circumstances by facilitating social contact with other animals of the same species.[22–29] However, cohousing also known as group housing, is not suitable for every situation. Mental and physical benefits of cohousing need to be carefully weighed against risks to health and safety. If shelters are cohousing animals, they need to prioritize animal well-being and keep population levels within their capacity for care.

4.3.1 Cohousing enclosure set-up

The size and set-up of enclosures used for cohousing require special considerations. The size of a primary enclosure for cohousing must allow each animal to express a variety of normal behaviors and maintain distance from roommates when they choose to do so. Meeting these needs often requires more space per animal than required for individual enclosures, particularly when unfamiliar animals are cohoused. The optimal space requirements for cohousing vary based on species, as well as size, activity level, and behavior.[27] A minimum of 18 ft^2 (1.7 m^2) of floor space per adult cat should be provided for cohousing.[7]

Quality and complexity of cohousing environments is essential to support the welfare of all animals living in the enclosure.[26,30,31] Appropriate resources (e.g. food, water, bedding, litter boxes, and toys) must be provided to minimize competition or resource guarding and ensure access by all cohoused animals. Functional space can be maximized by spacing resources out throughout the enclosure. For cohoused cats, a variety of elevated resting perches and hiding places must be provided to increase complexity and choice within the living space.[22,32–36] The ability to choose resting places, social interactions, elimination spaces, and toys contributes to behavioral stability within groups.

Cohousing areas may require enhanced measures to prevent escape. Double door entry at the enclosure's

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entrance can provide additional protection when entering or exiting. When housed in a retrofitted area, cats may be able to dislodge ceiling panels or duct covers unless care is taken to secure them.[37]

4.3.2 Selecting animals for cohousing

Random cohousing of animals in shelters is an unacceptable practice.[25] Cohousing requires careful selection of animals by trained personnel to balance the benefits and risks for individual animals and the group. Unrelated or unfamiliar animals must not be cohoused until health and behavior are assessed.[27]

When cohoused, animals need to be intentionally matched for age, sex, health, and behavioral compatibility. Monitoring after introduction is essential to recognize signs of stress or negative interactions (e.g. guarding food or other resources) that may necessitate separation. Given their increased welfare needs, animals predicted to have longer lengths of stay may benefit most from cohousing, particularly when foster care is not available.

Regardless of the size of the enclosure, no more than six adult cats should be cohoused in a primary enclosure.[5] When cohousing is indicated, pairs are preferred for dogs to maximize safety and biosecurity, and no more than two to four adult dogs should be cohoused in a primary enclosure.[3] Larger groups of any species are challenging to monitor and increase the risk of conflict and infectious disease transmission. It is preferable to cohouse the minimum number of adult animals together needed to achieve a social benefit.

Housing young puppies and kittens with their mother and littermates is important for physical and emotional development, as well as the establishment of species-specific behaviors. Because of their susceptibility to infectious disease, puppies and kittens under 20 weeks of age must not be cohoused with unfamiliar animals except when the benefits outweigh the risks for all animals involved.[38] For example, after a careful medical and behavioral assessment, a single orphaned kitten or puppy may be paired with another orphan or a surrogate mother (see Behavior).

Introducing new animals can result in stress for individuals and the group. Dogs should be introduced outside of their primary enclosures in pairs or groups to determine compatibility prior to cohousing.[3,27] In addition, turnover within groups must be minimized to reduce stress and social conflicts as well as the risk of infectious disease exposure and transmission.[22,39,40]

The use of smaller enclosures with fewer animals, rather than large rooms with large groups of animals, minimizes the need for frequent introductions, group reorganization, and allows for more effective monitoring.[41,42] Smaller cohousing spaces facilitate an 'all-in/all-out' approach, where all animals leave before more are added. This strategy allows enclosures to be completely sanitized before a new group of animals moves in and eliminates the risks associated with new introductions.

4.3.3 Monitoring cohoused animals

Individual animals and group dynamics must be monitored to recognize signs of stress and social conflicts in cohousing enclosures.[24,43] Monitoring, especially after a new animal is introduced into a group and during feeding time, is critical to ensure that all animals are benefitting. In addition to daily monitoring for resource guarding and other signs of social conflict, regular physical examinations including measurement of body weight can ensure that cohoused animals are not suffering due to unrecognized social conflicts.

Not all animals are well suited to cohousing. Individual enriched housing must be provided for animals who are fearful or behave aggressively toward other animals, are stressed by the presence of other animals, require individual monitoring, or are ill and require treatment that cannot be provided in cohousing.[22,41] Cohousing animals who fight with one another is unacceptable.

4.4 Isolation housing

Shelters must have a means of isolating infectious animals from the general population to prevent the spread of infectious disease. Isolation housing must meet the medical and behavioral needs of ill animals, including being of sufficient size with appropriate set-up. Different species must not be housed within the same isolation room.[1]

Separate isolation areas must be provided for animals with different highly contagious diseases to prevent coinfections with multiple pathogens. For example, dogs with parvovirus infection need to be separated from those with infectious respiratory disease. This separation is more readily accomplished in flexible-use rooms with a smaller number of enclosures. Animals that already have coinfections (e.g. ringworm and upper respiratory infection) will need veterinary input to determine the most appropriate isolation housing.

To avoid exposure of healthy animals to sick animals, isolation rooms must be designed so that they do not open directly into another animal housing area. A corridor or vestibule can be used to access isolation rooms and also serve as a space to put on and remove personal protective equipment (PPE). Isolation rooms should have access to a sink for handwashing and be set up with space for treatments, examinations, and storage for dedicated supplies.

Isolation rooms must be clearly labeled to indicate current use and necessary precautions. Human and animal traffic through isolation spaces should be limited[1] (see Medical Health). Limiting foot traffic reduces the risk

of spreading infection to others outside of isolation and reduces stress for ill animals during recovery. Ideally, isolation rooms are designed with windows to allow observation of animals from a corridor without needing to repeatedly enter the room.[1]

When no isolation options exist, makeshift separation can be accomplished by housing contagious dogs at least 25 ft (7.6 m) from unaffected dog enclosures and covering enclosure doors.[44] Contagious ill cats may be separated from others in their individual enclosures in a general ward if they can be cared for without fomite transmission to other cats. These options will not be as effective at reducing transmission as isolation.

4.5 Surfaces and drainage

Primary enclosures and all animal areas must be able to be fully sanitized and withstand repeated cleanings. Nonporous surfaces are important in cages and kennels, as well as high traffic areas such as walkways or play rooms. A sealed, impermeable surface, such as resinous epoxy or resinous urethane, is recommended for shelter flooring and should be considered for new facilities. Linoleum or tiles may be acceptable flooring in low-risk areas. However, these materials are less durable, more challenging to sanitize due to seams and grout lines, and may harbor infectious pathogens in areas that are damaged or worn. Regardless of flooring type, points where walls meet floors should be sealed to prevent water intrusion and the accumulation of organic matter and pathogens.

Drainage systems must be designed to prevent standing water and cross-contamination of waste between housing units. Many design options exist. To aid in this effort, floors should be gently sloped to enable waste and water to run into the drains, particularly in animal housing areas. Drain covers must be designed to prevent injury or escape and should be easily removable for routine cleaning. Similarly, outdoor primary enclosures or portions of primary enclosures that are outdoors must have nonporous, durable floors that allow for sanitation and proper drainage.

4.6 Heating, ventilation, and air quality

It is essential that housing areas allow each animal to comfortably maintain normal body temperature.[9,45] To ensure humane and comfortable conditions, environmental temperature must be maintained between 64°F (18°C) and 80°F (26.6°C.)[38,45] Breed, body condition, medical health, haircoat, facial conformation, and age impact an animal's ability to regulate their body temperature.

Animals must be monitored individually to ensure the environmental temperature is comfortable, and necessary measures must be taken if an animal appears too cold or too hot. If an animal cannot be kept comfortable with adjustments to the thermostat and airflow, additional measures need to be taken. These might include provision of additional bedding if too cold, providing frozen treats or ice if too hot, or relocating the animal. The relative humidity should be maintained between 30 and 70%.[47–49]

Proper ventilation removes heat, dampness, odor, airborne microbes, and pollutant gasses such as ammonia and carbon dioxide while allowing for the introduction of fresh, oxygenated air. Fresh air is essential for the well-being of shelter animals and personnel, as well as for limiting the spread of infectious disease.[50] Ventilation must be maintained at a high enough rate to ensure adequate air quality in all areas of the shelter including in the primary enclosure. Ventilation rates may need to be adjusted seasonally, especially if air movement occurs primarily through active heating or cooling.

Ventilation must not compromise recommended ambient temperatures.[38] The standard recommendation for ventilation of animal facilities is between 10 and 20 room air exchanges per hour with fresh air.[38,51–53] Ventilation requirements vary depending on population density and presence of pollutants in the air. A facility may require a higher ventilation rate when it is at full capacity compared to when it is relatively empty, as animals themselves are a major source of heat, humidity, and carbon dioxide. All ventilation systems must be regularly maintained based on manufacturer recommendations. Carbon dioxide monitors may be useful in monitoring the success of ventilation equipment and use.

To improve ventilation, barred enclosure doors are recommended over plexiglass doors or fully enclosed units. When housing units are fully enclosed, they require individual-unit mechanical ventilation. Barred doors improve air flow and also allow for adopter interaction and behavior training.

Because canine respiratory pathogens can be easily transmitted through the air, air from isolation areas should be exhausted outside and not recirculated. Separate air exchanges for feline isolation areas are a lower priority since cats do not readily transmit pathogens through the air.[14,15]

Air purification technologies, such as ultraviolet germicidal irradiation (UVGI), may act as an adjunct to a traditional HVAC system to improve indoor air quality. However, ultraviolet irradiation must not be relied on as the sole method for ensuring good air quality or infectious disease prevention.[54–62] Although attention to ventilation and air quality is important, it will not overcome the harmful effects of inadequate housing, poor sanitation, or lax population management.

4.7 Noise control

Noise must be minimized in animal housing areas. Cat and dog hearing is sensitive, and noise levels that are

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uncomfortable for humans are likely to be very uncomfortable for animals (see Behavior). Noise and vibration-producing equipment and mechanical systems should be located as far away from animal housing as possible.[63]

Even reasonable volumes may be stressful for shelter animals, particularly if sounds are sudden or unpredictable such as the slamming of cage doors or tossing of metal bowls.[64,65] Prevention and mitigation strategies to minimize the impact of noise should be implemented in facility design, added to existing facilities, and incorporated into shelter operations. These strategies can include arrangement of cages; material selection for cages, doors, and latches; and decisions about where to house individual animals.

Barking can be a significant source of shelter noise. Appropriate facility design, environmental management, enrichment strategies, and behavior modification can dramatically reduce noise levels related to barking.[66–68] Because the causes and solutions to barking are multifactorial, preventing visual contact between dogs should not be used as a sole strategy to reduce barking.[69,70]

4.8 Lighting

Lighting should promote a safe working environment and effective observation of animals and the enclosure. Facilities should be designed to offer as much natural light as possible. Exposure to sunlight in a manner that maintains daily circadian rhythms improves health and well-being for animals and for shelter personnel.[71] When natural lighting is not available and artificial light is used, it should approximate natural light in duration and intensity to support circadian rhythms.[72] If it is necessary to keep lights on after dark for safety or by regulation, a fixture that emits red-orange light is preferred. Because of the way dog and cat eyes function, a red light creates a darker space for animals at night, allowing them to sleep more normally.[71]

4.9 Enrichment spaces

Dedicated indoor or outdoor enrichment, exercise, and training spaces allow shelters to safely provide opportunities that improve welfare for animals. These spaces need to be clearly marked, prevent escape, provide protection from the elements, and limit exposure to disease and parasites. All enclosed outdoor spaces should have double door entry points to keep animals safe and reduce the risk of escape.

4.10 Intake spaces

Designed appropriately, shelter lobbies provide a welcoming environment for clients and help reduce animal stress. Shelter admission areas should be separated from adoptions and other client-facing areas.[51] If a different space is not available, placing a divider within the lobby or scheduling intake appointments outside of adoption hours can functionally separate admissions from adoptions.

Animal well-being during the admission process is supported by creating separate species areas within the lobby and intake examination space.[6,8,51,71] To allow for safe and efficient processes, animal intake should occur in a designated quiet space away from the main pattern of foot traffic.[73] Cages and kennels in intake areas should only hold animals until their initial intake assessment has been completed.[6,8] Intake rooms should have elevated surfaces to place animals in carriers off of floor level.[8,10,74]

4.11 Drop boxes

The use of 'drop boxes' where live animals are placed in unmonitored receptacles for later intake is unacceptable. This practice can result in safety risks for humans and animals, animal suffering, infectious disease exposure, or death. Alternatives for community animals requiring after hours emergency care include posting on-call phone numbers for animal services, creating drop-off arrangements with police departments, or creating care agreements with local veterinary emergency clinics.

4.12 Facility design and planning

Well-designed shelter facilities support the well-being of animals and personnel and allow smooth and efficient operations. In order to meet the changing needs of the community and services offered by the shelter, flexibility in operational and spatial use should be incorporated into designs for remodeling and new facilities. Areas that can be readily adapted for multiple purposes over time can reduce the need for future renovations. When designing a new facility or undertaking a significant renovation, shelters should consult with a shelter veterinarian and an architect experienced in shelter design.

Shelters must avoid large warehouse type rooms when designing housing. Instead, multiple smaller rooms with fewer primary enclosures per area are strongly preferred.[75] Small wards reduce noise, limit disease exposure and transmission, provide flexibility in meeting individual animal needs, and permit close monitoring of individual animals.

When remodeling or planning a new facility, the movement of animals, people, and supplies should be incorporated into the design. For example, placing housing for difficult to handle dogs close to the facility entry point will improve personnel and animal safety. Animal shelter design should provide an environment that also serves the needs of personnel and clients. Areas for training, work breaks, meetings, and private discussions support personnel well-being, client–staff interactions, and client–animal interactions.

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5. Sanitation

5.1 General

Maintaining a sanitary environment is an integral part of supporting health and welfare and minimizing the risk of infectious disease. Whether or not infectious disease occurs is dependent on the interaction of several factors: the animal (e.g. species, age, and immunity), the pathogen (e.g. infectious dose and ability to survive outside of the body), and the environment (e.g. temperature, housing, and amount of pathogens present), and how each of these factors are managed[1] (Fig. 5.1).

Through cleaning and the proper use of disinfectants, the number of pathogens in the environment is reduced, decreasing the likelihood of spread.[2] A clean shelter increases the comfort level of the animals and personnel, and presents a positive image of the shelter to the public.[3,4] Protocols for proper sanitation are essential for any sheltering program.

5.2 Definitions

Cleaning is defined as the manual removal of urine, fecal matter, food waste, hair, bodily fluids, and other debris from the environment.[2,4,5] Oils and grime found on surfaces, especially soiled, porous, or rough surfaces, can interfere with the ability to kill pathogens[6] (see Appendix E). Detergents and degreasers break down oil and grime with soap-like action and can remove up to 90% of environmental pathogens.[3,7–9]

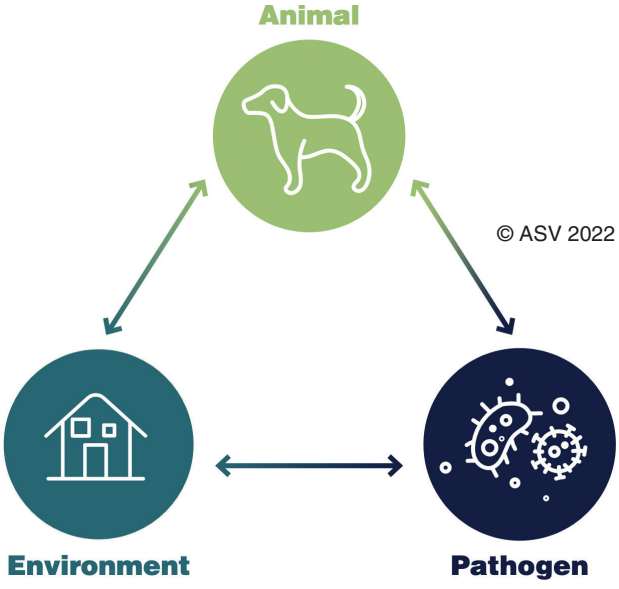


Figure. 5.1. Factors impacting disease transmission in the shelter.

Disinfection, typically by the application of a chemical product to a clean surface for a specific time period, is the process of killing most of the remaining pathogens.[9] Sanitation refers to the combination of cleaning and disinfection. Cleaning and disinfection are separate steps, even when using a detergent-disinfectant combination product that is labeled for both purposes.[2]

Sterilization is the destruction of all pathogens (e.g. viruses, bacteria, and fungi), including spores, and is generally reserved for surgical instruments and other equipment necessary for sterile procedures.[9] True sterilization of cage and kennel surfaces does not occur.

5.3 Sanitation practices

Shelters must have a sanitation plan for all locations in which animals are present, including enclosures, common-use areas, foster homes, and outdoor spaces. Sanitation protocols are used to describe which areas to sanitize, which products to use, and how to use them.[4]

Sanitation protocols should be based on pathogens, routes, and risk of transmission. Sanitation protocols must include steps for removal of organic matter, cleaning, and disinfection.[4] Ideally, sanitation protocols will be developed in consultation with a veterinarian experienced in shelter medicine.[4] Those making decisions about sanitation protocols need to be familiar with the active ingredients of common disinfectants, target pathogens, and potential routes of transmission. An increasing number of resources provide guidelines tailored to the shelter environment.[6,10,11]

Sanitation products must be diluted and used according to label instructions or published recommendations. Solutions that are too weak may be ineffective, and those that are too strong may be harmful to animals and people.[4,9] Some disinfectants such as quaternary ammonium products and bleach can be harmful when animals contact or ingest them, even at recommended dilutions, so removing the residue is an essential step.[3,4]

Disinfectants used in animal areas must be effective against non-enveloped viruses, such as parvovirus, panleukopenia, and calicivirus. Several studies have found that quaternary ammonium-based products, which are commonly used in shelters and veterinary clinics, do not eliminate non-enveloped viruses in spite of label claims.[12–15] Other products, such as accelerated hydrogen peroxide, potassium peroxymonosulfate, and bleach products, are effective against non-enveloped pathogens and dermatophytes at the appropriate concentration and contact time.[2,12–15]

Adequate sanitation cannot be accomplished by using water alone, by spraying and quickly wiping off a

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disinfectant, or by using a disinfectant with no detergent properties (i.e. bleach) without cleaning first.[2,4] Alternative methods of disinfection such as ultraviolet light, steam, freezing, and air filtration systems must not be relied on as the sole means of sanitation in shelters.[9,16–24]

Sufficient personnel must be assigned to complete sanitation tasks promptly each day so that animals spend most of their time in sanitary conditions. Industry guidelines recommend a minimum of 9 min per animal per day for routine cleaning of enclosures.[25] The actual time needed to accomplish daily sanitation will vary based on population, housing size and type, specific products and protocols, and facility use. Calculating how long proper sanitation typically takes per housing unit can provide better estimates of sanitation staffing needs in individual shelters (see Population Management).

Sanitation should proceed in an order that minimizes both the risk of pathogen transmission from infected animals and the exposure of vulnerable animals. In general, the recommended order of cleaning and care, from first to last, is:

- healthy puppies and kittens
- healthy adult animals
- unhealthy animals[3]

This order of cleaning may be customized to include specific animals or subpopulations (e.g. different infectious diseases and immune-compromised animals) based on the specific needs of the shelter, population, and protocols.[5,26]

Sanitation practices should be observed regularly to ensure consistency with written protocols. Observation of sanitation practices provides an opportunity to identify and correct deviations from the protocols.[3] It is important to ensure that contact times are observed, supplies are readily available, and equipment is adequate for the job.

Pathogen risks in a shelter can change over time, and shelters may need to alter sanitation protocols when disease rates increase or a more difficult to kill pathogen is identified. During an outbreak, protocols should be reviewed and practices observed to ensure efficacy against suspected pathogens.[11,27] Pathogens can be spread inadvertently when protocols are improper or practices are not in line with protocols. Common mistakes include incorrect choice of disinfectant, under or over-dilution, not observing contact times, etc.[28,29]

5.3.1 Sanitizing primary enclosures

Sanitizing primary enclosures is critical to ensure health and comfort. Enclosures must be completely sanitized before being occupied by a different animal.[4] This process, also known as deep cleaning, is important even if an animal has only occupied a primary enclosure for a short period of time, the enclosure is not visibly soiled, or the animal appears healthy. Animals are capable of shedding pathogens without showing signs of illness.[30] Sanitation is indicated when enclosures are heavily soiled, an infectious disease is diagnosed and on a regular schedule based on use. Table 5.1 shows basic steps and indications for sanitation of primary enclosures.

Sanitation methods significantly impact animal health and welfare. Splattering or soaking animals when spraying water, cleaning, or disinfection products can cause significant distress. It is unacceptable to spray primary enclosures while animals are inside them.[3,4,31] Animals need to be removed from nearby housing compartments when overspray is likely.

Adequate drainage is essential for animal housing areas regularly hosed or sprayed with cleaning fluids.[32,33] Drainage systems or operational practices (e.g. squeegee and towel drying) must prevent the accumulation of standing water. Dry surfaces are required before animal use because they promote animal comfort and drying aids in the inactivation of pathogens.

Ideally, mopping is avoided in animal housing areas. Mops may harbor pathogens, allowing them to be deposited in other locations.[4] However, mopping may be necessary when sanitizing animal enclosures and ward hallways that do not have drains. When mopping cannot be avoided, personnel must ensure that both cleaning and disinfection of the floor surface occur. Mop heads require disposal or sanitation and drying between uses, including between cleaning and disinfection products and between housing areas.

5.3.2 Spot cleaning primary enclosures

When an animal will remain in their enclosure and it has not been heavily soiled, complete sanitation of the enclosure may not be necessary or supportive of animal health.[3,4,34,35] Daily cleaning is essential, even in cage-free or home environments, but can often be accomplished using a spot cleaning method.

During spot cleaning, an animal may remain in their enclosure or be given out-of-kennel enrichment. Multi-compartment enclosures facilitate spot-cleaning by allowing personnel to clean in the other compartment to avoid animal contact. Spot cleaning should be conducted at least daily when an animal will remain in the same enclosure. Soiled bedding, old food, urine, and feces are removed, the area tidied, and food and water resupplied (Table 5.1).

Spot cleaning is typically less stressful for animals as it requires less animal handling and does not remove familiar scents.[36] Spot cleaning is particularly important for shy or under-socialized animals, and animals with mild diseases worsened by stress (e.g. feline infectious respiratory disease).

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Table 5.1. Basic steps for cleaning primary enclosures

Sanitizing	Spot cleaning
Remove animal (or move to different compartment)	Keep animal in enclosure (or give out of kennel enrichment)
Remove all items	Remove bowls, wet or soiled items
Remove all organic material	Remove all organic material
Apply detergent solution and physically scrub all surfaces	Clean soiled areas with detergent and single-use towel as needed
Rinse all surfaces and then remove standing water	Wipe surfaces to remove detergent
Apply disinfectant solution for appropriate contact time	Replace care items
Rinse all surfaces as indicated and then remove standing water	
Reset enclosure	

5.4 Reducing pathogen spread

Fomites are objects that may be contaminated with pathogens and contribute to transmission of disease. Hands, work clothing, medical equipment, food bowls, litter boxes, toys, and cleaning and handling equipment may serve as fomites.[4] Care to avoid the spread of disease through fomites is important during sanitation and when interacting with animals in the shelter.

5.4.1 Personal protective equipment

Personal protective equipment (PPE) is a physical barrier that reduces the spread of disease when used properly. PPE should be selected based on specific pathogens and exposure risks within each population (see Public Health). As the health of the population varies, the type of protective equipment needed may also vary. Appropriate PPE should be used in each area and disposed of or sanitized before proceeding to care for other animals[37] (Appendix C).

PPE may need to be changed between individual enclosures or areas based on disease risk because contaminated PPE can contribute to pathogen spread. Protective garments must be changed between handling each animal when there is a high risk for disease transmission.[38] Staff training, adequate supplies, and facility set-up (e.g. location of trash receptacles) allow for proper use and removal of PPE. Personnel should wash hands after removing PPE.

5.4.2 Hand hygiene

Hand sanitation is a key part of preventing disease transmission.[37,39] Hand hygiene stations should be available in or near every area where contact with animals occurs.[40] Ideally, hand hygiene stations are sinks that allow washing with soap and water, and drying with single use towels. At a minimum, hand hygiene stations provide hand sanitizer with at least 60% alcohol.[41] Because hand sanitizers are ineffective against some of the most concerning pathogens in shelters (e.g. parvovirus, calicivirus, and ringworm), hand sanitizers should not be relied on as the sole means of hand hygiene.[41,42]

Proper handwashing technique includes wetting hands with clean, running water; applying and scrubbing with soap for at least 20 seconds; rinsing with clean water; and drying thoroughly with a fresh towel or forced air.[43] Proper hand sanitizer techniques include applying 1–2 pumps of gel product to one hand and then rubbing hands together until all surfaces are covered and dry (approximately 20 seconds). Hand sanitizer should only be used on hands that are visibly clean.[41]

Sanitation protocols must address hand hygiene for shelter staff, volunteers, and visitors.[3,4,37] Although all people can move pathogens around, shelter personnel are significantly more likely to do this while they complete daily care tasks compared to shelter visitors.[44]

5.4.3 Equipment and supplies

All items that come into contact with animals should be sanitized on a regular basis, whenever visibly soiled, and when in direct contact with bodily fluids. In the case of disease outbreaks or when proper sanitation of supplies is not possible between animals, the use of disposable items may be warranted. It is essential to note that gloves, clothes, and shoes can serve as fomites, underscoring the importance of the proper use and replacement of PPE.

Separate cleaning supplies must be designated for each shelter area or be sanitized prior to use in each area. Some supplies need to be changed or sanitized between enclosures, such as rags or towels. Other supplies, such as mop heads and squeegees, can be changed between areas, unless there is a high risk of disease transmission.

Transport cages and traps, as well as vehicle compartments used for animal transport, must be sanitized before being occupied by a different animal.[45] Mobile equipment such as rolling trash cans, shopping carts, and food or treatment carts should be assigned to one area or be sanitized between areas.[45,46] Sanitation of these items includes wheels and outside contact surfaces. Objects with scratched, damaged, and porous surfaces are difficult or impossible to completely disinfect and should be used with caution or discarded between animals.[47] These

objects include plastic litter pans, airline carriers, and plastic or unglazed ceramic water bowls.

All bedding and other textiles used at the shelter must be discarded or laundered and thoroughly dried when visibly soiled and before reuse with a different animal.[45] Items that are heavily soiled may need to be laundered separately from other textiles.[29,48,49] Organic debris (e.g. feces) should be removed from items before laundering.[37] Items that cannot be readily disinfected, such as leather gloves and muzzles, may contribute to disease spread when used with animals who appear ill and/or during a disease outbreak.[45] Routine cleaning or laundering of bedding could fail to remove non-enveloped viruses and dermatophytes; in these situations, discarding the items in question or using pathogen-specific laundry protocols is recommended.[29,49]

Automatic watering devices and water bottles should not be used if the watering valve cannot be sanitized before being used by another animal.[50,51] Food and water bowls must be sanitized in a different location or at a different time than litter pans or items soiled by feces, to prevent cross contamination.[4,52] Dishwashers have excellent mechanical washing action and attain high temperatures which destroy the majority of pathogens but may not destroy non-enveloped viruses such as parvoviruses.[26,53] The best way to inactivate these viruses is through the application of a disinfectant to the dishes following the dishwasher cycle. When a dishwasher is not available, disinfectant can be applied following thorough washing and rinsing by hand.[52] Basins used to sanitize food and water bowls and litter pans should be thoroughly sanitized between uses.[3]

5.5 Other shelter areas

Foot traffic plays a role in fomite transmission throughout the shelter and grounds; dedicated boots that can be sanitized or disposable shoe covers should be used in potentially contaminated or protected areas, such as isolation and surgery.[4,54,55] Footbaths must not be relied on for infectious disease control in the shelter.[4,56,57] This is because achieving adequate contact time is impractical, and the accumulation of organic debris within the bath inactivates many disinfectants. Poorly maintained footbaths create environments that encourage pathogen growth and contribute to disease spread. It is unacceptable for animals to walk through footbaths.[3]

Animal waste and bodily fluids must be removed from indoor common spaces as soon as possible.[5,58] After removal, the area needs to be sanitized properly. Feces must be removed from outdoor areas between animals or groups.[59] To reduce parasite egg accumulation in the environment, daily removal of feces is acceptable, although immediate removal is preferred.

Outdoor areas around the shelter must be kept clean, recognizing it is impossible to disinfect gravel, dirt, and grass surfaces.[29] Surface covers (e.g. pea gravel, mulch, and rubber chips) can be replaced or recovered regularly to reduce contaminant load. To manage this risk, many shelters designate certain outdoor areas for use by specific animals. This allows closure of an area when needed while still preserving other areas for continued use. Access to areas that cannot be sanitized should be restricted to adult animals who have been vaccinated, dewormed, and appear healthy, or animals for whom the benefits of such access outweigh the risks of disease exposure or transmission.[60,61]

Standing water should not be allowed to accumulate in or around the shelter because mosquitos breed and many pathogens thrive in wet environments.[62,63] Well drained substrates and exposure to sunlight aid in the destruction of pathogens; however, some pathogens survive even in environmental extremes.

5.6 Wildlife, rodent, and insect control

Rodents and insects may harbor pathogens that can spread to shelter animals through direct ingestion, contamination of pet food, or contamination of the environment. Areas of food storage are particularly vulnerable to infestation. All food must be protected from wildlife, rodents, and insects.[64,65] Properly storing food bags in sealed bins, promptly cleaning spills or waste, and resealing and refrigerating opened food containers (animal or human) can help mitigate infestations. Rodent and insect control solutions must be safe, humane, and effective.[66] Integrated pest management plans are recommended and utilize a variety of environmental measures to reduce the need for pesticides, rodenticides, and insecticides.[67]

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6. Medical Health

6.1 General

Comprehensive shelter medical programs are the foundation of humane sheltering. The World Health Organization describes *health* as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.[1] Health care for animals in shelters is a necessity and must include attention to overall well-being.[2,3]

Shelter medical care must begin at or before intake and continue throughout the shelter stay.[4–6] Animals may arrive at shelters already experiencing health challenges, while others may develop issues during their stay. When a shelter admits an animal, they become responsible for providing all of the medical and wellness care that the animal needs, or promptly finding an outcome that meets those needs. When medical treatment is necessary, it must be provided in a timely fashion.

Shelters must provide species-appropriate preventive health care; this includes implementing protocols that strengthen resistance to disease and minimize exposure to pathogens, such as vaccination, parasite control, good nutrition, and appropriate handling and housing location.[7] Shelters can experience severe disease outbreaks without proactive management, monitoring, and communication.

Individual animal health must be addressed within the balance of decisions and practices that support overall population health. Population health is impacted when spread of disease is likely, when long lengths of stay place the shelter over its capacity for care, and when treatment costs reduce the shelter's resources to provide care for other animals (see Population Management).

A shelter's capacity to provide medical care for individual animals is impacted by:

- the availability of resources to safely and humanely provide treatment and maintain welfare during the treatment period
- the duration of care
- the number of animals needing treatment
- likelihood and consequences of disease transmission
- the likelihood of recovery
- and the animal's potential for a live outcome

Prompt identification and communication of health conditions, and the development of protocols for conditions that are routinely treated or managed by the shelter provide transparency and support timely decision-making. Shelters should have a protocol for making decisions about which animals and conditions to treat, and which animals and conditions they cannot treat.

Tracking disease rates and outcomes for medical cases provides important measures of shelter population health.[8] Key indicators of healthcare program deficiencies include the decline of animal health and welfare after intake, sick or injured animals held without prompt treatment, wide-scale disease outbreaks, animals dying or being euthanized as a result of shelter-acquired disease or injury, and chronically high rates of disease. Prevention of disease in shelters through proactive planning of animal pathways (see Population Management) and preventive healthcare supports better animal health and welfare, saves resources, and improves the well-being of shelter personnel.[9]

6.2 Veterinary oversight and medical recordkeeping

A formal relationship with a veterinarian must be in place to ensure oversight of medical and surgical care in the shelter. Personnel providing medical care must have the skills and equipment to administer prescribed treatments safely and effectively.

Evidence-based protocols are essential for providing a consistent approach to addressing the health of individual animals and populations entering shelters.[10] All medical practices and protocols must be developed in consultation with the shelter's veterinarian (see Management and Record Keeping). Ensuring compliance with healthcare plans and protocols, on a population or individual level, is part of veterinary oversight. In addition to providing details of diagnosis and treatment, shelter medical protocols include instructions for animal housing, sanitation, decision-making, and communication.[11] When a medical concern falls outside of standard protocols or does not respond to treatment as expected, a veterinarian must be consulted.

Medications and treatments must only be administered by prescription or in accordance with written protocols provided by a veterinarian.[12] Medication should only be prescribed when there exists a reasonable presumptive diagnosis, the ability to administer as directed, and a plan to monitor the course of disease, so that success or failure can be determined.[13] Giving medications when not needed, such as prescribing antibiotics to prevent viral infections, can cause harmful side-effects and promote antibiotic resistance.

When drugs are used or dispensed, it must be done in accordance with federal and state regulations.[14] These regulations may limit use or dispensing of off-label and compounded drugs. When dispensed or when required by state regulations for in-shelter use, prescription drug labels include:

- name of the prescribing veterinarian
- clinic or shelter name, phone number, and address

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- patient identification and species
- date dispensed and expiration date
- drug name, form, and amount
- directions for use
- cautionary statements[15]

Accurate medical records are an essential part of an animal's shelter record. A medical history must be requested for all animals presented to the shelter and added to the medical record. Shelters must document all medical care rendered to each animal in the medical record.[16] Medical records include accurate identifying information; signalment (age, sex, species, and reproductive status); and a dated list of physical exam findings, vaccinations, diagnostic test results, procedures, and treatments (including medications with dose and route of administration). A record of the animal's medical care must be provided in hardcopy or electronic form when the animal leaves the shelter's care.

6.3 Medical assessment

Collecting information about animal health before admission allows the shelter to offer medical services that can prevent intake, such as spay-neuter, outpatient care, or referral to other accessible programs.[17] When intake to the shelter is necessary, each animal's individual health status must be evaluated, documented, and monitored beginning at intake.

Each animal must receive at least a cursory health assessment by trained personnel at intake to check for signs of infectious disease or problems that require emergency medical care.[5,18] The intake assessment must include confirmation of the animal's estimated age, sex, physical description, and the presence of any identification and microchips. Administration of core vaccinations (Table 6.1) and parasite prevention is typically paired with this intake assessment.

A comprehensive physical examination by a veterinarian or trained personnel should also be performed. Ideally, this physical exam is performed within 24 hours of intake. Timely initial assessment and examination allow prompt treatment of medical conditions, establish a health baseline for each animal, and allow recognition of changes in health during the animal's time in care. Screening tests can be a part of this assessment, including FeLV and FIV testing and management in animal shelter's policy[19] (see ASV Position Statement).[20] Findings from any assessments and examinations are documented in the individual animal's medical record and used to inform housing and flow-through planning.

Animals with signs of infectious disease at intake should be isolated until determined to be low-risk to the population. Separating potentially infectious sick animals reduces the risk of fomite transmission by personnel and prevents spread through shared environments.

Quarantining healthy animals at intake is not generally recommended. Quarantines are appropriate only for animals with a history of direct, high-risk infectious disease exposure. Unnecessary holds increase length of stay and are detrimental to animal health and organizational goals (see Population Management).

Some animals are more susceptible and require greater protection from possible disease exposure. Heightened precautions to prevent disease transmission should be taken when handling more susceptible animals, such as juveniles, older animals, and those with underlying conditions. Precautions typically include placement in foster care, limiting the number of people in contact, using personal protective equipment (PPE), and providing care for the most vulnerable first (Appendix C).

Trained personnel must visually observe the health and well-being of every animal at least once every 24 hours.[16] Ideally, daily monitoring observations take place before cleaning, so that food intake and condition of the enclosure, including feces, urine, or vomit, can be noted. Medical staff are essential members of the shelter's comprehensive care team; a medical staff member should attend population rounds with representatives from other departments (see Population Management).

Animals staying in the shelter long-term require regular medical assessment. At minimum, an examination by trained personnel, including weighing and body condition score, should be repeated on a monthly basis. A comprehensive exam should be performed at least every 6 months while in shelter care, including animals in foster. More frequent examinations are necessary for animals with chronic conditions and when new concerns are observed.

6.4 Essential wellness and preventive care

Prevention and early detection of health concerns in the shelter is critical to supporting physical and emotional well-being. Vaccination, parasite control, proper nutrition, and addressing specific care needs for individual animals improves the health of individuals and populations, while saving the shelter time and resources. For example, grooming and bathing are essential components of animal care and must be provided when necessary for animal health or comfort.[11]

6.4.1 Vaccination

A timely vaccination program is fundamental to preventing severe disease outbreaks in animal shelters.[21,22] Shelters must have a written vaccination protocol developed under the supervision of the shelter's veterinarian (see Management and Record Keeping). Shelter vaccine protocols differ from protocols used in private practice because shelter animals are subject to an increased risk of infectious disease.[11,23] Risk factors include stressors, exposure to other animals, age, previous preventive care, and pathogen levels

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Table 6.1. Vaccination schedule for animals housed in shelter facilities

Core vaccines	Route	Species	Starting age	Frequency <20 weeks	Frequency adults
MLV DAPP	SQ	Dog	4 weeks	Intake, every 2 weeks	Intake, suggested booster in 2–4 weeks
MLV FVRCP	SQ	Cat	4 weeks	Intake, every 2 weeks	Intake, suggested booster in 2–4 weeks
MLV Bord/PI	IN	Dog	3 weeks	Once at intake	Once at intake
Rabies	SQ	Dog and cat	12 weeks	Once	Once

MLV, modified live virus; DAPP, distemper-, adeno-, parvo-, and parainfluenza; FVRCP, feline viral rhinotracheitis, calicivirus, and panleukopenia; Bord/PI, *Bordetella* and parainfluenza virus; SQ, subcutaneous; IN, intranasal.

in the environment.[11,24–27] Key differences in protocols compared to those recommended in private practice include an earlier and longer age range for juveniles, a shorter time span between vaccines, and different core and noncore products.[11,23]

Shelters must properly handle and store vaccines according to manufacturer guidelines. Proper handling includes refrigeration along the supply chain and within the shelter, preventing freezing, reconstitution according to manufacturer instructions, and discarding modified live vaccines reconstituted more than 1 hour prior to use.[4,25,27–29] Proper technique for vaccine administration is important for efficacy and safety. This includes use of the dose and route indicated by the manufacturer, a sterile syringe and a fresh needle, and gentle handling.[4,28–30] The location for specific vaccine injections should follow administration site guidelines.[28,30] Recording the serial and batch number information in the medical record is required for rabies vaccines and is recommended for all vaccines in case of adverse reactions, recalls, or vaccine failures.

Shelters must have protocols for recognizing, managing, and reporting adverse vaccine reactions, and required treatments must be accessible.[25,31] This includes protocols for accidental subcutaneous administration of intranasal vaccines, which can lead to significant infection or allergic reactions.[4] Management of vaccine reactions might include alerting the veterinarian, close monitoring, administration of medications, or referral to an emergency clinic, depending on the situation and severity of the reaction.[27] Vaccine reactions need to be reported to the manufacturer.[32]

6.4.2 Core vaccines in shelters

A core vaccine is one given to all eligible animals and is withheld only in extraordinary circumstances.[27] For all core vaccines except rabies, shelters should use modified live virus or recombinant vaccines (MLV) rather than killed products because they provide a faster immune response.[33–35] This includes vaccines for puppies, kittens, animals with FeLV or FIV, and pregnant and nursing animals.[30,36] Cerebellar hypoplasia is a theoretical complication of MLV panleukopenia vaccination of pregnant cats; however, the risk of abortion, maternal, and kitten death due to panleukopenia generally outweighs this concern in shelters.[37,38]

MLV vaccines create effective, long-lasting immunity to distemper-, parvo-, adeno-, and panleukopenia viruses in dogs and cats with competent immune systems within days of initial vaccination and may provide partial protection sooner.[33,39,40] MLV vaccines also decrease symptoms and duration of herpes-, calici-, and parainfluenza virus and *Bordetella* infections.[25,34,35,41,42]

Dogs

A subcutaneous MLV vaccine for canine distemper-, adeno-, parvo-, and parainfluenza viruses (DAPP) is core for shelter puppies and dogs.[21] An intranasal vaccine containing both *Bordetella* and parainfluenza virus (Bord/PI), with or without adenovirus, is also core for shelter puppies and dogs.[21] The intranasal route is important to maximize efficacy and activate respiratory immune cells, which can provide additional protection against other infectious respiratory diseases.[43,44]

Cats

A subcutaneous MLV vaccine for feline viral rhinotracheitis, calicivirus, and panleukopenia viruses (FVRCP) is core for shelter cats and kittens. Feline intranasal vaccination for herpes and calicivirus has a similar efficacy to the injectable, but there is questionable reliability of intranasal vaccination against panleukopenia virus.[23,39] Using both subcutaneous and intranasal vaccines together is safe but has not been shown to increase immunity over either product alone. The intranasal vaccine may provide protection against herpes and calicivirus to young kittens through reduced maternal antibody interference.[23]

Rabies

Eligible dogs and cats should be vaccinated against rabies before leaving shelter care.[11] Rabies vaccines must be administered following state and local guidelines and the most recent Compendium for Animal Rabies Prevention and Control.[45–48] Specific regulations for how rabies vaccination is to be documented and who can administer the vaccine vary by state. Puppies and kittens that are too young for rabies vaccination may be adopted or transported with the recommendation that new caretakers provide vaccination when old enough. Rabies vaccination of animals under

12 weeks of age, although considered off-label, appears safe and may be of value in some situations (e.g. return-to-field).[49] Feral cats should receive all core vaccines at the time of spay-neuter, regardless of age.[50]

After the initial series (see Table 6.1), vaccination protocols for animals housed long-term in shelters are best guided by the shelter's veterinarian.

6.4.3 Noncore vaccines

Noncore vaccines (e.g. Canine influenza, Leptospira, Lyme; Feline Bordetella, Chlamydia, leukemia virus, etc.) may be useful when prescribed by a veterinarian for specific animals, subpopulations, or in the face of diagnosed outbreaks. When deciding whether to use noncore vaccines, it is important to consider the onset of immunity and the number of boosters, as many of these vaccinations may not be fully effective for 10–14 days after the final dose.[23]

6.4.4 Vaccine schedules

Adult animals must be vaccinated with core vaccines at or before intake (Table 6.1). Revaccination 2–4 weeks later is suggested for those still in shelter care, especially when disease risk is high. Animals housed in shelters should be vaccinated with core vaccines even if ill or pregnant, as the individual and population risks of not vaccinating outweigh the small risk of vaccination.[25,30,38] Vaccinating an animal with all core products on the same day or during a surgical procedure does not decrease immune responsiveness to those vaccines or significantly increase the chance of adverse reactions.[29,36,51–53]

Puppies and kittens housed in shelter facilities must begin core vaccinations at or before intake starting at 4 weeks old and must be revaccinated every 2 weeks until 20 weeks old.[4,25,28] Shelter personnel and veterinarians can use dentition, behavior, body weight, and available history to estimate age when date of birth is unknown.[54] In juvenile shelter-housed animals, frequent vaccination is critical to ensure that animals develop their own protective antibodies as soon as possible after antibodies provided by their mother wane.[28,55] When no longer housed in the shelter facility (i.e. in foster or adopted), juvenile vaccine schedules may be adjusted.

The risk of puppies and kittens contracting and spreading infections such as parvo, distemper, and panleukopenia can be greatly reduced by housing litters in individual foster homes until they are old enough for spay-neuter and adoption. Puppies and kittens housed in foster care must begin core vaccinations at or before intake starting at 4 weeks old and must be revaccinated at the veterinarian's discretion every 2–4 weeks until 20 weeks old.[4,25,28] Assessment of infectious disease risk in the foster home will determine whether a shorter or longer interval is appropriate.

It is not recommended to delay placement outcomes (e.g. adoption and transport) to allow response to vaccination or to receive a booster. The safer alternative is to secure an outcome with the recommendation that new caretakers continue a veterinary-directed vaccination protocol that reflects the animal's new lifestyle and disease risks.

6.4.5 Parasites

Parasites, both internal and external, are one of the most common health concerns seen in shelter dogs and cats.[56] Some animal parasites can also impact human health (e.g. roundworms, hookworms, mites, ticks, and fleas). Animals should receive anti-parasite treatments at or before intake and throughout their shelter stay.

An effective parasite control program, including medications and environmental control, should be designed with the supervision of a veterinarian. Considerations include the impact of the parasite on individual animals, the shelter population, and human health. Because risks vary geographically, it is important to identify the parasites of concern in the shelter and in the community the animal comes from, including those received through relocation programs. Effective protocols tailor treatments to the species and life stage of their animals, including age, pregnancy, and lactation.[57–61] For example, treatment for coccidia may be considered for juvenile animals at intake to reduce disease severity and environmental contamination.

All dogs and cats must be treated for roundworms and hookworms at intake, starting at 2 weeks of age, because these organisms can cause harm to people, especially children.[62] Parasite treatment also reduces contamination of the shelter environment where animals and humans may be exposed. Since most parasite eggs or cysts are shed in high numbers through feces and are difficult or impossible to kill, feces should be promptly removed from animal housing and exercise areas.[63,64] Good sanitation practices, especially mechanical cleaning of soiled areas, reduce the potential for spread.[56]

Regardless of geographic location, all shelters should have policies regarding testing, prevention, and management of heartworm disease.[65–69] This policy may specify in-shelter prevention, treatment and management protocols, or may describe a plan for referral of adopters to local veterinarians for testing or care.

6.4.6 Nutrition

Shelters should seek veterinary input when developing a feeding protocol for their animal population. Food that is consistent with the nutritional needs, health status, and species of the individual animal must be provided at least daily. Food must be fresh, palatable, free from contamination, and not shared between enclosures. Feeding a consistent diet can support animal health and streamline feeding protocols. Fresh, clean water must be available to

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animals unless there is a medical reason for water to be withheld for a prescribed period of time.

The amount and frequency of feeding vary depending on life stage, species, size, activity level, health status of the animal, and the particular diet chosen. Ideally, healthy adult dogs are fed twice daily, and cats are fed multiple small meals or allowed to forage throughout the day. When managing starved animals or those with unique nutritional needs, veterinary input must be sought. Healthy puppies and kittens as well as lactating and pregnant animals must be fed small amounts frequently or have food available through the day (i.e. free-choice).

Food intake must be monitored daily. Loss of appetite or inability to eat are health concerns that require medical attention. Since animals have highly variable metabolic requirements, each animal should be fed to meet individual needs and prevent excessive gain or loss of body weight.[54,70] Body condition and hydration status of animals must be monitored. When animals are cohoused, matching animals with similar nutritional needs or having a process for feeding separately is important. Cohoused animals should be monitored during feeding times, so that appetite and conflicts around food may be addressed.

Food and water dishes must be safe, sufficient in number, and of adequate size. For litters and cohoused adults, providing at least one food dish per animal is recommended. Distributing dishes throughout the enclosure can help prevent guarding behavior (see Facilities).

Supplies of food must be stored in a manner to prevent spoilage or contamination, including refrigeration for perishable foods. Food waste creates a health hazard through spoilage and attraction of pests.

6.4.7 Pregnant, nursing, and neonatal animals

Shelters should have a protocol for the care of pregnant, nursing, and neonatal animals.[71] This includes whether or not an animal will be spayed or allowed to go to term (see Surgery). Shelters housing pregnant, nursing, or neonatal animals must ensure that additional disease prevention, nutrition, and stress reduction measures are taken, to protect these vulnerable populations. Housing pregnant and nursing animals in foster care provides significant medical and behavioral benefits, including minimizing risk of infectious disease transmission and facilitating more consistent monitoring. Pregnant and neonatal animals may require urgent interventions, so protocols for accessing emergency care, additional training, and resources are needed to support these populations.

6.5 Responding to health concerns

Any animal observed to be experiencing pain, suffering, or distress; rapidly deteriorating health; life-threatening problems; or suspected zoonotic medical conditions must be promptly assessed and managed.[16] Communication is a key part of facilitating care. Protocols for documenting and reporting health concerns are essential.

Protocols for common diseases and health conditions, which specify diagnostics, medical care, and management (e.g. housing, PPE, and outcomes) are an integral part of any shelter health program. Infectious disease protocols must include measures both to minimize transmission and to ensure appropriate care of the infected animals. The response to each disease will look different for every organization, due to the variety of pathogens encountered, modes of transmission, and types of facilities. The shelter veterinarian should be consulted on all policies and protocols related to the maintenance of medical and behavioral animal health (see Management and Record Keeping).

6.5.1 Pain management

Animals with acute or chronically painful medical conditions are often cared for by shelters. Pain must be recognized and treated to alleviate suffering. Treatment of pain can include providing euthanasia. Unrelieved pain is a significant welfare concern and can result in chronic physical manifestations, such as weight loss, muscle breakdown, increased blood pressure, and prolonged recovery from illness or injury, as well as mental and emotional distress.[72] Failure to provide treatment for pain is unacceptable.

Recognizing and alleviating pain in a wide variety of species can be complex and difficult.[73] Individual animals react differently to painful stimuli and may show a variety of clinical and behavioral signs.[2] Observation of behavior and knowledge of the causes of pain are the most accurate ways of assessing pain in animals; if a procedure, injury, or condition is known to be painful in humans, it can be assumed to be painful in animals. Several published scales are available to assess pain in animals.[74] When an animal is suspected to be painful, it is the responsibility of shelter staff to follow veterinary protocols and request veterinary assessment.

Protocols for the treatment of painful conditions should be created by a veterinarian. Pain control provided must be of an appropriate strength and duration to preempt or relieve pain. When pain can be anticipated, as with surgical procedures, pain control should be provided before the painful event. The use of controlled drugs must be supervised by a veterinarian as required by regulatory statutes.

Non-pharmacological approaches to pain (e.g. the presence of littermates, a quiet environment, massage, physical therapy, heat, and deep bedding) can supplement pharmacologic interventions to help increase comfort and alleviate anxiety.

Animals must be reassessed frequently to determine the efficacy of pain relief provided. When the pain relief

provided is inadequate, emergency medical care must be provided.

6.5.2 Emergency medical care

An emergency medical plan must be in place to provide appropriate and timely veterinary care for any animal who is injured, in distress, or showing signs of significant illness.[16] The emergency medical plan must indicate how staff will recognize and report medical conditions requiring emergency care. The emergency medical plan should specify whether emergency services are provided on site or through an outside veterinary clinic. Animals housed outside the shelter facility (e.g. in foster or offsite adoption centers) are subject to the same guidance. Foster care providers should be given clear instructions about how and when to access emergency and afterhours care.

If the emergency medical plan cannot be implemented or fails to relieve suffering, the animal should be euthanized.[16] Many shelters care for animals they do not legally own, such as those impounded as strays, held as evidence in legal cases, or boarded for owners requiring temporary assistance. Agreements between the shelter and relevant parties can clarify emergency medical care expectations. The comfort and welfare of the animal is the shelter's highest concern. The legal status of the animal must not prevent treatment to relieve suffering. This includes providing euthanasia if suffering cannot be alleviated.

6.5.3 Responding to infectious disease

Shelters must have a means of isolating contagious animals. Animals with a suspected infectious disease must be isolated until diagnosis by a veterinarian or treatment determines them to be a low risk to the general population. Isolation may be accomplished onsite or through placement in an appropriate facility, such as a veterinary clinic or foster home, after considering risk to animals already in those facilities. When isolation efforts are inadequate to prevent disease transmission to the population, informed adoption, transfer to a partner, or euthanasia of the infected animal needs to be considered. Allowing animals with severe infectious disease to remain in the general population is unacceptable.

The treatment and response plan for animals with mild to moderate or uncomplicated infections is based on circumstance and clinical signs and often follows a standard protocol. When the number of cases increases above typical for the shelter, when signs are severe or not responding to treatment as expected, and when a zoonotic condition is suspected, diagnosis or identification of specific pathogens should be sought. Individual animals, or a representative sample in an outbreak, can be tested to achieve a likely diagnosis. When an animal dies from unexplained causes, a necropsy should be performed.[21] If gross necropsy is inconclusive, additional testing may be indicated.

6.5.4 Outbreak response

An outbreak is the occurrence of more than the usual number of animals affected by a disease or syndrome, or an increase in the severity of cases. Outbreaks can involve one animal or many animals; high levels of disease may represent an ongoing outbreak or gaps in management and preventive care practices.

During an outbreak, a risk assessment to identify potentially exposed animals must be performed based on the confirmed or suspected pathogen. Physical separation must be established between sick, exposed, at-risk, and unexposed animals or groups of animals. Implementation of this separation will vary depending on the disease of concern and type of facility. In some circumstances, isolation or limited handling of an animal or group of animals may be enough to protect the population. In other circumstances, it may be necessary to stop animal movement, including halting intake. In order to prevent tracking of pathogens from contaminated to uncontaminated areas, animal handling and foot traffic should be limited during disease outbreaks.

During an outbreak, all at-risk animals should be monitored for signs of disease at least once a day. Animal care staff should be educated on the clinical signs of the disease of concern and on the process for alerting medical staff. Shelters should avoid returning recovered or exposed animals to the general population, while there is significant risk that they may transmit disease to other animals. Shelters must also ensure federal, state, and local laws are followed concerning reportable diseases.

As part of the outbreak response, relevant protocols should be reviewed to ensure control measures are effective against the suspected pathogen. Effective measures, such as sanitation and animal handling protocols, help to ensure animal care and treatment activities do not contribute to the spread of disease. For example, footbaths often become contaminated and aid in disease transmission rather than control[75] (see Sanitation).

Depopulation is defined as euthanasia of an entire population or subpopulation, including healthy and unhealthy animals. It is not an appropriate initial response to disease outbreaks and typically does not resolve the underlying causes. Depopulation is a technique of last resort reserved for extraordinary circumstances when morbidity, mortality, infectivity, injury, or risk of zoonotic disease is uncommonly severe. In the rare instance that depopulation is considered, an experienced shelter veterinarian must be consulted beforehand.[76]

6.6 Population health surveillance

Regular monitoring of population health is as important as monitoring individual animal health; one cannot exist without the other in the shelter environment. Shelters should track animal population health trends (e.g. morbidity and mortality) and develop targeted strategies to

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address concerns. Population health surveillance will facilitate early recognition of problems, accurate diagnoses, and effective intervention and prevention strategies.

One or more shelter animals dying in care can be a signal to assess management practices. Increases in deaths or infections over time may indicate deficiencies in population management practices, such as operating beyond a shelter's capacity for care, lapses in preventive care protocols, or the need for targeted interventions. Shelters can learn from examples where conditions created by poor management caused severe suffering and unnecessary death.[77,78]

6.7 Rehoming considerations

It is increasingly common for shelters to find live outcomes for animals with medical conditions. Adopters or others receiving animals from shelters should be informed about any disease or condition known to be present at the time of outcome. Many shelters employ standard written disclosures for common conditions, modifying as needed for a particular animal.

Ongoing care for known medical conditions typically becomes the responsibility of the adopter, transport partner, or other caretaker of the animal, but may be provided by the shelter when regulations and policies allow. Shelters should have and disclose policies that specify whether or not they provide care for medical conditions that are ongoing or occur after adoption.

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7. Shelter Surgery

7.1 General

In order to decrease the local population of animals needing shelter services and improve individual animal health and welfare, shelters routinely sterilize (i.e. spay or neuter) shelter animals, owned pets, and community cats. Robust community spay-neuter programs target pets and free-roaming cats who might not otherwise have been sterilized. This, in turn, supports community animal health, prevents shelter intake, and reduces euthanasia of both adults and unplanned offspring.[1–6] Spay-neuter is associated with a reduction in many nuisance and unwanted behaviors[7–9] and is associated with increased life expectancy.[10,11] In some jurisdictions, pre-adoption sterilization of dogs and cats is required by law.

Many areas of the country continue to deal with pet overpopulation, and it is important for shelters not to exacerbate this problem.[12] The severity of overpopulation varies on local, regional, and national levels as well as by species. It is unacceptable for organizations to allow shelter animals to breed. When spay-neuter is not immediately available, housing intact animals of breeding age separately or in sex-matched pairs and thoughtfully planning and monitoring off-leash activities such as playgroups can prevent mating behaviors.

When animals that are already pregnant are admitted, shelters should prevent birth from occurring in the facility, instead seeking alternatives such as spay or foster care. In almost all cases, it is safe and humane to spay dogs and cats at any stage of pregnancy. Keeping the uterus closed during and following the spay procedure allows the anesthetized fetuses to die humanely without the need for additional barbiturate injections.[13] If a shelter is considering allowing animals to give birth, it is important to assess the availability of routine and after-hours emergency medical care, behavioral care, foster home capacity, live outcome options, and regional population implications.

7.2 Spay-Neuter

Shelters should sterilize all animals before adoption or ensure that they will be sterilized after their outcome. Performing spay-neuter prior to adoption ensures completion and reduces the risk of additional litters prior to surgery. Spay-neuter can be safely performed in healthy animals as young as 6 weeks old and as small as 1.5–2 pounds (0.7–1 kg) body weight.[14–17] If a shelter does not have the capacity to sterilize all animals prior to adoption without increasing length of stay, an acceptable alternative is to arrange post-adoption spay-neuter. Shelters performing post-adoption sterilization must have a system for keeping track of unaltered animals and ensuring that surgery is completed in a timely manner. As adopters may be unfamiliar with the needs and care of sexually intact animals, providing information about the reproductive cycle, potential medical and behavior issues, and preventing breeding is recommended.

In some situations, spay-neuter surgery or the anesthesia it requires puts an animal's health at risk.[18] The final decision regarding acceptance of any patient for surgery must be made by a veterinarian based on a physical examination, available medical history, and capacity of the surgical team. Granting an exemption from a spay-neuter requirement should only occur when performing the procedure puts the patient at significant risk. It is generally safe to sterilize patients in estrus or suffering from mild infections or other medical conditions, such as infectious respiratory disease or heartworm disease.[19,20] When considering sterilizing patients with medical conditions, veterinarians must weigh the benefits and risks to that animal, others receiving surgery that day, the shelter population, and the community population. Shelter spay-neuter policies need to follow all state and local ordinances regarding the timing of spay-neuter with respect to legal holding periods.

7.2.1 Practices and protocols

Shelters that perform their own sterilization surgeries must follow the current ASV Veterinary Medical Care Guidelines for Spay-Neuter Programs, which includes establishing policies and protocols for managing related complications and emergencies.[19] This document provides guidance on presurgical care, transport, anesthesia, pain management, surgery, and postsurgical care. It is also recommended that outside veterinary partners who work with shelters be familiar with the ASV Spay-Neuter Guidelines. Shelters can refer to this document when discussing expectations for surgical care, pain control, and the management of postoperative complications with new surgeons and partners.

7.2.2 Identifying altered animals

Sterilization status should be documented for each animal. Spay scars can be difficult to see, and other surgeries or injuries can leave similar scars. The placement of a permanent tattoo on the abdomen at the time of spay-neuter is an accepted standard for indicating sterilization and strongly recommended for all animals.[19,21] If an animal is lost or transferred to another owner without records, the tattoo can prevent unnecessary anesthesia or surgery. For community cats, removal of the tip of one ear is the accepted standard for indicating an animal is

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sterilized.[19,21,22] The ears are visible from a distance without the need for handling, which helps with colony monitoring and prevents unnecessary transport of already sterilized cats.

7.3 Other surgeries

Some animals presenting to shelters have medical concerns that require surgical treatment. In shelters that regularly perform spay-neuter surgery, these non-sterilization surgical procedures may also be performed onsite. To promote quality care for surgical patients, all surgical practices and protocols must be developed in consultation with a veterinarian familiar with the sheltering organization, its population, and facilities.

Non-sterilization surgeries performed in the shelter setting, including dentistry, must adhere to the ASV Spay-Neuter Guidelines regarding surgical suite, anesthesia, analgesia, and principles of sterility related to instrumentation and surgical practice.[19] Ideally, shelters without the capacity to perform these surgeries partner with outside organizations, specialists, or transport partners to obtain necessary care.

Regardless of where surgery is performed, it is critical that shelters pursue surgical treatment only when the appropriate pre- and postsurgical care can be provided. In particular, following orthopedic procedures, patients must receive appropriate rehabilitation and pain management in order to minimize discomfort and ensure success of the procedure.[23] Due to often-prolonged recovery times for orthopedic patients and their special mobility and care needs, appropriate postoperative plans may require alternative housing plans such as foster care or adoption with in-depth counseling. Ideally, orthopedic patients requiring extended care are not housed long term at the shelter.

7.3.1 Dentistry

Providing surgical dental services is an increasingly common part of shelter animal care, particularly for geriatric animals.[24–26] Appropriate dental care considers individual patient health, surgical safety, and postoperative recovery needs including pain control, in the context of the shelter population.[27] Medical records should document the dental exam, diagnostics, and treatments performed.

Non-anesthetic dental probing, scaling, and polishing is unacceptable.[28,29] Without sedation, significant dental concerns can be missed or inadequately addressed. The restraint required can cause significant animal and technician stress, and veterinary staff and the animal are put at risk of serious injury from sharp instruments or bites.[28,29]

Ideally, intraoral radiographs are taken in patients undergoing dental surgery. Radiographs allow veterinarians to detect important concerns of the tooth and jaw not visible during oral examination.[28,29] Dental disease can have serious welfare implications, and treatment for a painful mouth is strongly recommended even when radiology is not available. Dental procedures, including radiology, must be performed by appropriately trained and credentialed individuals based on state and local regulations.[28] Shelters without the capacity to perform dentistry can partner with adopters, outside organizations, specialists, or transport partners to ensure animals receive needed care.

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8. Forensics

8.1 General

All animal shelters play an important role in the prevention of animal suffering. Socioeconomic factors often place owners in situations with limited access to veterinary care or difficulty meeting their pet's basic care needs.[1] This can lead owners to surrender their pets or result in seizure if a complaint is filed. In many cases, shelters can help owners and their pets by providing necessary services (e.g. food, medical care, shelter, and grooming) and information, or connecting owners with others in the community who can assist them.

While community interventions are an important strategy to improve animal welfare, any shelter may receive animals who have experienced abuse or neglect (i.e. maltreatment). Shelters have an obligation to recognize and report suspected cases. Many shelters are engaged in the active investigation of suspected crimes against animals, or *forensics*, which can be part of a their mission or mandate.[2] Caring for animals who have been abused or neglected may place significant demands on shelter resources due to their medical or behavioral needs, the number of animals involved, and potentially lengthy stays while a legal outcome is determined.

8.2 Laws and regulations

The definitions of animal abuse and neglect vary across states and jurisdictions, as do relevant laws.[3,4] These crimes range from inflicting physical or emotional harm (i.e. abuse) to failing to provide adequate and necessary care (i.e. neglect).[5–7] Shelters, veterinarians, and humane investigators must be familiar with animal abuse and neglect laws in their jurisdiction and know how to report suspected cases. In recent years, the Five Domains model of animal welfare assessment has been used as a framework for assessment in animal legal cases.[8,9]

In several states, veterinarians have been designated as mandated reporters of animal abuse and neglect. Most of these states provide protection from liability (i.e. law suits) for those who report suspected crimes in good faith; however, reporting is important regardless.[2,4,10] Veterinarians must be aware of their state's animal cruelty reporting requirements and liability protection statutes. In some states, veterinarians and other shelter personnel may also be required to report suspected abuse and neglect of people.

8.3 Forensic investigation policies

Shelters should have a policy that outlines the scope of forensic services provided. Services may be limited to animal care or may involve active investigation. For shelters that regularly perform investigations or provide investigative support to other agencies, the forensic investigation policy needs to define:

- which geographic areas are covered
- which species can be investigated
- where forensic exams are performed
- who performs forensic exams
- how animals and other evidence are held[10,11]

Consultation with an attorney is suggested during the development of a forensic investigation policy.[2]

Sharing the shelter's forensic investigations policy helps partner agencies understand how and when the shelter may be able to assist. A memorandum of understanding (MOU) with collaborating agencies defines roles and financial responsibilities for crime scene documentation, the care and treatment of animals, and allows an orderly investigation response. When law enforcement agencies are leading an investigation, a release permitting the shelter to examine and care for the animals is recommended.[5,6,11,12]

Those investigating a suspected case of animal abuse or neglect must first ensure that they have the legal right (e.g. seizure, warrant, or owner consent) to examine, treat, and document the condition of the animal or scene.[10] It is essential that all involved in the investigation of animal abuse and neglect understand the legal procedures involved in criminal investigation, including the defendant's right to protection from unreasonable search and seizure. Mishandling evidence can cause it to be withheld from court proceedings.[3,5,7,12–14]

8.4 The veterinary forensic evaluation

Veterinary forensic evaluations are holistic assessments of all aspects of an animal abuse or neglect case. The veterinarian should have access to information about the scene, evidence collected, allegations, and known or reported history.[15,16] The veterinary forensic evaluation includes all of this information, as well as findings from forensic examination or necropsy, diagnostic results, and evidence collected from the animal.[5,11,14] Evaluation and opinion formation for forensic purposes must be conducted by a veterinarian.

Veterinarians involved in forensic cases may be expected to provide evidence through written statements or by providing testimony in court.[17,18] The lead investigator or district attorney is a good resource for understanding legal expectations and requirements.[5,14,17] The goal of the veterinarian's report and testimony is to present and interpret the facts of the case. It is up to the prosecution to prove the case, and the jury or judge to decide.[7,18]

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8.4.1 Veterinary forensic examination

A key part of forensic evaluation is a forensic physical exam or necropsy with documentation, for which shelters should have standard protocols.[19–21] These protocols ensure that each forensic examination is approached consistently and methodically. Further diagnostics, treatments, or assessments can be performed based on presentation and initial findings.[22–25]

When animals have urgent medical needs, the priority is providing stabilization and medical care. In most cases, this can be accomplished while simultaneously trying to identify, document, collect, and preserve key evidence. Even when cases are not medically urgent, forensic physical examinations and diagnostics must be conducted in a timely manner to preserve evidence. Case evidence may disappear quickly or change over time with appropriate care. For example, blood chemistry values may normalize after feeding and hydration, and trace evidence visible on the body under normal or alternate light sources may be lost during movement and grooming.[22,26–32]

8.4.2 Documentation

Photographs are essential when documenting evidence of suspected abuse and neglect. Standard views include the front, back, left, right, and top of the animal, as well as photos of abnormalities. At least one photo should include identifying information. Photographs should be of sufficient quality to serve as evidence, and they should be managed to ensure proof of origin and integrity.[2,22,26,34] Videos can help document dynamic processes such as limping or behavior.[19]

8.5 Managing evidence

Humane investigators and veterinarians involved in investigating animal abuse and neglect must be prepared to maintain chain of custody protocols. To ensure proper packaging, storage, and transfer of evidence between agencies, it is recommended that shelters consult local law enforcement, the forensic laboratory, or forensics reference materials.[12,13,29]

Monitoring and response to ongoing treatment should be documented as evidence throughout recovery. Demonstrating improvement as a response to appropriate care provides evidence and may refute narratives presented by the defense.[11,22,34] For example, a log of increasing weights accompanied by photographs of an animal recovering from emaciation contradicts an assertion that the animal was losing weight despite being given an adequate diet.

8.6 Training

Specific training regarding forensic evaluations, evidence identification and collection, testifying in court, and other aspects of forensic investigations has become widely accessible (Appendix D). Veterinarians routinely involved in the investigation of animal cruelty should complete additional training in veterinary forensics or criminal justice. Attending trainings for law enforcement or human medical professionals, including forensic nursing and medical examiners, can also be helpful.[14]

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9. Behavior and Mental Well-Being

9.1 General

To promote animal health and well-being, it is essential for shelters to address emotional needs as well as physical needs.[1–4] Emotional and behavioral needs are determined by environment, species, genetics, personality, prior socialization, and life experiences. Emotional and behavioral health have impacts on physical health, and vice versa. Shelters must provide behavioral care that considers the needs of individual animals as well as conditions experienced by the entire population.[1,5]

All shelter personnel should receive training about common behavior concerns at a level of detail appropriate to their position and job tasks. All relevant personnel must be trained in animal body language, objectively describing behavior, and how to interpret and respond to animal body language and behavior.[6] Animals experiencing fear, anxiety, stress, and frustration are more likely to exhibit dangerous behaviors. Interactions that minimize negative mental states in animals improve handler safety, animal safety, and animal welfare.[7] When interactions are positive, animals are more likely to accept and respond positively to additional interactions over time.[8] Training in animal behavior allows personnel to recognize concerns and work to improve animal welfare.

9.2 Stress and welfare

Admission to a shelter is stressful for the vast majority of dogs and cats.[9,10,11] Separation from caregivers, decreased and unfamiliar social interactions, confinement, loud noises, other stressed animals, and unpredictability all result in impaired welfare.[12] Lack of control over one's environment and separation from people are among the most profound stressors for companion animals.[13] Shelters must have comprehensive protocols in place for recognizing and mitigating stress and associated negative emotions including fear, anxiety, and frustration.

Because confinement has negative impacts on animal behavior, reducing the duration of time spent in cages or kennels is critical. Foster care is generally the preferred method of housing for dogs and cats because it allows for regular social interaction and for animals to choose where and how they spend their time.[14] When animals require care in a shelter facility (e.g. safety, legal, medical or behavioral reasons, or to facilitate adoptions), extra attention to well-being is necessary.

Animals must be monitored daily in order to detect trends or changes in well-being and respond to their behavioral needs. Actions must be taken to respond promptly to behavioral needs that impact welfare. When welfare is impaired, a health and behavior assessment is necessary to determine the severity of impairment and implement a plan to improve welfare. Any animal experiencing mental suffering, distress, or behavioral deterioration must be urgently assessed and treated.

Alternative housing and placement options must be urgently pursued for distressed animals not responding to behavioral care. Options include foster care, office foster, group housing, a different housing location, return to owner, or transfer to another shelter.[15,16] However, for animals profoundly stressed by interactions with people, better options include return-to-field or placement in an appropriate environment (e.g. barn or warehouse). Distressed animals not responding to behavioral care should be humanely euthanized when other options are not feasible or available. When an animal is suffering and treatment efforts have failed, it is not appropriate or humane to postpone euthanasia in the hope that they will improve or another option will materialize.

9.3 Intake

Collecting information before admission allows the shelter to offer services that prevent intake, such as outpatient behavioral care, other rehoming resources, spay-neuter, or return-to-field. If intake to the shelter is necessary, personnel must collect a thorough behavioral history at or near the time of intake, including the reasons the animal was brought to the shelter and previously observed behavior. It is essential that personnel request information for every animal coming to the shelter, regardless of source.

A complete behavioral history is gathered by following a consistent process that collects key pieces of information, and additional details based on responses provided. Training in communication techniques assists intake personnel in completing this task, including asking open-ended questions, using objective language, and active listening. Available information about aggressive behavior must be recorded and include an objective description of the animal's actions and the circumstances. Information about positive behaviors and preferences is also important. Personnel must use the available history to tailor animal care, meet the needs of individuals, and protect the safety and welfare of people and animals.

Shelters must work to minimize stress at the point of initial contact and throughout an animal's stay. Functional separation of waiting areas, managed through scheduling or the use of partitions, placing carriers on elevated surfaces, and covering carriers with towels or blankets can reduce stress for incoming animals. Assessment of an animal's behavior must begin at the time of first contact or

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intake and continue throughout their stay. The assessment process includes reviewing the history, observing behavior while in the shelter's care, recording observations in the animal's record, and communicating this information as needed.

9.4 Environmental management

The key to ensuring the best possible experience for animals living in the shelter is by creating an environment that minimizes stimuli that induce fear, stress, and frustration.[5,17,18] Shelters must have policies and protocols for managing the environment in a manner that supports animal mental health and well-being. Understanding how dog and cat senses and cognition contribute to perception of the environment is an important part of environmental management (see Appendix E). Shelter housing and areas frequented by animals can be set up so that unwanted behaviors (e.g. barking and lunging) are less likely to occur than desired behaviors.[19–21]

9.4.1 Housing

Shelter housing has a tremendous impact on animal health and welfare (see Facilities). Novel environments are especially stressful for shy, under-socialized, or geriatric cats and dogs.[1,10,22–24] Many animals benefit from foster care placement or housing in separate, calm, quiet areas beginning at intake. Feral animals must not be housed in the shelter except for a brief period of time related to the delivery of veterinary care.

Prey species must be housed away from predatory species at all times. Prey species (e.g. cats, birds, guinea pigs, hamsters, gerbils, and rabbits) become fearful and stressed when housed in olfactory, auditory, or visual contact with predatory species (e.g. ferrets, cats, and dogs). Cats not only are predators but may also be prey for dogs. Cats should not be handled or housed within spatial, visual, or auditory range of dogs.

9.4.2 Daily routine

Animals should be provided with a consistent and structured environment that minimizes reassignment of enclosures, caregivers, and schedules. An unpredictable environment can result in chronic fear and anxiety.[13,25] Unpredictability includes a lack of routine in daily care, frequent disruption of enclosure set-up, as well as irregular patterns or continuous light or darkness.[26] When events perceived as stressful are predictable, animals may experience periods of calm and relaxation between them because they learn what to expect.[3] Animals also learn to look forward to positive experiences in their daily routines such as feeding and enrichment.

9.5 Enrichment and socialization

Enrichment refers to the process of improving the care of confined animals by providing them with:

- social interaction
- physical and mental stimulation
- opportunities to perform species-typical behaviors
- choice and control over their environment

Successful enrichment programs promote emotional well-being and minimize undesirable behaviors. Enrichment must be given the same significance as other components of animal care, such as nutrition and medical care, and is never considered optional. This is true whether animals are in a shelter facility or in a foster home. Positive social interaction, mental stimulation, and physical activity that meets each animal's needs must be provided daily, outside of the activities of feeding and cleaning.

9.5.1 Time out of enclosure

Daily time out of the primary enclosure is one of the most effective means of reducing stress and frustration in kenneled dogs.[27–29] Dogs must be provided with daily opportunities for activity outside of their kennels, unless doing so creates an unmanageable risk to the health or safety of people or other animals.

Cats must be offered regular opportunities to express natural behaviors, including physical activity and exploration. This can include time outside of their primary enclosure to exercise and explore in a secure, enriched setting. However, removal to a new location may not always be preferred or necessary for cats living in spacious, enriched rooms (especially with indoor-outdoor access).

For both dogs and cats, physical and mental activities outside of their enclosures need to be tailored to meet individual animal needs.

9.5.2 Interactions with people and other animals

Shelters should provide all animals with opportunities to engage in healthy social contact with people and other animals of the same species.[13,30] Social isolation has a profoundly negative impact, and enrichment that meets the social needs of the animals is of the utmost importance in the shelter environment. Social interactions with people and other animals need to be monitored and individually tailored. For example, poorly socialized animals may not benefit from contact with people (with the exception of young puppies and kittens) but may find comfort in social interactions with their own species. Other animals, whether feral or socialized, may not enjoy interacting with members of their own species.

Regular positive daily social interaction with people is essential for all socialized dogs and cats, beginning at the time of admission. Providing appropriate daily social contact improves behavior, reduces defensive aggression, and supports physical health, particularly for fearful animals.[8,31–33] Social contact with humans is essential

even for animals with an unknown history or with an infectious disease concern. Positive social interactions with people, including calm, quiet interactions (e.g. sitting with or reading to) or more energetic play-centered interactions (e.g. wand, fetch, and tug) can be provided without removing the animal from the enclosure, if confinement is necessary for medical or behavioral reasons (Appendix F). Animals benefit greatly from having the opportunity to play, and play behavior is a strong indicator of positive welfare.[5,34,35]

9.5.3 Playgroups

Well-managed playgroup programs provide opportunities for healthy social contact with dogs and people. Playgroups require a safe and well-maintained space and the participation of sufficient personnel trained in canine behavior and humane handling.[36] Selection and grouping of dogs based on health and behavior is necessary for safe, positive experiences.

Shelters should optimize human and animal safety by limiting the number of dogs in playgroups based on competency of personnel, play yard size, individual dog behavior, and shelter resources.[36] Careful and consistent monitoring during playgroups and the use of humane techniques ensures participating dogs benefit from and enjoy the experience. Forcing dogs to interact when they have shown significant or consistent signs of fear, anxiety, or aggression increases the likelihood of defensive aggression, worsening fear, and injuries to dogs or personnel.

9.5.4 Enrichment within enclosures

Providing animals with an enriched primary enclosure is a critical aspect of sheltering. All cats need the opportunity to rest comfortably, hide, perch, scratch, play, and exercise choice within their environment. All dogs need the opportunity to rest comfortably, retreat from view, chew, play, and exercise choice within their environment. Shelters meet these needs by providing all animals with suitable housing, comfortable bedding, and toys. Scratching posts, elevated perches, and hiding boxes are also important for cats, while items to chew are also important for dogs.[37,38] Feeding enrichment and olfactory, visual, auditory, and tactile stimulation can all be used as forms of sensory enrichment. It is important to provide animals with a rotation of novel enrichment items and activities to maintain interest (Appendix G).

9.5.5 Socialization of puppies and kittens

For young puppies and kittens, proper socialization with people and other animals of the same species is essential for normal behavioral development. Without daily gentle handling and positive exposure to a variety of novel stimuli, animals may develop chronic fear and anxiety, display aggressive behavior, or be unable to adjust normally to their environment. A broad range of positive socialization experiences must be provided to puppies and kittens and is best accomplished in a foster or adoptive home.

While in the shelter's care, young puppies and kittens should be housed with their littermates and their mother. This interaction is important for normal behavioral and emotional development, as well as the establishment of species-specific behaviors. Single, unrelated puppies or kittens can greatly benefit from being housed with one or more age-matched individuals once health status for each is determined. Separation of puppies and kittens into pairs or smaller groups may be necessary to allow monitoring, completion of care tasks, foster placement, or to address medical or behavioral concerns.

9.6 Behavior assessment

In the shelter setting, the process of collecting information about an individual animal's behavior is commonly referred to as 'behavior assessment'. The goals of this process are to learn and interpret as much as possible about an individual animal's behavior and use that information to:

- better understand the animal's needs in the shelter and new home
- address behavior and welfare concerns
- match the animal with the appropriate outcome.[39]

Historically, a variety of methods have been used by shelters to assess behavior and prevent rehoming animals, especially dogs, who pose a public safety risk. This has included conducting behavior evaluation tests (i.e. temperament tests) where behavior is observed and interpreted in a structured format using a formal series of sub-tests performed one after the next (e.g. SAFER, Assess-a-Pet, and Match-up II).

Over the past two decades, studies have shown that behavior evaluation tests fail to reliably predict future behavior, particularly aggression, in a new home.[40–43] Performing one stressful subtest after the next can negatively impact test results and the animal's emotional well-being.[8] For example, It is unacceptable to expose cats to dogs in the shelter as a test to determine if the dog can safely live with cats because this poses a significant risk of emotional and physical harm to cats. Formal testing requires considerable time and resources and can increase individual and population length of stay (LOS). For these reasons, requiring all shelter animals to go through a formal behavior evaluation test is no longer recommended.

Current recommendations for behavior assessment are to combine objective information collected via behavioral history with objective behavior observations noted during a variety of interactions.[1,44,45] An overall behavior assessment must collect and consider all the information about

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the animal, including history and behaviors observed during all shelter and foster interactions. These interactions, with an emphasis placed on those likely to occur in a home setting, include intake procedures, daily care, medical handling and treatment, enrichment, play, and training activities, as well as interactions with personnel, visitors, adopters, and animals of the same species.

Through the process of behavior assessment, shelter personnel must strive to learn as much as possible about each animal to aid in optimizing their care, pathway planning, outcome decisions, and adoption matching and counseling. Training in current animal behavior science is necessary for personnel assessing shelter animal behavior, to give them the skills needed to reliably observe, document, assess, and act on findings or concerns. Documenting relevant behavior observations daily can track positive and negative trends in behavior and welfare. Behavior that requires intervention or affects how an animal can be safely handled must be entered into the animal's record and communicated with shelter personnel promptly.

Behavior is highly influenced by stress, fear, and other negative emotional states as well as by the animal's environment, previous experiences, and relationships with individual people and animals. When animals are experiencing high levels of stress or fear when interacting with people or other animals, they must not be forced to interact. In all cases, interactions with animals must not intentionally or carelessly provoke negative emotional states or undesirable behavior.

9.7 Responding to behavior or welfare concerns

When behavior or welfare concerns are present, it is important for shelters to develop an individualized plan, provide behavioral support, and make timely outcome decisions.

Environment modification and management to reduce undesirable behavior, as well as training, behavior modification, and behavior medications, can improve welfare and aid outcome and placement decisions.[21] When deciding how to provide behavior support in the shelter, the impact on the animal, other animals in the shelter, shelter personnel, and future adopters require consideration. Behavior care and outcome decisions must be based on current animal behavior science. Approaches that increase length of stay in the shelter may result in unintended emotional deterioration or the development of new behavior problems. When behavior cannot be humanely managed in the shelter environment, seeking foster care and making timely outcome decisions are essential components of providing behavioral care.

9.7.1 Animal training

Animal training must be based on Least Intrusive Minimally Aversive principles and the Humane Hierarchy of Behavior Change in accordance with current professional guidelines.[46,47] Positive reinforcement training programs for dogs and cats improve health, welfare, and likelihood of adoption.[48–52] Training methods that incorporate punishment can increase fear, anxiety, and aggression toward people.[21,53,54] These methods compromise both safety and welfare.[55,56] Except when safety is an imminent concern, personnel should not use anything other than mildly aversive training methods. Ideally, animal trainers and behavior consultants are certified or have graduated from a program that assesses knowledge and skills.[57]

9.7.2 Behavior modification

Behavior modification applies techniques which change an animal's behavior and underlying emotions. Behavior modification protocols must incorporate scientific principles of animal behavior and learning, such as classical conditioning, operant conditioning, and systematic desensitization and counterconditioning.[21] It is unacceptable to use physical force as punishment to modify animal behavior.

Before implementing behavior modification, shelters must ensure they have the necessary resources to support such plans. Behavior modification is labor-intensive, time consuming, and must be applied consistently over a period of time in order to be successful. Behavior modification in the shelter environment may have a limited effect due to the significant impact of stress on animal behavior and learning. Placement in foster or an adopter's home may facilitate response to the behavior modification plan.

9.7.3 Behavior medication

Behavior medications must be strongly considered to address welfare concerns related to emotional health. These medications may address immediate welfare concerns associated with shelter intake or housing, or long-term problems that impair welfare (e.g. separation anxiety, fear of people, and chronic stress associated with shelter housing). Behavioral health concerns must be objectively assessed and diagnosed to ensure that medications are prescribed when indicated, with clear goals for treatment and outcome.

Treatment goals include improving welfare, reducing stress and anxiety, and facilitating response to the behavioral treatment plan.[21] Behavior medications must only be administered under the advice of or in accordance with written protocols provided by a veterinarian, and all drugs must be dispensed in accordance with federal and state regulations.

There are many alternative or complementary products also used to support animal behavior. In general, studies have been inconclusive or suggest minimal efficacy in

shelter environments. It is the veterinarian's duty to evaluate and consider the level of evidence for their use, and to weigh potential benefits against the shelter resources required.

When behavior medication is prescribed, it must be part of a comprehensive plan to help address the animal's condition. This individually tailored comprehensive plan might include:

- continuing assessment (e.g. physical exam, diagnostic tests, and additional behavior assessment)
- environmental management
- daily routine adjustments
- foster care
- enrichment (additions or modifications)
- training or behavior modification
- complementary products and therapies
- monitoring response to treatment (e.g. medication and behavior modification)

9.7.4 Animals with long-term stays

Keeping length of stay as short as possible for each individual animal is a critical factor in maintaining animal welfare in shelters (see Population Management). For all animals staying in the shelter more than a few days, appropriate levels of additional enrichment must be provided on a daily basis. Chronic stress from prolonged stays in the shelter (i.e. more than 2 weeks) can reduce an animal's ability to cope, increase fear, anxiety, and frustration, and underlie related behaviors such as social withdrawal, repetitive behaviors, and aggression. These behaviors can negatively impact other animals and personnel, and jeopardize placement options.[9,13,58–64]

In addition to more time and enrichment activities outside of their enclosures, housing that provides animals with additional space, enrichment, and choice within their enclosure must be provided for animals remaining in the shelter long-term. When an outcome is not quickly available (e.g. animals seized as legal evidence), foster care is a better choice than confinement in the shelter.[15,65,66]

Reproductive stress from estrous cycling and sex drive can decrease appetite, increase urine spraying, marking, and fighting, and profoundly increase social and emotional stress.[67] Therefore, animals who are housed long-term should be spayed and neutered.

Long-term confinement of any animal who cannot be provided with basic care without inducing stress or compromising safety is unacceptable. Basic care includes daily enrichment and exercise. Feral animals, as well as those with persistent fear or aggressive behavior toward people, cannot be safely handled on a routine basis without inducing significant distress. These animals are unable to express natural and rewarding behavior, engage in play, or form social bonds in the shelter. Euthanasia is the humane option when live outcome (e.g. return-to-field) is not possible in a timely manner.

9.8 Risk assessment of animals displaying aggressive behavior

Shelters must promptly respond to behavior that poses a significant safety risk. When a dog or cat's behavior might result in harm to people, other animals, or themselves, assessing the magnitude and likelihood of that harm is crucial.[68,69] Risk assessment protocols provide a structured format, using all historical and current information gathered during behavior assessment, to make an educated estimate of an individual animal's risk to the community and to determine whether that risk can be appropriately managed (see Table 9.1). The result of risk assessment is a comprehensive plan for reducing risk, including environmental and behavior management (which is often lifelong) or euthanasia.

Table 9.1. Aggressive behavior: Considerations for risk assessment

Factor	Considerations
Animal	Age, sex, neuter status, and size history (including previous bites) physical and emotional health ability to treat or manage conditions that impact behavior other behaviors (e.g. impulsivity and escape behavior) that might increase risk behavior diagnoses (single/multiple)
Behavior details	Context for the behavior *severity (e.g. damage to person or animal, number of bites per incident, sustained vs brief) *effort made to engage *consistency (e.g. frequency, predictability) *number of incidents
Behavioral triggers	Complexity Ability to manage or prevent exposure to triggers
Environment	Behavior occurs only in one vs. multiple environments Ability to manage the environment to reduce risk
Response to intervention	Animal's response to previous treatment or management efforts

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Shelters must have protocols and criteria in place that attempt to identify and manage animals at high risk of causing harm to shelter personnel, the public, or other domesticated animals. Decisions about rehoming require careful consideration of public safety, potential risks, and whether mitigation of these risks is feasible. Euthanasia is the appropriate outcome for animals at high risk of causing serious harm to people.

It is important for shelters to recognize that robust management efforts will not be suitable or sufficient to prevent aggressive incidents in every case or scenario, even when implemented thoroughly and consistently. Monitoring post-placement outcomes can help improve risk assessment processes. Consultation with legal professionals may be helpful when creating risk assessment and placement protocols for animals with a history of aggressive behavior.

9.9 Rehoming considerations

An important aspect of risk mitigation and supporting the quality of life for animals and people is providing resources and guidance to those who foster or adopt a shelter animal.[39] Adopters and foster caregivers must be counseled on providing safe, gradual, and controlled introductions of shelter animals to children and resident pets.[70] This helps create successful transitions and relationships. Foster caregivers and prospective adopters should be allowed to adopt or foster without bringing their own animals to the shelter.[71] Information and counseling on strategies for safe and low-stress introductions can be tailored to the individual shelter or resident animal's behavior and history.

A record of the animal's behavior should be provided in hardcopy or electronic form with the animal at the time of transfer, foster, or adoption. When behavior concerns have been noted, communication about humane and appropriate management and modification of concerning behaviors reduces the risk of placing animals into a home environment and reduces shelter returns. Collecting post-adoption data regarding the success of behavior interventions helps shelters make needed adjustments and improves consensus within communities.

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10. Euthanasia

10.1 General

Maintaining positive welfare for animals in shelter care includes ensuring a humane death when euthanasia is appropriate. All animals and people must be treated with respect during the euthanasia process. Respect includes compassionate handling of the animal and its remains, consideration for the well-being of personnel involved, and compassionate interactions with those requesting euthanasia services. These recommendations apply whether euthanasia is performed in the shelter, the field, or a home setting.

The euthanasia process must be as free from pain, fear, anxiety, and distress as possible. Ensuring a humane death requires proper technique and expertise. To ensure euthanasia practices are suitable for each organization and the animals they serve, a veterinarian with appropriate training and expertise for the species involved should be consulted when establishing euthanasia protocols. Agents and methods deemed unacceptable in the AVMA Guidelines for the Euthanasia of Animals are unacceptable to use in shelters.[1]

Euthanasia decisions are based on the shelter's ability to support the welfare of the individual animal in the context of the population, available resources, and the community. Rarely, there may be severe circumstances in which euthanasia of an entire population (i.e. depopulation) may be considered, such as in the event of a disease outbreak, disaster, or other population level crisis (see Medical Health). Depopulation must only be used as a last resort when all other methods to address the situation have been exhausted.[2]

10.2 Euthanasia process

Euthanasia protocols must be created and followed to support consistent euthanasia practices. Protocols include euthanasia drugs, delivery methods, handling plans, and environmental conditions. Protocols should have options to accommodate individual animal's behavioral and physical needs and ensure human safety. Prompt intervention must occur if complications are noted during the euthanasia process. Complications could include delayed onset of sedation or death, excessive excitement, seizures, or vomiting. Adjustments to the euthanasia protocol may be needed if complications occur frequently.

It is unacceptable to euthanize an animal without confirming that the animal is the individual the shelter intends to euthanize. Using multiple methods to confirm an animal's identity prior to euthanasia is important regardless of intake type. Shelter records, enclosure labels, collars, tags, physical descriptions, and people familiar with the animal may be consulted to ensure identification is correct. For stray animals, a final check of local missing animal listings should be performed to confirm that there are no matches before performing euthanasia.

Immediately prior to euthanasia, animals must be scanned for a microchip, either to confirm known microchip identity or in case previous scanning was incomplete. Multiple scans of the entire body using proper technique and a universal scanner maximize the chance of identifying a microchip.[3] If a microchip is identified, ownership status requires follow-up before proceeding.

It is unacceptable to euthanize an animal without verifying legal eligibility. Legal eligibility includes verification that the organization owns or has legal responsibility for the animal (e.g. the animal is not on a court ordered or mandated stray hold), or the organization has consent from the animal's owner, or the animal has a documented need for immediate euthanasia to alleviate suffering.

Performing euthanasia in the presence of other unfamiliar animals is not recommended because it may be stressful for animals in close proximity. However, when euthanasia is necessary for a litter of very young kittens or puppies, keeping them together during the euthanasia process may reduce the stress of separation. When the mother will also be euthanized, it is preferable to euthanize her first.

After the euthanasia procedure, death must be verified by trained staff before disposing of the animal's body. The use of multiple verification methods is recommended. Lack of consciousness can be verified by the lack of blink reflex when the eye is touched, or the lack of response to a deep toe pinch. When breathing has stopped, cardiac standstill can be confirmed by the lack of movement of a needle inserted in the heart, or the lack of heartbeat using a stethoscope. Proper verification of death always includes confirmation of cardiac standstill or rigor mortis.[1]

10.2.1 Euthanasia methods

Euthanasia methods must be reliable, irreversible, compatible with the species, age, health and behavior of the animal, and ensure a smooth loss of consciousness followed by death. The use of pre-euthanasia sedation is generally recommended because it improves the experience for animals and personnel. Pre-euthanasia drugs must be administered when their use is necessary for a smooth euthanasia process. Their use is particularly important for animals who are in pain or are showing signs of fear, anxiety, or distress.

Each animal's weight (actual or assessed) must be used to calculate adequate drug doses. The drugs and dosage

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used vary by drug availability[4] and the chosen route of injection, whether intravenous (IV), intraperitoneal (IP), or intra-organ (including intrarenal or intracardiac). Each route of administration has benefits and drawbacks depending on the individual animal and circumstance. For example, IP injection is often the most humane strategy for very young or debilitated animals, while IV injection is preferred for pregnant animals. Unless an animal has been verified as unconscious, intra-organ injections are unacceptable.

While necessary in rare occasions in the field, gunshot is unacceptable as a routine method for euthanasia of dogs, cats, or other small companion animals.[1] Inhalation of carbon monoxide is an unacceptable method of euthanasia for companion animals in shelters.[5]

10.3 Environment and equipment

A separate room should be designated for euthanasia in a quiet area away from the main pattern of foot traffic. The room used for euthanasia should be well lit and large enough to accommodate the necessary people and equipment. Only people with defined roles in the euthanasia process should be in the room when the procedure is being performed. These roles include technicians or veterinarians performing the euthanasia procedure and handling assistants, owners, familiar personnel, or trainees.

The euthanasia environment must be set up to minimize discomfort and distress and accommodate the individual animal's behavioral and physical needs. Incorporating soft bedding, calm music, and comforting experiences (e.g. talking to the animal, gentle petting, toys, and food) is often beneficial for socialized animals. Other animals, such as wildlife and feral cats, are better served by minimal interaction and opportunities to hide.

All equipment used during the euthanasia process must be easily accessible and in good working order to ensure a safe and humane euthanasia process. A new needle must be used to administer euthanasia drugs to each animal because previously used needles may be dull or burred and cause unnecessary pain. Appropriate personal protective equipment must be utilized during the euthanasia process to avoid injury to personnel or transmission of disease. Euthanasia equipment and surfaces should be cleaned after each use, and the entire euthanasia room should be sanitized regularly.

All drugs used during the euthanasia process must be stored, administered, and documented in accordance with federal and state regulations. This includes keeping a record log documenting each animal's identification, the amount of euthanasia solution and pre-euthanasia drugs used, the amounts remaining in the vial, and the identity of the person performing the euthanasia.[6]

Storage and final disposal of animal remains must be in compliance with all applicable laws and regulations. Proper storage is important to prevent disease transmission and unpleasant odors, and because medications, including those associated with euthanasia, may create a risk to scavenging animals. It is unacceptable for shelters to euthanize an animal solely for research or educational purposes. However, when shelter animals have already been euthanized for other reasons, and there is a clear benefit to other animals and society, their body may be used for science or teaching.[7]

10.4 Personnel considerations

Many states set training requirements and authorize who can perform euthanasia in shelters and under which circumstances. Veterinarians, veterinary technicians, animal control officers, and designated lay staff may be tasked with performing euthanasia in shelters.[1] Personnel performing euthanasia must be appropriately trained and maintain all necessary certification as required by state or local regulations.

The safety and well-being of personnel must be incorporated into euthanasia protocols and policy. Because euthanasia is an important factor in the compassion fatigue, moral distress, and work-related strain reported by veterinarians and shelter staff,[8,9] systems must be in place to prevent, recognize, and address fatigue and distress related to euthanasia in shelter personnel. This includes personnel involved in euthanasia decision-making, those performing the euthanasia procedure, and any who may be emotionally affected.[8,10,11]

Euthanasia decision-making must occur through a transparent process that lessens the decision-making burden on any one individual. Shelters can mitigate the stress of euthanasia on personnel by having clear and consistent decision-making protocols, sharing the decision-making burden, providing mentorship and training to those expected to perform euthanasia, rotating euthanasia performance duties, communicating transparently and sensitively about euthanasia, and holding debriefing sessions.[12,13]

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11. Animal Transport and Relocation Programs

11.1 General

Animal relocation programs involve the transfer and transport of animals from one sheltering organization (the source) to another (the destination). Transport can be local, regional, or international. The purpose is typically to move companion animals from communities with an excess pet population to communities with unmet adopter demand. Shelter animals are also relocated when they require services not available at the source shelter.

For many communities, relocation programs are a critical strategy to support live outcomes. However, relocation carries risks to health, behavior, and safety which can be particularly concerning for some animals.[1–3] Intentionally designed relocation programs consider the risks and benefits for all affected animals and minimize negative impacts through careful selection and planning.

Decision-making in relocation programs must prioritize decreasing length of stay. Holding animals for relocation when live outcomes are available locally can lead shelters to operate beyond their capacity for care and compromise their relationship with their community[4] (see Population Management). Likewise, when destination shelters accept more animals than they have the capacity to care for, the welfare of both relocated and destination animals may be compromised, and lengths of stay increased.

Shelters transport animals for a variety of reasons, such as local transfer, external medical services, enrichment activities, or relocation. It is unacceptable to transport animals when the transport itself is likely to be harmful to their immediate or long-term health or welfare. Careful management and planning are required to ensure that transporting an animal improves their welfare, and that priority is given to animal comfort and safety.

11.2 Responsibilities for relocation programs

All participants in the relocation process must follow federal regulations for animal transportation as well as local or state regulations for both source and destination locations. Departments of Agriculture and Departments of Health commonly have requirements for animals being imported into their jurisdiction. These often include health certificates (i.e. Certificates of Veterinary Inspection [CVI]) and certain vaccinations; there may also be restrictions for age and health conditions. For commercial air transport, organizations must consult with the airline for specific requirements.

Emergency plans must be made prior to transport. These plans include emergency contact information, safe locations to stop if necessary, protocols to address vehicle problems, and a plan for animal and human medical emergencies. Those transporting animals also need to have contact information for both the source and destination.

Clear direct communication is essential for successful relocation programs. Written agreements between all parties involved in the relocation program should be developed and reviewed regularly. Animal health and behavior must be accurately described and communicated between relocation partners. At minimum, such agreements address medical and behavioral selection criteria as well as transportation and destination requirements.[5]

A contact person must be identified at each transfer point, and a record of each animal's travel from source to destination must be kept. Appropriate, accessible travel records allow tracing of an animal's source and contacts along the route.

Public health and safety must be considered in the design of relocation programs and protocols. Zoonotic diseases with a regional distribution (e.g. plague, rabies, and *Leptospirosis*)[6] and aggressive behaviors require special consideration (see Behavior, Public Health).

Organizations engaging in relocation should track standard metrics for transported animals. This includes animal demographics, behavioral and medical conditions, and outcomes.[7] Unless there are extenuating circumstances, animals should not be returned to the source even in the event of unexpected medical or behavioral concerns. Transport is a significant stressor for the animal as well as a significant resource investment. If destination shelters regularly find that transported animals are not eligible for adoption, it is important for all parties to revisit selection criteria and program goals.

11.3 Responsibilities at the source

As with all shelters, all eligible animals within a source population must be vaccinated at or before intake[8,9] (see Medical Health). It is insufficient to vaccinate only animals selected for relocation because it leaves the majority of animals unprotected. It is not recommended to hold animals back from transport just to allow response to vaccination or to receive a booster.[10] To prevent the spread of internal and external parasites, treatment for fleas, ticks, and internal parasites is strongly recommended. Ideally, all dogs 6 months of age and older are tested for heartworm disease prior to relocation.[11]

The animal's health and behavior records must be shared with the destination. When required, a valid health certificate (CVI) and proof of rabies vaccination must accompany each animal. Requirements may vary from state to state.

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Animals must be examined by trained staff within 24 h prior to travel and deemed fit for transport. The purpose of the pre-transport examination is to look for evidence of infectious disease, and to evaluate the animal's ability to tolerate the impact of the physical and emotional experiences encountered during travel (e.g. prolonged confinement, handling by multiple novel people, and direct exposure to other animals). A veterinarian must confirm that animals with medical concerns or recovering from surgery are fit for transport.

Animals being transported must be provided with visual identification. Collars or tags are routinely used, though in some cases, other techniques may be needed (e.g. marking the inner ear or painting a claw on a neonate). Ideally, animals are microchipped before transport, as this provides permanent identification. To aid in identification of individual animals, each primary transport enclosure must be marked with each animal's unique identifier.

A copy of the manifest for each transport, identifying each animal on board, must be maintained in an accessible location separate from the vehicle itself, in case an accident leads to loss or destruction of the manifest accompanying the animals. For example, a cloud-based digital manifest can be made available to source, transporter, and destination in real time.

11.4 Responsibilities during transport

11.4.1 Primary enclosure and occupancy

For the safety and comfort of the animals, primary transport enclosures must be large enough for animals to stand and sit erect, turn around normally while standing, and lie in a natural position without lying on another animal. Unfamiliar animals must not be transported together in the same primary enclosure. Ideally, animals are introduced and acclimated to the transport carrier prior to transport in order to reduce associated stress.

The primary enclosure must not have sharp edges, and the flooring must prevent injury, discomfort, and leakage of fluids into other enclosures.[12] To improve comfort and hygiene, absorbent bedding must be provided during transport unless it poses a risk to an individual animal's health.

In a transport vehicle, kennels must be positioned in a manner that ensures adequate airflow and temperature regulation within each primary enclosure. Airflow is facilitated by choosing enclosures with vent openings on at least three sides, and maintaining at least 1 inch (2 cm) of unobstructed space between vent openings and adjacent structures. When primary enclosures are permanently fixed to the vehicle so that only a single door provides ventilation, the door needs to face an unobstructed aisle.[12]

Primary enclosures must be loaded in a manner that minimizes animal stress or discomfort while allowing direct visual observation. Primary enclosures must be secured to prevent movement within the vehicle, and doors secured to prevent accidental opening. In an emergency, operators must be able to swiftly remove animals.

11.4.2 Special cases

Cats

During transport, cats should be provided with a hiding space or visual barrier that allows ventilation and monitoring. For example, the kennel door can be partially covered with a towel, or a small hiding box can be provided within the primary enclosure. Stress can be further reduced if cats are acclimated to their carrier prior to transport and provided familiar objects with their own scent.[13,14] Ideally, all cats are provided with access to a litter box during long-distance transport.

Cats and dogs are ideally transported in separate vehicles. If cats are transported in a vehicle with dogs, they must be housed in a physically separate space with special consideration given to visual and noise barriers.

Vulnerable populations

Puppies and kittens, geriatric animals, or animals with chronic medical or behavioral conditions require special care during transport. This care includes avoiding temperature extremes, more frequent feedings, and enhanced protection from infectious disease exposure during the transport process. Pediatric and brachycephalic animals are more susceptible to temperature extremes and may require different environmental parameters or alternative modes of transport.[15,16] Kittens or puppies less than 8 weeks old should be transported with their mother when possible and should be transported in a single enclosure large enough for her to lie down with legs extended for comfort and to facilitate nursing. Importing animals under 8 weeks old may be prohibited in some states.

Sedation and behavior medication

Behavior medications should be considered when an animal is likely to have emotional welfare concerns during transport (see Behavior). Assessment of transport suitability is especially important for these animals. Clear communication between partners is essential when behavior medications are used. Safe and humane relocation programs do not use sedatives or behavior medications to compensate for poor transportation practices.

It is unacceptable for a relocation program to transport animals that are sedated or anesthetized to the point that they are unable to swallow, walk, or thermoregulate. Animals in this condition are at risk of choking, pneumonia, hypothermia, and cardiac and respiratory arrest without continuous monitoring by trained medical personnel.

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11.4.3 Vehicles

Federal and local statutes for animal transport vehicles and their operation may not be sufficient to ensure humane care or the safety of animals and operators. Department of Transportation (DOT) regulations promote the safety of drivers and those around them and should be followed even when transporters are not licensed or subject to them. Vehicle operators must be licensed and trained in use of the specific vehicle they will be operating. Additional training in accident prevention and techniques to minimize animal discomfort during vehicle operation are recommended. For example, avoiding excessive lateral movement and sudden acceleration or deceleration are important skills to minimize animal stress and injury.

To ensure safe and humane conditions, control over heating and cooling in the animal compartment is essential in any vehicle used to transport animals.[12] Interior temperatures of vehicles in direct sunlight can rapidly exceed safe levels, even when comfortable outside. The temperature of the animal compartment in the vehicle must be monitored, and action taken if low or high temperatures occur. Alarms can facilitate monitoring when drivers and animals are in separate compartments; placing the thermometer at the level of the animals allows for more accurate monitoring.

For animal safety, ambient temperature must be maintained above 45°F (7.2°C) and below 85°F (29.5°C), and humidity maintained between 30 and 70%.[12,17] To ensure comfortable conditions, ambient temperature should be maintained between 64°F (18°C) and 80°F (26.6°C).[17,18] Operators must ensure that air in the animal compartment is fresh and free of vehicle exhaust fumes.[12] To detect poor air quality, carbon monoxide detectors should be placed in the animal compartment.

11.4.4 Monitoring and care

Vehicle drivers or animal attendants must have sufficient training in animal health, welfare, and safety to recognize and respond to animal needs during transport. For transports longer than 4 hours, two drivers should be present to monitor and reload animals. Having a second driver for longer trips allows one driver to rest while the other drives, or to assist in the case of an emergency. At minimum, every 4 hours, the vehicle must be stopped, and a visual observation of each animal must be performed.[12]

If it becomes necessary to remove animals from their enclosures for any reason, safeguards are needed to ensure animal safety and to prevent escape. For example, operators may have a supply of leashes, vehicles may be fitted with a secondary barrier around the exterior door, or protocols may specify closing exterior vehicle doors before opening primary enclosures.

Caregivers are charged with meeting the nutritional needs of transported animals. For juvenile animals, a small meal should be given no more than 4 hours before departure, and small amounts of food should be provided every 4 hours throughout transport. For both adults and juveniles, water must be provided at least every 4 hours during observation stops. Food must be provided at least every 24 hours for adult animals.[12]

Although federal regulations do not address travel distance for companion animals, risks to animal health and welfare generally increase with duration of transport.[2] During transport, driving time to an intermediate or final destination should not exceed 12 hours per day, and loading and unloading of animals should not exceed 1 hour each (see Figure 11.1).[15,19] Confinement for these lengths of time can still present welfare concerns, so efforts to reduce the overall transport duration, including stopping only when necessary and coordinating stops to manage both human and animal needs, are strongly recommended.

Transport that exceeds 12 hours of travel must be broken up with an overnight rest stop at an intermediary location. According to the DOT regulations for vehicle operators, overnight rest stops are at least 10 hours long. Total transport time from the source to a final destination should include no more than 28 hours confined to a transport vehicle, including loading and unloading time and excluding an overnight rest stop.[12]

Dogs must be walked or exercised on trips that require an overnight stay. Animals should never be left unattended in a

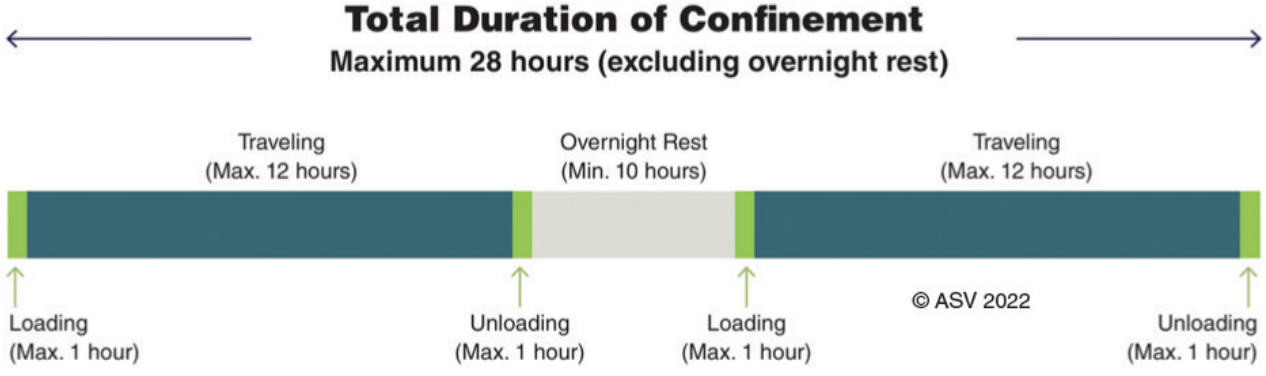


Figure 11.1. Maximum cumulative transport time to a final destination.

transport vehicle unless sufficient monitoring capabilities are in place, and attendants are able to immediately respond to animal care needs. When feasible, an overnight facility that can accommodate the housing of cats and dogs off of the vehicle is preferred. Cats may benefit from remaining in their transport carriers, if large enough. Cats must have access to a litter box if being housed overnight. Overnight facilities can include foster homes, shelters, hotels, or transport hubs.

11.4.5 Aggregation

Safe and sustainable transport programs carefully manage different animal populations throughout the transport process. If transporting animals from different sources on separate vehicles is not possible, animals from each source are ideally housed in separate compartments. Whenever animals from different sources are held in the same vehicle or facility, protocols that minimize exposure and cross-contamination between populations must be in place.

11.5 Responsibilities at the destination

The destination shelter must have sufficient trained personnel ready to receive and evaluate animals upon arrival. Communication with transporters is important to ensure that the shelter has enough time to assemble their personnel. Each animal admitted through a relocation program must receive a brief health assessment at intake. This assessment identifies signs of infectious disease and problems that require emergency or follow-up medical care. Veterinary services must be accessible upon arrival. Access might include having a veterinarian on-site, on-call, or available at a local clinic.

The destination facility must have adequate housing prepared for the arriving animals without displacing the existing population. The need for isolation or quarantine of arriving animals is informed by regulatory requirements, animal health status, source organization practices, and infectious disease risk. Quarantines are only appropriate for high-risk animals with direct infectious disease exposure; unnecessary holds increase length of stay and are detrimental to animal health and organizational goals.

Destination shelters should maintain an active working knowledge of the source organization, which includes familiarity with the common diseases, preventive healthcare, and biosecurity practices at each source organization. Establishing procedures for continuing assessment, care, and communication after arrival promotes a healthy and successful partnership.

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12. Disaster response

12.1 General

All shelters should be prepared to respond when directly affected by a disaster. Disasters include natural events such as hurricanes, tornadoes, floods, and fires, or human-made events such as large-scale cruelty cases, workplace violence, and toxic chemical spills. Advance planning is critical to safeguard animal welfare, and to protect human health and safety.[1]

Animal welfare needs described in this document are still present even when a shelter is experiencing a disaster. Deviations from these Guidelines as the result of a disaster should be as brief and as minimal as possible. Good planning helps ensure that these standards can be met under any circumstances. Additional published operational guidelines for animal evacuation & transport, animal decontamination, and emergency animal sheltering may be helpful in planning for and responding to disasters (Appendix H).

A disaster and its impacts may be localized to the shelter, the community it serves, or an entire region or country. Shelters outside of the impacted area may decide to offer aid to affected communities, including accepting and facilitating relocation of animals, sending personnel or resources, or providing advice and expertise. Whether impacted or offering aid, familiarity with disaster response principles is essential.

Disaster response is divided into four phases:

- *Mitigation*: on-going, preemptive activities that reduce the impacts of future disasters on animals, people, shelters, and communities
- *Preparedness*: creating plans to handle specific disasters, training and conducting exercises or drills, and acquiring the resources needed to respond
- *Response*: implementing the disaster plan and adapting as necessary during an event
- *Recovery*: returning to some degree of normalcy in the period following a disaster, this period can last from days to years

12.2 Mitigation

Shelters should take steps to anticipate, detect, and mitigate the impacts of disasters. In order for shelters to reduce the impact of a disaster, they must first identify the events most likely to affect them and their communities. Shelters must identify and plan for reasonably anticipated disasters, including those most likely to occur in their geographic area. Once disaster risks are identified, mitigation strategies can be developed and implemented to reduce the impact of a future disaster. Mitigation might include holding community pet identification and rabies vaccination clinics, reinforcing existing structures to better withstand common weather events, designing shelters according to building codes, and maintaining insurance and liability policies.

12.3 Preparedness

Every sheltering organization must have a written plan that outlines the actions the shelter will take in response to likely emergency scenarios. These actions may include services that the shelter does not typically provide, including admission of displaced animals, provision of resources, or relocation of animals to other facilities. The written disaster response plan should be accessible by all personnel, used to train staff during disaster drills, and regularly reviewed and updated.

Disaster response plans must detail how shelters will provide essential services to all animals currently in care, including those in foster homes. Essential services include sanitation, housing, food, and water as well as medical and behavioral care. Plans should detail how necessary supplies will be acquired, and include evacuation strategies in the event that supply chains or utilities (e.g. water, food, and heating or cooling) are disrupted.

Emergency plans should include a process for preemptively relocating the shelter's population in advance of the event when appropriate. Evacuation ensures the safety of relocated animals and creates capacity to house and care for displaced community animals. Even if minimal animal intake from the community is expected, preemptive transport can reduce staffing challenges during a disaster and lessen the impact of facility damage on housed animals.

Since the risk of zoonotic disease spread may increase during disasters, plans must include steps to control transmission.[2–4] These steps include providing wellness care, appropriate disease surveillance, and isolation and treatment of infected animals. Especially important during all disaster events is the consideration and control of rabies.[3] Animal stress and anxiety leads to an increased likelihood of dog bites during disasters.[2,4]

Shelter disaster plans should indicate the personnel structure necessary to provide essential animal care services during a disaster. This structure identifies the critical personnel required and how the shelter plans to fill these roles. The staffing structure needs to be flexible, as animal care needs or personnel availability may be different than were anticipated. Critical personnel may be expected to perform new or additional roles or be recruited from outside organizations.

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Training is an essential part of preparedness, as it is important for personnel to know what to do and when. Training specific to the roles personnel will fill during a disaster, including safety considerations, should be provided before starting the work. This training is best provided well in advance for personnel who are expected to respond to disasters but may be provided just prior to involvement. Even experienced personnel may need 'just in time training' in order to assume a new role.[5] Exercises and drills are an excellent training tool and allow shelters to evaluate how well the current plan fits the organization's needs.

Individuals participating in multi-agency disaster responses should complete National Response Framework (NRF) and National Incident Management System (NIMS) training, including Incident Command System (ICS) modules.[5,6] These widely used systems provide a clear chain of command and communication structure, which can be scaled to meet the size and demands of any disaster.[7] Partnerships are most successful when stakeholders are familiar with the shared vocabulary, operations, and processes guiding the response.[8]

Disasters are times of extreme stress for animals and people. Disaster planning should include provisions to address the physical and mental stress experienced by personnel, community members, and responders. Human safety must be the first priority of any disaster response plan.

Shelters can be key team members in coordinated community, state, or national disaster preparedness and response. If a shelter is part of an established disaster response team, a written plan should specify its particular role and the other organizations the shelter will be working with. Shelters responding to disasters as part of a coordinated response should draft memoranda of understanding (MOUs) with their governmental and nongovernmental response partners. MOUs enhance efficiency and secure resources by specifying which personnel, equipment, or facilities will be provided by each organization and clarifying roles and expectations.

12.4 Response

Response plans should be followed as soon as a disaster is anticipated or has occurred. Prompt response ensures critical shelter and community needs are addressed as quickly as possible. The most common challenge faced during a response is communication, both internally and externally.[9,10] When indicated, an ICS should be initiated rapidly to designate and maintain a clear chain of command and communication infrastructure (see Appendix I).

Each animal admitted during a disaster must receive at least a cursory assessment at intake to check for signs of infectious disease, any conditions that require emergency medical care, and exposure to hazards. This allows staff to prioritize care where it is needed most and to separate animals to reduce the transmission of disease. Animals admitted during a disaster should be given core vaccines, including rabies and parasite control (see Medical Health).

Animals must be decontaminated when applicable (e.g. exposure to flood waters, fire retardants, or drug labs).[11] Decontamination typically involves bathing and rinsing, with specific methods and products used depending on the potential contaminants.[5,12–14] Because hazards on the animal may be a danger to animals and personnel, personal protective equipment (PPE) is recommended until decontamination is complete.

As soon as it is safe, shelters must make concerted efforts to reunify pets displaced by a disaster. Animal holding times (i.e. stray periods) and communication with owners may need to be broadened to reflect the challenges of the particular disaster. Using multiple methods to reach owners, including social media, flyers, electronic billboards, or neighborhood ambassadors, may be helpful in facilitating reunification. If an animal is transported out of the impacted area, clear communication between partner shelters regarding roles, processes, and timelines for reunification efforts is important.[15]

Shelters outside of the disaster area accepting impacted animals must be able to provide appropriate care and outcomes for their existing population before volunteering to accept displaced animals. Shelters are required to follow all relevant regulations and legal requirements related to animals even during disasters.

Shelters should have a system for managing physical and monetary donations during disaster response and recovery. Without a system, physical donations can become overwhelming and require valuable time and facilities to manage. Shelters should track resources used during disaster response and recovery. Detailed information, including staff time dedicated to response, may be requested for reimbursement grants from local, state, or federal agencies or private organizations.

Shelters must anticipate the arrival of self-deployed volunteers during a disaster and must address how these individuals will or will not be used.[16] Volunteers may be unfamiliar with response plans and staffing structure, which can inadvertently place themselves and others at risk. However, preemptive planning for volunteer roles, training, and oversight can effectively mobilize this resource.

Responders may include volunteer veterinarians or veterinary technicians; veterinary professionals must only provide medical treatment or services when they hold a license to practice in that jurisdiction or are exempt from this requirement. Even during a disaster, oversight of use and storage of controlled substances must remain with the individual identified as the responsible party on the DEA license for that premise.

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12.5 Recovery

The recovery period following a disaster lasts until the individual shelter and affected communities return to normal. Even if undamaged, shelters may be challenged by continuing impacts on their community or personnel. If damage to the shelter building, grounds, or local infrastructure is a concern, a full safety assessment must be made prior to resuming normal activities in that area or facility.

Shelters must tailor placement efforts when their community is impacted by a disaster. When local residents are struggling with rebuilding or finding shelter, fostering and adoption are unlikely to be a priority. Adoption events outside of the impacted community, increased shelter partner transfer, shelter-neuter-return, or other creative programs may help address longer lengths of stay.

Ongoing challenges during recovery may disproportionately impact some community members. Shelters should provide additional services that support keeping pets with their owners in the time frame immediately following the disaster. Sustained housing instability is a particular concern; shelters may be asked to assist an increased number of people facing eviction or displacement.[17]

Following a disaster, shelters should debrief and evaluate their planning, response, and recovery processes, so that adjustments to their plans can be made. The period of recovery from a disaster or major event is a natural time to broadly evaluate the effectiveness of programs, services, and procedures within the organization. Furthermore, shelters may decide to maintain changes implemented during the response that were valuable to the organization and community.

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13. Public Health

13.1 General

Public health promotes and protects people and the communities where they live, largely through One Health, which studies the connections among the well-being of animals, people, and the environment.[1] The care that shelters provide to animals also impacts humans and the environment. Both within their facilities and in the larger community they serve, shelters must take precautions to protect the health and safety of animals, people, and the environment.

13.2 Personal protective measures

Shelter personnel encounter unavoidable risks to their health on a daily basis through normal work activities. Giving personnel the knowledge and equipment needed to mitigate risks is a critical component of workplace safety. Personal protective equipment (PPE) is worn to help prevent the spread of disease and to protect personnel from potentially harmful substances. In order to protect personnel from exposure to workplace hazards, shelters must provide PPE such as gloves, smocks, goggles, face masks, face shields, shoe covers, and ear plugs.[2] PPE must be available in types and sizes to accommodate all personnel, including those with special concerns such as latex allergies.

13.2.1 Hand hygiene

Proper hand hygiene is essential to protecting human health in animal care environments. Personnel should wear gloves when handling animal waste or fluids and should wash hands frequently, especially after handling animals, and after removing PPE.[3,4]

Whether or not a person has had contact with animals, personnel should wash their hands before eating, smoking, or touching their face.[5] As a precaution, personnel and visitors should be discouraged from eating, drinking, or bringing pacifiers, teething toys, or baby bottles into animal housing areas.[3,6] To prevent the spread of zoonotic diseases, animals should not be present in areas designated for human food preparation or consumption.[7]

13.3 Workplace hazards

People working with and caring for animals are exposed to a diverse set of hazards. Shelters must comply with local, state, and federal health and safety regulations regarding chemical, biological, and physical hazards in the workplace.

13.3.1 Chemical hazards

Hazardous compounds, including disinfectants, medications, and pesticides, are routinely encountered in animal shelters.[8] When working with hazardous chemicals, PPE such as eye protection or respirator face masks must be worn as indicated by the product label.[9] A well-ventilated area or fume hood may also be required when working with certain products. Because mixing compounds such as bleach and ammonia can produce lethal toxic gas, Occupational Safety and Health Administration (OHSA) requires organizations to correctly label and store chemicals to prevent spills or accidental mixing.[10–12]

When allowed to accumulate or when improperly stored, animal urine and feces can become a significant source of toxic compounds such as ammonia and hydrogen sulfide.[13–15] Shelters must promptly dispose of biological waste (animal waste, animal tissues, and carcasses) in a manner that follows state and local regulations.[16,17]

Shelters must follow regulatory guidelines for the disposal of unused medications.[18,19] Controlled medications must be disposed of or wasted in a manner that follows regulations, prevents environmental contamination, and prevents human diversion.[20] Guidance to reduce waste gas exposure associated with anesthesia may be found in the ASV's Veterinary Medical Care Guidelines for Spay-Neuter Programs and from OSHA.[21,22]

Smoking must not be allowed in animal shelters. In addition to creating a risk of fire, second-hand smoke is harmful for pets and people.[23–26]

13.3.2 Physical hazards

Shelter personnel are also commonly exposed to physical hazards. These include slippery surfaces, loud noises such as barking or clanging metal, animal scratches and bites, job requirements to lift heavy objects and animals, and exposures to needles or other sharp objects.[27] Shelters must follow industry guidelines for the proper disposal of sharps.[28,29] Since the seriousness of physical injuries may initially be difficult to recognize, supervisors must advise persons injured at the shelter or by a shelter animal to seek medical care.

Noise exposure

Prolonged exposure to loud noise can damage the hearing of animals and people.[30,31] Both environmental and behavioral noise abatement strategies should be used in animal housing and holding areas (see Facilities, Behavior). Hearing protection must be worn by employees working in environments where volume is at or above 100 dB cumulatively for 15 min. When volumes exceed 85 dB at any point in time, hearing protection should be worn.[30,32] Several sound level meters are commercially available, including phone apps that measure decibel levels.[33] Hearing conservation programs that include training and regular hearing

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testing may be required by OSHA depending on the average noise exposure.[34] Hearing protection is recommended whenever personnel have to raise their voice in order to be heard three feet away.

13.3.3 Biological hazards

Animal bites

Animal bites are both a physical and biological hazard of significant concern in shelters. Training in animal body language, safe handling techniques, and the use of sedation can reduce but not eliminate the risk of bites (see Animal Handling). While many animal bites are minor, some are extremely serious with extensive tissue damage. All bites that break the skin carry a risk for infection, which can be reduced by immediately washing the wound.[35] Deep penetrating punctures that close quickly, like those caused by cat bites, are at higher risk of developing a serious bacterial infection.[36]

The public must be prevented from having contact with animals who pose a high risk of biting by clearly marking and restricting access to areas where these animals are held. Shelters must consider public safety when making outcome decisions regarding animals who pose a risk of serious harm. If, after a careful, in-depth risk assessment, the shelter decides that an animal with a history of mild to moderate aggressive behavior is eligible for a live outcome (see Behavior), a record of all known bite incidents must be provided in hardcopy or electronic form to adopters, fosters, or transfer partners.

Human rabies exposure

Animal bites can transmit rabies virus. To allow for appropriate follow-up by public health authorities, shelters must follow regulations for reporting animal bites to humans.[37] At intake, shelter personnel must ask owners or finders if the animal being admitted has bitten anyone within the past 10 days. Because aggression may be a symptom of rabies, animals who have bitten a human must be managed according to state and local regulations, including quarantine of the animal or euthanasia for rabies testing when required.[38,39] Because animals who are symptomatic for rabies succumb to their illness within a week, the rabies quarantine period is typically 10 days.[38,40] In some cases, euthanasia and testing may be preferred over quarantine, especially if the animal is suffering physically or emotionally, or presents a danger to others. If a dog, cat, or ferret dies for any reason within 10 days of a bite, testing for rabies is mandated. Local public health authorities can be contacted with questions about the management of other biting animals.

Because the consequences of rabies exposure are deadly, personnel who routinely work with animals should receive pre-exposure vaccinations against rabies in accordance with the current recommendations of the Advisory Committee on Immunization Practices.[41]

Animal rabies exposures

Shelters frequently admit animals with injuries or neurological symptoms of unknown cause. Though rare, these injuries or symptoms could be associated with rabies virus infection.[42,43] At intake, shelter personnel must ask owners and finders of incoming animals about recent wildlife bites or exposures. During intake health assessments and physical examination, shelter personnel should look for and document evidence of wounds that could indicate a potential rabies exposure. Determining the appropriate quarantine period for an animal potentially exposed to rabies depends on species, previous rabies vaccination, and local regulations. Animals who have potentially been exposed to rabies must be managed with guidance from the NASPHV Rabies Compendium, and in accordance with state and local health regulations.[38]

Shelters should vaccinate all animals eligible for rabies vaccine prior to leaving the shelter[44,45] (see Medical Health). Community cat vaccination is especially important because cats are the domestic animal most likely to acquire and transmit rabies in the United States and Canada.[46–48]

Other zoonotic diseases

Zoonotic diseases are transmitted from animals to people. Although all people are at risk of zoonotic disease, those with exposure to animals, and those with delayed or weakened immune responses due to young or old age, disease, pregnancy, or medical treatments have an increased risk.[49,50] Not everyone is aware of their immune status or chooses to share this information. It is important that shelters implement policies that prevent, recognize, and manage zoonotic diseases.

Many common pathogens in the shelter can pass from animals to humans, including internal parasites (roundworms, hookworms, and toxoplasma), external parasites (mites), fungal diseases (ringworm), and bacterial diseases (*Bordetella*, *Chlamydia*, and *Leptospira*); viral diseases (rabies, influenza, and COVID-19) are less commonly transmitted to people. Even when the animal's health is not significantly affected, timely treatment and management of animals with zoonotic pathogens help prevent spread to people and other animals.[51]

Training personnel to recognize zoonotic diseases is a key step in prevention.[52] In addition to the general infectious disease control measures described in this document (see Medical Health), shelters should have a protocol for responding to zoonotic diseases, including communication regarding potential exposures. Reporting of some zoonotic diseases is mandated by local, state, and national regulations.

Access to animals with known zoonotic conditions should be limited to those necessary to provide appropriate care. Enclosures of animals with suspected zoonotic disease must be clearly marked to indicate the condition and necessary precautions, such as recommended PPE, handling, and sanitation practices. Shelters must disclose the risk of known zoonotic disease to personnel, transport partners, foster care providers, and adopters. Some states prohibit relocation of animals with zoonotic disease (see Animal Transport and Relocation Programs).

Antimicrobial resistance and emerging pathogens

Bacteria are continually evolving resistance to antibiotics. A key factor in slowing the development of resistance is to use antimicrobials only when truly needed.[53] Routinely using antimicrobials to prevent infection in healthy animals is unacceptable.

Antimicrobial use must be tailored to appropriate clinical conditions, used judiciously, and evaluated for therapeutic effect.[54–56] It is vital that antibiotics are only prescribed when they are effective against the pathogen of concern. To do this in a shelter, treatment protocols for common conditions need to be evidence-based and include specific criteria for diagnosis; which antibiotic, dosage, and duration to use; any follow-up considerations; and when to consult the veterinarian.[57–60] Performing diagnostic testing is strongly recommended when animals do not respond to treatment or display unusual or severe signs of infection.[61] When animals in shelters are managed in a manner that supports their physical and emotional health, the need for antimicrobial drugs is reduced.[62,63]

Some emerging diseases with the potential to infect people, such as influenza, were first identified in animal shelter populations.[64,65] Because shelter populations can be sentinels for emerging diseases, animal shelters should monitor their populations for signs of unusual or severe disease. Poor sanitation practices, close housing of multiple species, housing diseased animals in the general population, and operating over capacity for care can facilitate the spread of disease.[66] Animal population management should be used to reduce the risk of developing novel or emerging pathogens.

13.4 Human well-being

The well-being of shelter personnel is an important One Health concern. Both veterinarians and shelter employees have been shown to have high levels of compassion fatigue, secondary traumatic stress, moral injury, suicidal ideation, and burn-out as a result of their daily work.[67–70] Shelters should strive to become workplaces that emphasize staff wellness through a positive organizational culture, fair pay, hours and expectations, provisions for self-care, and ready access to mental health support systems without repercussions. When mental health concerns are communicated or observed, personnel should be encouraged to seek professional help.[71]

Being able to provide appropriate care to shelter animals, and seeing their quality of life improve as a result of that care, can also reduce work-related stress for shelter personnel.[72,73] In turn, personnel who are satisfied with their work are more likely to provide high-quality care for animals and stay in the workforce.[73,74] Providing personnel with the skills, resources, and authority to excel at their jobs creates a beneficial cycle, improving human, animal, and population health.

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Appendix A: Glossary

Glossary terms

Age Category, Adult – cats and dogs 5 months of age or older

Age Category, Juvenile – cats and dogs under 5 months of age

Age Category, Neonate – cats and dogs 4 weeks of age or younger

Aggregation – gathering animals from different source shelters in one vehicle or location

Analgesia – pain control, usually medication or other therapeutics

Anesthesia – medications that induce unconsciousness and prevent pain

Animals in Care – the number of animals currently housed in the shelter including those housed off-site and in foster homes

Antimicrobial – products such as medications and disinfectants which kill or decrease reproduction of pathogens

Aversive – equipment or practice intended to cause an animal to stop an undesirable behavior by associating it with an unpleasant event

Behavior Assessment – a process of observing and interpreting an individual animal's behavior throughout their shelter stay, in order to better understand their needs, address welfare concerns, and make appropriate handling, outcome and placement decisions

Behavior Evaluation – a structured procedure or test in which an animal's responses to a series of sub-tests performed one after the other are observed and interpreted

Capacity for Care – the total resources (e.g. humane housing, trained personnel, medical care, appropriate outcomes) required to promote positive welfare as described by the Five Domains for all the animals in (or coming into) the shelter's care

Certificate of Veterinary Inspection (CVI) – official document issued by an accredited veterinarian certifying that the animals identified on the document have been inspected and meet the importation criteria of the destination state; also known as a "health certificate"

Circadian Rhythm – internal biological process that regulates the sleep–wake cycle and repeats approximately every 24 hours

Cleaning – removal of dirt, oils, grime, and organic materials; includes both physical cleaning (i.e. scooping feces, scrubbing dirt) and chemical cleaning (i.e. application of a detergent or degreaser)

Co-Housing (Group Housing) – housing more than one animal in the same primary enclosure

Community Cat – all outdoor dwelling cats regardless of socialization status; community cats may be owned, unowned, free-roaming, or feral

Control Pole (i.e. Rabies Pole or Catch Pole) – rigid metal pole with an internal cable that forms an adjustable noose at one end

Deep Cleaning (Full Cleaning) – cleaning followed by sanitation (i.e. application of a disinfectant); used when a cage is heavily soiled, contaminated with infectious pathogens, or a different animal will be occupying the enclosure

Degreasers – strong detergents

Dental Probing – procedure in which a dental instrument called a "probe" is used to identify and measure periodontal pockets around the teeth

Dermatophytosis (Ringworm) – skin disease caused by pathogenic fungal organisms, most commonly Microsporum or Trichophyton species

Destination Shelter – organization that receives relocated animals from a source shelter

Detergent – chemical used during the cleaning process designed to break down oils and suspend particles so they can be removed by wiping or rinsing

Disinfection – inactivation of pathogens, usually through application of a properly diluted chemical product for a specified period of time

Efficacy – capacity for producing the desired outcome; how well something works

Feral Cat – unsocialized "wild" domestic cats living outside without human contact; fearful and avoidant of human interaction much like other wildlife species

Fomite – any object that may become contaminated and contribute to the spread of pathogens (e.g. clothing, equipment, hands)

Footbath – a floor container filled with disinfectant intended to be stepped in to reduce pathogen load on footwear

Forensic Evaluation – gathering and reviewing all crime-related evidence including the forensic physical examination or necropsy, diagnostic test results, reports from others involved in the investigation, documentation such as photographs or videos, and evidence collected from the animal and scene, in order to render an expert opinion about the case

Forensic Physical Examination – comprehensive physical examination, including normal and abnormal findings, that carefully documents health status, identifies abnormalities, and collects evidence

Foster Care – temporary housing in the home of a community member where a shelter-owned animal receives individualized care and monitoring, regular positive social interaction with people, and physical, sensory and mental enrichment

High Consequence Pathogen – contagious disease with the potential to cause significant harm or death, spread rapidly, or infect humans

Humane Investigator – person who investigates animal abuse and neglect, may work for a shelter or a law enforcement agency

Importation – movement of animals into a state or country intended to be their final destination

Incident Command Structure (ICS) – standardized approach to the control and coordination of emergency response providing a common hierarchy within which responders from multiple agencies can be effective

Infectious Dose – number of pathogens required to cause infection

Infrastructure – organizational structures and facilities (e.g. buildings, roads, power, supplies, personnel) needed for the operation of an organization, community, or society

Intact (Entire, Unsterilized) – animal with a complete reproductive tract

Isolation – housing for clinically ill (symptomatic) animals infected with a contagious disease that physically separates them from those who are not infected

Just in Time Training – educational process that provides knowledge and skills at the time they are needed

Length of stay (LOS) – period of time (usually in days) that an animal is in the shelter's care; calculated as the difference between the date of intake and the date of final outcome; often used as an average or median for species and life stage

Liability – action or omission for which a person or organization can be held legally responsible

Maltreatment – behavior towards a person or animal that involves physical abuse, sexual abuse, emotional abuse, or neglect

Memorandum of Understanding (MOU) – a document describing the broad outlines of an agreement that two or more parties (usually organizations) have reached

Metrics – numerical measures of shelter performance including intakes, returns, euthanasia rates, live outcome rates, lengths of stay (LOS), community services, etc.

Morbidity – number of animals infected by a specific disease in a population

Mortality – number of animals who die due to a specific disease or condition in a population

Multi-Compartment Enclosures – housing with at least two separate areas connected by a door, pass-through, or portal, and allows open access to both sides of the housing except during cleaning or handling

National Incident Management System (NIMS) – guidelines that define operational systems for personnel working together during emergencies; provides communities and organizations with shared vocabulary, goals and processes needed to successfully respond to a disaster or incident

Necropsy – an animal post-mortem examination (autopsy)

Neuter – surgical procedure in which the male reproductive organs (testicles) are removed; occasionally used to indicate surgical sterilization in females

Orthopedic – surgical procedure focused on repair of bones and the skeletal system

Outbreak – increase in the number or severity of cases of a disease in a population; can include but not limited to disease spread inside the shelter

Partner Shelter – in disaster response, a shelter not directly impacted by the emergency but providing any kind of assistance to the impacted shelter or community

Pathogen – biological agent that can cause disease, including bacteria, viruses, protozoa, fungi, and parasites

Pathway Planning – proactive process of determining the most appropriate outcome for each animal, which steps are necessary to achieve that outcome, and reassessment of the pathway as needed

Personal Protective Equipment (PPE) – equipment worn to minimize exposure to hazards that cause workplace injuries and illnesses; also used to minimize transmission

of pathogens between animals (e.g. gloves, gowns, goggles, shoe covers)

Personnel – all administration, management, staff and volunteers working at or for an organization, both paid and unpaid

Physical Description – includes species, weight, coat color, markings, sex, neuter status, age, and breed when appropriate

Polishing – procedure in which paste is used to buff and smooth surface defects in teeth caused by scaling or wear

Population Rounds – regular holistic assessment of the shelter population (usually daily) to ensure that each animal has a plan and that all needs and critical points of service are promptly met

Positive Reinforcement – rewarding a desired behavior with a pleasant reward

Practice of Veterinary Medicine – defined by state practice acts and limited to licensed individuals; diagnosis, prognosis, treatment, and prevention of animal disease, illness, pain, deformity, defect, injury, or other physical, dental, or mental conditions by any medical or surgical method

Prophylactic – preventive or presumptive treatment or management of disease before it becomes clinically apparent

Quarantine – housing for healthy animals exposed to and potentially incubating a contagious disease that physically separates them from clinically ill or unexposed animals

Relocation – program or organized effort to transport animals from one sheltering organization (source) to another (destination) locally, regionally, or internationally

Return to Field (Shelter Neuter Return) – outcome process of sterilizing unowned cats and returning them to their home situation after shelter intake

Risk Assessment – a process to identify possible incidents or problems, their likelihood of occurring, and steps that can be taken to control or reduce frequency and/or severity of harm

Sanitation – process of both cleaning and disinfection

Scaling – dental procedure in which tartar or calculus is physically removed from the surfaces of the teeth (manual or ultrasonic)

Shelter – organization of any type or size that provides temporary housing for companion animals; includes foster-based rescues, non-profit humane societies and SPCAs, municipal animal control facilities, and hybrid organizations

Source Shelter – organization that prepares and sends animals for relocation to a destination shelter

Spay – surgical procedure where the female reproductive tract (ovaries and/or uterus) is removed

Spot Cleaning – cleaning process that includes tidying and removal of soiled objects and stains; used when a cage is lightly soiled AND the animal is remaining in the same enclosure; less disruptive than deep cleaning

Sterilization – collective term for surgeries that remove the reproductive organs from dogs and cats with the intent of permanently preventing offspring; also known as spay-neuter, neutering, and de-sexing

Surgical Suite – separate room of the medical department where surgeries are performed

Test, Diagnostic – medical test administered to animals with clinical signs of disease or injury to determine the cause

Test, Screening – medical test administered to determine whether a sub-clinical or inapparent disease, condition or exposure is present

Tethering – using a chain, rope, leash or cord to attach a dog to a stationary object with the intention of restraining them while unattended

Transfer (of Ownership or Custody) – formally handing over possession of an animal to another shelter or individual, typically as a transfer of ownership

Transport – movement of animals from one location to another, including intrastate, interstate, and international transportation

Veterinary Client Patient Relationship (VCPR) – situation in which a veterinarian has assumed case responsibility, has become familiar with the individual animal, population and/or premises, and has consent from the owner or current caretaker to provide treatment and management of diseases or conditions; defined by state practice acts, often required to perform veterinary services

Veterinarian, Licensed – person who holds a current license to practice veterinary medicine in the state in which services are provided

Veterinarian, Shelter – veterinarian with experience and training in the practice of veterinary medicine in animal shelters, may be employed or contracted by a shelter, or consulting

Veterinary Supervision, Direct – licensed veterinarian is readily available on the premises

Veterinary Supervision, Indirect – licensed veterinarian has given either written or oral instructions for management of the patient and is readily available by telephone or other forms of immediate communication, but is not necessarily on the premises

Zoonotic Disease (Zoonoses) – infectious disease spread between animals and people

Abbreviations

DAPP (DHPP/DA2PP)**:** Canine Distemper, Adenovirus type 2 (Hepatitis virus), Parainfluenza Virus, Parvovirus
FVRCP (HCP)**:** Feline Viral Rhinotracheitis (Herpesvirus), Calicivirus, Panleukopenia Virus

ICS: Incident Command System
IN: Intranasal; into the nose
LOS: Length of Stay
MLV: Modified Live Virus; a type of vaccine
MOU: Memorandum of Understanding
NIMS: National Incident Management System
PPE: Personal Protective Equipment
RTF: Return to Field
SPCA: Society for the Prevention of Cruelty to Animals
SQ: Subcutaneous; under the skin
TNR (TNVR)**:** Trap-Neuter-(Vaccinate)-Release
CVI: Certificate of Veterinary Inspection
VCPR: Veterinary Client Patient Relationship

Appendix B. Examples of Core Shelter Protocols

Management and Record Keeping	• Organizational charts and lines of communication
	• Documentation of training and proficiency in tasks
	• Expectations for continuing education by position
	• How to document and report injuries and incidents
Population management	• Daily monitoring
	• Population rounds
	• Pathway planning
	• Monitoring of population level reports
	• Housing decision-making and flow
	• Foster care decision-making and flow
Animal Handling	• Low-stress handling for a spectrum of situations
Facility Design and Animal Housing	• Individual housing selection and set-up
	• Co-housing selection and set-up
	• Safe use of enrichment areas and other shared spaces
	• Environmental control and modification: sound, lighting, heating, cooling, ventilation and air quality
Sanitation	• Specific procedures for sanitizing various types of primary enclosures (e.g. cage, kennel, rooms) and shared enclosures (e.g. play yards, meet and greet rooms)
	• Deep cleaning vs spot cleaning techniques
	• Sanitizing equipment (e.g. dishes, litterboxes, toys, laundry, carriers, cleaning equipment, handling equipment)
	• Use of personal protective equipment during sanitation
Medical Health	• Standard preventive care (e.g. intake evaluation, vaccinations, treatments, and testing)
	• Treatment for common medical conditions by condition and species
	• Recognition, management and reporting of adverse vaccine-associated events
	• Anesthesia
	• Surgical procedures and care
	• Pain recognition and management
	• Nutrition and feeding
	• Emergency care
	• Care of pregnant, nursing, and neonatal animals
	• Lines of medical decision-making and communication
	• Outbreak recognition and management
	• Isolation of infectious animals
	• Pharmaceutical management, including controlled substance handling and security
	• Provision of post-adoption care
Shelter Surgery	• State/local ordinances regarding sterilization (compliance)
	• Anesthesia
	• Surgical procedures and care
	• Preemptive pain management
	• Management of postoperative complications
Forensics	• Scope of investigative services: species, geographic area
	• Forensic evaluation of animals (alive/deceased)
	• Collection, documentation, and management of evidence
	• Expectations for continuing education and training

Appendix B continous on next page

Behavioral Health and Mental Well-being	• Monitoring, recognition, and mitigation of stress • Behavioral enrichment by species and enclosure type • Documentation of behavioral observations • Environmental management in consideration of the five senses • Playgroup design and use • Behavioral treatment for common conditions by condition and species • Use of behavioral medications • Housing and enrichment of pediatrics • Risk assessment and mitigation for animals at high risk of causing harm
Euthanasia	• Outcome decision-making process and documentation • Euthanasia procedures and documentation
Animal Transport and Relocation Programs	• Written agreements detailing roles and responsibilities • Relocation process • Monitoring and care during all stages of transport, including overnight stops if applicable • Transportation equipment use and maintenance (eg., vehicles, enclosures, environmental controls and management) • Emergency plans for incidents during transport • Tracking of important metrics
Disaster Response	• Basic organizational Incident Command System and lines of communication • Detailed actions and procedures that anticipate, detect, and mitigate the impacts of potential disasters by type • Plan outlining care of shelter and community animals throughout response and recovery • Plan for preemptively relocating the shelter's population in advance of impending disasters • Zoonotic disease recognition, management, and mitigation
Public Health	• Identification and mitigation of workplace hazards: physical (eg., bites, injury, noise), chemical, biological (eg., rabies, zoonotic diseases) • Hand hygiene and infectious disease control • Promotion of well-being in the workplace for personnel

Appendix C. Personal Protective Equipment During Sanitation

Protective layer Animal population	Gloves	Outer clothing layer (gown, scrubs)	Shoe covers or Dedicated boots
Healthy animals	Gloves OR hand hygiene before and after care	Optional	Recommended when entering soiled enclosure
Non-contagious medical conditions	Gloves OR hand hygiene before and after care	Optional	Recommended when entering soiled enclosure
Mild contagious disease (e.g. typical URI, CIRD) **or vulnerable animals**	Gloves AND hand hygiene before and after care required	Recommended (change after handling)	Recommended when entering soiled enclosures
High consequence contagious disease - diagnosis or known exposure (e.g. Parvo-, Distemper-, or Panleukopenia viruses)	Gloves AND hand hygiene before and after care required	Required -Disposable gown recommended	Required when entering isolation area

*Adjustments based on individual and population disease risk may be indicated. Change PPE between individual enclosures or wards/areas based on disease risk.

Appendix D. Forensics Resources for Shelters

- Standards and Best Practices
  - Touroo, R., Baucomb, K., Kessler, M, Smith-Blackmore, M. "Minimum standards and best practices for the clinical veterinary forensic examination of the suspected abused animal" in Forensic Science International: Reports, Volume 2, December, 2020.
  - Brownlie, HW Brooks, and R. Munro. "The veterinary forensic necropsy: a review of procedures and protocols." Veterinary pathology 53.5 (2016): 919-928.
- Books
  - Veterinary Forensic Medicine and Forensic Sciences Eds. Byrd JH, Norris P, Bradley-Siemens, N. CRC Press, 2020.
  - Veterinary Forensic Pathology, Volumes 1&2. Ed. Brooks J, Springer, 2018.
  - Veterinary Forensics: Investigations, Evidence Collecting and Expert Testimony. Eds. Rogers ER, Stern A., CRC Press. 2018.
- Organizations
  - International Veterinary Forensic Science Association (IVFSA). https://www.ivfsa.org
  - American Academy of Forensic Science (AAFS). https://www.aafs.org
  - American College of Veterinary Pathologists (ACVP). https://www.acvp.org

Appendix E: Environmental Management Considering an Animal's Five Senses

Sense	Description/Perception	Management
Hearing	• Keen sense of hearing: highly sensitive to sounds	• Minimize loud and sudden noises, including barking
	• Loud and novel noises including the sounds of other animals, such as barking, increase stress and fear	• Separate cats from dogs
		• Separate stressed animals from loud animals
		• Use white noise to muffle disturbing noises
Smell	• Keen sense of smell: highly sensitive to odors	• Use odor eliminators and enzymatic cleaners
	• Strong and noxious odors increase stress and fear	• Avoid strong and noxious odors
	• Animal odors and pheromones may increase stress and fear	• Provide pleasant odors such as scent enrichment
	• Pleasant and familiar smells support positive emotions	• Spot clean cat enclosures so familiar scent is retained
Taste	• Attracted to high protein foods: both taste and smell are pleasant and rewarding	• Offer delicious foods to entice, engage, and create positive associations
		• Add extra to meals when animals are not eating due to stress
Sight	• Highly sensitive to motion: rapid movements increase stress and fear or frustration-Greater peripheral vision	• Move slowly, calmly and deliberately; avoid threatening postures (such as direct eye contact)
		• Block visual stimuli that cause stress (e.g. close doors to block outside activity or place a towel over an enclosure as a visual shield)
		• Avoid bright lights
		• Provide visual access to observe natural environments/outdoors
Touch	• Highly sensitive to touch: certain areas of the body can be especially sensitive including the feet, mouth, genitals, and belly	• Avoid contact with areas of the body that tend to be most sensitive; observe body language to determine how and where individuals respond best
	• Highly sensitive to approach and physical contact (all senses); may feel threatened by people leaning over them, approaching head on, or getting too close too fast	• Approach slowly, steadily from the side, avoid rapid stroking, sudden manipulations, and restrictive restraint
		• Provide stable footing, non-slip surfaces, address pain promptly

Appendix F: Opportunities for Positive Social Contact in the Shelter

Type of social contact		References
Calm interactions with people	Quiet time (e.g. time out of enclosure in an office)	Protopopova et al. 2018
	Petting, massage	Hennessy 1998
		Shiverdecker et al. 2013
		Dudley et al. 2015
		McGowan et al. 2018
		Perry et al. 2020
	Reading books	Tuozzi et al. 2021
Active interactions with people	Play with toys (e.g. fetch, tug)	Coppola et al. 2006
		Shiverdecker et al. 2013
		Hunt et al. 2022
	Walking, jogging	Braun 2011
		Menor-Campos et al. 2011
	Training using positive reinforcement	Laule 2003
		Thorn 2006
		Grant and Warrior 2017
		Kogan et al. 2017
Interactions with members of the same species	Group housing of compatible animals (see Facilities: Co-housing)	
	Playgroups (dogs)	Belpedio et al. 2010
Foster Care	Overnight fostering (dogs)	Gunther et al. 2019
		Gunter et al. 2021

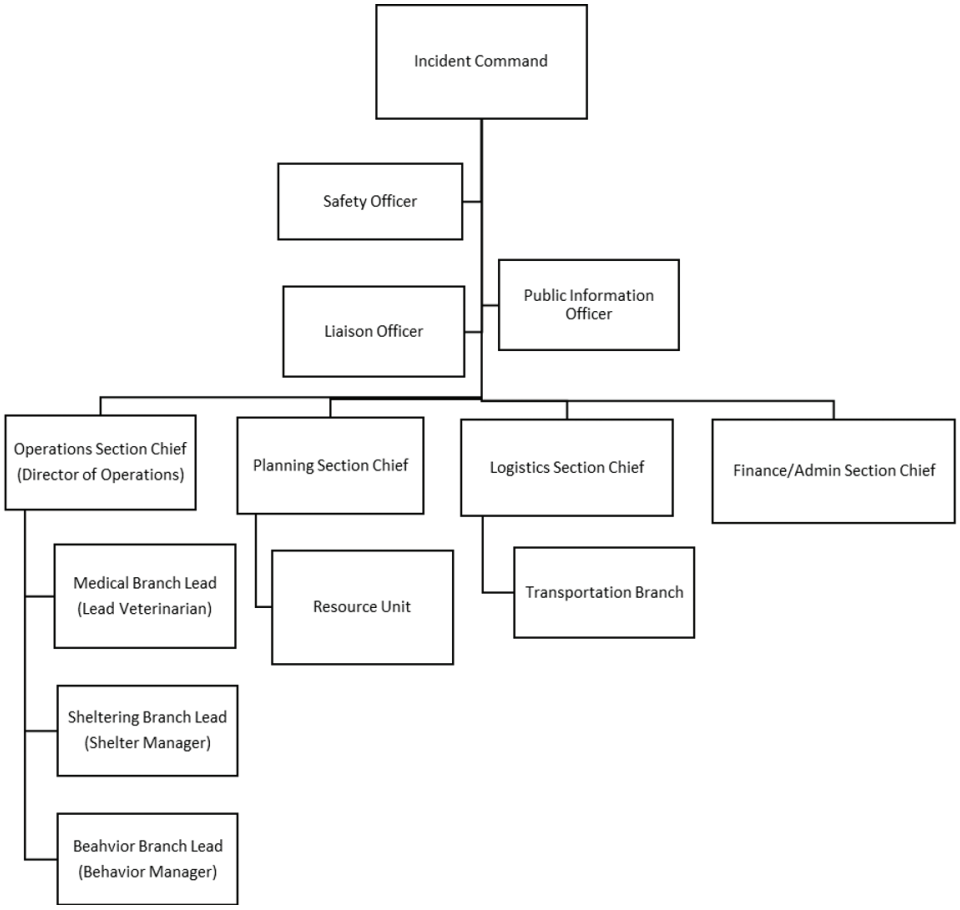
Appendix G: Ideas for Enrichment Within Shelter Enclosures

Type of enrichment	Examples	Additional considerations
Feeding	Commercially available or home-made devices that provide mental stimulation by requiring animals to work to extract food such as food puzzle toys, cardboard boxes, or plastic cups (Griffin 2006, 2009a; Schipper 2008; Shepherdson 1993)	Provide to dogs individually because they are competitive eaters; can be given to cats housed singly or in amicable groups (Dantas et al. 2011)
Scent	Certain essential oils, food scents, prey odors, and catnip (Ellis and Wells 2010, Graham et al. 2005, Binks et al. 2018, Amaya et al. 2020, Murtagh et al. 2020)	Pheromone products without a comprehensive plan for stress reduction and enrichment are less likely to be effective (Janeczko 2022)
Auditory	Classical music, soft rock, reggae, nonmusical white noise, audiobooks, or (for cats) species-specific specially composed music (Kilcullen-Steiner and Mitchell 2001; Wells et al. 2002; Kogan et al. 2012; Snowdon et al. 2015; Bowman et al. 2015, 2017; Brayley and Montrose 2016; Hampton 2020)	Choice of sound type and volume is critical. Reducing excess noise from animal and non-animal sources may be more important than adding additional sound. Balance music preferences of animals and personnel to optimize benefits.
Visual	Windows overlooking natural environment	Enrichment videos may be less helpful for cats and dogs compared to other species, as they Dogs and cats do not seem to spend a significant amount of time looking at the screen and lose interest if the videos are played for extended (i.e. multiple hours) periods of time (Graham et al. 2005; Ellis and Wells 2007).
	Protected outdoor access	
	Visual access to members of the same species	
	Interesting stimuli such as aquariums or bubbles	
	Videos	
Tactile	Soft bedding	
	Scratching posts	
	Petting	
	Massage	

Appendix H: Disaster Response Resources

- Standards and Best Practices:
  - NASAAEP Animal Evacuation and Transportation
  - NASAEEP Disaster Veterinary Care: Best Practices
  - NASAAEP Emergency Animal Decontamination Best Practices
  - NASAAEP Emergency Animal Sheltering Best Practices
  - NASAAEP Animal Search and Rescue
  - FEMA Hazard Mitigation Planning
- Books
  - *Animals in Disasters,* Dick Green, ed. Elsevier. 2019
  - *Animal Management and Welfare in Natural Disasters,* James Sawyer & Gerardo Huertas, eds. Routledge: Taylor Francis Group, 2018
  - *Veterinary Disaster Response*, Wayne E. Wingfield & Sally B. Palmer, eds. Wiley Blackwell, 2009

Appendix I: Example ICS Chart for Animal Shelters



*Positions in parentheses are examples of typical shelter roles, with the corresponding operational ICS roles they may fill during a disaster. (See Disaster Response)

Appendix J: Resources for Workplace Safety

Organization		Area of concern	Website
CDC	Center for Disease Control and Prevention	-United States Health Protection Agency	http://www.cdc.gov
NIOSH	CDC's National Institute for Occupational Safety and Health	-Workplace Safety Guidance	https://www.cdc.gov/niosh/index.htm
OSHA	Occupational Safety and Health Administration	-Occupational Health Regulations	https://www.osha.gov/
EPA	Environmental Protection Agency	-Sanitizers and Disinfectants -Indoor Air Quality -Topical Pesticides -Wastewater control	https://www.epa.gov/
FDA	Food and Drug Administration	-Animal Food Safety -Animal Drugs -Medical Devices	https://www.fda.gov/
DEA	Drug Enforcement Administration	-Drug Disposal -Controlled Substances	https://www.dea.gov/
	State Health Departments and Departments of Agriculture	-Reportable Diseases -Animal Bites and Scratches -Animal Carcass Disposal	https://www.cdc.gov/publichealthgateway/healthdirectories/ healthdepartments.html https://www.vetca.org/

GRANTSVILLE CITY
ORDINANCE NO. 2026-31

AN ORDINANCE OF GRANTSVILLE CITY AMENDING CHAPTERS 2, 8, AND 16 OF THE GRANTSVILLE CITY LAND USE DEVELOPMENT AND MANAGEMENT CODE REGARDING ANIMAL RESCUE LAND USE

Be it enacted and ordained by the City Council of Grantsville City, Utah as follows:

WHEREAS, Grantsville City desires to amend its land use regulations to establish standards for Animal Rescue uses within the City; and

WHEREAS, the Planning Commission has reviewed the proposed amendments and made a recommendation to the City Council; and

WHEREAS, the City Council finds that the proposed amendments are in the best interests of Grantsville City and its residents;

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF GRANTSVILLE CITY, STATE OF UTAH, AS FOLLOWS:

Section 1. Approval: The amendments to Chapters 2, 8, and 16 of the Grantsville City Code regarding the Animal Rescue land use, as set forth in Exhibit A, attached hereto and incorporated herein by reference, are hereby approved and adopted.

Section 2. Codification: The City Recorder and City staff are authorized to make any necessary non-substantive formatting, numbering, and cross-reference changes to incorporate the amendments adopted by this Ordinance into the Grantsville City Land Use Development and Management Code.

Section 2. Effective Date: This Ordinance shall take effect immediately upon its passage and approval as provided by law.

Section 3. Severability clause: If any part or provision of this Ordinance is held invalid or unenforceable, such invalidity or unenforceability shall not affect any other portion of this Ordinance and all provisions, clauses and words of this Ordinance shall be severable.

ADOPTED AND PASSED BY THE CITY COUNCIL OF GRANTSVILLE CITY, THIS 21ST DAY OF OCTOBER, 2026.

BY THE ORDER OF THE GRANTSVILLE CITY COUNCIL:

_____
By Mayor Heidi Hammond

ATTEST

_____
Alicia Fairbourne, City Recorder

EXHIBIT “A”

Code Amendments for Chapters 2, 8, and 16

Chapter 2 Definitions

ANIMAL RESCUE

A nonprofit or state registered animal welfare organization that operates a controlled, fully enclosed indoor facility for the temporary housing and care of stray, abandoned, feral, surrendered, and homeless cats and dogs. The use is limited to short term intake, evaluation, quarantine, medical recovery, behavioral assessment, socialization, adoption processing, foster placement, inter agency transfer, and community placement. All animal housing, care, and operations shall occur entirely within a climate-controlled building designed to prevent noise, odor, waste, and visibility impacts to surrounding properties.

An animal rescue under this section shall not include or operate as a commercial kennel, veterinary hospital, breeding facility, retail pet store, private boarding operation, or animal encounter facility. Outdoor pens, runs, enclosures, yards, or free roaming areas are prohibited. No long term or permanent housing is permitted. The facility may not accept animals for commercial purposes, may not provide services to the general public other than adoption related activities, and may not exceed the temporary housing capacity established by the City. The rescue shall maintain complete intake, care, quarantine, and placement records and shall make such records available to the City upon request.

TEMPORARY HOUSING

A short-term, rescue-related housing period during which a cat or dog is evaluated, quarantined, medically treated, behaviorally assessed, socialized, prepared for adoption, placed with a foster home, transferred to another qualified rescue partner, or returned through an approved community placement or spay-neuter return program. Temporary housing is limited to the duration reasonably necessary to complete these rescue functions and shall not exceed six months except where documented medical, behavioral, or placement-related conditions require an extended stay.

LONG TERM BOARDING

The private boarding or keeping of a customer’s cat or dog for compensation or convenience outside of any rescue-related intake, medical recovery, foster placement, adoption process, transfer arrangement, or community placement plan. Long-term boarding is a commercial activity and is not included within, or authorized as part of, an animal rescue use.

LOCAL MUNICIPALITIES

Cities, towns, counties, and animal-control agencies within Tooele County and adjacent communities that coordinate with an animal rescue regarding the intake, care, placement, spay-neuter services, or other public animal-welfare functions for cats and dogs.

Chapter 8 Regulations of General Applicability

1. Purpose and Intent

Provide for a controlled, fully enclosed indoor nonprofit animal rescue for cats and dogs that supports animal welfare and public health through temporary housing, evaluation, quarantine, medical recovery, socialization, adoption placement, foster coordination, inter-agency transfer, and community placement, including spay/neuter support and public education. The use is intended to operate at a small scale, with limited public access, and without commercial boarding or kennel-type impacts.

2. Description and Scope

The use is a small nonprofit animal rescue with limited staffing, scheduled public access, and indoor-only housing of cats and dogs. The use is restricted to rescue-related intake, care, and placement functions. It excludes commercial kennels, veterinary hospitals, breeding facilities, retail pet stores, private boarding operations, and animal encounter facilities. Large public events are not included unless separately reviewed and approved.

3. Allowed Activities

(a) Indoor animal housing, feeding, cleaning, quarantine, wellness observation, medical recovery, behavioral assessment, adoption meetings, foster coordination, volunteer activities, and routine rescue administration.

(b) Coordinated rescue intake, transportation, placement, inter-agency transfer, and community placement or spay-neuter return activities for cats and dogs.

(c) Short, supervised incidental outdoor activities, including: transporting animals in secured carriers to or from vehicles; waste removal to approved containers; supply receipt; minor exterior maintenance; and emergency evacuation.

Cats and dogs shall not be housed outdoors, allowed to roam outdoors, or kept in outdoor pens, runs, yards, or enclosures. Transportation may be coordinated by rescue staff or designated personnel. Medical examinations may occur at off-site nonprofit partners or licensed veterinarians within Tooele County.

4. Operational Limitations (Revised & Completed)

(a) Capacity

Maximum of 75 animals (cats and dogs combined) onsite at any one time unless an amendment is reviewed and approved by the Planning Commission.

(b) Access

Public visits shall occur by appointment only for adoption, foster coordination, intake, volunteer activity, or official agency coordination. Appointments shall be staggered to limit traffic and noise. Drop-in retail activity and unscheduled public surrender activity are not included; however, urgent rescue intake may occur without an appointment.

(c) Length of Stay

Temporary housing is intended to last up to six months, with longer stays permitted when documented medical, behavioral, placement, or transfer-related conditions require additional time. Approval of stays beyond six months shall be made by the rescue's designated director or authorized proxy.

Animals not yet adopted remain under rescue management while adoption promotion, foster placement, qualified rescue transfer, medical or behavioral rehabilitation, or appropriate community placement or spay/neuter return is pursued.

(d) Staffing

Routine operations generally involve two caretakers or rescue volunteers, with a maximum of five onsite at one time. Up to four times per year, additional caretakers or volunteers may attend during a weekend for deep cleaning or facility improvements, including brush removal, larger repairs, or extensive cleaning and maintenance. Maximum staffing during these maintenance weekends shall not exceed ten individuals onsite.

(e) Volunteer Controls

Volunteers shall be screened through an application or intake form, contact-information review, orientation, and approval before independent work. Orientation shall cover handling, sanitation, safety, quarantine procedures, confidentiality, visitor rules, and emergency expectations. Youth volunteers shall perform supervised work at all times and may participate only with written guardian permission.

(f) Records

Each intake shall be evaluated and approved by the rescue's designated intake coordinator or director. Each animal's record shall identify intake date, source, description, known medical or vaccination status, quarantine or observation status, and planned outcome. Records shall be updated through care, foster placement, adoption, transfer, return, or other disposition and shall be available for City inspection.

(g) Hours and Days of Operation (NEW)

The rescue shall maintain posted hours for appointments, staff access, and volunteer activity. Public appointment hours shall be limited to 8:00 a.m. to 7:00 p.m., Monday through Saturday, unless otherwise approved. No more than five public visitors may be onsite at one time.

5. Site and Development Standards

- Minimum lot area: The facility shall be located on a lot of at least 0.5 acres, unless otherwise approved.
- Setbacks: All structures used for rescue operations shall comply with the underlying zoning district setbacks.
- Parking: A minimum of five off-street parking spaces shall be provided, including one accessible space.
- Access: Driveways and access points shall comply with City standards for width, surfacing, and visibility.
- Landscaping and buffering: A minimum 10-foot landscaped buffer shall be maintained along property boundaries adjoining residential uses.
- Lighting and signage: All lighting and signage shall comply with City code and CUP conditions.

- Waste and storage: Waste shall be managed to prevent odor and sanitation impacts. Outdoor storage must be screened, secured, and limited to approved containers.

6. Approval Type (Completed)

The use requires a Conditional Use Permit reviewed and approved by the Planning Commission. Any amendment increasing animal capacity or authorizing large public events shall require Planning Commission review and approval. All references shall align with the applicable chapters of the Grantsville Land Use Code.

7. Enforcement and Changes to the Use (Completed)

Any increase above 75 animals requires Planning Commission amendment review and approval. Other changes to operations, hours, staffing levels, species allowed, or site modifications that materially alter the approved use shall require administrative review or Planning Commission approval as determined by the Zoning Administrator. Violations may result in corrective orders, suspension, or revocation of the Conditional Use Permit.

16.8 Codes And Symbols And Use Table 16.1

(1) In the following sections of this chapter, uses of land or buildings which are allowed in various districts are shown as "permitted uses," indicated by a "P" in the appropriate column, or as a "conditional use," indicated by a "C" in the appropriate column. If a use is not allowed in a given district, it is either not named in the use list or it is indicated in the appropriate column by a dash, "-". If a regulation applies in a given district, it is indicated in the appropriate column by a numeral to show the linear or square feet required, or by the letter "A". If the regulation does not apply, it is indicated in the appropriate column by a dash, "-". No building, structure or land shall be used and no building or structure shall be hereafter erected, structurally altered, enlarged or maintained in the multiple use, agricultural, or rural residential districts except as provided in this Code.

Table 16.1 Use Regulations

USE	C-N	C-S	C-G	C-D	M-D	M-G	MD-EX
COMMERCIAL							
Adult Day Care Center	C	C	C	C	-	-	-
Cabinet and Woodworking Mills	-	-	C	C	P	P	-
Bakery, Commercial	-	-	P	C	P	P	-
Blacksmith Shop	-	-	P	C	P	P	-
Carpet Cleaning	-	-	P	C	P	P	-
Commercial Laundries, Linen Service and Dry	-	-	P	C	P	P	-

Cleaning							
Commercial Day Care Center (not in a home) no more than 20 children at any one time	C	C	C	C	-	-	-
Child Day Care Facility (a commercial operation, not in a home, no more than 100 children at any one time)	C	C	C	C	-	-	-
Convenience Store	C	P	P	C	P	P	-
Diaper Service	-	-	P	C	P	P	-
Gas Station (sales and/or minor repairs)	C	P	P	C	P	P	-
Greenhouse for Food and Plant Production	-	-	P	C	P	P	-
Golf Course	C	C	C	C	C	C	C
Heavy Equipment (Rental)	-	-	-	C	P	P	-
Heavy Equipment (Sales and Service)	-	-	-	C	P	P	-
Hospital	-	C	C	C	-	-	-
Laboratory: Medical, Dental, Optical	-	-	P	C	-	-	-
Laboratory: Testing	-	C	P	C	P	P	-
Mini-warehouse	-	-	P	C	P	-	-
Motion Picture Studio	-	P	P	C	-	-	-
Photofinishing Lab	-	P	P	C	P	P	-
Plant and Garden Shop, including outdoor retail sales area	C	C	C	C	-	-	-
Precision Equipment Repair	-	-	P	C	P	P	-
Preschool (a commercial operation, not in a home, no more than 20 children from the ages of 4 to 6 years in age, at any one time, for a period not to exceed four hours)	C	C	C	C	-	-	-

Private educational institution having a curriculum similar to the public schools, grades K-12	C	C	C	C	-	-	-
Schools of higher education, community colleges, off campus facilities	C	C	C	C	-	-	-
Schools, professional and vocational	C	C	C	C	-	-	-
Twin Commercial Units	C	C	C	C	C	C	-
Sign Painting/Fabrication	-	-	P	C	P	P	-
Welding Shop	-	-	P	C	P	P	-
Wholesale Distributors	-	-	P	C	P	P	-
Tobacco Specialty Store: This use is not permitted in any part of the proposed or existing building containing the use is located within 1,000 feet from (a) any school (public or private kindergarten, elementary, middle, charter, junior high, or high school), public park, public recreation facility, youth center, library, or church and (b) any other Tobacco Specialty Store. Distances shall be measured in a straight line, without regard to intervening structures or zoning districts, from a Tobacco Specialty Store structure to the property line of a school, public park, library, church, youth center, cultural activity, residential use, zoning district boundary, or other Tobacco Specialty Store.	-	C	C	C	P	P	-
MANUFACTURING	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Chemical Manufacturing and Storage	-	-	-	-	-	C	-
Concrete Manufacturing	-	-	-	-	-	P	-
Drop-Forge Industry	-	C	C	-	C	P	-
Explosive Manufacturing and Storage	-	-	-	-	-	C	-
Flammable Liquids or Gases, Heating Fuel Distribution & Storage	-	-	-	-	-	P	-

Grain Elevator	-	-	-	-	-	P	-
Bottling Plant	-	-	-	C	P	P	-
Cabinet Making/Woodworking Mills	-	-	-	C	P	P	-
Heavy Manufacturing	-	-	-	-	-	P	-
Incinerator, Medical Waste/Hazardous Waste	-	-	-	-	-	C	-
Industrial Assembly	-	-	-	C	P	P	-
Light Manufacturing	-	-	-	C	P	P	-
Moving and Storage	-	-	-	C	P	P	-
Paint Manufacturing	-	-	-	-	-	P	-
Publishing Company	-	-	-	C	P	P	-
Railcar fabrication, repair and cleaning	-	-	-	-	-	C	C
Recycling Collection Station	-	-	-	C	P	P	-
Recycling Processing Center	-	-	-	C	C	P	-
Rock, Sand, and Gravel Storage and Distribution	-	-	-	-	-	C	C
Truck Freight Terminal	-	-	-	C	P	P	-
Sign Painting/Fabrication	-	-	-	C	P	P	-
Warehousing	-	-	-	C	P	P	-
OFFICE AND RELATED USES	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Financial Institution, without drive through facilities	C	P	P	C	P	P	-
Financial Institution, with drive through facilities	-	P	P	C	P	P	-
Offices	C	P	P	C	P	P	-

Veterinary Offices, operating entirely within an enclosed building and keeping animals	-	-	P	C	P	-	-
RETAIL SALES & SERVICES	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Auction Sales	-	P	P	C	-	-	-
Automobile Repair, Major	-	P	P	C	P	-	-
Automobile Repair, Minor	C	P	P	C	P	-	-
Automobile Sales/Rental and Service	C	P	P	C	C	-	-
Boat/Recreational Vehicle Sales and Service	-	P	P	C	C	-	-
Car Wash	C	P	P	C	P	P	-
Convenience retail store	C	P	P	C	P	P	-
Department Stores	-	P	P	C	-	-	-
Equipment rental, indoor and outdoor	-	P	P	C	P	-	-
Furniture Repair Shop	-	P	P	C	P	P	-
Health and Fitness Facility	-	P	P	C	-	-	-
Large Truck Rental	-	-	P	C	P	P	-
Liquor Store	-	C	C	C	-	-	-
Manufactured Home Sales, Service, and Storage	-	-	P	C	P	-	-
Pawnshop	-	-	P	C	P	-	-
Restaurants, with drive through facilities	C	P	P	C	P	P	-
Restaurants, without drive through facilities	C	P	P	C	P	P	-
Retail Goods Establishments	C	P	P	C	-	-	-
Retail Services Establishments	C	P	P	C	P	P	-

Upholstery Shop	-	P	P	C	P	-	-
RECREATIONAL, CULTURAL, AND ENTERTAINMENT	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Amusement Park	-	P	P	C	-	-	-
Art Gallery	C	P	P	C	-	-	-
Art Studio	C	P	P	C	-	-	-
Commercial Indoor Recreation	-	P	P	C	P	-	-
Commercial Outdoor Recreation	-	P	P	C	P	-	-
Commercial Video Arcade	-	C	C	C	-	-	-
Dance Studio	C	P	P	C	-	-	-
Live Performance Theaters	-	P	P	C	-	-	-
Miniature Golf	-	P	P	C	P	-	-
Movie Theaters	-	P	P	C	-	-	-
Private Club	-	C	C	C	P	-	-
Sexually Oriented Businesses (Amended 4/05)	-	-	-	-	C	-	-
Tavern/Lounge/Brew Pub; more than 5,000 sq. ft. in floor area	-	C	C	C	-	-	-
RESIDENTIAL	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Dwelling Unit (Single Family)	C	C	C	C	C	C	-
Living Quarters for Caretaker or Security Guard	C	C	C	C	C	C	-
INSTITUTIONAL	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**

Adult Day Care Center	C	P	P	C	P	P	-
Child Day Care Center or Pre-School (a commercial operation) Amended 9/2011	C	P	P	C	P	P	-
Government Facilities	C	P	P	C	P	P	-
Hospital	-	-	P	C	-	-	-
Medical or Dental Clinic	C	P	P	C	P	P	-
Museum	-	P	P	C	-	-	-
Music Conservatory	-	P	P	C	-	-	-
Places of Worship				C			
Schools, Professional and Vocational	C	P	P	C	P	P	-
Schools of higher education, community colleges, off campus facilities	-	-	-	C	C	C	-
MISCELLANEOUS	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Accessory Uses, except those that are otherwise specifically regulated in this Chapter, or elsewhere in this Code	C	P	P	C	P	P	-
Animal Pound (Amended 10/02)	-	-	-	-	-	P	-
Kennel (Amended 10/02)	C	C	-	C	C	C	-
Auditorium	-	P	P	C	-	-	-
Automobile Salvage & Recycling (Indoor)	-	-	-	C	P	P	-
Automobile Salvage & Recycling (Outdoor)	-	-	-	C	C	P	-
Boilerworks	-	-	-	-	-	P	-
Bus Line Terminals	-	-	P	C	P	P	-
Bus Line Yards and Repair Facilities	-	-	-	C	-	P	-

Commercial Parking Garage or Lot	C	C	C	C	C	C	C
Personal Wireless Telecommunication Facilities (Amended 4/02)	-	C	C	C	-	-	-
Communication Towers	-	P	P	C	P	P	-
Communication Towers, exceeding the maximum building height, but not higher than 80 feet	-	-	C	C	C	C	-
Contractor's Yard/Office (with outdoor storage)	-	-	P	C	P	P	-
Crop Production	-	-	P	C	P	P	-
Display Room; Wholesale	-	-	-	C	P	P	-
Farmer's Market	-	P	P	C	P	-	-
Flea Market (indoor)	-	P	P	C	P	-	-
Flea Market (outdoor)	-	P	P	C	P	-	-
Funeral Home	-	P	P	C	-	-	-
Hotel or Motel	-	P	P	C	-	-	-
Limousine Service	-	C	P	C	P	P	-
Outdoor Sales and Display	-	P	P	C	P	-	-
Commercial Storage Units	-	C	C	C	C	C	-
Outdoor Storage	-	-	P	C	P	P	-
Poultry Farm or Processing Plant	-	-	-	-	-	P	-
Animal Rescue	-	C	-	-	-	-	-
Public/Private Utility Transmission Wires, Lines, Pipes, and Poles	C	P	P	C	P	P	-
Public/Private Utility Buildings and Structures	C	C	P	C	P	P	-

Radio, Television Station	-	C	P	C	P	P	-
Sewage Treatment Plant	-	-	-	C	C	C	-
Golf Course	-	C	C	C	C	C	-
Ambulance Services dispatching, staging, and maintenance conducted entirely within an enclosed building	-	P	P	C	P	P	-
Vehicle Auction Use	-	-	P	C	P	P	-
Governmental Uses and Facilities	C	C	C	C	C	C	-
Municipal Service Uses, including City Utility Uses, Police and Fire Stations	C	C	C	C	C	C	-
Correctional Facility, Detention Center, Jail, Penitentiary, Prison, Penal Institution (1 -249 beds)	-	-	-	-	C	C	C
Correctional Facility, Detention Center, Jail, Penitentiary, Prison, Penal Institution (250 or more beds)	-	-	-	-	-	-	-
MINING AND EXCAVATION	**C-N**	**C-S**	**C-G**	**C-D**	**M-D**	**M-G**	**MD-EX**
Accessory uses and buildings customarily incidental to conditional uses	-	-	-	-	-	-	C
Agriculture, grazing of animals, raising crops	-	-	-	-	-	-	P
Automobile and truck service station	-	-	-	-	-	-	C
Cast stone, cement, cinder, terra cotta, tile brick, synthetic cast stone, block, pumice stone, and gypsum products	-	-	-	-	-	-	C
Coffee Shop	-	-	-	-	-	-	C
Construction equipment and supply trailer, temporary	-	-	-	-	-	-	C
Construction field office, temporary	-	-	-	-	-	-	C

Convenience store with gasoline sales	-	-	-	-	-	-	C
Gravel and sand excavation:							
1. Commercial operations	-	-	-	-	-	-	C
2. Temporary project specific operations	-	-	-	-	-	-	C
Machine Shop	-	-	-	-	-	-	C
Mines	-	-	-	-	-	-	C
Quarries	-	-	-	-	-	-	C
Parking lot incidental to a use conducted on the premises	C	C	C	C	C	C	C
Parking lot not incidental to a use conducted on the premises	C	C	C	C	C	C	C
Pottery, plaster, incidental plaster, plaster of paris, ceramic, and clay	-	-	-	-	-	-	C
Power generation (electrical) for on-site use							
Solar under 50 kvas	P	P	P	C	P	P	P
Solar 50 kva and above	C	C	C	C	C	C	C
Fuel cells, steam, hydro, or reciprocating engine	C	C	C	C	C	C	C
Wind under 5.9 kva	-	-	-	-	-	-	P
Auxiliary, temporary, wind, with more than 6 kva but less than 10 kva output	-	-	-	-	-	-	P
Fuel cells, steam, hydro, or reciprocating engine with more than 10.5 kva, but less than 150 kva output	-	-	-	-	-	-	C
Steam, hydro, or reciprocating engine with more than 150 kva, but less than 150 kva output	-	-	-	-	-	-	C
Rock crusher/concrete batch plant	-	-	-	-	-	-	C

Truck and freighting operation	-	-	-	-	-	-	C
Truck and heavy equipment service station and repair facility	-	-	-	-	-	-	C
Truck wash	-	-	-	-	-	-	C

Agenda Item # 6

Discussion and direction of funding future capital projects using water credit funds

Agenda Item # 7

Adjourn